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FIRST ANNUAL REPORT Federal Works Agency 1940

FISCAL YEAR ENDED JUNE 30, 1940

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FEDERAL WORKS AGENCY

June 30, 1940

JOHN M. CARMODY, *Administrator*

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CONSTITUENT ADMINISTRATIONS AND AUTHORITY

PUBLIC BUILDINGS ADMINISTRATION
W. E. Reynolds, *Commissioner*

PUBLIC ROADS ADMINISTRATION
Thomas H. MacDonald, *Commissioner*

PUBLIC WORKS ADMINISTRATION
E. W. Clark, *Commissioner*

UNITED STATES HOUSING AUTHORITY
Nathan Straus, *Administrator*

WORK PROJECTS ADMINISTRATION
F. C. Harrington, *Commissioner*

UNITED STATES GOVERNMENT PRINTING OFFICE

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PRICE 55 CENTS

LETTER OF TRANSMITTAL

To the Congress of the United States:

I have the honor to submit the First Annual Report of the Federal Works Agency and its constituent administrations and authority for the fiscal year ended June 30, 1940. Important defense activities undertaken since that date are touched on in this report.

Respectfully submitted.

JOHN M. CARMODY,
Administrator.

DECEMBER 16, 1940.

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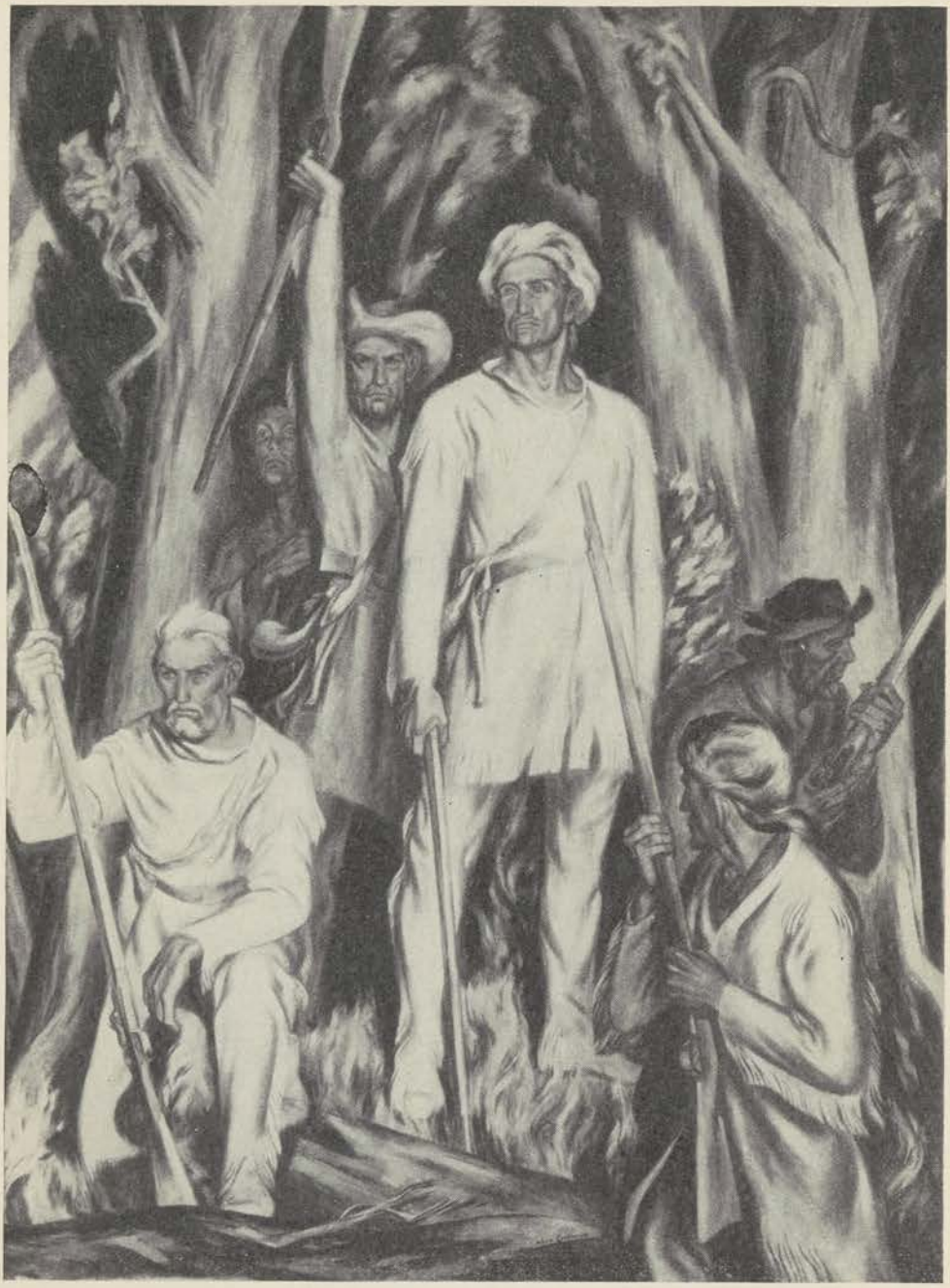
PART ONE

THE ADMINISTRATION OF the Federal Works Agency during the fiscal year, together with a review of its creation; the nature of its work during the past year; and an account of the influence of defense needs upon its operations.



DANIEL BOONE'S ARRIVAL IN KENTUCKY *Mural by Ward Lockwood.*

This mural in the Lexington, Ky., Post Office is one of hundreds of such paintings and sculptures chosen through open, anonymous competitions by the PBA Section of Fine Arts for the embellishment of many new Federal buildings.

THE FEDERAL WORKS AGENCY

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OURS is a building Nation. In 1789 our 3 million citizens had not scratched the surface of a great continent. A thin pioneer fringe stretched along the Atlantic seaboard. Westward for 3 thousand miles, a vast expanse of forest, prairie, and desert reached to the Pacific Ocean. Even in the settled eastern portions of the country, men lived simple and isolated lives. Their few buildings were made of wood; their roads a trace through the forest; their only sources of power, wind and the primitive water wheel. They made hardly more impression upon the landscape than the bands of savages that preceded them. Of the vast resources of our continent, only the soil was at work for man when our forefathers assembled at Philadelphia in the year 1789.

Today we live in a different America, different because of building. Only building has been able to unlock the vast stores of natural resources in our land. Only building has been able to knit the bonds of national unity with great transcontinental transportation systems. Building has developed the latent power in the white coal of our streams and rivers, and building has made our great cities and bridges and tunnels. Building has made America rich and habitable, and building is steadily making America a better place in which to live.

Building is an important measure of our civilization; our public works which render service to the people are an index of our progress. We have built everything from abattoirs and airports to waterworks and zoos. As our population increased, as our country expanded territorially, we had building to do for industry, for commerce and communication, for public services. Major inventions bring a demand for a variety of types of public and private construction: the automobile brought with it the need for new roads, garages, parking places, gasoline stations, new factories, oil pipe lines.

We are a nation skillful in building. We have done a lot of it. Our legends are full of great builders: Eads, Goethals, and Roebling, the men who spanned the Mississippi and the East River; who built great canals and levee systems; Robert Mills, our first great public architect. Building is in our blood, in our imagination, and it is in our hands.

When the great depression came, building suffered more than any other activity. Hands that were trained to span great rivers, tunnel through mountain ranges, build roads and piers, hands that were trained to spin rugged steel cables, to build homes and schools, lay idle. Many months passed and this building country sat by and watched some of its most precious skills decay.

Beginning on a small scale in 1932, a series of work programs was initiated to combat this growing threat to our national security, prosperity, and welfare. Soon America again was echoing to the great symphony of pile drivers, concrete mixers, steam shovels, bulldozers, hammers, and saws. When the job of getting building moving again was well under way, we had a chance to stand back and look at the machinery we had improvised in an emergency. Lessons had been learned. Under the pressure of events, much had been done of permanent value that seemed worth incorporating into the traditional machinery of government.

It was necessary to build to meet the needs of a growing America. Continued building was necessary. It was essential to house the activities of Government—its offices, laboratories, and shops. Building was necessary to further the new responsibilities of government: to provide sewers, waterworks, and other local utilities for the conservation of health and well-being; to provide clinics and hospitals for expanded health services; to build new schools to realize the democratic ideal of universal education; to build recreation facilities in order that the leisure of the Nation might be used for the enrichment of life. Roads and airports and wharves and docks had to be built if our industry and commerce were to be promoted; dams and levees, if our streams were to be harnessed; public housing, if all of our people were to have the opportunity to live in health and decency. With this big building job to do, it was essential that public building be organized in such a way that it might be carried out as efficiently as possible, and that the maximum social and economic advantages be derived.

Establishment of the Federal Works Agency

On April 25, 1939, the President of the United States sent to Congress his first plan on Government reorganization. Part three of this plan proposed the creation of a Federal Works Agency.

To compose this new Agency, the President transferred the Bureau of Public Roads from the Department of Agriculture; the Public Buildings Branch of the Procurement Division from the Treasury Department; the Branch of Buildings Management of National Park Service from the Department of the Interior; the National Park Service's operations in the District of Columbia relating to the general assignment of space, the selection of sites for public buildings, and the determination of the priority in which the construction or enlargement of public buildings shall be undertaken; the United States Housing Authority from the Department of the Interior; the Federal Emergency Administration of Public Works; and the Works Progress Administration (except the National Youth Administration). A Federal Works Administrator, appointed by the President, by and with the advice and consent of the Senate, was designated to direct the new Agency, with general direction and supervision over the administration of the several agencies, and responsibility for the coordination of their functions.

The organization which became the Public Buildings Administration had its inception in July 1836 when President Andrew Jackson appointed Robert Mills to be Federal Architect in conjunction with the construction of the new Treasury Building in Washington. The Public Roads Administration was previously the Bureau of Public Roads of the Department of Agriculture. This organization was created in 1893 as the Office of Road Inquiry. Since 1916 it has administered all Federal-aid highway authorizations. The remaining three agencies of the Federal Works Agency are of more recent creation. The Public Works Administration was created in 1933 under the National Industrial Recovery Act and charged with the administration of a comprehensive program of public works by a system of loans and grants to States and localities. The Work Projects Administration developed out of prior organizations that had been concerned with work relief since 1932 when Federal funds were first made available for relief purposes in the form of loans to States and municipalities by the Reconstruction Finance Corporation. The Federal Emergency Relief Administration was established in 1933 to aid the States in meeting the emergency relief problem and the Civil Works Administration had operated a Federal work program from November 1933 through April 1934. The FERA program was discontinued soon after the WPA was established in 1935. The United States Housing Authority developed out of experience of other Government agencies with low-cost housing, and was created in 1937 as a permanent agency to undertake a program of slum clearance and rehousing by a system of loans and grants to local housing authorities.

Carrying out the purposes of the reorganization act of 1939, the President declared to Congress that he found it necessary and desirable to group and consolidate under a Federal Works Agency, those parts of the Government dealing with public works not incidental to the normal work of other departments, and which administer Federal grants or loans to State and local governments or other agencies for the purposes of construction.

Congress having approved the President's Reorganization Plan, the Federal Works Agency came into existence on July 1, 1939. This report covers primarily the operations of the first year of the existence of the new Agency.

Background for Reorganization

To some extent the creation of the Federal Works Agency and its successful operation during the first year were made easier by the fact that the movement for the creation of a department of the Government to handle all phases of public works extends back for nearly half a century.

On December 3, 1885, delegates from 10 engineering societies held a meeting in Cleveland, Ohio, and formed a Council of Engineering Societies on Public Works. In 1891, Clemens Herschel, then president of the Boston Society of Engineers, suggested in an address the idea of the engineer in public works, and again in 1916 took up the same subject in his presidential address at the American Society of Civil Engineers Convention in Pittsburgh, where he urged the creation of a Department of Public Works. In 1916 also, the idea of a Federal Department of Public Works was advocated by the distinguished public works engineer, C. E. Grunsky, in a talk before the Inland Waterways Congress. In the same year Isham Randolph, a Chicago engineer long experienced in public improvements, sent a communication to the Franklin Institute on the need of a national department of public works outlining the form of such legislation.

On April 23, 1919, a conference was held in the offices of the Western Society of Engineers in Chicago, when representatives of 74 technical organizations met for the purpose of considering the desirability of creating a Federal department of public works. The interest aroused by this conference led Senator Jones of Washington to introduce a bill "To create a Department of Public Works and define its powers."

The following year Herbert Hoover told his fellow-engineers that "the time has arrived in our national development when we must have a definite national program in the development of our great

national problems . . . we must create a national engineering sense of provision for the nation as a whole . . . " In the same year the United States Chamber of Commerce polled its membership on the desirability of a public works department and received a vote of 827 for and 549 against such action.

By resolution of both houses of Congress, a joint committee on Government reorganization was created late in 1920 to make an investigation and to formulate remedial legislation. The report of this committee in 1924 proposed limiting the work of the Department of the Interior to public works and public domain. Hearings were held on the report but no affirmative action was taken.

During 1921 and 1922 there was continual discussion of Government reorganization involving public works. In 1923 the Institute of Government Research of the Brookings Institution recommended the conversion of the Department of the Interior into the Department of Public Works and Public Domain, listing the bureaus to be placed therein. A public works conference met in Washington, D. C., on January 9, 1924, to consider a movement for a Federal Department of Public Works. Secretary of Commerce Hoover, in addressing this meeting, said: "The principal advantage of a Department of Public Works is that it would create a center of Government construction policies, and while the saving in personnel and efficiency would be increased by coordinating all engineering work under the Government, I think the value would be more in leadership for the great balance wheel of construction which lies in Government construction work." The conference adopted a resolution endorsing the creation of a Department of Public Works to embrace the construction and administration of all nonmilitary public works.

During 1924, 1925, and 1926, a number of bills were introduced in Congress on the subject of reorganization but the outstanding development during 1926 was the report in November to the Administrative Board of the American Engineering Council, by a group of engineers and experts in public administration who recommended the creation of a Department of Public Works and Domain. The economies effected through consolidation and simplification were estimated at 5 percent or $50,000,000 a year on the basis of a $1,000,000,000 annual expenditure. It outlined the scope of a Department of Public Works and Domain; the organizational structure of such a department; and the advantages of establishing such a department.

A public works conference held in Chicago in 1926 and attended by representatives of 62 technical organizations resulted in a very elaborate study of the various functions and activities pertaining to the administration of Federal public works and public domain. Discussion

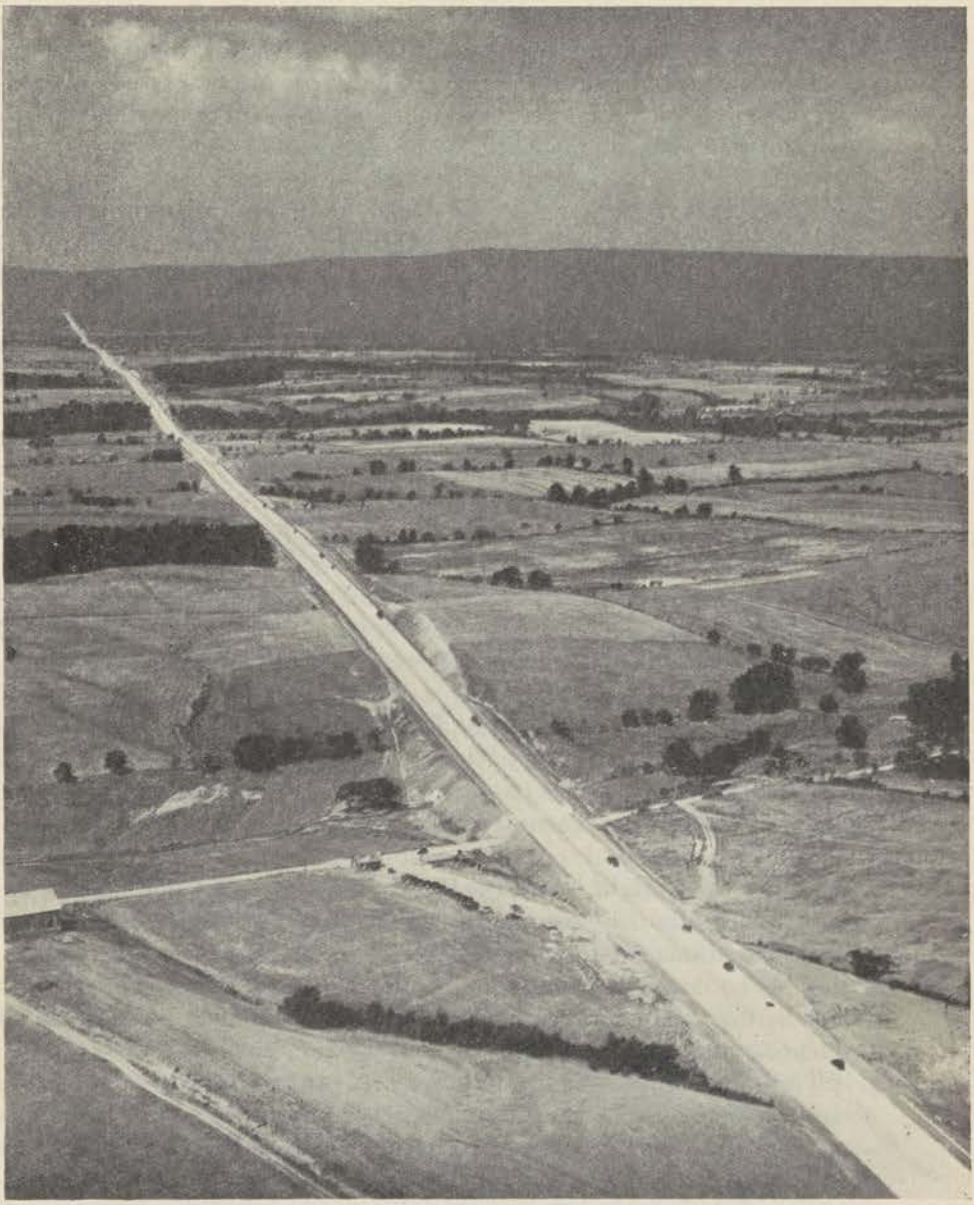
of the proposed reorganization was carried on through 1927 and 1928.

In 1928 both major political parties were agreed as to the desirability of the administrative reorganization of the Government. Action was taken in Congress in 1932 and two bills were introduced, the title of one reading "a bill to accelerate public construction in periods of business depression through the creation of an administration of public works and to provide for more effective coordination and correlation of the public works functions of the Government." These bills would have established an administrator of public works with jurisdiction over design, construction, maintenance, operation, and repair of all public buildings and public works under the control of the United States. Extended hearings were held on these two bills in 1932 and then Congress granted authority to the President to reorganize the administrative establishment by Executive order. In December of that year President Hoover submitted a series of Executive orders to the Congress, regrouping and transferring certain agencies, which, however, were set aside by a resolution of the House of Representatives, which resolution was later declared unconstitutional by the Attorney General. No changes were made as a result of the orders.

Proposals for the improvement of the Federal administration of public works were in the air for many years before the sudden expansion of Federal works activity which began in 1933. The increased importance and greatly increased scope of public works activity which began in that year, produced new demands, especially from those most immediately concerned with public works, for administrative improvements.

In March 1936 President Roosevelt appointed a committee of experts in public administration to investigate the executive branch of the Government and problems of administrative management. The report of the President's Committee on Administrative Management recommended a separate Department of Public Works "to advise the President with regard to public works . . . ; to design, construct, and maintain large scale public works which are not incidental to the normal work of other departments . . . ; to administer Federal grants-in-aid to State and local governments or other agencies for construction purposes and to gather information with regard to public works standards throughout the Nation." Congress, at the request of the President, set up a Joint Committee on Government Organization, which in turn created a Select Committee on Investigation of Executive Agencies.

On April 3, the Reorganization Act of 1939 was approved by the President. It provided for a reorganization of administrative agencies in order to reduce expenditures, to increase efficiency of operations,



WEST TO PITTSBURGH

A 13-mile straightaway on the new Pennsylvania Turnpike. This 165-mile superhighway crossing the Allegheny Mountains through 6.7 miles of tunnels, and connecting Harrisburg and Pittsburgh, was built with PWA aid as a toll road.

to regroup agencies, to reduce the number of agencies by consolidation, and to eliminate overlapping and duplication of effort. The Congress directed the President, after investigation, to make recommendations for administrative reorganization in accordance with policies established in the Act.

On April 25, 1939, the President sent to the Congress his first plan on Government reorganization. Part 3 of the message provided for the creation of the Federal Works Agency. The President decided it "necessary and desirable to group and consolidate under a Federal Works Agency those agencies of the Federal Government dealing with public works not incidental to the normal work of other departments, and which administer Federal grants or loans to State and local governments or other agencies for the purposes of construction."

Following the approval by Congress of the reorganization plan, the Federal Works Agency came into existence on July 1, 1939.

Management and the Federal Works Agency

The Federal Works Agency is primarily an organization for building. Its personnel includes approximately 5,000 engineers and architects with a professional interest in workmanlike, economical, and efficient methods for getting a job done. These qualities, which are as common a characteristic of our country's workers generally as they are of the engineering outlook, lie at the root of the unparalleled technical progress which has distinguished the industrial history of the United States in recent decades.

The beginnings of our systematic technical advance are often traced to the work of Frederick W. Taylor, originally conceived in the late 1880's, though not finally enunciated until his Principles of Scientific Management was published in 1911. However that may be, there is no doubt that outstanding progress in the arts of production and in the organization of work evolved as thought in the field of scientific management developed.

Technical and managerial improvements in the factories and mines and forests, in transportation and communication, have strikingly reduced the labor required and brought the cost of many products within reach of increasing proportions of our population. Mechanization of clerical operations and improved organization of office work have coped with the problems of record-keeping required by the increased complexity of modern industry and enterprise. The advent of power machinery on the farm and improved farm practice have drastically reduced labor requirements in agriculture.

Taylor envisioned technical progress in building as well as in other

industries. His own studies in the field of concrete construction and his extensive references to Gilbreth's studies on the art of bricklaying are evidence of this. To some extent the construction industry has, of course, shared in the benefits of scientific progress. New alloys and other building materials, riveting and welding processes, heavy power shovels, earth moving and other material handling and conveying equipment, have all combined to bring within the range of economical construction engineering tasks which in earlier days would have been prohibitive in cost. Job analysis, the organization of work and the lay-out of materials have worked to improve the performance of many tasks. But for the most common types of building, the familiar house, factory, school, or office, the work at the construction site is notoriously more akin to that of earlier days than in other industries.

The reasons for this lie partly in the nature of construction and partly in other limitations faced by the construction industry. Construction work must be performed at the site where the finished product is needed for its use, and the necessary equipment for economically fabricating materials and parts cannot be set up anew at each site, nor for the special requirements and specifications for each structure. Construction contractors characteristically operate on a small scale as compared with other major industries, operations are intermittent, and the amount of work to be done fluctuates more widely over a period of time than in other industries. As a result, a technical research department, common both in the newer and in the larger manufacturing industries, appears to be an anomaly in a construction establishment.

Technical advance in the construction industry depends upon related development of building designs, uses of building materials, and construction methods. The large modern buildings of a typical American metropolis, for example, are the embodiment of developments in steel and concrete construction. Their construction provides the most economical field for utilizing powered excavating machinery for constructing buildings and requires powered machinery for lifting heavy forms, the use of electric elevators, riveting and welding metals. In the broad distinguishing characteristics of modern large scale buildings, new design, new materials, and new methods in construction are combined. And so it is with lesser changes in building by which modifications in appearance, adaption to new or improved uses, economy in construction, or a combination of these factors are realized.

Public building, by virtue of its large place in the Nation's building, plays a large role in the development of technical advance in the field of construction. The large scale of construction activities within

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the Federal Works Agency, the varied types of construction which fall within the scope of its programs, afford the opportunity and impose the responsibility for leading the construction industry to greater technological progress. With the advent of public construction into the field of housing, where the development of basic standards for housing the Nation and for economy in construction are most sorely needed, the responsibilities and the promise are particularly great.

The Government, in the work of the Bureau of Standards, has undertaken a major responsibility in testing and developing materials for their uses in building. In the Federal Works Agency and its construction programs, the Government has an instrument for developing and establishing the adaption of construction plans, materials, and advanced techniques and operating methods in building itself. Under coordinated operation of its several programs, there is assurance that improvements developed in one sphere may be promptly transferred or adapted to others. The large-scale character of the programs in operation afford opportunities for establishing uniform standards for materials required, so that work in the factories may be increasingly developed on a mass-production basis and with greater economy. Operating primarily on the basis of awarding contracts to the private construction industry for the work to be done according to specifications, with supervision of the progress in and the standards of construction, the advances initiated under Government operation quickly become the common body of knowledge and property of the whole construction industry. Economies thus developed, by reducing costs, may well provide the basis for expanding building operations in many fields.

By its very nature as a public agency, the responsibilities of the Federal Works Agency do not end with the development of economies in construction. This responsibility itself arises out of public policy in a democracy which is founded on regard for the common welfare. One expression of this concern of public policy is the practice of awarding construction contracts to private contractors, in order that the place of the private construction industry may be sustained in the economy. Another expression of the regard of public policy for the Nation's well-being is the safeguard of labor standards. Safety, hours of labor, and minimum wage rates are, by act of Congress, safeguarded under the terms of the public construction contracts. Public policy is also concerned with other economic effects arising out of the operation of its programs—with the speedy completion of work so that the uses for which it is intended may be served promptly, with the adaptation of the size and the timing of development of its programs so that security of employment and increased

purchasing power may be provided or so that industrial capacity and available labor resources may not be temporarily overtaxed at essential points. These are the most far-reaching factors compelling planned and coordinated management of public works.

Office of the Federal Works Administrator

Under Reorganization Plan No. 1, creating the Federal Works Agency, the Administrator is required to give general direction and supervision to the work of the constituent units of the Federal Works Agency, to coordinate their functions and to exercise all the functions formerly assigned the Secretaries of Agriculture, Interior, and the Treasury with respect to the units transferred.

It was early recognized that the work of coordination and consolidation within the Federal Works Agency was not a task to be swiftly accomplished but one in which, over a period of some time, the desired results could be built into the organization as the program changed with the times.

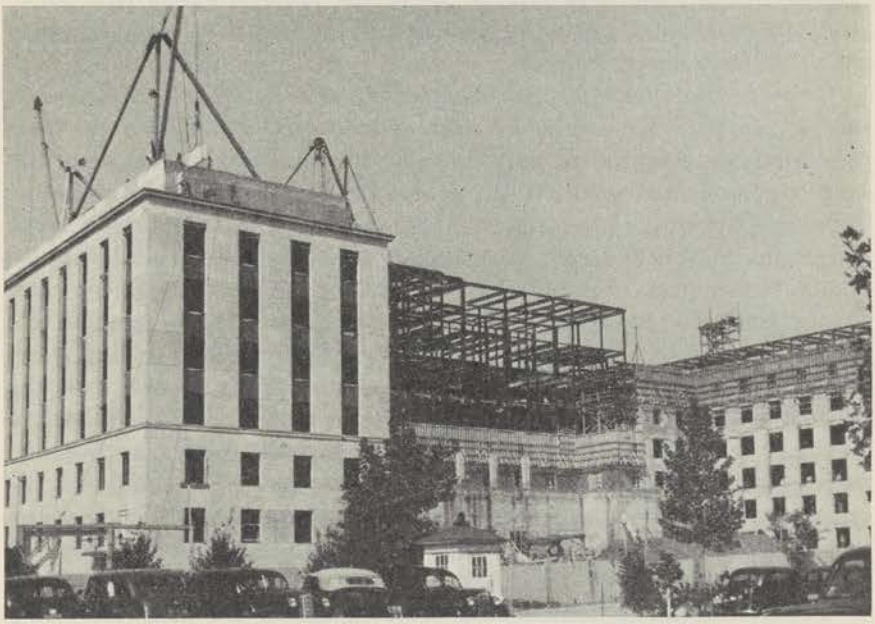
A beneficial plan of consolidation and coordination must have its base in the common or related purposes and the character of the agencies making up the Federal Works Agency. Three of the five constituent agencies have permanently authorized programs, each serving a special public function. The Public Buildings Administration constructs most of the buildings required for governmental purposes and manages practically all of the public buildings in the Nation's Capital. The Public Roads Administration is responsible for the program of grants-in-aid to the States for the construction of the Nation's public highway system. The United States Housing Authority is responsible for the program of Federal aid to local public housing agencies for slum clearance and rehousing. The first two of these agencies have been operating regular programs under congressional appropriations for many years. The United States Housing Authority, created in 1937, is operating on its initial authorizations of funds. In addition, there are two emergency agencies also of recent creation, the Public Works Administration and the Work Projects Administration. Both of these organizations have been responsible for programs adapted in size and character to the Nation's needs for increased employment; the Public Works Administration by allocations to Federal agencies and by providing grants-in-aid or loans to State and local authorities for useful and necessary construction projects; and the Work Projects Administration by providing useful work for the needy unemployed. Under existing law the PWA will cease to exist June 30, 1941.

The special status of the latter two organizations, the largest in the Federal Works Agency, was definitely recognized at the time of the creation of the Federal Works Agency. In his reorganization message, the President stated, "Because of the differences that justified their separate operation in the past and differences that will continue in the future to distinguish certain phases of major public works from work relief, I find it necessary to maintain them at least for the present as separate subordinate units of the Federal Works Agency." Moreover, in the first year of the Federal Works Agency operations, the development of the defense program substantially modified the prospects for its ensuing operations. Comprehensive plans for consolidation and coordination of functions and activities have accordingly been deferred pending the determination of program authorizations for the immediate future.

In the interest of efficient and economical operation, reorganization must be planned not only on the basis of the purposes but also the methods of operation and the common and related activities of the several organizations. Accordingly, preparatory to meeting ultimate problems and in order to obtain the improvements and economies which may be promptly realized, the Federal Works Agency has been engaged in a thoroughgoing survey within its constituent units of their functions and activities, their organization, and how these functions and activities are performed.

For this purpose the Administrator established a small office, staffed by experienced personnel selected with reference to their broad understanding of the problems of operating a unified works program and of planning useful public-works programs. Detached from the exactions of operating routine, attention has been directed toward simplification of organization and procedure. One of the first undertakings was an evaluation of the whole Federal Works program so that factual information upon which to base policies for and establish control of future operations, might be available.

Concentration on questions of policy, program, and over-all administration has therefore characterized the first year's work. The ground work has thus been prepared for such comprehensive changes as may be warranted by the programs to be set up in the future. Certain common standards and uniform standards, simplification of procedures, elimination of unnecessary operations, and the establishment of the best practices throughout the entire agency have meanwhile been achieved. Economies and improved efficiency, which could not have been attained without common administrative direction of the five constituent agencies, have thereby been realized.



IN SIX MONTHS

Dynamiting the Boulevard Apartments in March 1940 made way for construction of the War Department building on the same site in Washington. Work is being pushed by the PBA. The lower photograph shows construction in September.

The staff of the Office of the Administrator is composed of a General Counsel, an Executive Assistant and Budget Officer, a Director of Research and Statistics, a Director of Information, a Management Engineer, and a Director of Personnel.

The development of the work of the office of the Executive Assistant and Budget Officer, with supervisory responsibility for the budgetary activities of the five constituent units of the agency, has opened the way for a consolidated works budget comprehending the several subdivisions of the unified works program. Although the first such consolidated budget to be prepared will be that for the fiscal year 1942, appropriations for the fiscal years 1940 and 1941 were brought under a system of central control and budgetary administration by this office. In the work of devising this system, the Administrator has benefited by the direct assistance of the General Accounting Office and the wholehearted cooperation of the Department of Treasury and the Bureau of the Budget. The Executive Assistant and Budget Officer also has responsibility for planning improvements in organization and procedure throughout the agency—an essential activity intimately related to the budgeting functions. The ultimate economies of agency-wide administration will grow largely out of the joint efforts of this office, the office of the Director of Research and Statistics, and the office of the Management Engineer.

The essential fact-finding arm of the Office is the Director of Research and Statistics. He serves the Administrator by providing those facts and analyses essential to program planning and the general direction and supervision of operating programs, the evaluation of the economic effects of the works program and its operations, their relation to other programs of the Federal Government, and other factors relevant to the determination of policy. In performing its work his office draws freely from the research, projects, and the statistical data available in the several constituent organizations of the Federal Works Agency. He is accordingly concerned, in the development of its work, with the establishment of uniform standards for statistical reporting by the several constituent operating organizations, and insofar as feasible, comparability of statistical data in the operating reports; and with the coordination of the statistical reporting and the research work of the several organizations in accordance with the objectives of the Federal Works Agency.

The Management Engineer has been engaged in the task of devising methods of scheduling and controlling construction operations of all constituent units so that the public benefits of their programs may be more quickly or more economically realized in accordance with the objectives of the Federal program. The realization of this objective

has resulted in demonstrated administrative economies and more satisfactory control of the progress of the work.

Under the circumstances of their establishment or because of their having been identified previously with different Departments of the Government, the constituent administrations of the Federal Works Agency have varying policies and practices of personnel administration. These must be unified, and, in some respects, simplified; and it is the function of the Director of Personnel to provide the initiative and direction required to this end. As a member of the Council of Personnel Administration he has opportunity to harmonize the personnel practices of constituent units with those of other executive establishments.

The Director of Information is responsible for a coordinated program of public information with emphasis upon its public value and economy.

The general direction and coordination of the work of the legal staffs of constituent administrations is carried on by the General Counsel and the relations of the agency with the Attorney General and the Comptroller General are simplified by the work of his office.

In accordance with the terms of the reorganization plan, the first task to which the Federal Works Agency was directed was to carry out the consolidation of the Public Buildings Branch formerly in the Procurement Division of the Treasury Department and the Building Management Branch formerly in the National Park Service of the Department of the Interior. This was promptly accomplished by the organization of the Public Buildings Administration under a Commissioner. At the same time, the Administrator's staff undertook its comprehensive survey of the work and organization of the five constituent administrations so that the possibilities of coordination might be fully explored, and that agency-wide use of the special facilities of each unit and elimination of duplication of work might be promptly achieved.

The feasibility of certain consolidations was established during the first year of operations. One example is the Tabulating Unit, now in the Office of the Executive Assistant, consolidating all machine tabulation for fiscal and statistical work in Public Works Administration, Work Projects Administration, and United States Housing Authority. Pooling the machines and personnel of formerly independent tabulating units has resulted in an estimated saving of over $16,000 for the current fiscal year. Centralization of this activity has permitted a better planning of work and the elimination of the need for each separate unit to maintain machinery and staff for infrequent peak loads.

With corresponding benefits the activities in the several constituent units devoted to photography and exhibits have been consolidated under the Director of Information, and libraries have been consolidated under the Director of Research and Statistics.

There have been substantial savings as the result of the establishment of the Federal Works Agency. During the last fiscal year $3,005,000, which had been provided as part of the appropriations for administrative expenses of its constituent agencies, was impounded and administrative expenses were reduced by that sum. An even greater source of savings which extends well beyond the Federal budget has come from speeding up construction programs. The amount of such savings in the aggregate is difficult to ascertain with any degree of accuracy but by shortening construction time on a project, the cost of Federal supervision is reduced and the period of useful life of the project extended. This latter factor can easily be appraised in dollars when the project is revenue producing. Interest and other overhead costs during construction are cut by shortening this construction period.

With the Public Works Administration engaged in completing a program for which allocations of funds have long since been made, most of the opportunities for coordination of the works programs in the Federal Works Agency involve a wider and a systematic use of Work Projects Administration projects in connection with roads, housing, public buildings, and such other construction programs as the Congress may authorize. The Work Projects Administration and its predecessors have, of course, at all times been engaged in prosecuting construction projects under Federal and local sponsorship which supplemented regular Federal programs and the related interests of local governmental agencies. The Work Projects Administration and its predecessors have also, at all times, been engaged on surveys and other professional and clerical projects, which provided information useful in the planning or operation of Federal and local construction programs. Federal units now in the Federal Works Agency, as well as others, have sponsored such projects, and their programs have benefited from many more projects locally sponsored. One year's experience in reviewing Work Projects Administration projects for approval, and in surveying the operating programs of the Federal Works Agency's constituent units, indicates that under a coordinated works program these benefits will increase.

Road building is the largest single type of project on which WPA workers are engaged. Organizational machinery has been established to coordinate the planning of access roads to camps and to defense plants by the Work Projects Administration with the plans and

activities of the Public Roads Administration. Thus, there are assured better development and maintenance of the Nation's highway system, and, more especially, the more rapid and economical development of the immediate defense highway program.

Locally sponsored slum-clearance projects, and development of recreation centers and other community facilities, public health centers, and municipal improvements, more extensively planned in relation to public housing projects, will serve directly to achieve the purposes of the United States Housing Authority and other Federal housing programs.

Housing surveys, sponsored by municipal housing authorities, with the technical guidance of the United States Housing Authority, have been the product of Work Projects Administration projects. Road surveys, strip maps, traffic counts by Work Projects Administration workers, have served the Public Roads Administration and State highway officials. Continuing and increasing development of such projects, on the basis of uniform technical standards, will aid the planned development and operation of the regular and the defense public housing and roads programs. Educational projects for preschool children and educational, cultural, and training projects for youth and adults, may be further developed under local housing authorities. In addition to their essential service to public programs, these types of projects have a special value in providing suitable work for unemployed who are not adapted to construction or other manual work.

For its task of establishing standards of performance accurately to estimate, or to schedule and control the progress of program operations, the Federal Works Agency had, from its beginning, two assets. The first is the engineering staffs concerned with the various special problems in each unit, but with the attitude toward and interest in efficient and improved management common to the engineering profession. The second is the store of operating records which form a major part of the archives of the Federal Works Agency.

This extensive record of experience was used to set up standard schedules showing the progress for each type of public works project, from the time authorization was first given to undertake the work to the completion of the work, the rate at which materials of different types should be required on the job, and the rate at which labor of different skills should be required. These schedules, used as norms, become the basis for judging performance and determining when and for which projects a given program required special inquiry or supervisory attention. They also provide the basis for forecasting program operations and estimating the rate of disbursement of funds and labor and material requirements of the program. Insofar as they are used to

schedule and supervise project and program operations, the reliability of these estimates is substantially improved for their administrative uses in estimating budgets and administrative personnel requirements, and also for their use in evaluating the economic effects or problems of program operations.

Operations of the Office of the Federal Works Administrator for this first year, then, have resulted in:

(1) The organization of the Public Buildings Administration.

(2) The organization of a central staff for central direction, supervision of coordination of the constituent operating units, and the consolidation of certain service activities.

(3) Improvements in program planning and in management of program operations.

(4) The consolidation of certain common units of work for the five constituent organizations and the development of the foundations for such further reorganization or consolidation as may be warranted by the scope and character of the programs which will be authorized in the immediate future or by successive Congresses.

(5) Initial steps in the coordination of highway construction work by the Public Roads Administration and the Work Projects Administration and the anticipation of further coordination of Work Projects Administration projects with other programs under way or to be authorized.

(6) Financial savings directly to the Federal Government and indirectly to State and local governments.

Employee Relations

The men and women who make the Federal Works Agency run represent all levels of skills and are from every State in the Union. The status of these employees is covered by many laws, determining their service as temporary, permanent, or emergency, civil service or non-civil service and fixing their compensation and duties. But beneath the stiff language of the law, and the necessary formalities of every large organization, are human beings, and the spirit with which the laws and the formalities are administered is friendly as well as just. The Federal Works Agency encourages various social activities among its employees, and for those in the operating agencies facilities are provided for credit unions, group hospitalization, health insurance, associations for athletic activity, welfare and recreational associations. Well equipped and staffed emergency rooms are provided. Employee organizations are well represented in the Federal Works Agency and the right to organize and bargain collectively is recognized.

PLANNED BUILDINGS IN A PLANNED CITY

The recently occupied General Federal Office Building and the Social Security Board and Railroad Retirement Board buildings nearing completion may easily be seen in the foreground of this recent aerial view of the Nation's Capital city.

The office of the Director of Personnel and the personnel officers of the constituent agencies of the Federal Works Agency made substantial efforts during its first year of existence to provide for the welfare of employees. The liquidation of the Public Works Administration program made it necessary to furlough some 6,000 employees during the fiscal year. At least one-sixth of these persons have been placed in other employment, private and public, by the Federal Works Agency. Many others have received employment due to contacts made by that organization. A large percentage of the furloughed personnel is being absorbed by the defense program. Provision has been made for employees affected by the Selective Training and Service Act beyond that required by existing law. For employees of the Agency who volunteer, or who may be called to active service in the Army or Navy during the limited national emergency, everything possible will be done to conserve the positions they now occupy. In the event the positions of employees who have entered upon active training or service in the Military or Naval Establishments are abolished, then, upon application for reemployment every effort will be made to place them in positions of equivalent status, pay, and seniority. In filling all appointments whether in the Office of the Administrator or in constituent agencies, every effort has been made to reappoint employees who have been furloughed because of reductions in work.

The specialized nature of much of the work performed, some of which is unique, has required the institution of training programs in many fields. Such programs are adding greatly to the working efficiency of employees and have contributed to a balanced employment policy. Few buildings in the world are equipped with air-conditioning machinery on such a large scale as those in Washington, and it has been necessary to institute special courses to equip suitably trained men to operate refrigeration plants of 1,000 tons or more. Approximately 300 men have attended this course in the 3 years of its operation. More than 2,750 persons have attended the Guard School of Instruction, operated to train the large number of guards necessary to protect public buildings in the District of Columbia. Those enrolled are instructed in fire fighting, the use of firearms and the regulations, routine and customs of guard activity. In addition to guards of the Public Buildings Administration, eight other Government agencies have used these training facilities for the improvement of their personnel. Since 1929, 37 courses in soils for highway engineers have been conducted by the Public Roads Administration, in order that engineers might keep abreast of rapidly developing research in this important field. Of the 825 persons who took the course only

221 were representatives of the Public Roads Administration, the remainder coming from other Government agencies, State highway departments, universities, private industry, and from foreign countries. In the new and widening field of public housing, training courses have been instituted in various phases of management, and numerous courses for clerical and stenographic personnel have been given. Clerical courses are given to the employees of the Work Projects Administration, the subjects dealt with including correspondence and secretarial training.

The heavy volume of employment and of other benefits provided by Federal Works Agency programs, has made necessary steps to insure equitable distribution of these opportunities. Most Federal Works agencies have instituted special measures to prevent neglect of the needs and rights of any groups, and this is especially true in the field of racial relations. With a view to coordinating racial relations policies of the constituent agencies, in order that all citizens might share in the opportunity for work and in the benefits of its programs, the Federal Works Agency seeks to guard against any discrimination in employment based on race or discrimination in the receipt of benefits flowing from the programs of the constituent agencies. An office of racial relations within the office of the Director of Personnel has achieved very real progress in this direction.

The office of the Director of Personnel is working toward uniformity of personnel policies within the constituent agencies. As the policies and procedures of the constituent agencies naturally evolve it is expected that the same general policies will come into application in all parts of the Agency.

It has been most helpful to have the assistance of the chairman of the Council of Personnel Administration and his staff. The counsel and guidance of the Civil Service Commission have been invaluable in assisting the Federal Works Agency with its recruiting, promotion, and classification problems.

DEFENSE WORKS

* * *

WHEN the greatly expanded national defense program was inaugurated in the summer of 1940, the Federal Works Agency surveyed its current activities in relation to national defense and inventoried its personnel and facilities so as to gage the kind and extent of its contributions to the increased defense program. Some preliminary surveys had been undertaken following the outbreak of the European war in the fall of 1939. Projects undertaken in recent years related to the problems of national defense were reviewed.

When a great industrial nation prepares for defense, the backbone of this defense lies far behind the front lines, in farms, factories, and workshops where the materials of war are manufactured. As America is now well aware, modern warfare is a battle of machines as well as of men. Ships, airplanes, tanks, trucks, radio equipment, warehouses, arsenals, ordnance depots and proving grounds, naval bases, and air fields are required if the Nation is successfully to be defended. Men to man guns and machines must be trained for many months before they are skillful enough to use the modern equipment of war, and during this period of training they must be housed and provided with the necessary implements and facilities for training.

Such mobilization of manpower and industry requires a great deal of building. The several military and naval appropriations authorize the construction of extensive public works and utilities. Housing and hospital facilities and administrative buildings are authorized at army posts and naval stations to care for increased regular personnel; cantonments for the temporary personnel in training. Air and naval bases are to be enlarged, with new and improved facilities, and new bases added. Appropriations are made for underground storage tanks, warehouses and other storage facilities for equipment and material. Shipbuilding yards, drydocks, arsenals and other productive plants are to be increased. To expedite the program, additional funds are authorized and appropriated, to the War and Navy Departments, to the President, and to the Reconstruction Finance Corporation, for

constructing the necessary plant for private operation, and the storage facilities for materials, equipment, and supplies required for defense.

Extensive additional construction is required to assure timely and efficient progress in the defense program. On it depend the necessary care, the safeguards to health and the effective utilization of the increased personnel of the Army and Navy and essential industries. On it depends the effective utilization of the increased military and naval facilities provided for in defense appropriations. Highways, bridges, and other aids to land transportation are required at appropriate locations for ready access to new and enlarged military posts, naval stations, air and sea bases, for increased military maneuvers, and to facilitate essential production; new and improved airports for the training and continued flying experience of a large reserve of aviation personnel; housing and hospital facilities, sanitary sewers and other sanitary facilities, waterworks and other municipal utilities for the satisfactory care and safeguards to health of communities in which population will increase markedly. These will be centered at locations affected by transfer of families of military and naval personnel, increased civilian services required for new and enlarged army and navy posts, or concentration of production for defense purposes. Schools may be needed in selected locations where workers should be retrained and available facilities are deficient. Complete new community developments, each with an adequate system of municipal utilities and community facilities, are required where defense industries must be established at new locations in accordance with needs of the defense program.

For these purposes, too, authorizations and appropriations have been made available in the military appropriations, in special authorizations for the use of the funds of the Work Projects Administration and the United States Housing Authority, and by a special defense appropriation to the Federal Works Agency for housing. The Congress has indicated the desirability of the States using funds provided by the Public Roads Administration for defense roads. Every effort is being made to encourage such use.

The construction work to be done under all of these authorizations will run into billions. Construction work for national defense cannot be delayed. It must be begun promptly, for construction is a long, slow, and difficult job. Unless and until this necessary work is done much of the other important work in the defense program cannot be adequately developed.

Some of the principal results of the survey of past contributions to defense have been published by the Federal Works Agency in a report entitled "Millions for Defense", which dealt wholly with the results

of programs using emergency funds. This survey established the fact that more than a billion dollars of emergency funds had been spent for direct national defense purposes during the fiscal years 1933–40, inclusive. Additional billions of emergency funds had been spent for improvements and extensions of transportation facilities, power plants, warehouses, and other types of public works which contribute to our defenses. Funds made available by the Public Works Administration resulted in about $500,000,000 of planes, ships, vehicles, and new construction for the Army and Navy. In addition, hundreds of millions of dollars have been expended on WPA projects for the construction and improvement of landing fields, armories, hospitals, storage buildings, and other facilities for military and naval agencies.

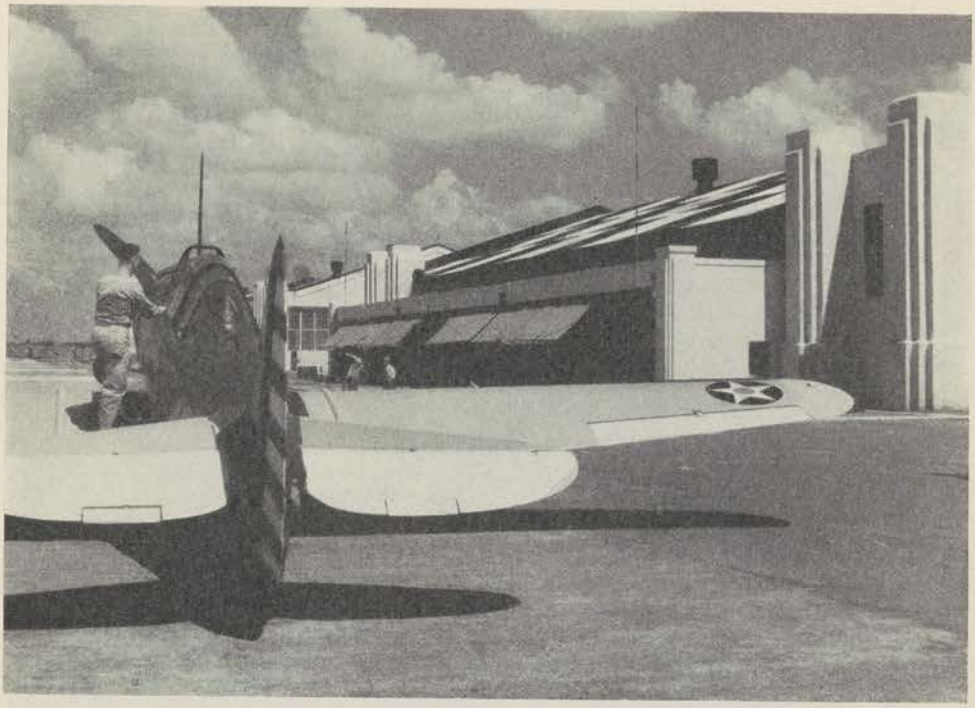
Construction in the Defense Program

Work on the strategic system of highways selected in 1921 by the War Department and now including 75,000 miles has been going on for years. The Public Roads Administration has cooperated with State highway departments in its improvement as a most important part of the Federal-aid system. In large part it consists of modern highways fully capable of carrying a large peacetime traffic and a considerable additional load of defense operations. On these roads, the vital arteries of industrial mobilization and the indispensable routes of troop movements, considerable work needs to be done but the amount is small in comparison with what has been done in the past.

To the defense construction tasks confronting the country, the Federal Works Agency had much more to contribute than the completed works of its several programs.

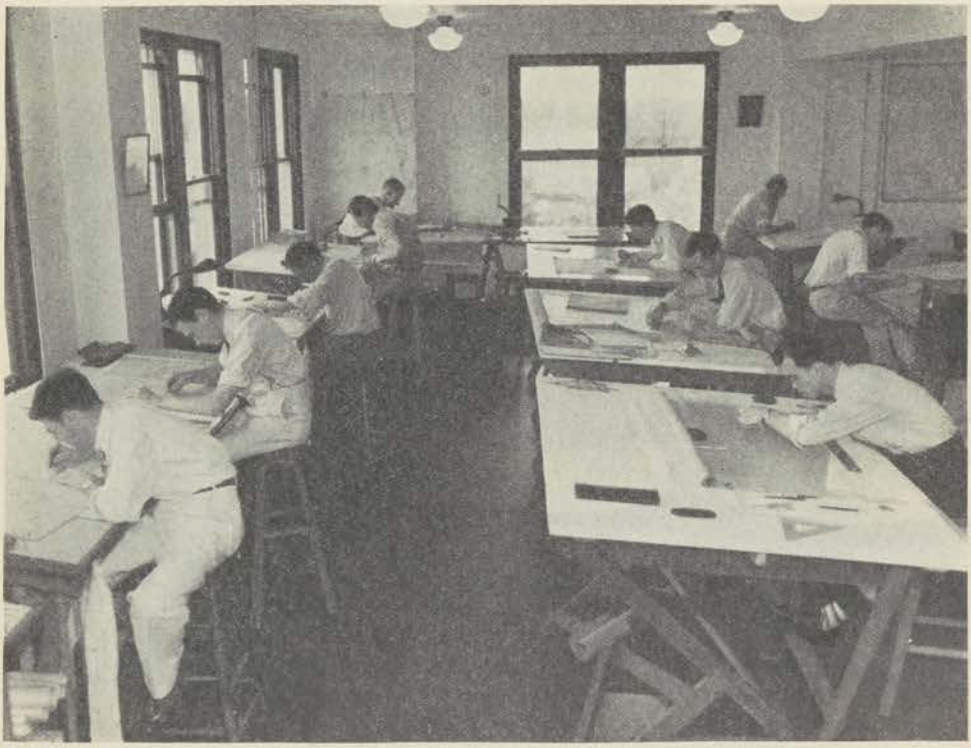
While under normal conditions the Federal Works Agency's activities are directed to civilian needs, the nature of its work is equally valuable for defense construction. The building of a section of a main highway differs but little from building the same type of highway approaching a military cantonment. There is little difference between a civil and a military hospital. There is little difference between a civil airport and a military airport, or between a wharf for commercial vessels, and one for naval vessels. The same skills and experience required in designing and constructing modern roads, airports, hospitals, docks, and public buildings for civil agencies are required for creating similar facilities for military and naval purposes.

The Federal Works Agency comprises the administrations and authority which have been responsible for preparing and developing plans and the execution of construction for projects aggregating $18,000,000,000 in the regular and emergency public works programs



WEST POINT OF THE AIR

The hangar addition shown at Randolph Field, Army Air Corps training center near San Antonio, Tex., was constructed by Texas WPA workers. Similar projects have improved airports and naval air bases throughout the United States.



T-SQUARE AND COMPASS

Engineering and architectural drawings are vital tools of all public construction. This is a typical drafting-room scene close to every big construction job.

operated during the past 7 years. Its 45,000 employees, including approximately 5,000 engineers, on the departmental staffs and in the field, have had experience in practically every type of construction required under the defense program. Its programs now under way cover every type of construction facility required for the development of a new industrial community. Its staff comprises experts in municipal planning. Its facilities were accordingly available to aid in the rapid and efficient development of construction. Its organization, staff, and experience were ready at hand to draft specifications and designs for any type of building to meet special conditions for its use; to adapt plans, designs, and material usage to requirement for speed in construction, and to the use of material noncompetitive with other strategic demands in the defense program; and to utilize and coordinate the special authority and facilities of each of its constituent administrations and authorities for whatever emergency work may be required. Its field offices and technical field staff have been available to get construction under way and to see that it is properly done. Its relations with State and local authorities firmly established over the years by the operations of the several programs assure opportunity to enlist local cooperation or participation in building for defense.

Federal Works Agency organizations and the energies of its staff have been directed to defense works as quickly as authorizations have been obtained. At many places there are sections of highway built 15 or 20 years ago, when traffic was slower and less in volume, and when standards of highway design were considerably below present standards. Normal peacetime traffic requires that these unsafe stretches be eliminated; defense traffic requirements make their elimination desirable now. A careful survey of the strategic system by the Public Roads Administration reveals that the necessary construction consists of bringing a relatively small mileage up to modern standards for width, alinement, and surface strength, and the strengthening of some 2,400 weak bridges. These improvements have been needed for proper service of normal peacetime traffic. Their importance is now accentuated by the increase in traffic certain to result from defense operations and the possibilities of greater increases. Available Federal-aid funds are now being used to correct many of the deficiencies on the strategic system and the State highway departments are being urged to concentrate a large part of the regular Federal aid for future years on this work.

More than $21,000,000 of new airports are already under construction and $17,000,000 of additional airports are now pending; this does not include many Army and Navy airports which are also being constructed with WPA funds and WPA labor.

During the last war the sudden expansion of ship building and munitions industries created a drastic housing shortage for which the Nation was ill-prepared. No reliable data existed concerning the housing facilities or requirements of key communities. No organization or technique had been developed by which the Government might readily assist in the solution of the housing problem which defense activities had created. Today a far different situation exists and the work of national defense will be immeasurably facilitated because of it. With the cooperation of hundreds of local housing authorities in cities throughout the country, the United States Housing Authority is in possession of a valuable statistical picture of housing for workers' families in almost every important manufacturing and industrial center. These data are supplemented by extensive records on housing gradually accumulated by the Work Projects Administration; by the real property inventories; the recent housing census; and by building permit data, information concerning the building industry's capacity for production, and other data which were unavailable twenty years ago. Through normal peacetime operations in slum clearance and rehousing, public housing techniques have been improved and staffs of highly skilled technicians have been assembled whose abilities are already proving of value in the defense program.

Out of limited funds still remaining under existing authorizations for the United States Housing Authority's program, $31,369,000 was provided at an early date for defense housing, and the Federal Works Agency is now prepared to operate an additional program of $45,762,500 allocated to it by the Army, and $140,000,000 authorized for it by subsequent congressional action.

In many instances where it is necessary for the Government to undertake direct construction in conjunction with the defense program, whether of warehouses, public buildings or housing projects, the resources of the Public Buildings Administration are being profitably employed. In contrast to other agencies of the Federal Works Agency, the Public Buildings Administration is responsible for the preparation of designs, the drafting of detailed plans and specifications, the acquisition of sites, as well as construction for the use of the Federal Government. The Public Buildings Administration is prepared to handle both regular and emergency construction for all Federal agencies, from the first step of site selection to the last stroke of the paint brush.

In addition to the construction of roads, bridges, airports, public buildings, and housing, the Federal Works Agency is making other contributions toward the national defense program. The Coast

Guard, for example, has received a great deal of assistance from the Public Works Administration and the Work Projects Administration. Substantial assistance has been rendered the Reserve Officers Training Corps and the Naval Reserve and many projects have been completed for National Guard camps and armories.

Nearly $10,000,000 of Work Projects Administration funds is being used for vocational training of workers for defense industries.

While most units of the Federal Works Agency are charged with carrying out programs of limited scope, the Work Projects Administration directs labor forces which are making increasingly important contributions to defense programs in the improvement of Army and Navy posts and facilities. This organization, strengthened by 5 years of experience, has demonstrated its ability to contribute to national defense by completing nearly half a billion dollars of projects which strengthen our defenses against aggression. Its versatility and competence in periods of national emergency are clearly demonstrated by its past record in the New England hurricane, in floods, and in other moments of disaster. It is able to adapt itself to the demands of emergency jobs and to get results. In fulfilling its essential mission—to provide employment—the Work Projects Administration is able to make contributions of paramount importance to the defense program.

Thus the Federal Works Agency, in substantially the same spheres of activity that constitute its normal work, is contributing largely to our national defense effort. Its past experience in constructing roads, airports, public buildings, and housing are all focused upon the rapid solution of comparable problems in the defense program. But far more important than any type of building which has been executed by the Federal Works Agency is the fact that here is a department of the Government, staffed by engineers, architects, and other construction specialists, whose talents are organized and available for executing most types of construction required by our expanding program of national defense.

The regular programs of the United States Housing Authority and the Public Roads Administration are based upon financial aid to cooperating State and local authorities. The emergency program of non-Federal public works of the Public Works Administration has been based upon grants and loans to State and local authorities. No special authorization of funds to aid States and local governments for the construction of non-Federal works is available in the defense program. The Federal Works Agency, mindful of its responsibilities and of the advantages of State and local cooperation for attaining the objectives of a Nation-wide program, is arranging its operations of the

public roads and the defense housing programs so as to enlist the maximum aid and cooperation of State and local authorities.

Defense Transportation—1917

In the World War of 1914–18 the bottlenecks in industrial production had their counterpart in transportation bottlenecks. In reviewing this situation, Ralph Budd, Commissioner for Transportation of the National Defense Advisory Commission, has pointed out that today the transportation facilities of the Nation are fundamentally different and vastly improved over those of 20 years ago. Whereas in 1917 the Nation relied principally upon one form of transportation, today we find transportation a fivefold institution; and all five participants—railroads, highways, pipe lines, waterways, and air lines—play important roles. The load can be spread. Total shipping capacity has been enlarged. The transportation network has been made more flexible, and the efficiency of industrial facilities, in consequence, have been greatly improved. A degree of industrial decentralization and utilization of strategic local resources is today possible because four and a half million trucks ply the Nation's highways. Twenty years ago the absence of a widespread highway network made such decentralization impossible. Preparations for the last war were seriously hampered by conditions on the steel rails of the United States, and the highways were in no condition to fill the gap in transportation. Assurance against the repetition of this situation was provided when the Congress passed the Federal Highway Act which was approved November 9, 1921. Section 3 of this act provided that "All powers and duties of the Council of National Defense under the act entitled 'An act making appropriations for the support of the Army for the fiscal year ending June 30, 1917, and for other purposes,' approved August 29, 1916, in relation to highway or highway transport, are hereby transferred to the Secretary of Agriculture . . ." These powers were exercised and the duties performed by the Secretary of Agriculture through the Bureau of Public Roads. On July 1, 1939, under the reorganization plan, they were transferred to the Federal Works Administration, and the Public Roads Administration continued to perform these defense duties.

Roads for National Defense—1940

The close agreement of civil and military highway needs was clearly shown when officials from the Army and the then Bureau of Public Roads first sat down in 1921 to plan a network of strategic

highways throughout the United States. When they concluded, the roads which military authorities considered most important were almost identical with those considered of principal civil importance by highway authorities. The resulting plan—the so-called Pershing Network—included roads forming a large part of the primary interregional network recently recommended by the Public Roads Administration. Since its inception the strategic highway system has been revised at suitable intervals. We are fortunate that our military and peacetime highway needs have been continuously planned within a common framework.

The close cooperation between military and civil authorities, now about two decades old, in regard to highway needs is mutually advantageous. Not only is our road system—that part of it of outstanding military importance—located so as to meet military needs; in large part it is constructed to specifications of width, strength, and clearance which meet military requirements. Likewise, when the Army sits down and calculates its mechanical equipment, it knows exactly what it has to work with in the way of road specifications. The trucks and tanks, trailers, and other equipment used by our Army have been designed in terms of the standard H–15 bridge now used on major interstate highways. The coordination of civil and military needs is made simpler by the fact that the heaviest equipment used by our Army has been designed to meet the same load limitations used in the design of the heaviest commercial vehicles.

The Public Roads Administration has constantly sought to anticipate the traffic needs of peace and of war. The advance planning since 1920, the steady work on the Federal-aid highway system, the more than a billion dollars of emergency funds that have been spent on roads and bridges during the last 8 years, the elimination of urban traffic congestion and grade-crossing hazards and delays, have placed our system of national roads in a position where, with little inconvenience and delay, it can meet the immediate demand of military authorities.

Other improvements of our transportation system have been consummated with the aid of the Public Works Administration. Railroads have been electrified, roadbeds have been improved, and new streamlined trains have been built with the proceeds of PWA loans. Wharves and docks have been built to aid coastwise commerce, while channels have been dredged and dams built to facilitate inland waterway traffic. These types of work, constructed primarily for their value in peacetimes, have important defense values.

A careful survey of the strategic network of public roads made by the Public Roads Administration, with the assistance of State highway

departments, has revealed that 2,400 rural bridges lack the strength to carry the H–15 loading needed for military loads. Some of these bridges also fall below the adopted standard of an 18-foot width and a 12½-foot vertical clearance. An additional 500 bridges do not come up to these standards for width and clearance. Here and there throughout the Nation's highway system are stretches of road too narrow to permit efficient mass operation of vehicles; 4,000 miles of the strategic network is less than 18 feet wide and must be widened. Considerable stretches of highway are not constructed to bear heavy military loads and 14,000 miles of highways must thus be strengthened. Some of the narrow roads are also the ones that must be strengthened. Efforts are now being made to meet this volume of road construction, as far as possible, without additional appropriations by using Federal-aid funds apportioned to the States, by the cooperation of the WPA, and by the cooperation of State and local highway authorities. Extensive experience in emergency road work programs during the past eight years, and the recent reorganization of construction agencies, demonstrates that such cooperation is likely to be successful in meeting the problem. However, it is apparent that additional funds will be needed to complete improvements essential to defense activities.

The most critical defense need today on main highways is the improvement of bridges. About 1 bridge in every 30 miles over the 75,000 miles of strategic network, as a whole, should be replaced or repaired. The construction of 2,400 bridges—1 out of every 10—is a large task and an important one. Some of the work can be done with funds now available or authorized but additional funds will be needed to complete the job. Many bridges of steel or masonry construction have been built by the WPA alone on the public roads in the last 5 years; the Public Roads Administration has built thousands of bridges and more than 4,500 underpasses and grade crossing-separations; 71 new bridges have been constructed in States along theAtlantic seaboard during the past 7 years as the result of PWA assistance. The bridges range in size from a small highway bridge in Connecticut, costing $14,000, to the famed Tri-Borough Bridge in New York. Among the outstanding bridge projects in addition to the Tri-Borough Bridge are the Jamestown, R. I., bridge; the new bridge at Havre de Grace, Md., opened last fall, and the bridge across the Potomac in Southern Maryland and Virginia now nearing completion; toll bridges in New Hampshire; and the Florida highway bridges, including those constructed in connection with the Miami-Key West Overseas Highway.

In some places there are bottle-necks in the highway system which are of small consequence for civil use, but which will become important

under heavy military strain. As columns of military equipment roll along the highways, some vehicles must stop by the roadside for rest or repair. It is important that at frequent intervals the shoulders of all highways be wide enough to permit vehicles to park along the side of the road without holding up a long line of traffic behind them. There are many stretches of highway where the roads are not wide enough to permit this flexibility. In such cases it is desirable that shoulders be widened when funds can be made available for this purpose.

Throughout the country as a whole, the War Department has indicated about 150 points of military concentration. It is important that these centers be connected with the network of public roads and in many cases the indicated points of military concentration are 5, 10, or as much as 15 miles from the nearest main highway. In order to correct this difficulty it will be necessary to construct access roads promptly. About 3,000 miles of such roads must be built at once and work on them has already begun. The need for such roads is being surveyed and officers of the War Department and Federal, State, and local highway officials are cooperating in seeking means of getting construction under way.

In addition to improvements in the strategic network and the development of access roads to points of military concentration, some special highways must also be built. These are necessary in order to eliminate traffic bottle-necks in areas of industrial production and to provide improved highway connections for industrial or military mobilization which requires them.

Glancing back at the experience in the war of 1917–18, one cannot help but note some differences. The motor vehicle has today come into its own. Our roads are no longer rutted mud tracks; more than 1,300,000 miles of fine surfaced highways cover the Nation. Our resources in motor vehicles are unexcelled by any nation in the world, largely because of this road system. The private and commercial vehicles owned in this country are more than twice as many as in all the rest of the world. In 1939 motor vehicle registration showed 30,000,000 cars in the United States; in 1916 there were one-tenth that number. The United States and Canada produce more than twice as many automobiles as the rest of the world put together. We have a corps of highly trained and skilled factory workers and mechanics who constitute an invaluable military resource to the Nation. To a large degree all of these things exist because of the public roads system.

The military needs of the United States, because of its continental area, require quick mobilization and facilities for rapid troop move-

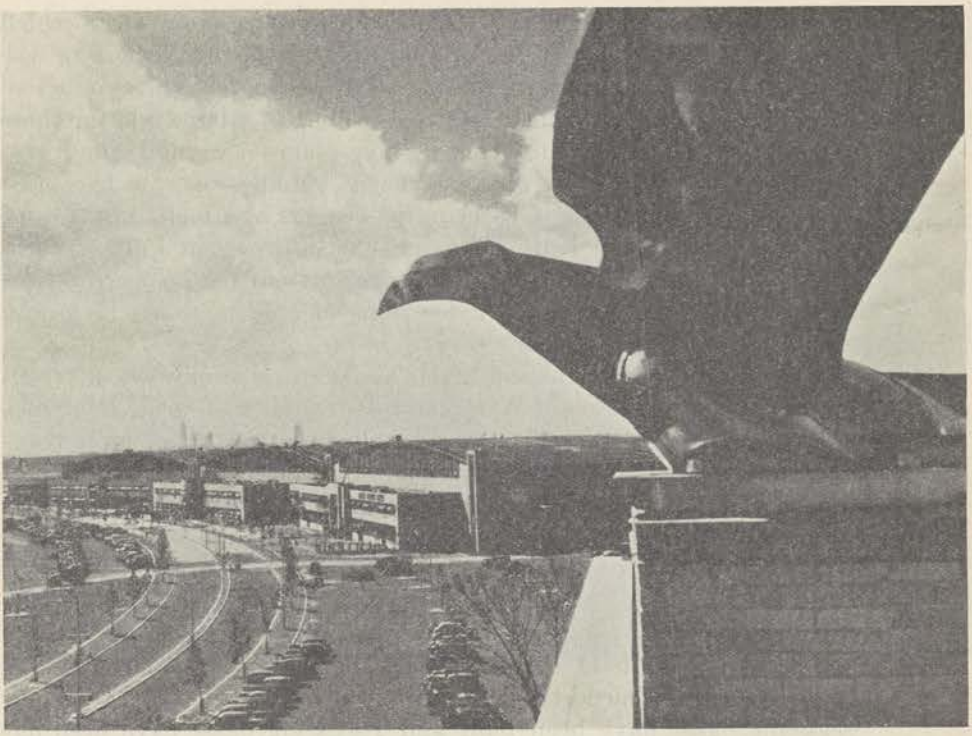
ments. The transportation system which makes it possible to put an army of several hundred thousand men into Seattle or Boston in a matter of days, is our most important defensive asset. It compensates for our sparse population thinly spread over a vast continental area. It is to the Army what the Panama Canal is to the Navy.

Civil and Military Airports

Since 1935 about 85 percent of all the airport construction in the United States has been done by the WPA. In little more than 5 years WPA has been instrumental in building a solid foundation for American aviation. Modern runway paving—the fundamental basis of all-weather airport operations—has formed its principal airport work. More than 330 miles of first-class runway have been laid down—enough to reach from Washington, D. C., to Hartford, Conn., enough to pave 2,305 miles of standard highway. WPA has worked on 9 out of every 10 airfields served by main air transport lines and it has built everything from minor improvements to complete metropolitan air terminals, such as LaGuardia Field which serves New York City.

The far-flung air defenses of the Nation were strengthened and the air travel facilities improved by 383 PWA projects in 42 States, in the Territories of Alaska, Hawaii, and the Virgin Islands, and in the Canal Zone. The total cost has reached nearly $60,000,000, of which over 52 millions have come from Federal funds. Those agencies of the Federal Government which are concerned with military and commercial aviation have been largely responsible for carrying out this work which has provided new or improved landing fields, administration buildings, radio equipment, airplanes and repair parts, lighting of airways, experimental laboratories, machine shops, and officers' quarters. These projects have already justified themselves in serving as a basis for the now rapidly expanding military and commercial aviation programs.

As the principal builder of airports in the Nation, WPA has applied scientific methods to the engineering problems of airport construction. Especially in the fields of airport drainage and runway paving WPA progress has been most rapid in recent years. WPA engineers, in cooperation with State highway engineers and municipal engineers, and the technical assistance of the Public Roads Administration, have produced the solutions that cumulatively make a science of airport engineering distinct from that of highway engineering, utilizing newly discovered principles of soil mechanics and the scientific study of the behavior of moisture.



MAJOR AIR TERMINALS

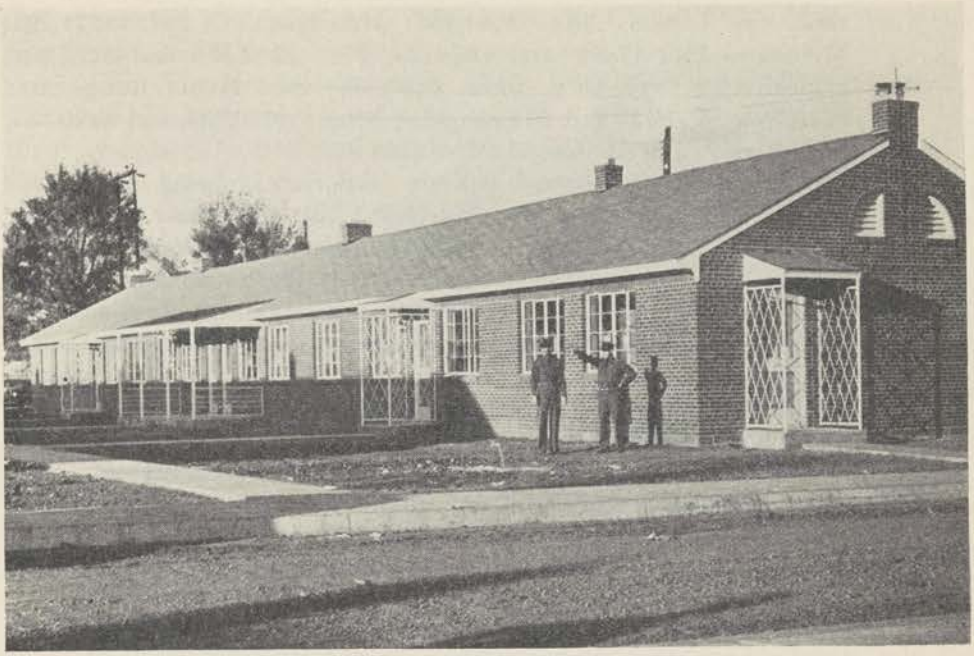
LaGuardia Field, New York, seen from the top of the new administration building, is a major air terminal. This is only one of the many airports built by WPA, which has built or improved 9 out of 10 main airports where the airliners stop.

No one who has flown into LaGuardia Field in New York, which was entirely built by WPA, or into the Cleveland Airport or the Chicago Municipal Airport—all of which are largely the product of WPA work—can fail to have a strong feeling of admiration for these gigantic sky harbors. In Chicago three planes can land simultaneously on the mile-square airport. Eight air lines operate from this field, with 98 flights daily carrying passengers and mail. It is a far cry from the days of 1910 when the typical airport at College Park, Md., was little more than a cow pasture, or from 1925 when the East Boston Airport, Mass., was a few tons of cinders rolled into mud dredged up from the harbor.

In design and construction much has been accomplished in recent years and the engineers of WPA can justly point with pride to a great creative achievement. Their accomplishments in design have revolutionized the planning and construction of airports. The brawn of WPA workers has built 197 new airports in addition to 317 airports which have been improved and 50 more which have been added to. These new airports form the background for new airlines throughout the United States. More than 5,000 miles of new airlines have been created in the 5 years since WPA began, and in almost every case the creation of these new lines has followed the construction or improvement of airports along the new routes by WPA; 25 new seaplane bases have been built and 2 existing bases have been improved; 474 new hangars and other airport buildings have been constructed and 1,153 have been improved or enlarged by WPA labor.

In addition to the stimulus given commercial aviation by the construction of new and enlarged airports, great impetus has been given private flying. New and safer airports have increased the ease of flying and there are many more private pilots and many more planes as a result. When the pilot training program began in 1939 its smooth operations were greatly facilitated by the improved airports at hand to use. It is a great advantage, in mechanized defense, to have a nation skilled in making, operating, and repairing mechanical equipment. In the same way, almost every extension of the aviation industry that results in larger production of planes and increasing numbers of private and commercial pilots and mechanics is of first-rate importance in strengthening the defenses of the Nation. Civil aviation makes important contributions to military aviation in industry, in airports, machines, and personnel.

In the period from the end of the fiscal year to November 1, 1940, about $20,000,000 worth of airport projects were approved for operation under the various State WPA programs. Among the civil airport projects approved during the latter part of this period were



DEFENSE HOUSING

The first defense housing project to be occupied, this new development in Montgomery, Ala., will provide homes for the families of the expanding Army. The Montgomery Housing Authority, aided by USHA, completed the project in 1940.

those for Tucson, Ariz., $784,151; Manchester, N. H., $231,294; Melbourne-Eau Gallie and Orlando, Fla., $212,375 and $277,990, respectively; Iowa City, Iowa, $180,694; East Baton Rouge, La., $749,752; St. Paul and Minneapolis, Minn., $356,144 and $379,887, respectively; and St. Joseph, Mo., $301,378.

A number of important military airports are being constructed through WPA projects. At MacDill Field, the Army's southeast airbase at Tampa, Fla., a $1,158,943 project for construction and improvement of facilities is under way. Work includes the construction of buildings such as barracks, mess halls, and repair shops and of roads, runways, aprons, sewage and water lines, and other facilities as well as clearing, grading, and paving work. Two projects totaling $1,032,053 were recently approved for improvements to Army airports in the Hawaiian Islands and one for $116,754 for the construction and improvements of buildings at Hamilton Field, Calif., where both WPA and PWA had previously done a large amount of work. In Alaska, the Virgin Islands, Puerto Rico, and Hawaii, special WPA projects are rushing to completion the aviation bases necessary to the defense of America.

Defense Housing—1917

In 1917 the Nation flung itself into a great national defense effort with little experience or knowledge of the complexities of such a vast undertaking. Within a few weeks after industrial mobilization, housing crises had developed in various sections of the country. Shacktowns sprang up over night. Essential workers in the shipbuilding industry were sleeping three shifts to a bed as well as working three shifts on the job. Shipbuilding and other essential defense industries suffered insurmountable production problems for want of an adequate and stable labor force. Labor turn-over was increasingly aggravated, notwithstanding wage increases, for lack of housing facilities where needed and because workers had to pay increased shares of their earnings for overcrowded shelters of woefully inadequate standards.

The National Defense Council was created by the Congress in August 1916, and the country was at war in April 1917. It was not until the month following, however, that attention was first given to the housing problem by the organization of a section on housing under a subcommittee on labor in the National Defense Council. A report on housing conditions was first available at the end of September 1917 and the first legislative authorization in aid of defense housing was enacted more than 10 months after the declara-

tion of war, on March 1, 1918 This gave the United States Shipping Board and Emergency Fleet Corporation authority to provide housing for shipyard workers only. Other workers in essential war industries were provided for by another law enacted on May 16, 1918. Funds to exercise this authority were appropriated in June 1918, and it was not until July, when additional appropriations were made, that authority was granted to organize the United States Housing Corporation of the Department of Labor for the development of housing for war industry workers generally. Under these circumstances the Armistice found much of the housing not yet under construction and little of the housing sufficiently complete for occupancy.

When the Nation faced a vast defense program in the summer of 1939, the experience of 1917 was vividly recalled and the importance of housing for the defense workers was recognized from the outset as an important phase of the entire problem.

Defense Housing—1940

On May 28, 1940, the President appointed the Advisory Commission to the Council of National Defense and the first emergency military and naval appropriation bills were passed during the month which followed. As defense industries expand in centers where ships, airplanes, and munitions are being manufactured, and as employment in these areas increases, much new housing will be necessary. Already in many such centers an acute housing shortage has been felt; defense workers are living as they did in 1918, in congested rooming houses; rents have increased beyond the means of industrial employees to pay them.

On June 28, 1940, the United States Housing Authority was authorized under the "Act to expedite national defense and for other purposes," to cooperate with the Navy and War Departments in making defense housing available and to use for this purpose such funds as it had at its disposal. On July 21, the Coordinator of Defense Housing of the National Defense Advisory Commission was appointed, attached to the Office of the Secretary, with the responsibility for planning and coordinating the defense housing program. A sum of $100,000,000 appropriated to the President on September 9, 1940, for allocation to the War and Navy Departments, is expected to be used primarily for housing families of enlisted men and civilian employees of the War and Navy Departments. On October 14, 1940, the President approved an appropriation of $75,000,000 and contract authorization of an additional $75,000,000 to be expended under the terms of the

Lanham Act signed on the same day. Of this total amount, $140,000,000 is to be expended by the Federal Works Administrator principally for housing the families of civilian employees of the War and Navy Departments and of defense workers in private industry; and $10,000,000 will be used to reimburse defense emergency funds appropriated to the President in June, for allocations he had made to the Federal Loan Administrator. The allocation to the Federal Loan Administrator has been used to organize the Defense Homes Corporation which is engaged in building individual homes and group houses for occupancy by defense workers. The houses being provided by the Defense Homes Corporation qualify for mortgage insurance by the Federal Housing Administration under the National Housing Act. Combined with mortgage financing by the Reconstruction Finance Corporation's Mortgage Company, the $10,000,000 capital of the Defense Homes Corporation would provide approximately $50,000,000 in defense housing.

Prior to the congressional authorization of additional funds for defense housing, and pursuant to the authorization by the Congress in June 1940, the United States Housing Authority had already provided for 8,133 defense housing units at an estimated cost of $31,369,000. Of this amount, USHA allocations to the Army and Navy were approved by the President for 4 projects to provide 1,725 dwelling units for enlisted men and their families. In addition, the President had approved loans to 17 local housing authorities for 21 defense projects requested by the Army or the Navy. The latter will provide 4,908 dwelling units for enlisted men with families and for civilian employees of the Army and the Navy; and 1,500 dwelling units for workers engaged in defense industries and their families at Hartford, Conn., and at Newport News, Va. Two of these projects, one at Montgomery, Ala., with 424 dwelling units, and the other at Pensacola, Fla., with 200 dwelling units, were opened for occupancy in November 1940.

In October 1940 the Coordinator of Defense Housing estimated, on the basis of a survey, that the total defense housing needs run between 160,000 and 200,000 units, and that the total outlays required to meet the demands made by the defense program for new housing are about $700,000,000. The Coordinator of Defense Housing has announced that private enterprise will be relied upon to meet most of this need, with the aid of mortgage insurance by the Federal Housing Administration. The congressional authorizations of funds for defense housing amount to a total of $250,000,000. The $10,000,000 allocated to the Federal Loan Administrator, combined with the mortgage money, should provide approximately $50,000,000 in housing. The

total of federally financed defense housing will therefore not exceed $290,000,000 under these authorizations.

The $100,000,000 appropriated to the President for allocation to the Army and the Navy is estimated to provide upward of 27,000 dwelling units, and the $140,000,000 authorized for expenditure by the Federal Works Administrator under the terms of the Lanham Act is estimated to provide upward of 40,000 dwelling units.

In addition to such defense housing as the United States Housing Authority has already provided or may provide, the Federal Works Agency has a large share in the public defense housing program—a total of more than $185,000,000 for expenditure, estimated to provide more than 53,000 dwelling units. For out of allocations made by the President to it, the War Department has transferred to the Federal Works Agency, for expenditure in accordance with the terms of the Lanham Act, $45,762,500 for the construction of defense housing projects by the Public Buildings Administration.

The great bulk of the housing projects so far authorized for construction by the Federal Works Administrator come under the transfer of funds from the War Department. It is estimated that these funds will provide more than 13,000 dwelling units in some 70 projects in 28 States, Hawaii, and Puerto Rico. Such funds were transferred for expenditure under the authority granted by the Lanham Act and, in accordance with the terms of that act, the President, on October 29, authorized projects at 60 continental localities, and the islands of Puerto Rico and Oahu. The authorizations are expected to absorb practically all these funds. Eight projects are intended for occupancy by civilian defense workers; the balance is for married Army personnel. Sites for 19 of the projects are already owned by the Army. The remaining sites are to be acquired by the Federal Works Agency, preliminary site explorations in localities where sites are to be purchased having been made by field representatives of the Public Buildings Administration. The Federal Works Administrator will be responsible for fixing rentals on these projects, as he is on all housing constructed under the terms of the Lanham Act. The recommendations of the War Department will, however, be sought regarding rentals for all housing constructed to meet Army needs.

By December 16, construction contracts aggregating $9,526,800 in estimated construction costs had been awarded, on the basis of the cost plus-fixed-fee provisions of the Lanham Act, for 14 of these projects which will provide 3,045 dwelling units. On October 29, the President also authorized certain defense housing construction at San Diego out of the funds directly appropriated by the Congress for Lanham Act construction. By December 16, Lanham Act projects

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had been authorized by the President in 10 additional localities. A contract for the construction of 3,000 dwelling units for defense workers with families, at an estimated cost of $9,370,000, has been awarded for the San Diego project. All contracts obligate the contractor, under penalty for delay, to complete construction within a fixed period.

Plans have been formulated for the mass purchase of fixtures and plant facilities, such as bath tubs, toilet bowls, kitchen cabinets, ranges, refrigerators, and heating units, in the interest of economy and the assurance of a timely and adequate supply. Allotments aggregating $15,250,000 have been made by the Administrator for such supplies, and a number of contracts have been awarded under these allotments.

The public defense housing program is intended to fill the need where private enterprise is unable to operate successfully and within the conditions imposed by the defense program requirements. Some of the public housing is required on military or naval posts and must therefore be provided and managed under Government auspices. Additional housing is required for temporary periods or periods so uncertain, in accordance with its dependence on defense program operations, that the risks are too great for private funds to hazard financing. Where use for some years beyond the current defense program can reasonably be anticipated, much of the need will be for defense housing at rentals too low to attract private risks, and much of the permanent use will be anticipated on the basis of housing required for families whose incomes do not permit the payment of rentals which command new construction by private enterprise.

The Federal Works Administrator is responsible for the construction, management, and the ultimate disposal of defense housing projects constructed under the terms of the Lanham Act. In administering its defense housing authorizations and allocations, the Federal Works Agency is concerned with, first, providing the necessary shelter as quickly as possible; second, in providing it at as low cost as possible, in accordance with the permanent or temporary character of the need and the prospective uses of the facilities; third, maintaining the quality and standards of housing provided at as high a level as possible, for the benefit of the defense personnel for whom the housing is constructed, and for the purpose of realizing the maximum ultimate recovery of funds expended and the maximum permanent public benefit to be derived from the new housing.

Defense housing is part of the total defense of any nation. Speed in construction is not necessarily incompatible with the principles of

sound community development. Local community plans can be an aid to site selection, project lay-out and the realization of long-run economies by assured permanent usefulness. On the basis of the experience and technical planning in low-cost housing at its command, the Federal Works Agency undertook to select and adapt the plans and designs available to the varied requirements in defense housing situations and the specifications set up in the authorizing legislation. The Lanham Act established a maximum cost of $3,950 per dwelling unit within the continental United States and requires an average cost of not to exceed $3,000 per dwelling unit, excluding land acquisition, public utilities, and community facilities. Every effort is being made to provide adequate and proper housing at costs well below this average set by the Congress.

Standardization of the housing units themselves will be aimed at lower costs. Designs prepared for first projects will serve as pattern and precedent for the whole program. Three building types call for frame, masonry and poured concrete construction. The use of prefabricated steel units has been undertaken. Single and duplex units, as well as multiple types housing up to eight families, will be constructed. The average family unit will consist of a living room, combined dinette and kitchen, two bedrooms and bath. There will be no basement. In general, established standards for low-cost dwellings are being followed.

Whether the project is 50 units or 500 units it will merit a full set of community plans. In some instances the adjacent town will have its population doubled or tripled by the project residents and site plans must include recreational and commercial areas. Arrangements of streets and parking areas will be in keeping with modern town planning standards. Schools, as well as other essential community facilities for future construction, will be located on the plan. Public health standards as to drainage, sewage disposal, and water supply will be met. Water mains and sewers will be extended to the project from the adjacent community whenever possible, though if this should not prove feasible, Federal Works Agency plans will call for disposal plants and waterworks to be erected on the site. The Public Roads Administration will consider the problems in its field to assure adequate transportation facilities. The experience of the United States Housing Authority in the fields of site selection, design, construction, and management will be drawn upon in this extremely important housing program. The cooperation and counsel of local housing authorities and other local officials are being sought to the end that these projects will fit into community plans and into the community's social and economic life.

CIVIL WORKS

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MOST of the work carried on under the programs of the Federal Works Agency is not directly related to defense. The many work programs and the thousands of work projects of this agency are primarily designed to fulfill the normal peacetime needs of the American people for public facilities and public services.

The major portion of this annual report tells about the work of the constituent agencies of the Federal Works Agency, their programs, and some of their projects. This chapter on civil works briefly describes a few representative or outstanding projects which contribute to the daily needs of the American people and to improving their living standard. The civil works described in this chapter relate to transportation, public housing, education and recreation, and public health.

Funds of the Public Roads Administration, the Work Projects Administration, and the Public Works Administration have been used to improve the transportation facilities of the Nation.

The Public Roads Administration during the last fiscal year continued its time-tested policy of working in close cooperation with the States. It forged many new links in our highway chain and removed the cause of many fatal accidents by the progress of its grade-crossing elimination and protection program.

Keeping Roads Up To Date

Recent work on US 40 between Baltimore and the Delaware State line is typical of the Public Roads Administration's modernization of main highways. For several years the Maryland State Roads Commission has devoted a considerable part of available State and Federal funds to this project.

The old road was built to meet the traffic requirements of the early twenties. It passed through the narrow streets of Aberdeen,

Havre de Grace, Perryville, Northeast, and Elkton. Its curves were sharp and its grades steep and both of these conditions dangerously restricted the distances that drivers could see ahead. As traffic increased, congestion became so great that many motorists avoided the route. When new, the highway was considered one of the best in the country, but it became one of the worst of main highways.

Construction of the new road began in 1934 and all communities are now bypassed, with the single exception of Aberdeen. The section between Baltimore and Havre de Grace was opened in 1938. To replace a narrow, double-deck bridge erected in 1905, a new bridge, financed in part with Public Works Administration funds, was built over the Susquehanna River at Havre de Grace and opened to traffic in August 1940. An approach to the bridge is nearing completion, the Public Works Administration assisting in this work also.

The remaining 16.2 miles to the Delaware line are being completed as a Federal-aid project, at a cost of $2,014,000, of which $1,378,000 will come from Federal sources. Several bridges and a crossing over the Pennsylvania Railroad tracks add considerably to the cost. Two roadways, each 22 or 24 feet wide, are separated by a grassy area at least 38 feet wide. Gravel shoulders make a safe place for emergency stops and the entire highway will be landscaped. This is one of the most heavily traveled highways in the east and a vital link in the system of strategic highways. It passes through the section of Maryland in which are located the Aberdeen Proving Grounds, Edgewood Arsenal, and one of the largest airplane manufacturing plants. It also leads to plants manufacturing explosives.

Over The Cascade Range

Much has been done by the Public Roads Administration to provide improved access to our national parks and our other great recreational areas. One example of this on the Pacific coast is the Willamette Highway in Oregon, whose opening was celebrated July 30, 1940. Thirteen years of cooperation between Federal, State, and county officials and the expenditure of $3,325,000 have resulted in the improvement of this 87-mile highway. Completion of this route greatly shortens the distance from Portland and Eugene to Klamath Falls and Crater Lake National Park.

This highway is already famed as one of Oregon's outstanding scenic highways. A heavy volume of tourist traffic is expected. The highway supplies a direct route into a territory producing a wide variety of farm, dairy, and forest products and which has been without adequate highway connections.

Beautiful Mountain Parkways

On the other side of the continent, construction of the Skyline Drive in the Shenandoah National Park was completed in 1937. In each succeeding year this road has been projected south as the Blue Ridge Parkway and work has gone forward on the southern end of the parkway which is to connect the Shenandoah National Park with the Great Smoky Mountain National Park. Including the roads already built in these two parks there is to be a continuous highway, built to high standards, through mountain scenery of great beauty, free from all commercial development and man-made scars for a distance of 600 miles.

A large portion of the route is along or near the crest of the Blue Ridge Mountains. There unfolds before the motorist a constantly changing panorama of wooded mountainsides in the foreground; a varied pattern of cultivated fields and orchards in the valleys in the middle distance; to the west there is a background of the Massanutten and Allegheny Mountains; and to the east there are foothills and the Piedmont section of Virginia.

In southern Virginia beyond Roanoke the route is still high up along mountains, with flattened tops, where meadow lands filled with wild flowers lie on either side of the road. Near Deep Gap, N. C., rugged mountains are traversed. Here in July great banks of rhododendron blooms make a wonderful display of natural beauty. Along steep mountain sides, across mountain streams, through tunnels, the route goes on skirting Mount Mitchell within a few miles of its peak. Then the road drops down passing to the south of Asheville and on to the reservation occupied by the Cherokee Indians in the Smoky Mountains where the long climb to Newfound Gap on the North Carolina-Tennessee line begins. The great beauty of these mountains can be appreciated only by those who have stood at the gap and made the side trip along the mountain crest to Klingman's Dome. From the Gap the road descends and ends near Gatlinburg, where a State route leads on to Knoxville.

Of the 600 miles from Front Royal to Gatlinburg, 275 miles have been completed with a bituminous surface and 58 miles have an incomplete stone surface that may be traveled. An additional 58 miles is under construction.

The completed section on the northern end, 105 miles in length, is attracting visitors from every Eastern State, nearly 1 million of them in the 12 months ending September 30, 1940. Both park and parkway areas are under the supervision of the National Park Service. The Public Roads Administration has supervised all of the highway work

HIGH IN THE APPALACHIANS

One of the tunnels on the Blue Ridge Parkway, a scenic highway being built along the crest of the Appalachian Mountains in Virginia, North Carolina, and Tennessee.

for that agency, and part of the funds for the Blue Ridge Parkway was provided by the Public Works Administration.

Cleveland's Lake Shore Drive

Much of the Work Projects Administration labor force has been utilized on projects which result in improvements to our Nation's transportation facilities. The benefits of this work have been felt in large cities and in rural areas served by farm-to-market roads.

Along the Lake Erie waterfront at Cleveland, Ohio, WPA labor has helped to transform a waste into a beautiful lake-shore drive, flanked along its 5-mile length by an extensive park and recreational development.

Civic groups for years had sought to utilize the waste land along the lake front as a park, and to parallel the shore with a through drive to the downtown section of the city. Both objectives have now been attained: a driveway has been constructed which avoids 14 traffic lights for motorists on their downtown journey, and the complete 5-mile stretch of highway, with superelevated curves, has been landscaped. The Public Roads Administration has cooperated with State and local officials in the design and construction of the parkway.

Farm-to-Market Roads

At the other extreme of WPA road construction, the Work Projects Administration in Tennessee has constructed thousands of miles of farm-to-market roads during its 5 years of operation. Farmers lacked all-weather routes over which goods might be moved and marketing was so long delayed in bad weather that farmers' profits were consumed by losses in produce value. Rural road construction in Tennessee has done much toward removing these obstacles.

During the past fiscal year the Public Roads Administration, in cooperation with the States, has improved 3,194 miles of rural secondary roads.

The Pennsylvania Turnpike

On October 1, 1940, the largest single public transportation project of the Public Works Administration was opened to public use. Motorists traveling between Ohio and eastern Pennsylvania encounter the steep barrier of the Appalachian Mountains. But today these motorists on their way between Pittsburgh and Harrisburg will hardly be conscious of the mountains as they traverse the 165 miles

NEW COUNTRY ROADS BY WPA

By this improved rural road, farmers can get to the hard road and children to the new school shown in the photograph. Both projects were recently completed.

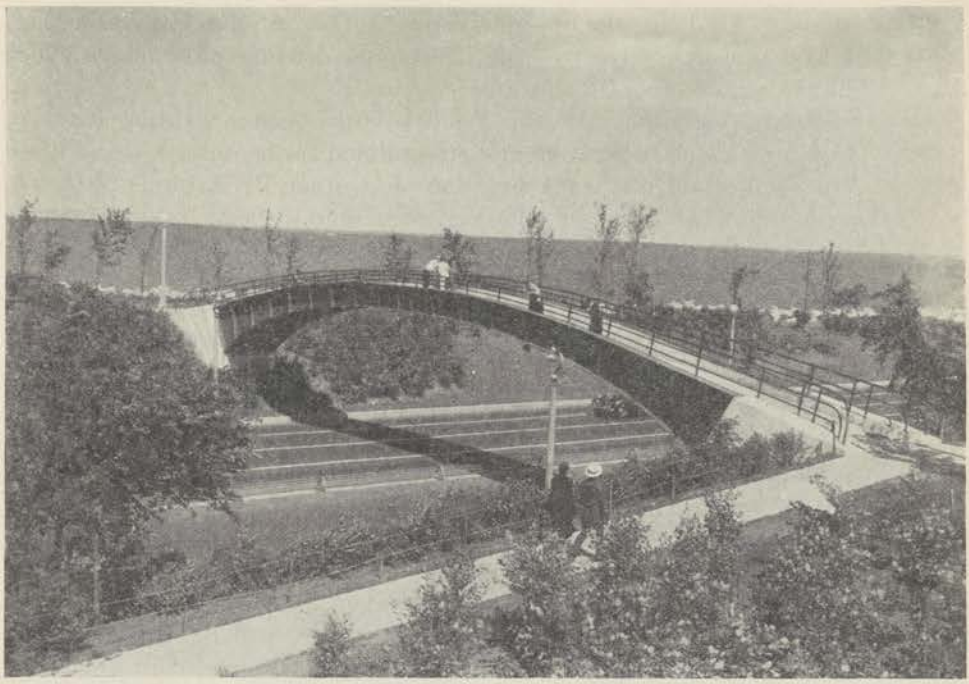
of the Pennsylvania Turnpike, constructed by the Pennsylvania Turnpike Commission at an estimated cost of $70,000,000 with the aid of the Public Works Administration and the Reconstruction Finance Corporation. A survey of the route by the Work Projects Administration helped to establish the feasibility of constructing such a superhighway. Built on 124 miles of roadbed and through 7 tunnels originally constructed for the never-completed South Pennsylvania Railroad, the Turnpike has two concrete lanes, each 24 feet wide, separated by a 10-foot landscaped parkway. The Turnpike is a model for modern high-speed highways. The equivalent savings of money and time by using the Turnpike between New York and Chicago are estimated at 145 miles.

In a sense the Pennsylvania Turnpike is an experiment. It is a bold and useful experiment. Many people have said that there is not sufficient demand for a transportation facility of this character to warrant the investment. Others think it will pay out. If the trend is in the direction of pay out on this first section, those who advocate extending the Turnpike into Pittsburgh and on to Philadelphia will have their case greatly strengthened. The Pennsylvania Turnpike Commission is confident that the tolls paid by motorists and motor carriers who stand to gain substantial savings in money and time will be more than sufficient to repay the loan of the Reconstruction Finance Corporation.

Ordinarily a road is built and maintained at public expense. The Turnpike is different. It offers special services provided by an unusually heavy investment. Time will be saved that can be capitalized; cost of travel will be reduced. Those who believe that we must move boldly to anticipate traffic demands will applaud this experiment and the work of the men and women through whose courage and vision this splendid new motor facility has been created.

Perhaps the most interesting feature of the Turnpike's construction is its design. For the entire length of the Turnpike there are no intersections. The highway may be entered on payment of toll at either end or at any one of nine interchanges along the route. The result is that there are no intersections (which traffic statistics show to be one of the most frequent causes of accident) and no sudden danger to the motorists from slow-moving vehicles entering the highway from abutting property.

The use of the abandoned railroad right-of-way with its seven tunnels simplified the job of providing an easy grade. These tunnels, enlarged, concrete lined, power ventilated, and equipped with automatic safety devices, total 6½ miles in length. The absence of intersections, the separation of opposing traffic into independent lanes,



CHICAGO OUTER DRIVE

This efficient lakeside parkway has been completed with the aid of PWA and WPA, each agency doing part of the work. The pedestrian overpass shown in this photograph was constructed by Illinois WPA workers during the fiscal year.

the easy gradient, the use of sweeping curves, provide rapid, pleasant travel unusually free from accidents and defeat traffic delays which have been common in this area.

In the early days of the Public Works Administration loans to railroads for electrification and streamlined trains improved the speed and comfort of rail transportation, and other PWA funds improved navigation and provided wharves, piers, and docks.

Better Housing

In recent months there has been a tendency to think of housing exclusively in terms of defense and to overlook the continuing need for slum clearance and for low-rent housing. Defense housing activities have been related in the preceding chapter. In part 2 of this report there is a comprehensive description of the program of the United States Housing Authority.

There is nearly universal recognition of the need for more adequate housing. Several nations engaged in the current war have already promised their people that at the end of the conflict much of the manpower now engaged in defense industries will be utilized in the production of better housing.

Here in the United States obsolescence and population growth combine to produce a growing need for more and better housing. Accelerated slum clearance and an expanded low-rent housing construction program would provide an answer to some of the pressing problems which our people must face after peace abroad is reestablished.

Local Initiative Plus Federal Aid

A network of some several hundred local housing authorities established during the last 3 years provides local centers for carrying forward public housing programs. The existence of these local housing authorities is evidence of the widespread interest of local communities in the housing problem and of their determination to solve it.

The program of the USHA is directed to the creation of modern housing neighborhoods rather than scattered developments, in order to take advantage of economies in large-scale planning and operation, to secure housing projects which may be economically managed over long periods of years, and to successfully combat poor conditions in the slum areas which often surround them.

In these new housing communities modern homes and the community facilities necessary for healthful living are provided. In many cases there are central laundries. Playgrounds for children and

FIRST USHA HOUSING ON THE PACIFIC COAST

San Francisco's first housing project, Holly Courts, gives the whole family a light, airy, well-arranged kitchen. Here will be no slum life for these youngsters; no constant menace of fire, disease, insecurity and maladjustment.

conveniently placed park benches for adults are provided. Facilities are provided for various forms of wholesome community activities which are encouraged by the management. As a result juvenile delinquency, disease, crime, and the other evils which characterize so many slum neighborhoods are being fought successfully by the entire housing community.

Housing the Deep South

One of the worst slum districts in Charleston, S. C., was eliminated, and 162 safe and sanitary dwellings were erected when Anson Borough Homes were fully occupied in June 1940. The project houses 162 Negro families; 113 of the new tenants formerly lived in slum homes in the vicinity of the project. The intense housing shortage and congestion in the city of Charleston necessitated the building of Anson Borough Homes by successive stages so that families could be moved into the first completed group of houses before demolition proceeded on the shacks they formerly occupied. All buildings in the project are one story high with back-yard courts including protected play space for children. Simplicity of design throughout assures low maintenance cost, and makes it possible for the tenants to assume a large share of the responsibility of management.

Slum Clearance in the Smallest Towns

The town of Mount Hope, W. Va., is the smallest community in the United States to have a USHA-aided housing project, and represents one extreme of the range of cities embraced by the housing program. Its population is only 2,431. The project which has added 70 sturdily built, two-story duplex frame homes, occupied by families of miners employed in nearby coal mines, means the elimination of an equivalent number of hovels in the town. The site of the project was donated by the city. Located on a narrow strip of rolling land about three-quarters of a mile long and facing a natural bowl which is used as a municipal stadium, the 70 new homes take the place of a neighborhood of dilapidated wooden shacks which formerly stood on the site.

Housing Begins in San Francisco

On the Pacific Coast the first project to be completed was Holly Courts in San Francisco, built on a vacant hillside tract formerly owned by the city; 118 dwelling units have been opened, rehousing low-income families formerly living in unsafe and insanitary dwellings.

Adjoining the site on the east is a 7½-acre tract with playground apparatus and tennis courts. Two-story apartments and two-story row houses have been constructed, terraced along the contours of the sloping terrain. Construction is of reinforced concrete throughout and the heat is supplied by individual gas-fired circulating heaters.

Education and Recreation

The PWA and the WPA have been lifesavers for our schools. During the last World War many thousands of children were housed in crowded old school buildings and construction was almost at a standstill. The deficiency in adequate school facilities was never made up during the 1920's, and in the depression that followed 1929 school construction in the United States fell off even more than during the earlier war years.

During the last 7 fiscal years under the programs of the PWA and the WPA one and a half billion dollars has been spent for school construction and improvements. During this time more than 45,000 school buildings were completed, enlarged, or otherwise improved for the benefit of several million school children. Educational facilities in at least three-fourths of the 3,071 counties of the United States have been increased and improved as a result of this new construction. In the last fiscal year about 5,000 of these school projects were completed.

Universities, colleges, high schools, and elementary schools have shared in the new buildings and additions which these Federal programs provided. Hazardous school buildings have been eliminated. Most of the new buildings are designed to make possible a richer and more varied educational program. Generous provision has been made for auditoriums, gymnasiums, libraries, laboratories, and facilities for vocational training and for recreation.

New Schools for Community Use

One among thousands of communities long in need of more ample school room, New Ulm, Minn., took advantage of the WPA program to acquire two additions to its high school—new classrooms and a gymnasium-auditorium. Seventeen modern classrooms, a large dining room, a manual-training shop, a home-economics room, and a control board for radio reception and transmission are provided. The gymnasium-auditorium wing is 128 by 116 feet. A balcony and bleachers for spectators have been provided. In the basement are a handball court, exercise room, shower, team, and band rooms.

The Consolidated High School at Charlotte Courthouse, Virginia, begun as a PWA project in the late summer of 1938 and dedicated in June of 1940, serves several separate communities. The structure, erected with an eye to the future and its increasing demand for educational facilities, is modern in every particular. The spacious auditorium is actually a community center where problems concerning every activity of the county are discussed. A fire which destroyed the old school emphatically brought to the fore the need for a building in which the fire hazard should be, so far as possible, eliminated and provision made for proper sanitation. The total cost of this school was about $235,000, which includes a Public Works Administration grant of approximately $105,000.

In addition to its school construction, the WPA has aided education through its professional and service projects. Using the talents and training of unemployed men and women, WPA has reduced illiteracy and aided in the process of naturalizing aliens. An extensive program has provided educational opportunities for adults. Mobile libraries, correspondence courses, vocational training, and Braille for the blind are all part of the extensive educational facilities which WPA provides.

Nursery schools for children of low-income families are also provided by WPA. Local housing authorities have in many instances arranged for nursery schools in public housing projects built with funds of the United States Housing Authority.

The Cajans Learn English

An unusual example of the WPA's adult education activities is found in Louisiana. Here the problem was to teach English to the Acadians, descendants of early French settlers from Canada, and to the Creoles, descendants of the French who settled early in New Orleans. These groups who hunt and trap in the marshlands and who farm are handicapped in their business dealings by their lack of English. Where trapping is the principal industry, a special vocabulary pertaining to hunting, trapping, and marketing has been compiled, and students are taught the basic words.

Opportunities for Leisure

In addition to provision for recreation incidental to the school buildings financed under these Federal work programs much has been done by the constituent agencies of the Federal Works Agency to extend and improve recreational facilities.

HELP FOR FUTURE FARMERS

Among the thousands of educational buildings constructed by WPA is this new barn and dairy plant at the University of Maryland, College Park, Md.

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EDUCATION FOR ALL

Classes in reading and writing have been conducted by WPA to eliminate illiteracy. Vocational courses, such as the typing class shown, have taught many thousands of students how to win better jobs and happiness by improving their skills.

New football gridirons, baseball diamonds, and basketball and tennis courts have been provided for children and adults. New stadia, new gymnasia, and new swimming pools are providing recreation for hundreds of thousands of Americans. Thousands of parks and neighborhood playgrounds have been created and existing recreational areas improved. Conservatories, bridle paths, and zoos have been built.

The new San Francisco Zoological Garden, dedicated in October 1940, is only one of many outdoor recreational developments of WPA. Built on a 92-acre tract which at the time of its purchase was covered with sand and eucalyptus trees, its construction has required 5 years. Today its modern zoological installations are one of San Francisco's most popular attractions.

The construction and improvement of roads and trails have made our national parks more readily and completely available, and the construction of lodges and shelters have added to their comfort. Dams for public power have created great lakes and new opportunities for boating, bathing, and fishing. Through the provision of these facilities the needs of the American people for healthful recreation have been partially met.

The WPA, through its recreational program, has provided leadership and supervision for nearly every sport and type of recreation. Outdoor and indoor games, art and craft work, amateur drama, and music have helped to satisfy the need for play and culture.

A descriptive catalog of all the natural wonders and historic shrines, the architectural treasures and commercial attractions of the Nation, has been prepared by WPA projects. Appearing as the American Guide Series this catalog is the product of accurate description by local investigators from *Maine, A Guide to Down East* to *California, A Guide to the Golden State.* These guides fill a gap long felt by tourists in America and by penetrating to the social and economic background of the localities establish a new pattern for guidebooks. Guides are now available for every State and many cities, printed and distributed by some of the best known publishers and universities, at reasonable prices.

The mural paintings and sculpture provided by the Section of Fine Arts of the Public Buildings Administration are enjoyed by those who use our public buildings. Contracts for such work usually are awarded on the basis of open anonymous competition, and the outstanding competition last year facilitated the selection of artists to undertake mural decorations for one post office in each of the 48 States. At the request of the United States Maritime Commission,

artists selected by the Section of Fine Arts will embellish the new steamships *President Jackson, President Monroe, President Hayes, President Garfield, President Adams,* and *President Van Buren.*

Toward a Fit Nation

With the cost of illness and premature death in the United States amounting annually to about 10 billion dollars, there has been a widespread demand for the facilities and services necessary in order to improve health and sanitation that the Federal Works Agency provides.

The Public Works Administration, the Work Projects Administration, and the Public Buildings Administration have constructed or improved approximately 3,500 hospital buildings. The estimated cost of hospital construction under the PWA programs alone was nearly 400 million dollars. The three agencies have participated in the construction of more than half of the hospitals built in the United States since the depression.

At Oswego, Kans., is a typical new WPA-built hospital which replaces an old wooden structure. It is a fire-and-tornado-proof building appropriately landscaped, the first hospital to be built in Kansas of architectural concrete. This modern hospital includes sun decks, living quarters for nurses, an operating room, nursery, consulting room, and laboratory.

Included in the hospital construction completed during the last fiscal year by the Public Buildings Administration was an extension of the officers' quarters and the hospital facilities at the Baltimore Marine Hospital. The work at Baltimore will complement the research and investigation being carried on by the National Cancer Institute just outside Washington, D. C. The institute will conduct exhaustive investigations into the causes of the disease and means of its prevention and cure, while the Baltimore Marine Hospital and out-patient clinic will apply the methods evolved there and other established treatments for alleviating the sufferings of patients afflicted by the disease.

One of the smaller PWA hospital projects completed during the last fiscal year is located at Loudon, in eastern Tennessee. Existing facilities and equipment were outmoded and wholly inadequate when the application for this project was filed with the Public Works Administration in July of 1938. Upon completion in September 1939, this project, erected and equipped at a cost of about $67,000, provided 32 additional beds, expanding the capacity for both medical and surgical attention in a locality where they had long been lacking.

For Pure Water and Clean Streams

The construction of adequate sewage disposal facilities by the PWA and the WPA has provided health protection against untreated sewage flowing into waters used by the public. During the relatively brief existence of these two agencies, more progress has been achieved toward the abatement of pollution from municipal sources than had been reported during the preceding quarter century. WPA alone has laid 18,000 miles of new sewer lines while PWA is responsible for sanitary sewage-disposal projects in excess of $400,000,000, of which projects costing $180,000,000 were completed during the last fiscal year.

The new and improved water-supply systems financed in part by PWA and WPA funds have contributed to the health and well-being of millions of Americans. New filtration plants, reservoirs, pumping plants, storage tanks, purifying and water-softening plants have been built. Metropolitan water systems have been improved, but the outstanding feature has been the thousands of small communities which for the first time have been able to secure a safe palatable water supply.

Much other construction has benefited the health of local communities. Notable examples are the building of garbage incinerators, the construction of nearly 2 million sanitary privies, the drainage of lowlands and swamp areas, and the sealing of abandoned mines by WPA.

Helping Those in Need

In addition to the provision for better health made by many of its construction projects, WPA has been able to supplement existing medical services and to provide better care for the sick. Unemployed doctors, dentists, nurses, and laboratory technicians have been given work in examining and treating hundreds of thousands of children and adults who otherwise would have been inadequately cared for. The millions of visits WPA housekeeping aides have made to homes to assist in the housework and care of the children have meant needed rest and recuperation for countless stricken mothers.

To nourish and fortify the bodies of needy school children, free hot lunches have been prepared by WPA workers. During March 1940, a typical month, a million children per day in nearly 14,000 schools throughout the country were given these substantial meals.

From this brief description of a handful of typical Federal Works projects—not a thousandth of the work completed during the last year—it is easy to see how all the various parts of FWA are working

together to build for cities, States, and the Federal Government those structures so necessary to a free and productive people. These examples give life to cold statistical summaries that may be consulted elsewhere in this report. They may help to visualize the Federal Works program: behind every digit in the tabulations reported is a human fact, a human story, a human accomplishment.

PART TWO

A REPORT ON THE WORK of each of the five agencies composing the Federal Works Agency: the Public Buildings Administration, Public Roads Administration, Public Works Administration, United States Housing Authority, and Work Projects Administration.

WORK OF THE PUBLIC BUILDINGS ADMINISTRATION

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MOST of the buildings in use by the Federal Government are designed, constructed, maintained, and operated by the Public Buildings Administration. Those buildings located on Army and Navy reservations are generally constructed and maintained by the services.

Like the Federal Works Agency of which it is a part, the Public Buildings Administration was created by the Reorganization Act of 1939. Its present services were formerly carried on by the Public Buildings Branch of the Treasury Department's Procurement Division and the Branch of Buildings Management, including the office of space control, of the National Park Service, Interior Department.

By coordinating the work of these offices within the framework of a single agency, the reorganization plan recognized the need for closely relating the responsibilities of the architect and engineer with those of the Buildings Manager. Also, within the District of Columbia, the office that determined the space needs of the various Federal departments was now to work directly with the designer.

History and Precedents

The design and construction of buildings for its own use has always been a part of the regular business of the Federal Government. In fact, the functions performed by the Public Buildings Administration are a consolidation of the activities that have been carried on in the Federal Government since the early days of the Republic. Many of our early Presidents, notably Washington, Jefferson, and Jackson, made personal contributions to the design of Federal buildings. President Jackson appointed the first Federal Architect, Robert Mills, in July 1836. It has been said that the President and Mills selected the site for the Treasury building together. Standing on

Pennsylvania Avenue just east of the White House, the President thrust his cane into the ground and said, "The new Treasury Building will be built here."

One of the early official documents of Federal building construction appears in the report of Secretary James B. Guthrie for 1852–53, which prescribes the duties of the Construction Branch of the Treasury Department. The first congressional recognition of this branch appears in the Deficiency Act of 1864. Subsequent acts recognize the office by one name or another but finally the post of Federal Architect came to be known as Supervising Architect. On June 10, 1933, President Roosevelt, by executive order, established the Procurement Division in the Treasury, of which the Public Buildings Branch was a major part, and was in effect an expansion of the previous functions of the Supervising Architect's Office. This Office is now one of the major divisions in the Public Buildings Administration.

The inception of building management activities dates back to 1790 when the President authorized three Commissioners to define the limits of the District of Columbia as a permanent seat of government and to provide suitable buildings for the accommodation of Congress, of the President, and the public offices of government. These Commissioners were later replaced by a superintendent and his duties were transferred to a Commissioner of Public Buildings. In 1849, when the Interior Department was created, the Secretary of the Interior was given supervisory powers over the Commissioner of Public Buildings. Another change was made in 1868 when the Chief Engineer of the Army took over the duties of the Commissioner of Public Buildings, and in 1925 his duties were again transferred, and this time to a Director of Public Buildings and Public Parks of the National Capital. A more recent change came in 1933 when President Roosevelt transferred these functions to the Office of National Parks, Buildings and Reservations, within the Interior Department. This office finally came to be known as the National Park Service with a specialized unit, the Branch of Buildings Management. The space control office within the Branch of Buildings Management was a continuation of the work of the old Public Buildings Commission which previously exercised that function.

The Need for Federal Buildings

The Public Buildings Administration now initiates all Federal departmental buildings in the District of Columbia; it collaborates with all Departments on buildings outside the District and then presents the matter to the Congress.

In Washington, the PBA continues the construction and management of buildings to house the various administrative departments and agencies of the Government, cooperating with the National Capital Park and Planning Commission and the Commission of Fine Arts so that the development of the National Capital may follow an orderly and efficient plan.

Throughout the rest of the country the services which the Federal Government extends to its citizens cover a wide range of building types. The Treasury Department must have customhouses; the Coast Guard needs air stations; the Department of Justice, courthouses and penitentiaries; the Labor Department must have immigration depots; the Public Health Service, hospitals and quarantine stations; and the Department of State, ambassadors' residences and embassies in foreign countries. The Post Office Department needs the greatest number of Federal buildings. With respect to post offices, a federally owned building becomes legally eligible when the postal receipts exceed $10,000 per annum.

In addition to the design and construction of new buildings, the PBA also remodels and extends existing buildings, carries out necessary repairs, and acquires new building sites as well as disposing of those no longer needed.

For the new buildings constructed, its Section of Fine Arts plans appropriate mural or sculptural decorations, the commissions for which are awarded to artists selected through anonymous competitions.

Within the District of Columbia, its Office of the Buildings Manager repairs, cleans, and protects Government owned and leased buildings, and the Office of Planning and Space Control cooperates with other Government agencies in planning space needs and assigns space in Federal buildings and leases space in private buildings.

In over a century and a half of Federal building construction nearly 4,000 projects, costing more than $1,000,000,000, have been carried out by the Public Buildings Administration and its predecessors. The need for Federal buildings has always been pressing, a need which grew as the Nation grew. Hardly more than half of these 4,000 projects, however, had been constructed before 1933. The opportunity for an expanded program came during that year when Congress included the construction and remodeling of Federal buildings in the Public Works program, which had been planned to help stimulate private industry and halt increasing unemployment in the midst of economic depression.

Funds for Federal buildings initiated since 1933 have been made available through emergency construction acts or through the transfer of funds from other departments of government. During the

1940 fiscal year, most of the projects under construction outside the District of Columbia were allotted funds under the Construction Program Acts of 1937 and 1938, which had authorized $130,000,000 for a 3-year program.

Buildings Within the District of Columbia

During the 1940 fiscal year, the Public Buildings Administration spent about $10,800,000 in the District of Columbia for new construction, extensions, remodeling, and major alterations of Federal buildings.

The largest project undertaken was the construction of the Social Security Board and the Railroad Retirement Board Buildings. The story of these two buildings, which are considered as a single project and have been erected on adjacent properties, illustrates how the PBA functions in relation to the planned development of Washington, and how, at the same time, it provides efficient work space for one of the major activities of government.

The Social Security and the Railroad Retirement Boards are two of the newest agencies of government. Though distinct organizations, they both administer Nation-wide security programs requiring staffs that together total more than 10,000 workers. As these agencies grew, following the passage of the Social Security Act in 1935 and the Railroad Retirement Act in 1937, it was necessary to house their personnel in over a dozen different office buildings, converted hotels, garage lofts, and temporary buildings constructed during the last war. The bulk of the Social Security clerical work has had to be carried on in a large warehouse building in Baltimore.

In 1938, Congress appropriated $14,250,000 for the acquisition of the necessary land and the construction of the two buildings. All of the work in connection with the project became the responsibility of the Public Buildings Administration.

Planning the Location of Federal Buildings

In locating the site for the buildings, it was necessary to inaugurate the development of a new area for Federal buildings—the Southwest Triangle. Federal building sites have been selected in accordance with Washington's city plan. Naturally over a period of years this plan has gone through a number of revisions. The original plan of the city was laid out by Maj. Pierre Charles L'Enfant in 1791 and the major subsequent change was made in 1902 when Senator James McMillan of Michigan established a park commission to work out a

more practical plan for modern requirements. These functions are now the work of the National Capital Park and Planning Commission.

Before 1939, most departmental office buildings had been fitted into the Federal Triangle and Northwest Rectangle, but with the completion of the Federal Trade Commission Building at the Apex, there was not a large enough unreserved space within the above areas to locate the Social Security and Railroad Retirement Buildings. Besides, the placement of the buildings in the southwest sector would relieve and disperse traffic congestion in the other areas and help stimulate widespread civic improvements in that section.

The specific location chosen for the buildings permits the Social Security Building to face the Mall and Independence Avenue, and both buildings may be said to be in the shadow of the Capitol.

The Problem of Building Design

Naturally over a period of years tastes in architecture for Federal buildings have changed considerably and in Washington there are examples of nearly every style that has been popular in this country. Present tastes happily demand the simplicity and dignity characterizing modern classic, and it is in this style that the two new buildings were designed.

All the drawings for the buildings originated in the Office of the Supervising Architect, which in a sense was a new departure. Though for many years that office had had architectural duties in connection with buildings outside of the District and helped to advise and administer the plans for those in Washington, eminent private architects had generally been commissioned to work out the design motifs. Under the expanded program for Federal buildings beginning in 1933 the staff of Federal architects had been increased, and well-known designers and consulting architects, engaged both part time and full time, largely replaced the system of awarding commissions to outside architects.

Exterior appearance, though in its own way important, is only a small factor in planning a modern government office building. Limited in height to five stories and a penthouse, the space within the Social Security and Railroad Retirement Buildings had to be designed to provide the maximum light and ventilation for both large and small working areas. Much of the clerical work of the two boards requires the use of specialized card sorting and counting machinery, and these functions had to be taken into consideration in determining the arrangement of the space within the building. Building design thus contributes to the efficiency of administrative operations.

MATERIALS FOR PUBLIC BUILDING

This unique collection of building materials is housed in the Public Buildings Administration where it is consulted frequently by architects and engineers engaged in designing the various Government buildings and other structures.

Each building is rectangular in shape, and above the second floor the introduction of light courts gives the buildings a central stem running east and west, and series of wings running north and south. Ample space is allowed between the two structures in the form of a plaza and the Railroad Retirement Building, with its main entrances facing this court, will be connected with the Social Security Building by a tunnel. Freight and mail deliveries will enter and exit by ramps leading underground from the plaza, and within the buildings they will be able to unload directly on special conveyors and elevators for maximum ease and speed of handling.

Modern Federal Building Facilities

Some special considerations for the future occupants of the building typify the detail in which a modern government building is planned. As with all buildings in Washington, heat is supplied by the Central Heating Plant, but the engineers stationed at the new buildings will be able to control it in relation to the self-contained ventilating system. For hot weather, a new development in air conditioning controls the interior temperature in accordance with the position of the sun. In the morning, as the sun's rays beat down on the eastern sector of the buildings, rheostats step up the flow of cool air in that area. Similarly as the sun moves from east to west, this sensitive system adjusts itself automatically.

Each building will have its own cafeteria to be operated on a non-profit basis, assuring wholesome food at a minimum cost, and sandwich counters will be available adjacent to special sundecks on the roofs of both buildings.

Special care has been taken to provide modern protection against fire. An elaborate burglar- and fire-alarm system will terminate at a panel in the captain of the guard's office. In addition, each building has been divided into zones by partitions and doors in order to localize any possible fire.

All of this complicated work of planning the buildings was carried out during the winter of 1938–39 and with the preparation of working drawings and specifications the Office of the Supervising Architect was ready to turn the project over to a private contractor and to the Office of the Supervising Engineer, whose inspectors would check the builder's work on the site.

Bids were called for and opened during the spring of 1939, and in June, almost coincidental with the beginning of the 1940 fiscal year, the contractor got under way, first clearing the site of existing buildings, then driving piles for the new buildings.

Emergency Space Needs

During the construction period, however, the present defense program had precipitated an emergency need for office space comparable to a similar situation during the last war, 1917–18. The operations of the War Department, housed in a building constructed during the last war, and the National Defense Advisory Commission, scattered in ten different buildings, were being hampered by lack of space. The Office of Planning and Space Control recommended the new buildings be temporarily loaned to the NDAC and the War Department. In order to assure the completion of the buildings by November 1940, Congress appropriated an additional $500,000 for construction speed-up.

While the Social Security and Railroad Retirement Buildings were designed prior to the establishment of the PBA in its present form, the second largest project initiated within the District of Columbia during the 1940 fiscal year, the new home for the War Department, was the first major project to be planned by the new administration.

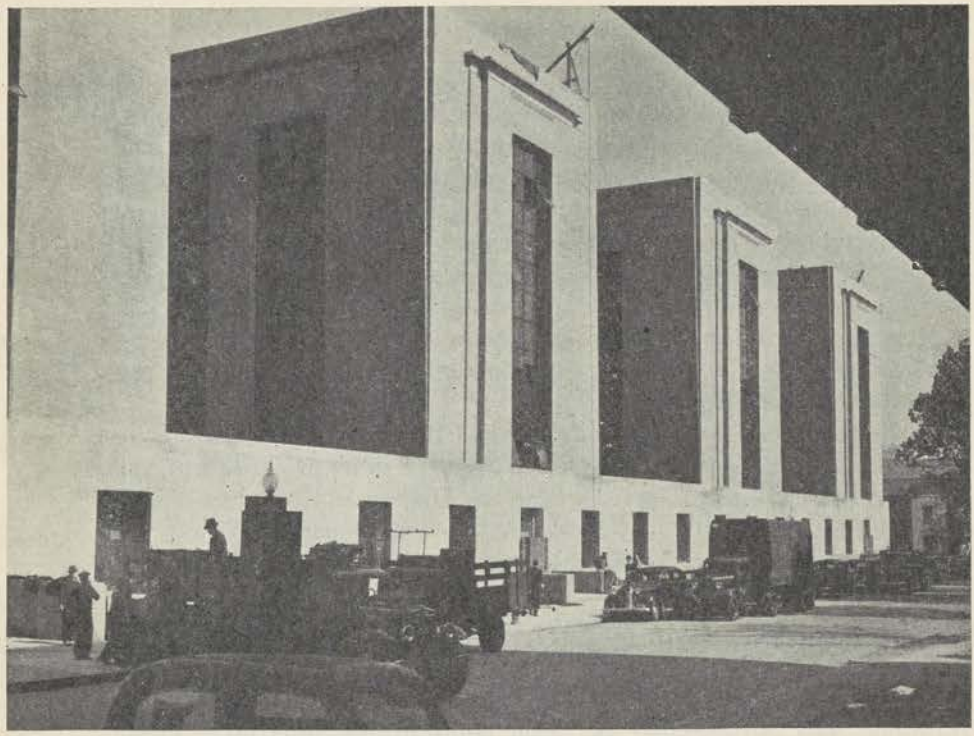
The War Department Building

Of the $26,000,000 authorized by Congress for a War Department Building, only $10,800,000 has been appropriated thus far. These funds, however, have permitted the purchase of the entire site and the cost of designing and building one unit.

To rank in size and importance with the largest Federal buildings in the city, the site selected for the building is within the northwest rectangle, which begins with the present State, War, and Navy Building just west of the White House and extends to the banks of the Potomac River. The two Interior buildings are the largest buildings within this area at the present time. A Navy Department building has been proposed for the west end of the rectangle.

The new War Building will face on Twenty-first Street, and the entire site occupies two city squares. In the present plan for the development of the rectangle it will balance, on an east-west axis, the new Interior Department Building, and a proposed building adjoining it on the west. Between these two groups will be a large plaza, enclosed on the north by the Rawlins Park Mall, and the south by the new Federal Reserve Bank Building.

Benefits from the cooperation of the designers and the Buildings Manager are evident in the plans for this building. One of the problems, for instance, which the Manager has had in older buildings is an excessive number of entrances at which guards must be stationed.



THE ARMY MOVES IN

War Department vans are here moving the staff of the Quartermaster Corps into the Railroad Retirement Board building, recently completed by PBA in Washington.

Architects for the War Department Building have limited the number of entrances. War Department officials are highly in accord with the plan as their records in time of crisis must be protected with vigilance.

Another problem of design which concerned the Buildings Manager was the plan of the main lobby in order to accommodate visitors who wish to tour important Federal buildings in the Capital City. In the solution of this problem, the designers created within the lobby a special mezzanine floor where display cases and other types of exhibits will present a comprehensive survey of the work of the Department. Reached by staircases which are integral motifs in the lobby design, the building guards may guide the tourists directly to the balconies and thus prevent crowding of the area leading to administrative offices.

Exterior design of the building which will be seven stories high is also in the modern classical style, and its simple wall surfaces of buff limestone will have a shot-sawn finish to provide a greater play of light and shadow.

An essential addition to the main facade will be a number of pieces of free standing sculptures and bas-reliefs. These contributions to the building will be under the direction of the Section of Fine Arts within the PBA. During the period the building was being designed, the Section worked closely with the architects in planning the specifications for these decorations. Benefits of this cooperation are also evident in the placement of the mural space within the building. To be found directly opposite the entrance doors at the far end of a long lobby, and an essential element in the lobby design, the mural may be viewed and studied in a perspective seldom found in modern buildings unless planned jointly by artists and architect. The commissions for the mural and the sculptures will be awarded by PBA to artists who have qualified in the anonymous competitions conducted by the Section of Fine Arts. The construction contract for the War Department Building was awarded in March 1940, and occupancy is expected by the summer of 1941.

General Federal Office Building

The third important project undertaken by the Public Buildings Administration during the 1940 fiscal year represents a new solution to the constantly pressing office-space problem in the District of Columbia. Though most of the major departments of the Government had been supplied with buildings during the last 15 years, a great many of their divisions and most of the independent agencies and commissions had to be housed in rented space.

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In 1939, when the question arose of finding adequate space in a single building for the 1940 census tabulation, surveys indicated that nowhere in the city, in either Government-owned or commercial buildings, could adequate quarters be provided for this work.

The solution was a General Federal Office Building which could be built with the speed of a warehouse and could be divided as needed by movable partitions into offices of varying sizes. Functional both in purpose and design, such a building could be made available to any Government agency, temporary or permanent, whose space needs justified the use of the building.

The appropriation for the General Federal Office Building No. 1 (others may be built to alleviate space problems under the defense program) was $3,500,000, and the site chosen was almost directly behind that of the Social Security and Railroad Retirement Buildings in the southwest area.

Everything in connection with the project was expedited so that the building would be ready early in 1940. The work of the Office of the Supervising Architect in designing this six-story building to house over 6,000 clerical workers was completed in record time. Within a month after the money had been appropriated construction bids were asked.

Effecting Construction Speed

Speed of construction required the closest cooperation of contractor and PBA engineers, and that this was effected is attested by the fact that the building was completed in a little more than 4 months.

Construction was expedited in many different ways on this project. The pile drivers began their work as soon as the excavators had cleared one end of the site. They in turn were crowded by men installing foundation footings, erecting forms, and placing reinforcing steel and pouring concrete. When needed, as much as 800 tons of reinforcing steel were produced in the mills of Pennsylvania and delivered to the job each week.

Concrete was mixed in transit from the source of supply and was delivered twenty-four hours a day during the period that the job proceeded in three shifts, the night crew toiling under the glare of floodlights.

Meanwhile, men were working in an Indiana quarry extracting and fabricating stone facing for the base of the building. Clay pits and kilns worked overtime to supply the necessary 2,000,000 bricks. Cement plants supplied 56,000 barrels of cement. Granite from New Hampshire, prefabricated windows and doors from Pennsylvania and New York, structural glass from Ohio, tile from New Jersey; hardware,

plumbing and heating fixtures, electrical equipment and many other materials had to flow to the job as they were needed.

As high as 1,300 men were employed at the building site at one time, representing 85 trades and crafts. The work was further speeded by the adoption of a vacuum dehydrating method of treating concrete, by which floor slabs could be released from supports ahead of normal time, and could be worked by finishers 30 minutes after pouring.

Economy, as well as speed, figured in the construction of the General Federal Office Building. Unlike the Navy and Munitions Buildings constructed during the last war, the intention of the Public Buildings Administration was to create a permanent type building that would approach the life of the monumental type of federal building.

By February 1, 1940, the Public Buildings Administration was able to turn over three completely finished floors to the Census Bureau and by April 1 the occupancy of the entire building was completed. When the present work of the census tabulation is over, the General Federal Office Building will be available for assignment by the Office of Planning and Space Control to another Government agency.

Other Projects During the Year

Other important construction work of the PBA within the District of Columbia during the 1940 fiscal year was the completion of Annex No. 3 for the Government Printing Office, continuation of the work on a laboratory for the Bureau of Standards, and initiation of work on a restaurant for the National Zoological Park, and a dining hall for the National Training School for Boys. Though not within the city limits, but designed for the use of the Nation's Capital, was the project for the construction of a terminal building and hangars for the Washington National Airport. Work was commenced before the end of the fiscal year, and represents the PBA's contribution to the whole project which is under the direction of the Civil Aeronautics Authority.

Federal Buildings Outside the District of Columbia

Outside the District of Columbia, a total of 280 major construction projects were completed during the year by the PBA and contracts were awarded for an additional 300. Exclusive of land costs, this work represents an expenditure of $42,775,000.

Well over 200 of these projects were small post-office buildings, with allotments generally ranging from $70,000 to $100,000 for site purchase, construction costs, and the PBA administrative expenses.

A Post Office for Mayville, Wis.

Typical of many of these buildings is the post office for Mayville, Wis. A detailed study of this one project will illustrate the work of the PBA in connection with this specialized type of Federal building.

The need for the Mayville Post Office was disclosed through surveys prepared by the regional post-office inspector and the project was one of 1,439 included in a list recommended to Congress by the Joint Committee of the Post Office Department and the Treasury, and an allotment of $75,000 was proposed. (The project was recommended before the PBA was established as part of the Federal Works Agency. This joint committee is now made up of officials of the Federal Works Agency and the Post Office Department.) The size of the building and equipment required are based on the local post-office business as recorded over a 10-year period, with provision for growth. By law, the Mayville postmaster had to show a gross business in postal receipts of $10,000 a year before a new building could be considered.

Like so many of our small American towns, Mayville serves the entire agricultural area surrounding it, yet the presence of several factories keep it from being strictly a "farmers' town." Situated in a valley along the Rock River, Mayville is approximately 55 miles northwest of Milwaukee.

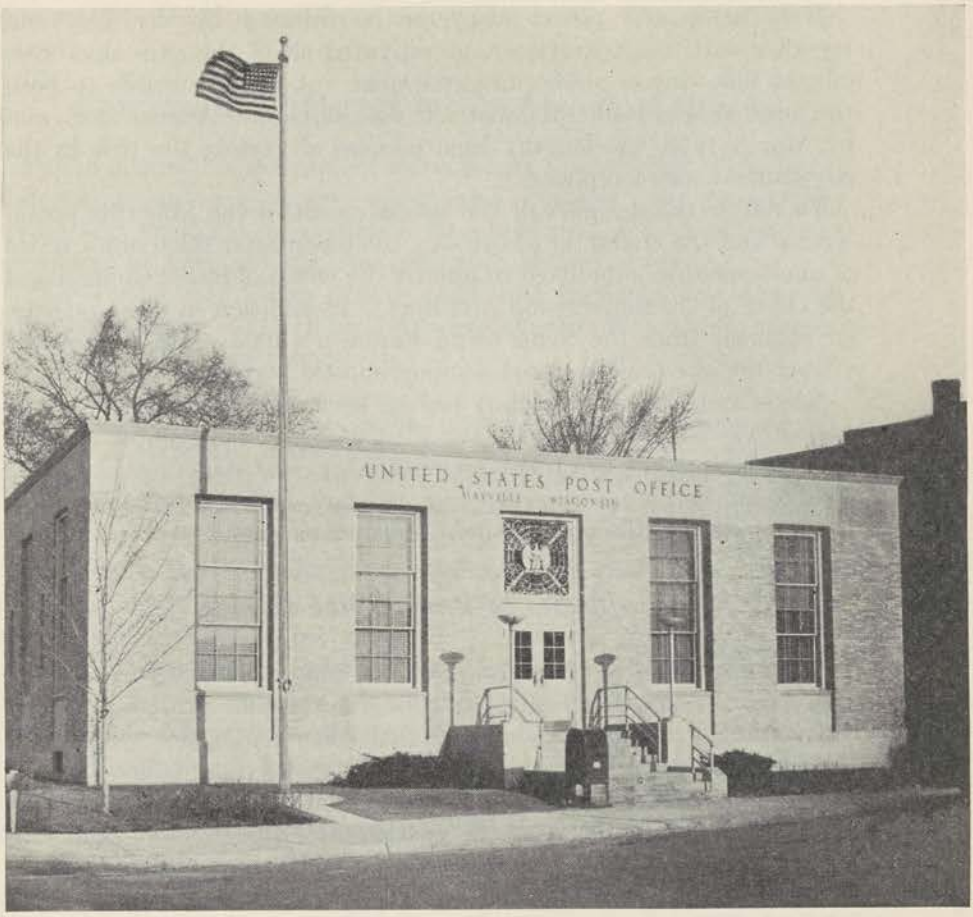
According to the last three censuses its population has increased only a few hundred in 20 years, being about 2,300 in 1910 and estimated at 2,900 in 1938. Its postal receipts, however, had jumped from $8,000 to $18,000 during the same period.

Planning a Post Office

In his description of the postal facilities then in use in Mayville, the postal inspector reported to the Post Office Department in Washington:

> The post office occupied a room 21 by 63 feet in a two-story brick building which was designed for hotel purposes. The principal disadvantage of these quarters is represented by the obsolete equipment which has been accumulated and assembled over a period covered by successive lease contracts. In addition to this, the floor is somewhat congested with a very restricted area assigned to the post-office lobby and the loading entrance, approach, and parking facilities for mail vehicles also are far from satisfactory.

When the project was included as part of the building program, steps were taken by the Office of the Fiscal Manager to acquire the best possible site for the building.



A PUBLIC BUILDING

This new post office in Mayville, Wis., was built by the Public Buildings Administration in 1940 and is typical of hundreds of similar buildings in small towns.

Here again the postal inspector contributed his services, and together with the postmaster, investigated all of the sites that were offered following a public advertisement. A site accessible to both the business and residential districts was selected in August 1938, and by March 1939, the lengthy legal process of vesting the title in the government was completed.

To advise the designer of the special needs of the Mayville postal service and the character of the site, the postmaster filled out a series of questionnaires submitted to him by the Office of Space Control and the Office of the Supervising Architect. In addition to these reports, an engineer from the Supervising Engineer's field office at Chicago visited the site and prepared a topographical survey.

Needs and fundamental data having been correlated, the Mayville project was assigned to one of the PBA architectural groups. Working closely with the designer were mechanical and structural engineers who designed the necessary heating, lighting, and plumbing facilities, the foundations, the structural frame, and paving.

Problems of Post Office Design

Architecturally, too, the building was planned to conform to the dominant style of the locality, and for the Mayville project a simple, contemporary design was created. Allocation of space within the building fulfills the requirements set forth by the Post Office Department. One story in height, the front portion of the first floor is given over to a public lobby, with the postmaster's office on the right and an alcove for local boxes on the left. The wall separating the lobby from the workroom is called a "screen-line" and in the Mayville Post Office building it contains five service windows. Two of these windows for money orders and registry open directly into an office for the finance section, which is partitioned from the rest of the workroom by a wire mesh screen.

The workroom terminates in a mailing vestibule and platform, and in the left rear corner is a small comfortable room where postal employees may relax between work shifts. One of the special requirements for any post office is a look-out system. In the Mayville Federal building, this consists of a tiny room where a postal inspector may observe the work in the finance and other sections through glass slots so small that his presence is never known to the employees.

In June 1939, the Public Buildings Administration awarded the construction contract to the lowest bidder among nine builders who submitted proposals. Though the bids had been nationally advertised, the job naturally attracted contractors in Illinois, Minnesota, and

Wisconsin. A contractor from nearby Janesville, Wis., received the award.

Community Interest in the New Post Office

Public interest in the project increased as the building took shape, and was manifested on two ceremonial occasions, the cornerstone laying and the final dedication of the building. The building was completed in April of 1940, and dedicated Memorial Day.

The Trade and Farm News, published monthly in Mayville, reported the order of march for the dedication ceremony which followed the Memorial Day services:

> The parade, including the American Legion, Legion Band, Legion Auxiliary, city officials, school children, Girl Scouts, Sea Scouts, Boy Scouts, and the high-school band is scheduled to start promptly at 9 a. m. from the gymnasium. . . . Upon completion of the ceremonies at the cemetery, the entire parade is to march to the new post office, where a joint program begins at 10 o'clock. The public is invited to inspect the post office from 1 to 4 o'clock.

The Public Buildings Administration had still another contribution to make, however, before the project was reported complete on its accountants' books. Approximately 1 percent of the construction costs were made available to its Section of Fine Arts, and by March an artist from Milwaukee who had been a runner-up in a recent Nation-wide competition was commissioned to paint a mural to be installed over the door to the postmaster's office at the right end of the lobby. Before the end of the fiscal year the artist had visited Mayville, and after consulting with the Postmaster and other interested citizens, had completed preliminary sketches of an appropriate design. The mural which will depict a local farm scene is scheduled for completion by January 1941.

A General Purpose Federal Building

The post office for Mayville, Wis., is a single purpose Federal building but most of those constructed by the PBA in larger cities contain space for a number of Federal agencies. The new Appraisers' Stores and Immigration Station Building begun during this fiscal year in San Francisco, for instance, not only provides facilities for those two services, but 6 of its 14 stories will offer ample space for the field offices for 10 other Government departments. The facilities needed for this building presented many special problems to the designer. Living quarters for immigrants, for instance, were requested and included a series of sun decks and recreation courts, hospital, and laundry. These rooms are located on the top four floors of the

building, and reached by special elevators. Other occupants of the building will hardly be conscious of the activities in that section of the structure.

Mechanization of Postal Service

One of the largest buildings completed during the fiscal year, the Philadelphia Courthouse, contains both the United States district court and the court of appeals, as well as offices for almost a dozen other Government agencies.

The building also houses a large postal substation, in which the most modern of postal equipment has been installed. In planning a streamlined system for the flow of incoming and outgoing mail, Public Buildings Administration designers worked closely with postal technicians. The workroom within the station is designed to handle a volume greatly in excess of the volume anticipated for the next few years. The essential operating equipment in the sorting of outgoing mail is a series of conveyor belts constantly moving toward the stations where the letters are placed in individual bags. The mail sorter stands beside a low wide belt and picks up the unassorted mail as it reaches him. On either side, arranged like shelves, are a whole series of constant moving belts which represent the broad geographical areas to which trains and airplanes will travel within the next few hours. These postal workers are so familiar with the special requirements of their jobs that they are able to tell immediately the transportation schedule servicing any town in the United States. The mail is now carried to the other sorters who again break it down into smaller areas. From there it is dumped into sacks and dropped through slots in the floor which are openings for spiral chutes that lead the mail directly to the truck platform.

Incoming mail is subject to a similar arrangement. After the mail is sorted according to the broad divisions of that section of the city which the postal station services, it is sent on belts to sorters who throw it letter by letter into distribution racks, each pigeon hole representing a portion of the carrier's route.

Federal Hospital Modernization

One of the more specialized types of Federal buildings which are built or modernized by the PBA are the marine hospitals operated by the Public Health Service. These institutions were founded to serve merchant seamen, but their extensive facilities are now available to more than 15 other classes of beneficiaries who are or have been in the Federal service. Most of the work undertaken by the PBA is ex-

tending or improving present facilites. For instance, at Carville, La., the only leper colony in continental United States, a huge replacement program is under way which will displace hazardous, out-of-date structures with new cottages for the patients, new residential quarters for the staff, and modern laundry facilities. Though highly functional in purpose, all of the new buildings at Carville have been designed in the architectural style of the region which stems from the old colonial buildings of New Orleans.

Other interesting building types which the PBA had under contract or in the design stage during the year was a forestry building for Laconia, N. H., a maritime training station for New London, Conn., a group of Public Health Service laboratories at Bethesda, Md., a post-office garage for Boston, Mass., and a Federal reformatory for women at Dallas, Tex. During the year, also, architectural and engineering services were rendered in the design and construction of the Franklin D. Roosevelt Library at Hyde Park, N. Y.

Architectural Competitions

Though the Office of the Supervising Architect originates almost all of the Federal building designs for projects outside the District of Columbia, the practice of seeking talent and progressive expression among private architects through the medium of regional competitions was continued during the year. In the four competitions which attracted 577 entries, designs were selected by outside architectural juries for public buildings in Burlingame, Calif., Jamestown, N. Y., Montpelier, Vt., and Tacoma, Wash.

Real Estate Section

The Real Estate Section returned over $1,500,000 to the United States Treasury during the last fiscal year and almost $5,000,000 in the last 5 years. The source of this money was the sale of surplus Federal real estate.

The work of the Real Estate Section properly belongs within the PBA because, for the most part, the properties it sells are the old buildings and sites which have been replaced by more modern Federal buildings. For instance, 77 of the 136 properties disposed of during the last 5 years were vacated post offices and courthouses in cities where the PBA had provided new facilities. Generally situated in the heart of urban business districts, these sites often have potential value as locations for new office and store buildings, and even parking lots. Obsolete immigration stations and customhouses often offer advantageous waterfront sites. Old lighthouse reservations are also listed

for sale. One of the buildings sold by the Real Estate Section last year had been a mint.

The operations of the section are governed by special legislation which permits the PBA to negotiate directly with the bidders after a public bid opening has been held. Municipalities, counties, and States, however, may obtain these properties at not less than 50 percent of their appraised value as long as they are retained for public use.

Office of Planning and Space Control

The operations of the Office of Planning and Space Control have been mentioned in various other sections of this report, but a comprehensive picture of its responsibilities indicates the size of the task in providing practical working space for Government departments and agencies.

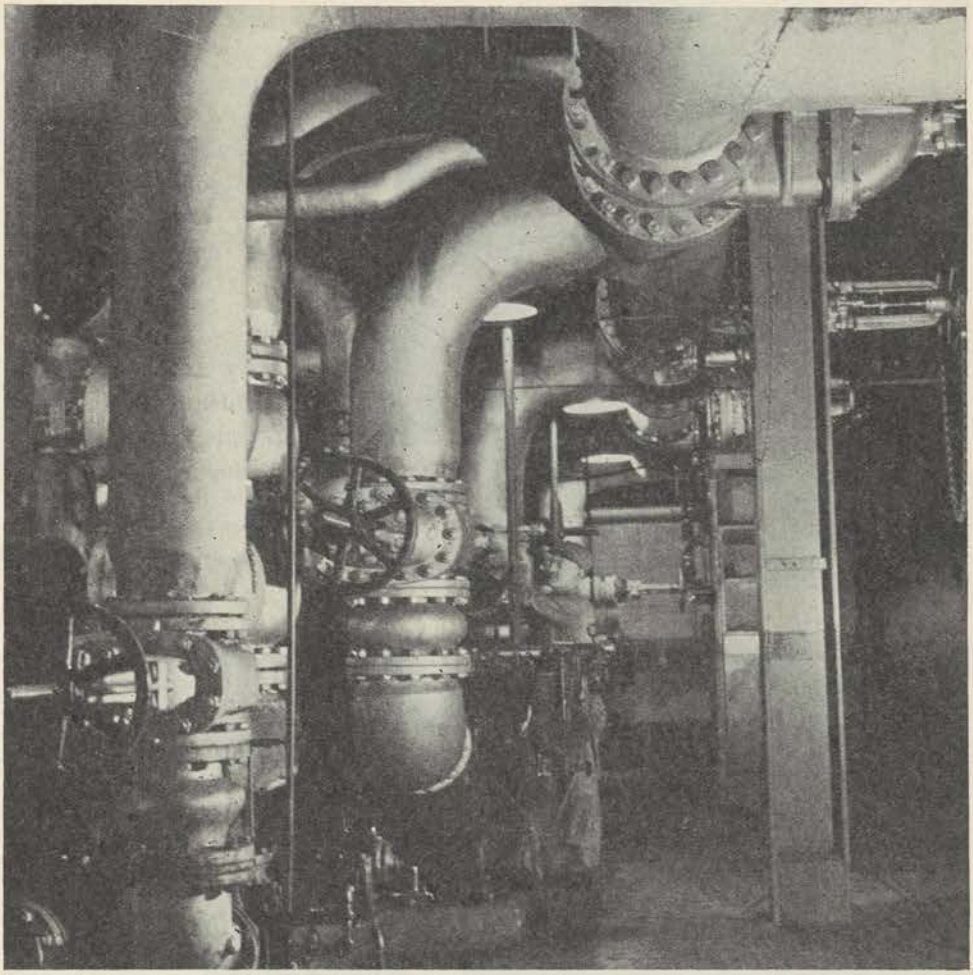
Recently, the national defense program has considerably increased the demand for office space in Washington necessary to accommodate the Federal establishment. Each of the Government-owned buildings is filled to capacity and even though these buildings represent a net area of over 16,000,000 square feet, it has been necessary to lease almost 5 million more square feet to provide for the thousands of new workers that the defense program has brought to Washington. In annual rentals the Space Control Office handles leases which amount to $4,500,000.

Outside the District of Columbia the field section of this office controls space in 136 courthouses, customhouses, and other Federal buildings and at the end of the fiscal year had cleared leases for approximately 70,000,000 square feet in 14,800 buildings at an annual rental cost of $21,000,000.

This office also determines space needs in all new and newly enlarged buildings, including post offices during the period of planning and construction and up to the time of their completion.

Office of Buildings Manager

Acres of floors have to be scrubbed every night, hundreds on hundreds of desks must be dusted between sunset and sunrise, tens of thousands of square feet of windows must be kept clean, tons of waste paper removed nightly, and the vast assortment of machinery must be kept functioning in the Federal office buildings of the Nation's Capital. All this work, and more, is the responsibility of the Office of the Buildings Manager.



PIPES AND WIRES

Operating a modern building is very much like running an ocean liner. Like the heating machinery shown in this photograph elevators must be run, ventilating systems operated, if office buildings are to be well-maintained.

THEY HELP OPERATE PUBLIC BUILDINGS

Running elevators and washing windows are only two of the dozens of jobs required in order to keep public buildings running and in good condition.

Not only does this office operate and maintain 46 Government-owned buildings in the District of Columbia, it also has responsibilities for the proper functioning of 58 buildings wholly leased and 27 buildings which are partially leased to the Government. Outside the District of Columbia, the Office of Buildings Manager is responsible for the operation of 119 buildings, ranging from a courthouse and customhouse in St. Louis, Mo., which contains nearly 8,000,000 cubic feet of space, to a border station at Calais, Maine, with only 8,200 cubic feet.

The Scope of Buildings Management

Some of the more astronomical figures relating to the buildings in Washington show that is these 46 Government-owned buildings there are 19,221,000 square feet of floor space, while the 85 leased buildings in the Capital run the total up to 22,977,000. Outside of Washington there are 119 buildings under the control of the Office of Buildings Manager. All of these buildings are, of course, Government-owned, but do not include post offices. Post offices, although kept in repair by PBA, are operated by the Post Office Department.

In Washington there are a few buildings which do not come under the Office of Buildings Manager. These include the Supreme Court Building, the Congressional Library, House and Senate Office Buildings, as well as the Capitol itself; the Government Printing Office, the Navy Yard, the Treasury, including the Treasury Annex and the Bureau of Engraving and Printing. But the many other Government-owned or leased buildings must be cleaned, kept operating efficiently, heated, and protected against fire, theft, and damage.

Faced with these problems as applied to 527 acres of floor space in the Federal offices of Washington, the trained and observant housewife would readily admit that the operation and maintenance of these areas had passed from the field of domestic science to that of engineering and personnel management.

Servicing Federal Buildings

In order to expedite the work of operating and maintaining these Federal offices in Washington, the buildings are divided into 10 cohesive groups, each operating under the direct control of a group superintendent. Each of these groups has its own carpenter shop, plumbing shop, paint shop, machine shop, sheet-metal-working shop, and electrical shop. In addition, each has a stockroom where literally thousands of items, ranging from cotter pins to elevator replacement parts are carried.

A central storeroom in the Federal warehouse stores heavy and bulky items and replacements for the group stockrooms.

Special shops are divided among the groups. For instance, a sign shop which makes all the signs used in Washington's Federal offices is located in the Commerce group, and the Government's largest typewriter repair shop and the rubber-stamp shop are located in the Agriculture group.

Naturally, these shops require the services of skilled and highly competent mechanics. For shop work in the Government is anything but routine. High-speed elevators, with self-leveling devices controlled by vacuum tubes, automatic elevator dispatch systems, massive air-conditioning equipment, mazes of electric wiring, call and inter-office communication systems challenge the skill and ingenuity of maintenance men. Carpenter shops may be called on to turn out carved judicial benches involving the highest type of cabinet work, or at a moment's notice, may have to build a stand for camera men so that an historic event can be recorded for posterity.

Skilled artisans are needed also for installing new utilities in old buildings without unduly disturbing either the occupants or the architecture. Running tunnels for electric conduits, for instance, through hundred-year-old, 2-foot-thick stone walls is no job for an amateur.

With thousands of men and women working in offices with valuable scientific equipment, plumbing must be kept working properly at all times. Laboratories may require special installations which challenge the combined ingenuity of the scientists, the superintendent, and the foremen of the plumbing, carpenter, metal-working, machine, electrical, and paint shops.

Yet, above all these things is the steady daily task of keeping the Government offices running smoothly, renewing paint, replacing locks, repairing furniture, and a thousand and one other details.

Cleaning Federal Buildings

Cleaning may seem like a comparatively simple task, even when it is scattered over more than 500 acres of floor space, but in Government buildings these workers must know the methods used to clean marble floors, wood floors, linoleum-covered and carpet-covered floors. Foremen must know how to dispose of their help so that a job can be done thoroughly and economically. Tests are made on cleaning supplies in the Manager's own laboratories and in the Bureau of Standards. Central vacuum cleaning systems have been built into new buildings on the recommendation of engineers in the office.

Heavy duty portable and light vacuum cleaners are tested on the job and fitted to their respective tasks. Floor-scrubbing machines are used where experience has shown that they work best, and huge mops, which only men can swing, swish through other halls where they do the best job. Brooms of all sorts are tried and put to work as they fit into the cleaning job.

Dusting is divided into two categories, "high cleaning" and "low cleaning." The low cleaners dust the desks, chairs, files, and other things no higher than arms reach. High cleaners, men laborers, use ladders and clean the pictures, walls, venetian blinds, chandeliers, and other objects which cannot be otherwise reached.

Step by step this cleaning process is checked nightly by foremen who make sure that all things in the offices are in order, as well as that the work is being done properly.

Guarding Federal Property

Some of these activities are carried on during daylight hours and some during the night. But 24 hours a day these buildings in Washington are guarded by the United States special police force. When the buildings are open during business hours members of this force direct visitors, furnish information, and are generally the first line of contact with the public. They maintain order and enforce regulations governing the public buildings.

When the buildings are closed to the public the guards patrol the buildings and watch the doors to prevent unauthorized entry. Their patrols are always on the lookout for fire, or danger of fire, and for conditions that would imperil safety. A loose balustrade, a torn rubber mat, or a burned out lamp in a dangerous corner are reported.

While many of the guards are ex-service men they are given special training for their job. They are instructed in the regulations governing the buildings, the proper method of the performance of their duties, and how to prevent as well as fight fires. Many have taken lessons in first aid in addition to the regular courses of the guard school.

Fire losses in the Government buildings in Washington have been kept remarkably low—192 fires of all kinds with a loss of only $514.70 for the fiscal year 1940—by the alertness and training of the guards and the work of the safety engineer, the fire marshal, and other officers of the guard force. This work includes the discovery and removal of fire hazards, inspection of fire-fighting equipment, and the instruction of the guards in fire-fighting technique as well as in fire prevention. A unique feature of this instruction is that guards are

not only trained in the use of fire-fighting equipment, including gas and smoke masks, but actually put out fires started deliberately in a test room.

Contributions have been made to the development and application of the science of fire-loss prevention. The report of the Federal Fire Council indicates the potential benefits obtainable from the large-scale use of carbon dioxide in extinguishing fires. The application of fire resistive construction in the buildings and due fire prevention measures in their management have resulted in a very low fire loss on Government property in Washington, on the average less than one-tenth of what would be expected from the general fire-loss experience of the country as a whole.

The Central Heating Plant

The problem of keeping Washington's offices comfortable in the cold weather was solved by the construction of a Central Heating Plant, operated by the Office of Buildings Manager. One of the largest plants of its type in the world, it serves 76 buildings in the District of Columbia, and during the fiscal year of 1940, burned 104,392 short tons of coal to generate 2,263,679,000 pounds of steam.

The operations of the Central Heating Plant are a surprise to most visitors. The plant is fully automatic. Coal is delivered by conveyors to overhead bunkers, fed mechanically to the fires, which are controlled by automatic devices, and the ashes delivered to freight car or truck by other conveyors. The stacks of the plant are practically smokeless day in and day out. Steamfitters from the plant maintain the miles of pipe in tunnels and conduits which furnish the steam to the building at 200 pounds pressure. Each building has a reducing system to drop the pressure to a safe level.

The present plant capacity is naturally limited, and as new buildings are erected in Washington it has been found necessary to construct an additional plant. Plans are now being drawn up, and estimates compiled on the cost and location of an additional plant to be constructed during the winter of 1940–41.

The Section of Fine Arts

In its work of sponsoring mural and sculptural decorations for Federal buildings, the Section of Fine Arts has not only increased the opportunities for American artists to express themselves, but has also helped to stimulate a Nation-wide art consciousness perhaps not equalled since the days of the great Italian Renaissance.

Particularly noteworthy is the competition system which the Section of Fine Arts has used since its inception in 1934. These competitions are announced through a series of bulletins made available to every American artist requesting them. Sufficient time is allowed for the competitors to study the problem and to prepare designs that are appropriate to the locality of the building and the tastes and interests of the public who will use that building.

Each competition, of course, has only one winner but not all of the mural and sculptural jobs to be carried out are made the subject of a competition. Consequently, as long as an artist has demonstrated his ability in the competition and is chosen as a runner-up, he is eligible for any one of the jobs which do not become competition problems.

A Portrait of Democracy

Any American artist is free to participate in the competitions, which are conducted in such a way that his name is not revealed to the jury until after the judging is completed. By this democratic method, many unknown and promising artists have been discovered by the Section, and have received widespread critical and public recognition. Besides, the Section has helped to revive the art of mural painting at which some artists are particularly adept. The subject matter for Federal building decorations is chosen by the artist himself and not recommended by the Section of Fine Arts. The designs, however, must be related to the community in which the new Federal building has been placed and the artist is encouraged to visit the community and discuss subject matter with leading citizens. In the last 5 years more than 700 artists have participated in this program and over 900 buildings have been decorated. Critics say that the murals and sculptures that have been created present the most comprehensive record of working democracy ever prepared in the visual arts.

During the last fiscal year, the section conducted 2 national competitions and 52 regional contests. Especially important were the regional contests conducted simultaneously for a mural in a post office in each of the 48 States. Over 1,500 entries were attracted by these competitions, and now as the preliminary designs are being carried out in full size, a great many of the original color sketches have become the nucleus of a large traveling exhibit which the section is sending on a 2-year tour to public museums throughout the country.

One of the national competitions was of a very specialized nature and called for designs for the decoration of the merchant vessels now being constructed by the United States Maritime Commission. As a result of this contest contracts have been awarded to 27 artists.

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Competitions for sculpture to embellish the main facade of the War Department Building and a contest for free standing sculpture to be placed in the new Social Security Building auditorium were also announced before the end of the fiscal year.

Payments to the artists under the Section of Fine Arts program are very modest and must be kept within 1 percent of the construction costs for each building. Artists creating a mural or sculpture for a small post office may expect to receive total payments ranging from $600 to $1,000 for work that may take up to a year.

Although the Section of Fine Arts has heretofore sponsored only fixed decorations for Federal buildings, a new competition is now being organized which will call for 300 water color paintings which will be turned over to the Marine Hospital projects undertaken by the PBA. It is felt that at such a hospital as the Carville, La., leper colony fixed decorations would tend to pall, while water colors could be frequently moved from room to room and thus continuously change and brighten the hospital atmosphere.

WORK OF THE PUBLIC ROADS ADMINISTRATION

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PROVIDING roads for public travel is one of the oldest services of Government for the welfare of all the people. Not very far back in our history this service was provided with little more than dirt roads. It was a big step forward when States and communities began to build "all-weather roads"; and though some of the first of these were narrow and winding, they were received with great enthusiasm and met an urgent public need for improved transportation for people and their goods.

Increased population, changes in social life, and extensive industrialization of our country have created great movements of people and goods on our highways. Construction of roads to permit this movement with safety and facility has now become one of the most important of Government functions, requiring the expenditure of a large portion of the public revenues.

The great system of highways interconnecting all of our cities and reaching out to almost every town and village is not something that just happened naturally or by chance. It is the result of definite policies of the Federal and State Governments, the creation of organizations for the efficient construction of highways, and provision of public funds for the purpose.

The Public Roads Administration is the road building and planning agency of the Federal Government. Created in 1893, it was at first concerned only with investigation of how to build roads and education in construction methods. Since 1916 it has administered Federal financial aid to the States for highways. Following passage of the Federal Highway Act in 1921 it cooperated with the States in the designation of the Federal-aid highway system and has worked continuously with the States in bringing that system, which is the main highway network of the Nation, to its present condition of improvement.

Strengthening the Federal-aid System

Improvement of the Federal-aid system is the most important work of the Public Roads Administration but it is by no means its entire job since the Federal Government has a wide interest in highway matters. It also administers Federal funds for improvement of secondary roads and the elimination of highway-railroad grade crossings in cooperation with the States. It supervises the construction of roads in national parks and national forests and in other Federal areas. It conducts research on road building methods and makes studies of all phases of highway use and highway finance.

In the past fiscal year 19,113 miles of highway of all classes were completed under the supervision of the Public Roads Administration. This includes 6,490 miles of Public Works Administration projects. More than 400 railroad-highway grade crossings were eliminated and 87 obsolete structures were replaced by structures of modern design.

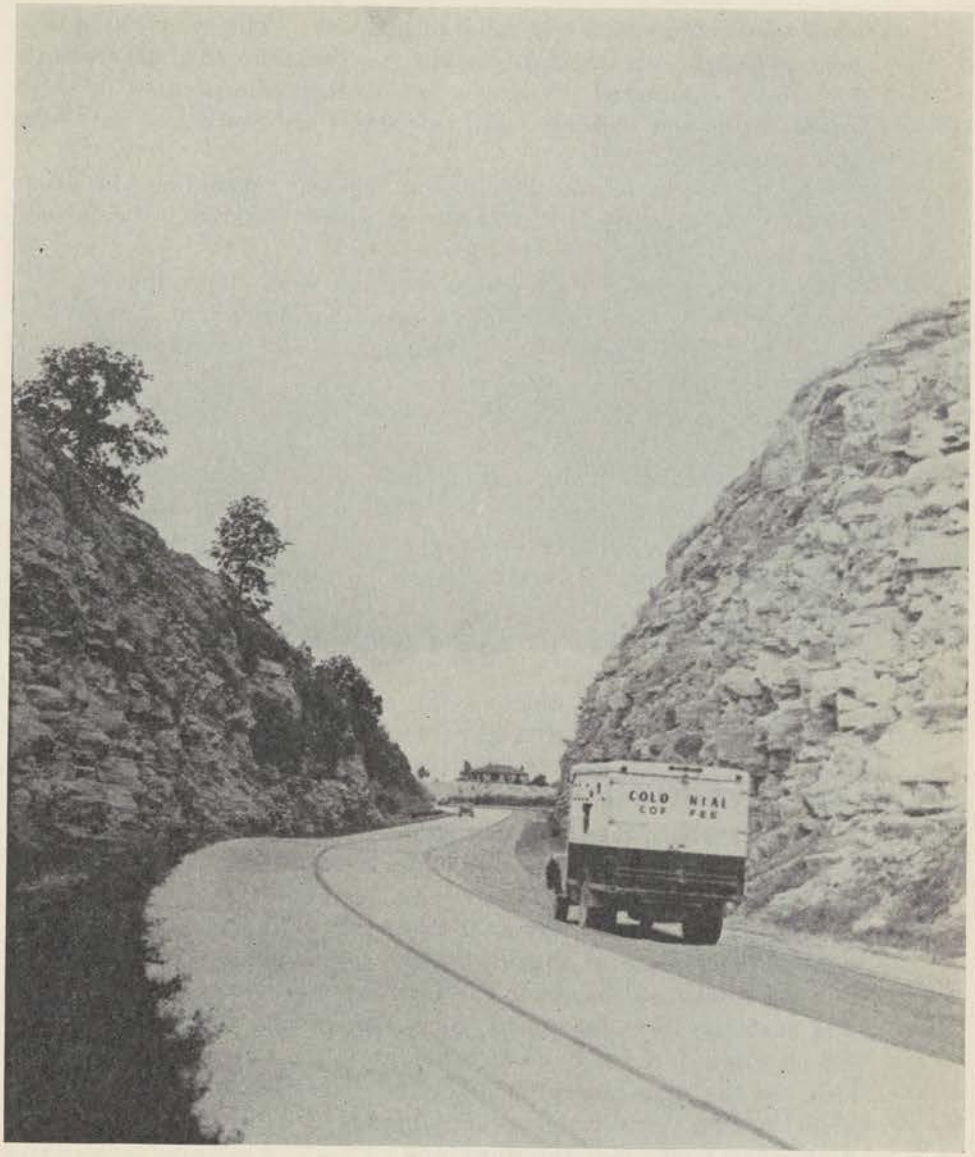
In the work on the Federal-aid system, 7,799 miles were completed. Since the system covers the entire country many different types of improvement were made. Entirely new sections of road were built, old worn-out surfaces were replaced with new and often wider pavements, new bridges with wide roadways replaced many narrow and weak bridges, and numerous sections of narrow, winding road were abandoned on the completion of replacement sections of road of the most modern design. Some of the most costly work was done in and near cities where large construction jobs planned to solve major traffic problems were completed.

In the 12-month period, 4,800 projects were completed, an average of 100 per State. The number of projects under way ranged from 4,100 in December 1939 to 5,200 in June 1940. The character of work done must be shown by selected examples as even a list of the projects would be too lengthy for presentation.

A statistical report on the work of the Public Roads Administration showing miles of road built, grade crossings eliminated, and funds expended will be found in Appendix C.

Tourists by the hundreds of thousands are attracted to Florida every year and the State intends that there shall be no difficulty in reaching any of its attractions. It hopes to make every mile of road an invitation to proceed onward. A recent example is the 29 miles of highway between Tampa and Brooksville on U S 41. Work on several sections has been brought to completion in the past 3 years.

Two 11-foot lanes of concrete are separated by a 6-foot strip of bituminous pavement to be used by passing vehicles. One can travel on this road with a feeling of complete safety. Only one important



"RED CONCRETE ROAD"

Specially designated lane for slow-moving trucks climbing steep grades prevents much traffic congestion on this cleverly designed highway in the Tennessee hills.

cross road intersects the 29 miles of highway. The intersection is of modern design with long sight distances. Two railroad grade crossings have been eliminated. There is not a single sharp curve or steep grade on the new highway. All side slopes are gentle and have been planted in grass.

The total cost of the 29 miles of highway, including the grade crossing eliminations, is $1,584,500, of which $792,300 is being paid with Federal funds.

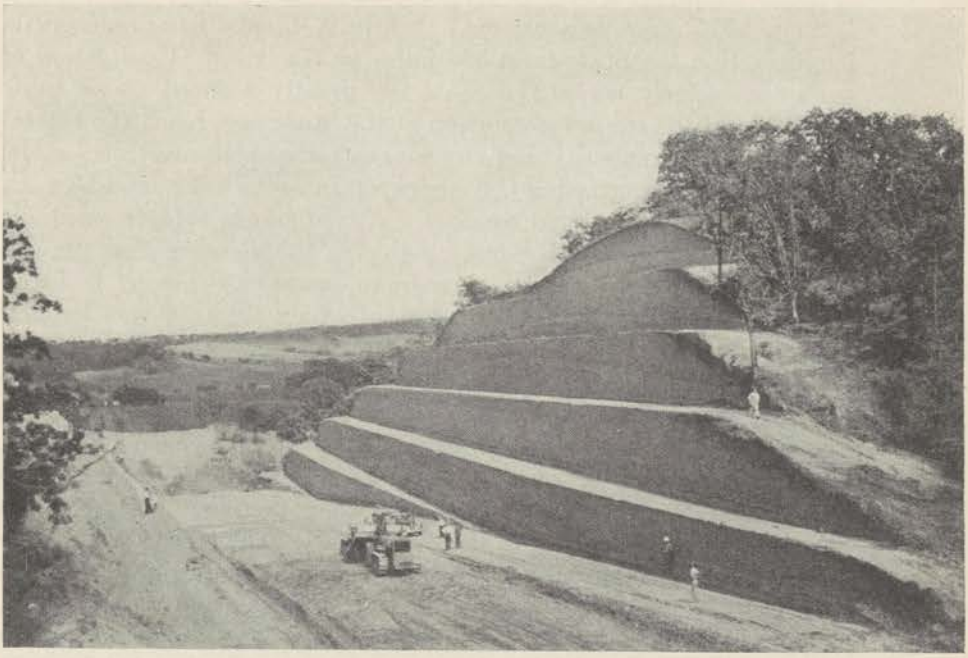
A list of sources of materials used on this work shows that employment was created at many distant points. Eight hundred and seventy-four cars of cement came from Birmingham and Tampa, 923 cars of sand from Lake Wales, Fla., and 1,502 cars of crushed stone were shipped from north of Brooksville, Fla. Other materials used were asphalt from Texas points and Savannah, slag from Birmingham, tar from Savannah, paint from Trenton, N. J., limerock from Ocala, Fla., steel from Birmingham, and Pittsburgh, guard-rail plate from Atlanta, drain pipe from Birmingham and Tampa, and expansion joint material from Lancaster, Pa., and Richmond, Va.

Tennessee's "Red Concrete Highway"

Strengthening weak links in the main highway system requires many different kinds of work. An unusual example is the "red concrete highway" in Tennessee. Actually only one of three lanes is red. U S 31–W from Louisville to Nashville crosses a low range of mountains where the location engineer could not avoid a long grade with several curves even by making rock cuts as deep as 90 feet. The old road there was known as the Devil's Elbow.

The route generally has a 22-foot surface which is adequate, but on the long grade at Devil's Elbow traffic piled up behind slow-moving trucks and busses. The highway was relocated for 1.9 miles and surfaced three lanes wide for 1.1 miles and two lanes wide for 0.8 of a mile. A red mineral coloring matter was added to the concrete for the right lane going upgrade. This lane is assigned to slow vehicles. Faster vehicles going upgrade use the middle lane and descending traffic uses the third lane.

Pavement marks, signs, and the red coloring guide traffic in the proper channels. The design was made by the Tennessee Highway Department and the Public Roads Administration as an experiment. No accidents have occurred in 1 year of use and traffic flows freely across the mountain. It is expected that the idea will be applied at other similar locations. The road surfacing cost $64,000, half of which was paid with Federal-aid funds.



EXPERIENCE MAKES IT POSSIBLE

Without careful observation and precise design by State highway experts, wind and water erosion would soon ruin this 75-foot highway cut through Iowa loess.

Since 1935 improvements on U S 6 in Nebraska have reduced its length within the State from 388 miles to 373 miles. Completion of surfacing entirely across the State has greatly reduced travel time. Residents of the southwest portion of the State now reach the capital much more conveniently and city markets are much more accessible.

The last link in surfacing U S 6 between Lincoln, Nebr., and Denver, Colo., has been completed recently. A bituminous surface was built between Arapahoe and Holdrege, reducing the distance from 40.5 to 30.7 miles and eliminating four railroad grade crossings by highway relocation. The work cost $610,000, of which $289,000 was Federal aid.

The Storm King Highway (U S 9–W) up the west side of the Hudson River above New York City has long been one of the best known scenic routes in the country. Aside from its scenic value, it was of great utility in serving the large volume of traffic moving to and around New York City. As usage has increased this road has become wholly inadequate to serve its traffic. The recent taking over of Bear Mountain Bridge by the State and reduction of tolls on it has increased the number of people desiring to use the route.

The old road, cut into the cliffs of Storm King Mountain, has a surface varying in width from 16 to 18 feet, with many sharp curves and limited sight distances.

There has recently been completed a 12.2-mile cut-off, known as West Point bypass, that is modern in every feature, of great scenic beauty, and which shortens distance by half a mile. The new location avoids the narrow streets of Highland and Cornwall. There will be no congestion on any part of this new 4-lane divided highway. The Federal Government is paying $1,826,000 of the total cost of $3,422,000.

Loess Steps Defeat Erosion

Modern road-building methods and equipment make it possible to build fine roads under conditions so adverse that a good road could not have been built with any reasonable expenditure 10 or 15 years ago.

A section of the Federal-aid system passes through Logan and Magnolia in Harrison County, Iowa, and serves a highly developed farming area. The road is a cross-connection between U S 30 and U S 75 and traverses rugged loess bluffs along the Missouri River. Loess is a fine loam deposited by the wind. It is easily graded with road machinery and easily eroded by rain and wind.

The old road was made with a blade grader only and wound its way over and around the bluffs. In wet weather everybody stayed

home because the road was impassable. Little thought was given to a well-graded road as tremendous cuts would have to be made through the bluffs and a good road would be difficult to maintain because loess erodes so easily.

However, the job has been done, and with modern methods it was not difficult. A 4-mile section has just been completed in which 750,000 cubic yards of earth were moved. Tractor-drawn scrapers loaded and hauled 20 cubic yards to the trip—as much dirt as could be hauled by 12 teams in one trip each. This was done at the unusually low price of 7 cents per cubic yard.

It has been found that if cuts in loess are graded in a series of steps the soil will stay in place much better than if a sloping bank is made. The sides of the deep cuts form a series of steps, each step being about 15 feet high.

The 4-mile section of highway has been graded, a gravel surface built, and two bridges—one of 120-foot span—have been constructed at a total cost of $145,000, nearly half of which was paid with Federal-aid funds.

The effect of modernizing an old highway is well illustrated by work done on the Federal-aid system between Austin and Houston. Among the benefits listed for this project are increase in traffic safety and convenience, saving in time and travel distance, elimination of hazards of highway and railroad crossings, and avoidance of street congestion.

Forty-three miles of highway have been graded, a 22-foot concrete surface placed with 7-foot shoulders, 15 major bridges built, and one highway overpass and one railroad overpass constructed. This work cost $1,891,000, half of which was paid with Federal-aid funds.

As a climax to 30 years of effort in South Dakota, the last gaps in a concrete highway 85 miles long between Sioux Falls and the Iowa line at Sioux City were closed late in 1939. Three Federal-aid projects totaling 24.7 miles in length were completed at a cost of $34,325 per mile, more than half being paid with Federal aid.

One of the most important highway projects in the Northwest is the widening, straightening, and modernizing of the Pacific Highway, U S 99, through Oregon and Washington. A four-lane concrete highway has been completed between Everett and Olympia, Wash., a distance of 88 miles. Plans have been made for continuation of the work between Olympia and Vancouver, a distance of 102 miles. Because of the size of the undertaking work must be spread over several years. Distance between Vancouver and Olympia will be shortened by 19 miles, but the elimination of sharp curves and steep grades is of even greater importance. A standard design for two

21-foot pavement strips separated by a 4-foot neutral zone is being used.

In the past year work on this section to cost $1,406,000 has been under way, the Federal Government contributing $787,000. At one place the channel of the Lewis River is being moved to save the cost of a bridge. Over 1 million cubic yards of earth are being moved in making this channel change.

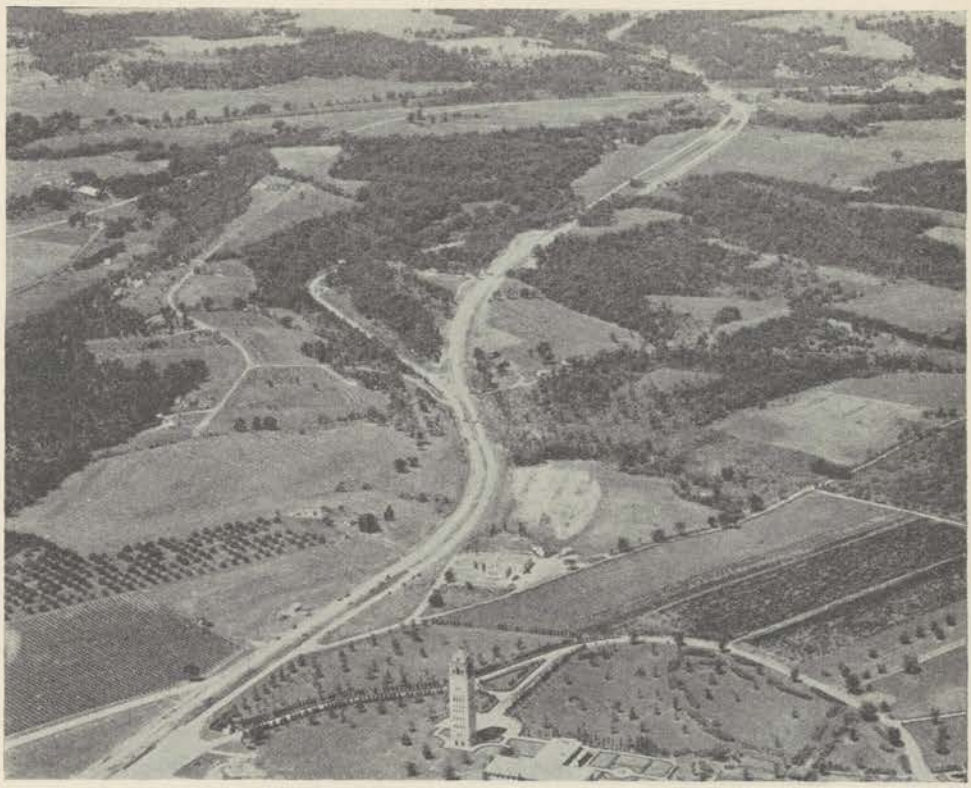
Numerous improvements of U S 99 in Oregon are under way. At Oregon City a bypass with a 48-foot roadway 8 miles in length has been completed at a cost of $240,000. Another four-lane bypass 3.7 miles long is being built at Albany at a cost of $575,000. Relocation of the route over the Siskiyou Mountains has been under way for several years. The final link, 6.3 miles long, is now under construction at a cost of $726,000. Other work is under way aggregating $2,300,000 in cost. Federal aid is being used on all of these projects.

Large Expenditures Required in Cities

The intersection of Ogden and Cicero Avenues, in Cicero, Ill., was a traffic bottleneck until recently. Since Ogden Avenue forms a part of U S Routes 34 and 66, and Cicero Avenue is on State Route 50, both avenues are heavily traveled. The intersection was unusual in that both avenues used the same underpass where they crossed the C. B. & Q. Railroad tracks. The underpass was in line with Cicero Avenue, which runs north and south straight through the intersection. On reaching Cicero Avenue, traffic on Ogden Avenue had to turn left, go through the underpass, and then turn right. There were traffic lights at both ends of the underpass where the avenues intersected. Traffic volumes were exceptionally heavy—20,000 vehicles per day on Ogden Avenue, 18,000 per day on Cicero Avenue—so that from four to six traffic officers were needed during the morning and evening rush hours to unsnarl traffic and keep it moving. A large electrical manufacturing plant employing several thousand workers was situated on one corner of the intersection, so there was a large amount of pedestrian traffic at certain hours.

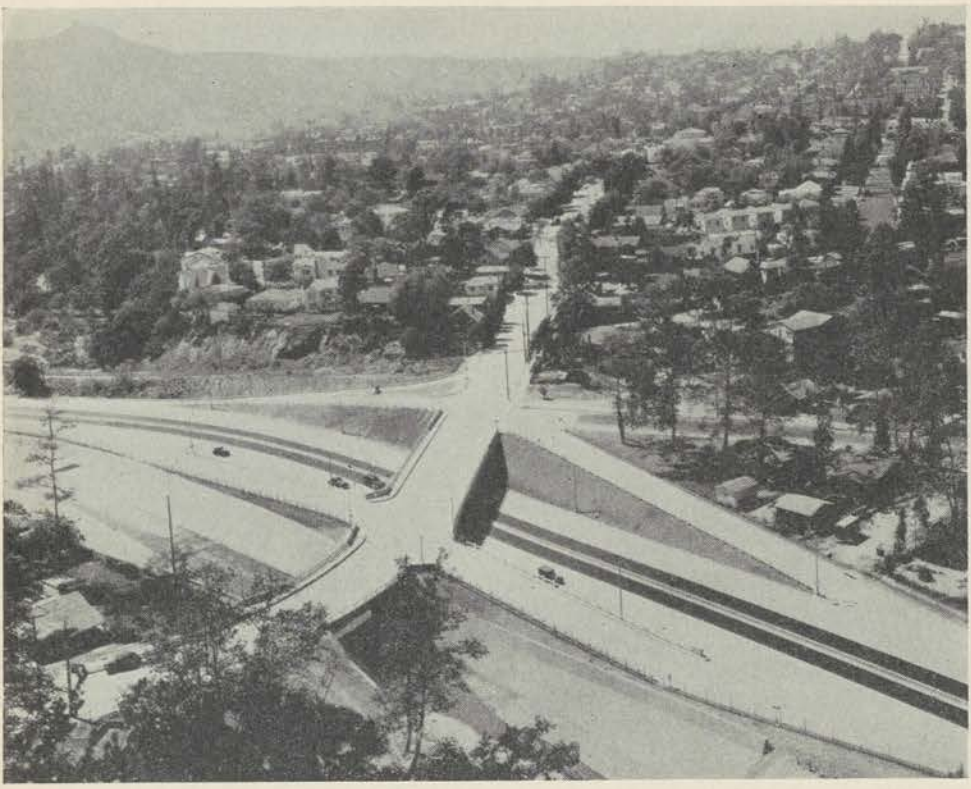
As part of the general plan for modernizing main highways in the metropolitan area of Chicago, a large bridge has now been built at this intersection to carry Ogden Avenue over both Cicero Avenue and the railroad tracks. The bridge provides two 22-foot roadways separated by an 18-inch dividing strip, and sidewalks for pedestrians.

Before the bridge was built it took from 15 to 30 minutes to pass through the intersection during rush hours. Now there is no delay and traffic officers are no longer needed.



HIGHWAY MODERNIZATION

This important road, U S 50, approaching Kansas City, was made into a dual highway during the last year by Public Roads Administration assistance.



FREE FLOWING TRAFFIC

Cross streets are carried over and connecting ramps give access to the Arroyo-Seco Parkway connecting Los Angeles and Pasadena, built with PRA, PWA, and WPA aid.

Total cost of the improvement was $808,000, of which $786,000 was paid with Federal aid.

Almost every city, even some of the smaller ones, has serious congestion on its main routes that can be eliminated only by large undertakings at considerable cost. For example, take U S 80 through Jackson, Miss. The old route meandered through the congested business section on narrow streets, intersected other important routes in the heart of the city, and crossed and recrossed railroad tracks. Even the approaches to the city were unsatisfactory.

Five different possible relocations through the business section were studied and none was found satisfactory. Narrow streets, six railroad lines, and local traffic made the problem difficult. Finally a decision was made to relocate the entire route beginning at a point 9 miles west of Jackson, passing through the southern portion of the city, and joining the old route 5 miles east of the city.

A four-lane divided highway is being built. Four railroad grade separation structures, a cloverleaf highway intersection, and a bridge over Pearl River are required. The entire project is now nearing completion with the exception of one railroad underpass where there has been difficulty in obtaining right-of-way.

The total cost is to be $1,822,000, of which $1,098,000 will be paid with Federal funds supervised by several agencies. Public Roads Administration funds will supply $757,000 and $338,000 has been provided by the Public Works Administration.

About 16,700 vehicles will be served by the new facility daily, 13,400 entering or leaving Jackson and 3,300 passing through. This bypass is the most important single highway project ever undertaken in Mississippi.

The Arroyo Seco Parkway between Los Angeles and Pasadena, Calif., now in the final stages of construction is one of the outstanding highway projects of the United States. It is an example of the large-scale and costly undertakings necessary to solve major traffic problems in large areas of dense population. Continued growth of Los Angeles, South Pasadena, and Pasadena has erased all evidence of city boundaries. All street and road connections are lined with business houses and residences. Streets that were once entirely adequate are overloaded with traffic; control signals make travel a series of stop-and-go movements with all the inconvenience and hazard that accompanies movement through conflicting streams of traffic.

The Federal Government, the State, and the three cities have cooperated in planning and building a 6-mile freeway along the Arroyo Seco through city park lands. Six traffic lanes with a central strip to separate opposing traffic are being built. All important intersecting

streets are carried over the parkway, thus eliminating old hazards.

In South Pasadena the parkway is depressed below the natural ground level so as not to require any change in grades of intersecting streets. At selected locations ramps and curved approaches will give access to the parkway.

On completion some 20,000 vehicles will use the parkway each day, but there is capacity for many additional thousands. Federal assistance consisted of funds from the Work Projects Administration, the Public Works Administration, and the Public Roads Administration. The Public Roads Administration is supplying over one-half million dollars.

Bridges Built to Replace Old and Weak Structures

Replacement of old bridges that are weak and dangerous is one of the most important uses made of Federal-aid funds. The heavy traffic on U S 43 between Florence and Sheffield, Ala., has been forced to use a combination railroad-highway bridge, over the Tennessee River, built in 1902. The roadway on the bridge was only 13 feet wide. Automobiles could pass each other only at slow speed, and when a bus or wide-bodied truck crossed the bridge, all traffic in the other direction had to be stopped. Vehicles sometimes lined up for half a mile waiting to cross.

In the fall of 1939 a fine modern steel structure with four traffic lanes divided by a fenced-in pedestrian walkway was completed at a total cost of $1,300,000. Approximately half the cost was met with Federal aid.

The center span over the river channel is 40 feet above high water to provide clearance for river traffic. This eliminated the need for a draw span which would have caused frequent interruptions to traffic.

At Northampton, Mass., a magnificent four-lane bridge has replaced a narrow, dangerous bridge, a relic of the horse-and-buggy days, built across the Connecticut River in 1877. Frequently long columns of vehicles waited to cross the old bridge which was inadequate both in strength and clearances.

Motorists are impressed by the ample width and beautiful lines of the new structure, called the Calvin Coolidge Bridge, but what is probably the most interesting part is hidden beneath the surface of the water. Much trouble had been caused by washing of the river bed around the foundations of the old bridge. The new bridge rests on long piles driven deep in the river bed. Erosion is prevented by long steel plates forming a wall around the piles and many tons of rock dumped around the piers.

The bridge is on the Federal-aid system. It cost $1,354,000, half of which was paid by the Federal Government.

The Mississippi River, mighty Father of Waters, has always been an obstacle to highway travel. Until recent years there have been few bridges across it because of the great cost. Ferries were used at many points, but a ferry on a main highway is a weak link, causing delay and congestion. Until now U S 190, one of the strategic routes selected by the War Department, has crossed the Mississippi near Baton Rouge, La., by ferry.

Bridging the lower Mississippi is costly because of the width of the river, the approaches through swamps, and the great depth to which pier foundations must be carried. The Baton Rouge Bridge, opened to traffic in August 1940, is one of the largest single structures ever built in the Federal-aid program costing 10 million dollars including 2½ million dollars in Federal funds.

It is significant that one of the first uses made of the bridge was movement of army units to large-scale war games.

The bridge has two 20-foot roadways for vehicles and a single railroad track to be used by the Louisiana & Arkansas Railroad on a rental basis. It is high enough to clear river traffic. In building the 6 miles of approaches, two railroad-highway grade separations and one highway-highway separation were constructed.

Closely related to this bridge is the Airline Highway being built from Baton Rouge to New Orleans. It is a direct route, four lanes wide, with a central dividing strip, through swamps heretofore considered impenetrable by highway. It replaces a narrow, crooked road and reduces distance from 114 to 83 miles. About 82,000 vehicle-miles of travel daily will be saved by the new road. Federal aid has been used on this work.

Farm-to-Market Roads an Important Part of Program

Until only a few years ago, State highway departments and the Federal Government concentrated all their efforts on the building of a connected system of main highways. This was a sound policy. Everybody uses the main highways. It was logical to build the main lines first and then add on the branch lines.

Work on the main highways is by no means finished but most of them have a surface of some kind and it has been possible to consider the strong demands for building secondary roads.

No matter where they live, people want pretty much the same things, and a good road makes it easier to get to nearly all of them.

City people want to get out in the country. Country people want to get to town. There are supplies to haul, produce to take to market. Children must get to school every day. Mail must be delivered. There is shopping to do, friends to visit, church on Sunday. Perhaps the doctor must be called in, quick, when he is needed. Americans want good roads to use and are willing to pay the cost of a well-planned road system.

In the building of secondary roads, the Public Roads Administration is following the plan that has been so successful in creating the Federal-aid system. Short sections of improved road, placed here and there, help some people but do not benefit the greatest number of people. Federal aid for secondary roads may be used only on sections of road that will form part of a connected system now being designated in cooperation with State highway departments.

As in other Federal-aid highway work, the State highway departments initiate projects, prepare plans, and supervise construction, all subject to Federal approval.

No two roads are exactly alike, and of all types, secondary or farm-to-market roads differ most, one from another. In mountainous or swampy country, engineering problems can become rather complex. Relocations must be made to straighten the road and make easier grades. Old bridges must be replaced by structures designed to carry loaded trucks. Construction is usually simple; 16 to 20 feet of surface, on a roadway 25 to 35 feet wide. A layer of gravel, selected soils or crushed stone, several inches thick, is used to form the main body of the road surface. It is finished off with a bituminous top that is smooth and dustless. This is the simplest form of construction and there are many ways in which these and other materials may be combined to make a road. Costs must be reasonable, but materials of excellent quality, timber for posts, sand for concrete and native stone for roadbed or bridge construction, gravel for surfacing, can often be had locally at low cost. Workmanship is not much of a problem. Nowadays, contractors know their trade and how to handle machines; and the local men they hire to do the work will be using the road themselves, after their job is done.

Recently, a road in Shelby County, Ohio, and another road into the Pocono Mountains in Monroe County, Pa., needed rebuilding; two communities, two problems, two roads built under quite different conditions but alike in that they make life better for many people.

Shelby County is flat in some parts, slightly rolling in others. Its area is a little over 400 square miles. Over 90 percent of the land is in cultivation. The average farm runs a little more than a hundred acres, worth, with its buildings, about $5,700. All but two percent

of the people are native-born Americans. The population is 29,942. The farms in Shelby County produce a lot of wheat and corn, hogs, cattle, milk, chickens and eggs. Year after year, the roads carry plenty of produce to market, as well as people in various pursuits.

The new part of the road is 5.6 miles long, a 20-foot bituminous macadam pavement on a 36-foot roadway. It has not a single bend in it. The road is called the Kettlersville Pike. Never heard of it? The Kettlersville Pike is the one that starts at the Dixie Highway, about half way between Sidney and Wapakoneta, and runs for 10 miles due west to New Bremen, over in Auglaize County. A lot of people live along that pike and they have plenty of produce to haul, too.

Bad weather delayed construction last summer but the work is moving right along. The contractor said he expected to have the road open for use before this year's corn is husked.

The Pennsylvania project is a road winding north from Broadheadsville to McMichaels in Monroe County. It crosses McMichaels Creek only twice. The bridges are as wide as the roadway. The abutments are built of good native stone. The road is 16 feet wide, 2 inches of bituminous macadam pavement on 5 inches of crushed native stone. Part of the roadway was blasted out of solid rock, to do away with two narrow bridges and several dangerous curves. There are a lot of good mountain farms along that road. Halfway to McMichaels, the country gets rougher and more wooded, then opens out again. At McMichaels, there is a cross road running east and west. To the north, the new road connects with the old dirt road through the mountains to Long Pond.

Monroe County has a population of 29,792, an increase of 1,506 since 1930. The area is about 620 square miles but only a third is under cultivation. The farms average a little smaller than in Shelby County, and are worth from $4,000 to $4,500, with the buildings. The main products are oats, buckwheat, chickens and eggs, milk and butter, potatoes, fruit, and garden truck. There is timber to haul, too, and native stone for building.

The summers are cool in the Poconos. The country is hilly, mountainous in part, wooded, with upland ponds full of bass, and brawling little trout streams splashing down through the valleys. The air is crisp and clear with a forest smell. It is quiet and peaceful up there. The clatter of city traffic seems very far away. It's a good place for city people who want to fish and hunt or to learn how to play again, or rest. The Poconos are famous as a vacation land. Small hotels have been built, cottages, boarding houses, fishing camps. Farmers are selling produce to summer visitors who like the good milk, the sweet country butter and the vegetables, fresh and crisp,

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from the truck gardens. This road brings the markets right up to the farms.

But the old dirt road was bad. In summer you moved in a cloud of dust. Spring and fall, the mud was deep and sticky. In winter, when the summer visitors had left and the farmers had little hauling to do, traveling was fairly easy, with the mud, ruts and all, frozen hard as rock. The old road crossed McMichaels Creek no less than five times, on narrow bridges. It was winding, and full of sharp curves. You could not exactly say that the old road was built; it just happened.

Last year, plans for a new road were drawn, with no grades over 5 percent, fewer curves, better alinement and only two bridges, both as wide as the roadway itself. Reconstruction began on August 30, 1939. From January 3d to April 3d work was suspended because of the cold. The inspecting engineer reports: "The farm-to-market road from Broadheadsville to McMichaels was completed in a satisfactory manner on June 17, 1940."

Between Bastrop and Lockhart, Tex., both county seats, an all-weather gravel road has replaced a poorly graded narrow secondary road impassable in wet weather. Travel distance has been shortened 7½ miles and traffic is four times what it was before improvement.

One of the most beautiful bridges completed in 1939, the new Waverley Bridge over the Grand River linking Ingham and Eaton Counties in Michigan, is an outstanding secondary road improvement. The old bridge, built in 1891 to serve the horse-and-buggy traffic of that time, had rendered much service throughout the infancy and adolescence of highway transport. However, like the horse and buggy, the stagecoach, and the solid rubber tire, it lost its place in the transportation picture and had to be replaced.

The bridge is on an important secondary road which is also a bypass road to the west of Lansing, thus serving local farm-to-market traffic and forming an important connection to the State and Federal-aid highway systems. It has a 30-foot roadway for vehicles, and two 3-foot sidewalks for pedestrians.

The bridge was designed by the county highway engineer of Ingham County and constructed by contract under his supervision, periodic inspections being made by State and Federal engineers. The Federal Government paid half of the $76,400 total cost.

Dangerous Railroad Grade Crossings Eliminated

Much of the danger has been removed from the old-time sport of racing a train to the crossing because many of the country's most dangerous grade crossings have been eliminated by grade separation

structures. All of the elements of the game are still there, except that in case of a tie the automobile merely passes over or under the train and proceeds safely on its way, instead of being strewn in small pieces for several hundred feet along the railroad tracks and the occupants becoming statistics in the fatality column. Last year Federal funds were used in the elimination of 414 of the country's most dangerous crossings. Over 3,300 crossings have been eliminated since 1933. This important program has materially improved the safety of our highways.

Practically all of our cities and towns have grown up around railroad stations and yards, creating some of the worst crossing problems. At High Point, N. C., the main line of the Southern Railway, carrying more than 30 scheduled trains a day, very nearly bisects the city. High Point is one of the leading furniture manufacturing cities of the Nation and it is estimated that over 25,000 vehicles crossed the tracks each day, 13,000 at the Main Street Crossing.

Removal of the crossing hazards presented a difficult problem with which the city fathers had struggled for some years but had found no answer. Changing street grades to cross over or under the tracks would do great damage to property bordering the tracks. Money to build the structures and pay the damage was lacking. The railroad, with good reason, did not favor relocating the tracks around the city because of lengthened line and unfavorable terrain. It was finally decided to lower the tracks for a distance of 2 miles through the city and carry the main streets over the tracks without material change in elevation. Lowering the tracks 32 feet in the center of the city, building retaining walls, a new railroad station and four street crossings cost slightly over 1 million dollars. The city contributed $255,000, the Work Projects Administration $312,000, and $450,000 was supplied from grade crossing funds of the Public Roads Administration. The railroad is now in an open subway and there are no grade crossing accidents. Additional street crossings can be built at moderate cost.

In Phoenix, Ariz., the main north-and-south artery through the business section crossed the tracks of the Southern Pacific and Santa Fe Railroads in the heart of the commercial area. More than 10,000 vehicles and 2,400 pedestrians crossed 10 tracks used for 60 to 70 train and switching movements daily. Frequent blocking of the street created much delay and congestion.

All these troubles have been eliminated by a four-lane underpass 377 feet in length costing $263,400 of which $245,000 was paid with Federal grade crossing elimination funds. Two walkways give protection to pedestrians.

New Highways Give Access to Great Recreational Areas

In no other country of the world are most ordinary citizens able to go on an annual vacation trip as do most average families in the United States. Nowhere else do middle-class families have cars and the use of a great system of surfaced roads. No other government has set aside and maintained as many forest and park areas for the enjoyment of its citizens. Last year more than 15 million persons visited national parks and other areas administered by the National Park Service. Many miles of road are being built through Federal parks, forests, and historic battlefields. Some of these roads are built solely for the enjoyment of vacationists while others also serve as important links in main highways traversing Federal areas.

Acadia National Park on the rocky coast of Maine is being made accessible to thousands of visitors from Eastern States. It is located partly on picturesque Mount Desert Island and partly on the Schoodic Peninsula. Mountains rise precipitously from the rocky ocean shore, and bold headlands jut out to form fiordlike bays and harbors. Inland lie placid lakes and foaming brooks teeming with trout and salmon. Over all is cast the dark mantle of evergreen forests, livened with the white gracefulness of birch trees.

A complete system of roads is planned to give access to all parts of the park. Recent work has been on a road encircling the island which is of unusual scenic beauty. In places it follows so close to the shore that masonry walls are necessary to hold the road above the surf. The road begins at the abandoned Otter Cliffs Radio Station where there is a fine view along the coast and out to sea. It winds along the water's edge and through the evergreen forests from which it takes its name, The Black Woods Road. This road has recently been completed at a cost of $423,000.

One of the great scenic areas in the West and one of the first opened to vehicle travel was Yosemite National Park. One of the entrances, a carriage road built in 1874, has been continued in use up to last year. Entering Yosemite Valley by the Big Oak Flat Road, making the 4.4-mile steep descent into the valley on the narrow surface with sharp curves and switch-backs was like traveling in pioneer days. Since traffic has become heavy it has been necessary to restrict travel to one direction, the direction of movement being alternated each hour.

Thirteen miles of this route in the park have been replaced by an entirely new road, 10 miles in length, built according to the best modern standards. Applying modern standards in such rugged country where the road must be built on steep slopes and along rocky cliffs requires costly blasting of rock, retaining walls, hand-placed rock fills,

and driving tunnels. The 10 miles of road, including 3 major bridges, 3 tunnels, and 2 miles of exceptionally difficult construction, cost approximately $2,000,000.

Each year thousands of tourists will benefit from the improvement. The new road is a direct route into the park from San Francisco and northern California points. In conjunction with the Tioga Road, built in recent years, it is an entrance for traffic from points east of the Sierra Nevadas.

Highways for National Defense

Shortly after the passage of the Federal Highway Act in 1921 the Public Roads Administration (then the Bureau of Public Roads in the Department of Agriculture) requested the War Department to indicate the roads in all parts of the country which in its opinion should be regarded as of maximum importance from the standpoint of the national defense. The act just passed had provided for the designation of the Federal-aid highway system and the advice of the military authorities was sought in order that it might be considered by the Federal bureau and cooperating State highway departments in the choice of roads to constitute the system.

In response to this request the War Department in 1922 prepared the so-called Pershing map on which it indicated a network of roads traversing the country as constituting the routes of greatest military interest. At the same time the Department expressed the view that the necessities of the national defense would require no improvement of the roads indicated or of any other roads materially different from that which would be required for the adequate service of normal civil traffic.

Practically all of the roads thus originally recommended by the War Department and others subsequently designated have since been included in the Federal-aid system and through the years have been progressively improved as rapidly as possible to the extent indicated as necessary and practicable for the accommodation of peacetime traffic. As a result the country approached the present emergency with most of its important strategic highways in a condition of comparative adequacy.

This does not mean, however, that the rapidly developing defense program presents no highway problems. On the contrary, there are definite and in places serious deficiencies which must be remedied, and application of the remedy is in some instances a matter of urgent necessity. In this respect the strategically important routes are no

different from other roads included in the primary networks of the States and the Nation, all of which have been improved under the same policies.

Throughout the period of modern road building there has been a constant raising of standards. In the earlier years the growth of highway transportation that has occurred could not be foreseen. Had it been foreseen it would still not have been possible at all times to have obtained the funds necessary for the kind of improvements now known to be required. Because of this virtual impossibility of anticipating future needs and revenues, much of our road building has been done under a deliberate policy of stage construction, building first a good roadbed and placing a low type of surface, and leaving for future accomplishment, as the needs of traffic should require and the availability of funds permit, the provision of a more complete and lasting improvement. On portions of the strategic network as well as on other highways such secondary improvements remain to be accomplished, and in some cases are now urgently needed.

On other routes, including many of strategic importance, high-type improvements completed some years ago and deemed entirely adequate at the time have since been rendered obsolete by subsequent important changes in the demands of traffic—changes that have been no less marked in military than in civil demands.

As events in Europe have indicated the necessity for a reappraisal of our own defensive position, the War Department within the past year has reviewed its previous designations of highways of maximum strategic importance and has issued a revised map, indicating the location of approximately 75,000 miles of such routes, including some not shown on the earlier maps. This entire mileage has been inventoried by the Public Roads Administration with the aid of the State highway departments, and a report of its present condition and improvements necessary for the adequate accommodation of the combined demands of military and civil traffic is being prepared for submission to the President.

Many portions of the 75,000-mile system are already in a satisfactory condition to meet all expected needs. A most conspicuous shortcoming is the condition of some 2,400 bridges that are not strong enough to carry loads equivalent to the so-called H–15 loading of the American Association of State Highway Officials, which is standard for normal commercial traffic. Special studies of military requirements show that bridges designed for this loading will also quite readily carry all classes of military equipment other than the heaviest tanks without special control of the movement; and they will also safely carry tanks up to 50 tons in weight, if these heaviest units

are spaced at least 50 feet apart and their speed reduced to 4 miles per hour.

The existence on our most important highways at this time of 2,400 bridges inferior to this desirable standard demands immediate action, but it is reassuring to know that we have almost ten times as many bridges on the same roads that are entirely adequate for all expected military and civil needs.

All road surfaces on the strategic system should be dustless and capable of supporting 9,000-pound wheel loads under any weather conditions. Such surfaces will be fully capable of carrying all military loads including tanks. All surfaces should be at least 20 feet wide and preferably 22 or 24 feet wide if a large volume of traffic is expected. There is a substantial part of the network which in its present condition does not measure up to these standards.

There are also many sections of road on the strategic system built years ago that have sharp curves, steep grades and other features that delay and endanger traffic movement. All such sections of road should be modernized.

The kinds of improvements required for military purposes, with one possible exception—a substantial widening of shoulders—are those highway departments normally engage in making for better accommodation of civil traffic; and one of the purposes of the Federal-State cooperative highway planning surveys that have been conducted in all States is a determination of the extent and cost of just such modernizing improvements of the main highway network so that it may be undertaken in a planned and orderly manner.

In addition to the improvements required on the strategic network, the quickly evolving defense program will also require:

1. Improvement of roads essential as accesses to reservations and mobilization points of the Army and Navy, to new and expanded defense industries and to airports and rail terminals and depots.

2. Improvements of roads and streets within military and naval reservations and the construction of the additional streets necessitated by the greatly enlarged forces to be stationed at many of the reservations.

3. Improvement or possible new construction of a very limited mileage of road required mainly for definite tactical purposes.

As the defense program has developed it has become evident that the most pressing road needs, those requiring immediate action, are in and near military reservations and industrial plants working to arm the Nation. Improved local transportation is essential to enable these places to function properly.

The greater urgency of these classes of improvements results from the recent passage of the National Guard and Selective Service acts

ARMY TRUCKS HAVE TO PARK, TOO

The Public Roads Administration is assisting in providing wide shoulders along strategic roads where Army trucks may stop for necessary rest and repair.

and the large appropriations for armament, equipment and matériel, and the speed with which the defensive preparations they authorize are being put into effect.

Already units of the National Guard are moving into designated posts in various parts of the country. Other units will follow in accordance with a schedule definitely established and these will be followed in a few months by an army recruited through the machinery of our first peacetime draft. As a result, Army posts which since the World War have quartered only small skeleton organizations are being suddenly expanded to house and serve for the essential training of forces of from 40 to 60 thousand troops. The effect, from the standpoint of highways, is that of the sudden growth of many small village communities into cities of very substantial size and population.

On the industrial side of the defense preparation numerous new plants are being established and these, especially where they are for the manufacture of explosives, are located on large tracts of land the requirements of road access to which will be materially beyond that afforded by existing roads. In most cases, but especially in the case of explosives plants, the needs of access to the plants are complicated by the necessity of rerouting and reconstructing existing roads and in some cases important main highways now passing through the tracts to be occupied.

In addition to the entirely new plants required, the industrial mobilization, as it is thrown into high gear, is necessitating the great enlargement of established industries and plants of every sort in all parts of the country, with consequent heavily increased demands for highway service for the transportation of raw and finished products and also for the daily movement of employees to and from work.

Immediate Action Required

Failure to supply promptly the new and improved highway facilities required for efficient access to, and movement within, the military and industrial mobilization areas will retard and partially defeat the effectiveness of defense preparations in their most fundamental and immediately important aspects. Hence measures to supply these essential access improvements are of first importance among all highway necessities.

Of similar character, but generally of a slightly lower priority in order of urgency, is the needed improvement of access to rail terminals and civil airports at many points throughout the country.

The small mileage of new and improved highways desired by military authorities for definite tactical purposes presents no difficult problem.

The sudden demand for the immediate surveying, planning, and construction of a large number of new highways and improvement of existing highways can be met by the existing agencies of the Federal Government and the State highway departments. These agencies are fully prepared to supply all needed technical aid and administrative direction. Many years of cooperation between the Public Roads Administration and the States has developed a trained, smooth-working organization covering the entire country. The Work Projects Administration stands ready to provide labor essential for the accelerated and coordinated program and these combined organizations are ready to drop any part of their normal peacetime activity that is not important for defense and take up work that is urgent. All over the country highway engineers, hastily summoned, are at work surveying and planning roads in and approaching camps, industrial plants, and defense housing projects.

As yet no special Federal appropriation of funds for defense-highway work has been made. Recent legislation, however, provides for a preferential allotment of funds regularly authorized for Federal-aid highways, secondary roads and grade-crossing eliminations to work designated by appropriate defense agencies as important to the national defense; and the Work Projects Administration is authorized to increase on such projects the Federal contribution available for meeting other than labor costs applicable normally on other projects. To the fullest possible extent these special authorizations will be employed to expedite the completion of the urgently needed road improvements; but it is probable that any funds that may thus be diverted from normal uses will be far from sufficient for the work that will need to be done.

A comprehensive report on highways for defense purposes with full discussion of the character of the highways, the rate at which they should be improved, and what they will cost is now in course of preparation. Only the necessity of awaiting a full development of plans for the defense activities to be served has prevented earlier completion of the report. The State highway departments have given invaluable aid in the large amount of field work necessary in collecting data for the report. They stand ready to join with the Federal Works Agency in carrying out promptly any program for which funds may be provided.

The Pan-American Highway

A highway connecting all of the countries of the two American continents has been talked of for many years. Many economic and

PAN AMERICAN HIGHWAY CONDITION MAP

PREPARED BY
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY
WASHINGTON, D.C.

SCALE OF MAP

100 0 100 200 300 400 500 600 700 800 900

STATUTE MILES

100 0 100 200 300 400 500 600 700 800 900

KILOMETERS

– LEGEND –

PAVED ROAD
ALL WEATHER ROAD
DRY WEATHER ROAD
TRAIL ONLY

SEPTEMBER, 1940

cultural benefits would inevitably accrue to each country from the easy intercourse that highway communications would bring.

The desirability of a Pan-American Highway was definitely recognized at the Pan-American Highway Congress at Santiago, Chile, in 1923. Since that time the governments of the various countries and the United States have been cooperating closely in planning a system of highways, international in character, which should constitute the nucleus of a general highway system in each country. The United States has been represented by the Department of State and the Public Roads Administration.

Initial impetus was given the project by the United States through appropriation of $50,000 for reconnaissance surveys and later $1,000,000 to aid in construction of an Inter-American Highway reaching from the Rio Grande River to the Panama Canal Zone. Over half of the 3,260 miles of this route have been constructed with all-weather surfaces, and satisfactory progress is being made toward its completion.

Considerable progress has also been made in improving highways that will eventually connect all of the South American capitals and that comprise parts of the proposed Pan-American Highway System. Three-fourths of the proposed 8,097-mile highway from the Panama-Colombia border to Buenos Aires, Argentina (including an alternate route from Vitor, Peru, to Buenos Aires), is now passable during all seasons of the year. It is now possible to drive from Lima, Peru, to Buenos Aires in the dry season, and in any season to drive from Caracas, Venezuela, to a point south of Quito in Ecuador, a distance of nearly 2,200 miles.

Recent legislation permits the Public Roads Administration to assist other American republics with specific highway problems. Under this authority engineers have been assigned to assist Venezuela, Colombia, Ecuador, and Argentina, and the purchase of American equipment and materials has followed.

Highway Planning Surveys

Highway planning surveys are being made to obtain information with which to produce a coordinated, factually determined plan for the administration and development of the highway systems of the Nation, the States, and the counties. Since the initiation of the first of these State-wide surveys in 1935, every State has undertaken this cooperative work, aided with Federal funds and guided by the Public Roads Administration. Most States have completed the initial

phases of these studies, have assembled the data essential to the development of the plan defined above, and are now embarking on programs designed to keep the vast store of information current and usable. The WPA cooperated in many States in conducting these traffic surveys and in the work incidental to them.

The surveys are roughly divided into three parts, each independent, yet closely coordinated with the others. These parts are, the road inventory, the traffic survey, and the financial survey.

Road Inventory and Mapping

The inventory is of first importance, for without a knowledge of existing road conditions no plan of improvement can be developed. Before these surveys were undertaken no State knew the type and condition or even the extent of all its rural roads. Few had maps on which the data, once obtained, could be shown. Consequently, inventory parties in every State have had to drive over every mile of rural highway, recording measurements and observations for use in making maps and reports. Therewith began what is probably the most extensive highway mapping program ever undertaken.

With the completion of this field work (already virtually finished) a map for each county of the country will show the location and type of every rural road, and the main routes through all incorporated places. In all unincorporated areas will be shown every house, every business establishment, church, school, and other buildings, every airport, public dock, railroad station, playground, National or State parks, forests, and reservations, and in fact every man-made or natural feature of any consequence whatever. A series of these maps covering the country, with 1 or more sheets to the county, requires over 4,000 sheets, each 36 inches wide. Such maps are essential to the highway departments of the various States and to the Public Roads Administration in insuring that the roads built in the future will serve the greatest need in every community. The maps are to be made available in all States at moderate prices. There has been a wide demand for them from numerous public and private agencies and individuals. Showing information never before accurately recorded, they are proving valuable to the Army in its national defense preparations.

There are several series of these county maps, the most important being that showing the condition of improvement of all roads. Other series of maps are made by superimposing on the base maps data as to volume of traffic, school-bus routes, and postal routes. Smaller scale State maps show the type and location of all important State

highways. Special diagrams show for each route all points at which the road is inadequate because of width, sight distance, or other factors, and where the grades or curves are excessive, thus indicating critical sections of road requiring early attention.

Data have been assembled on all railroad grade crossings, which when combined with data furnished by the railroads will permit a measure of the hazard at each crossing and show the steps necessary to eliminate the hazard. Thus, funds spent in grade-crossing eliminations will be invested with confidence that they are being used in the most effective manner possible and will result in the greatest saving of life and property.

Traffic Surveys

Simultaneously with or soon after initiating the inventory, highway planning survey parties were engaged at thousands of points throughout the country in counting and classifying the passing vehicles. Passenger cars were recorded separately from trucks and busses, cars with out-of-State registration plates noted, and the trucks classified according to their capacities. Schedules were arranged so that during the course of a year sufficient points were observed to permit the determination of the average daily traffic on all State highways. Enough counts were made on secondary and local roads to give accurate knowledge of traffic on all roads, however lightly traveled.

On all main highways other survey parties using portable scales weighed trucks and busses and determined the products carried, their origin and destination, their rated capacities, and other pertinent data. On a few of the most important roads in each State more detailed data on the mechanical features of each vehicle were collected to analyze the sizes and types of vehicles engaged in the hauling of various commodities. These data are of greatest value to the individual States in determining the frequency with which loads of various weights are moved over the highways as an aid in deciding upon the strength of the surfaces needed on particular roads. Analysis of records of the products carried measures the value of the road as a medium for moving goods.

Significant information is also obtained from an analysis of figures summarized on a national or regional basis. In 34 States, for which information has been completely tabulated, it is found, for example, that approximately 15 percent of all commodities moved over the highways are products of agriculture; 13 percent animal products; 12 percent products of mines or forests; 57 percent manufactured or miscellaneous goods; and the remainder mixed loads. Figures such as

these show how significantly the movement of commodities by truck affects every walk of life.

Traffic counts are used for two important purposes. First, the annual traffic indicates the service a road renders and determines whether the taxes paid by the vehicles using it equal the cost of constructing, reconstructing, and maintaining it. Annual traffic figures also largely determine the type of surface to be provided, but the number of heavy loads must also be considered. The number of traffic lanes a road should have is dependent not on the average traffic but on the flow during rush hours and on particular days of the year.

Information of both kinds is obtained from automatic counters, nearly 500 of which are permanently located on important highways. They automatically record the number of passing vehicles each hour, day in and day out. Month by month the figures from these stations are compared with figures from corresponding months of previous years to mark the trend of traffic growth.

Detailed analysis of an entire year's record on any road shows clearly how the traffic volume fluctuates, when periods of congestion may be expected, and the maximum volumes that the road must accommodate during the year. Two roads may carry approximately the same amounts of traffic in a year's time. On one of them 2 lanes may be entirely satisfactory and widening may be definitely required on the other because of heavy flow at particular times. Only by critical analyses can it be assured that money is not wasted in providing unnecessarily wide surfaces and that a proper priority for needed improvement is established.

Comparison of actual road conditions with the actual traffic on the roads is necessary for an orderly and balanced program. It is a necessary step in planning each year's highway work. Comparisons between particular roads are of greatest significance since they direct road funds where they are most needed. Much of the controversy over which roads to build can be eliminated by substituting facts and statistics for opinion, guesswork, and agitation by interested groups.

Planning Secondary Road Systems

Value of the work done in the highway planning surveys is nowhere better demonstrated than in the selection of State systems of secondary or farm-to-market roads for improvement with Federal aid. Selection of such a system is now in progress as a result of the policy initiated by the act of June 16, 1936, authorizing Federal aid for "secondary or feeder roads, including farm-to-market roads, rural

free delivery mail roads, and public school bus routes." Regulations fixed a limit on secondary road systems in each State of 10 percent of the road mileage since it was thought desirable to limit the initial undertaking to a mileage that might be improved within a reasonable time.

It was apparent that funds could not be had for improvement of all such roads. The problem became one of selecting a limited mileage in each county to form a connected system and to indicate the order of improvement of parts of the system. A first step was to determine the total eligible mileage in each county. By use of factors representing such items as area of land in farms or numbers of farms, rural population and vehicle-miles of travel on local road systems, the relative need for roads in each county was expressed mathematically. On the basis of this need the permissible mileage in the State was apportioned among the counties.

Finance and Road Use Studies

Highways in this country sprang up without a central plan. They have been built by townships, counties, road districts, and by the States with and without the assistance of the Federal Government. We have heterogeneous systems of roads with varying degrees of overlapping responsibility for their cost. Lack of complete information on highway expenditures, the use of various classes of road by different groups of people, and their payments toward each of the classes of road, has prevented intelligent consideration of the size and fairness of taxes imposed for roads and of the distribution of road revenues to the different classes of road.

As a necessary step in planning an intelligently remodeled system of highways and their support, financial studies are being made to determine the facts in regard to past trends, present conditions, and probable future trends in this field by collecting and analyzing all currently available fiscal and related information.

The financial studies are divided into four parts: (1) Fiscal transactions and debt, (2) road use, (3) location of motor vehicles and sources of motor-user taxes, and (4) service life of roads.

Safety Research

An exhaustive investigation of utility of driver test clinics for identifying the accident-prone motor vehicle driver, was made during the past year by subjecting drivers to suggested tests and comparing the results with their driving records. A related project, consisting

of a critical review of all available literature on the subject of driver testing, was brought near to completion. It is expected that both these researches can be reported during the forthcoming year. The reports will show that no physical or psychological test can predict the future accident record of any individual driver sufficiently accurately to be useful to a driver-licensing administrator, though it is possible by tests to segregate drivers into groups having significantly different accident rates.

A detailed analysis of the causes and circumstances of nearly 2,000 fatal motor-vehicle accidents also brought to completion during the year a case-history study originally initiated in 1936.

Reports of the safety studies completed in 1937 were summarized in a bulletin Highway Accidents, issued by the Public Roads Administration, which has had large circulation in response to a wide and continuing demand.

Research on the visibility and legibility of highway signs was begun, with special reference to the use of reflecting devices of various kinds.

Highway Capacity and Driver Behavior Studies

With the use of special equipment developed and constructed by the Public Roads Administration,[1] studies are being conducted in cooperation with a number of State highway departments to determine the carrying capacity of highways of different widths, the effect of various design features on the speeds of vehicles using the highways, and the normal driving practices of motor vehicle operators under a variety of highway conditions.

From the highway capacity studies, in which the speed and spacing of each vehicle is recorded, it has been possible to develop an index that may be used to measure the relative congestion on a highway at different traffic densities and to provide tentative density standards for two-lane highways. The preliminary results of these studies [2] show that a highway with good alinement can carry nearly twice as many vehicles per hour as a highway with a poor alignment before becoming congested. The information obtained is of value in designing highways that will carry the traffic safely and economically.

The speed of vehicles, the spacing between them, and the position of each vehicle relative to edge and center of pavement has been automatically recorded on highways in Massachusetts, Illinois, Texas,

[1] Descriptions of this equipment have been published in the January 1939 and April 1940 issues of Public Roads.

[2] Preliminary Results of Highway Capacity Studies, Public Roads, February 1939.

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and California. The equipment used was developed to obtain information as to the clearances between passenger cars and trucks in passing at various speeds and their positions on the pavement so that the most economical lane width for safe highways can be determined. Many other special uses for this equipment have developed since it was first put in operation. It has been used to study the effect on vehicular movement of the following:

1. Pavement crown, curvature, and banking on curves.
2. Shoulder width and condition.
3. Vehicle length and width.
4. Special design and traffic-control features at intersections.
5. Height and distance from the pavement of bridge rails, curbs, and culvert head walls.

Research on Highway Materials and Methods of Construction

Complete knowledge of highway materials and methods of construction is essential if highway funds are to be wisely expended and if the Federal Government is to give expert advice on highway matters. To this end the Public Roads Administration has long maintained a division of tests, charged with investigating the many problems that continually arise in the selection and utilization of highway materials and the design of bridges and pavements.

Although primarily a laboratory organization, the work of the division has been greatly broadened in recent years. More emphasis is being placed on studies of the performance of roads in service with the view to correlating the results of observations in the field with laboratory studies. The division has sponsored the construction of experimental roads in various parts of the country, embodying in these roads new ideas in design or materials that appear to be promising, many of which have been developed in laboratory experiments.

Much worth-while information regarding particular materials and design problems is developed through a combination of continuous laboratory and field study. Methods and materials may be investigated first in the laboratory and then tested by use in building experimental sections on a public highway. Where a road surface shows unexpected defects or does not wear as well as similar roads in other locations, an engineer goes out and gets samples for laboratory study to determine the cause. Through the combination of laboratory and field endeavor many facts are learned, mistakes are avoided, better highways are built, and the public gains through getting more for its money.

The research work of the Public Roads Administration has been used and continues to be used in the development of standard specifications governing the purchase of materials used by many agencies engaged in road construction as well as in the standardization of methods of testing these materials. The results of its work are being made available continually to such specification writing bodies as the American Association of State Highway Officials, American Society for Testing Materials, etc., both through publication in the magazine Public Roads and through representation on technical committees of these organizations.

During the past year work has been in progress on major research projects, covering virtually every phase of the material and design field. This work is described in the following pages.

Soil Studies

Soil is an important material in the construction of every highway. It is the material out of which fills are made and on which the concrete, stone or gravel surfacing is placed. If the soil is good enough it may even be used to make the surface of a road.

Not so many years ago engineers had learned from costly experience that there were good and bad soils. They did not know how to determine just how good or bad a soil might be or what to do about the bad soils.

Studies were begun by the Public Roads Administration when it was concluded that many road surfaces broke up under traffic, not because of defects in the surface, but because of the character of the underlying soil. Thus began a series of studies that have gone far beyond the original problem. Knowledge has been obtained that is applied in building road surfaces, earth fills, earth dams, foundations for all kinds of structures, and airport landing fields.

For a long time few practical results were obtained from the studies. Laboratory workers had first to learn the physical characteristics of the many different soils. They had to learn what kinds and sizes of particles make up soils, how different soils act when they are wet, when they are dry, and when frozen. Scientific tests had to be devised to measure many different characteristics. All this has been done and now engineers come from every part of the world to learn the practical application of soil science in road building.

One of the simplest applications is the soil survey made along the route of a road to be built. Many samples of soil are collected and tested and a map showing soil conditions is prepared. The highway engineer may then revise his plans to avoid the worst locations; he

may arrange the grading so as to place bad soil where it will do no harm; or he may plan to improve the bad soils by the addition of suitable material.

Results of a soil survey made during the past year on a section of the Natchez Trace Parkway illustrate the value of the procedure. The 12-mile section had been graded and, assuming the soil to be satisfactory, was ready for surfacing. Investigations and samples revealed places where there was a clay soil characterized by an exceptionally high change in volume between a wet and dry condition. Other roads in the vicinity had failed whenever this type of clay was within 2 feet of the road surface. Removal of the clay and replacement with better material was estimated to cost $11,000.

A detailed soil survey disclosed the thickness and extent of the undesirable soil; field and laboratory tests were made of this and other soils, and drainage and topographic conditions were studied. With this information, it was possible to make slight revisions in grade and to reduce the cost of excavation to approximately $6,000, a saving of about $5,000. The soil survey work cost about $500.

The construction of secondary or farm-to-market roads has become increasingly important. Low-cost roads can be built only by using local materials. In some sections of the country, satisfactory gravels and sand-clay mixtures are abundantly available. If natural road-building materials are not found, they must be imported or the existing soils must be treated in some manner to alter their properties and make them satisfactory. This process is called soil stabilization.

A number of different processes of stabilization have been developed and specifications have been prepared. These specifications have been adopted as standard by the American Association of State Highway Officials.

Investigations of Concrete

Concrete is one of the materials most widely used in highway work. It is used for road surfacing, curbs, gutters, bridges of all sizes, drainage pipe, headwalls for pipe, retaining walls and posts. For many years a number of agencies have worked on the problem of making better concrete. The Public Roads Administration has studied concrete as a material for general use and has devoted particular attention to the qualities it must have to make a road surface that will last for 25 or 30 years. The cost of this work and that of other agencies has been repaid many times over. The concrete placed today is at least twice as strong as that placed 20 years ago. This means a big saving in dollars on every mile of concrete road built.

But concrete is not yet a perfect material. Further general improvements can be made. Serious defects develop on particular jobs. It is most important that the cause be found and a repetition of the trouble prevented.

A few concrete roads have come to an early end of service life by first cracking badly and then disintegrating. This may be due to certain constituents in the particular cement used that can be eliminated by greater care in manufacture. Three different tests of cement are now being studied to determine if any of them will accurately indicate the presence of the harmful materials. Cements from many different road jobs are subjected to each of the tests. Consistent test differences, between cements that cause trouble and those that do not, will indicate a satisfactory test.

The addition to cement of very small amounts of certain organic substances may be helpful, particularly in preventing the surface scaling that sometimes occurs in the Northern States. Various materials have been added to the cement used in building several sections of road as a test of their value.

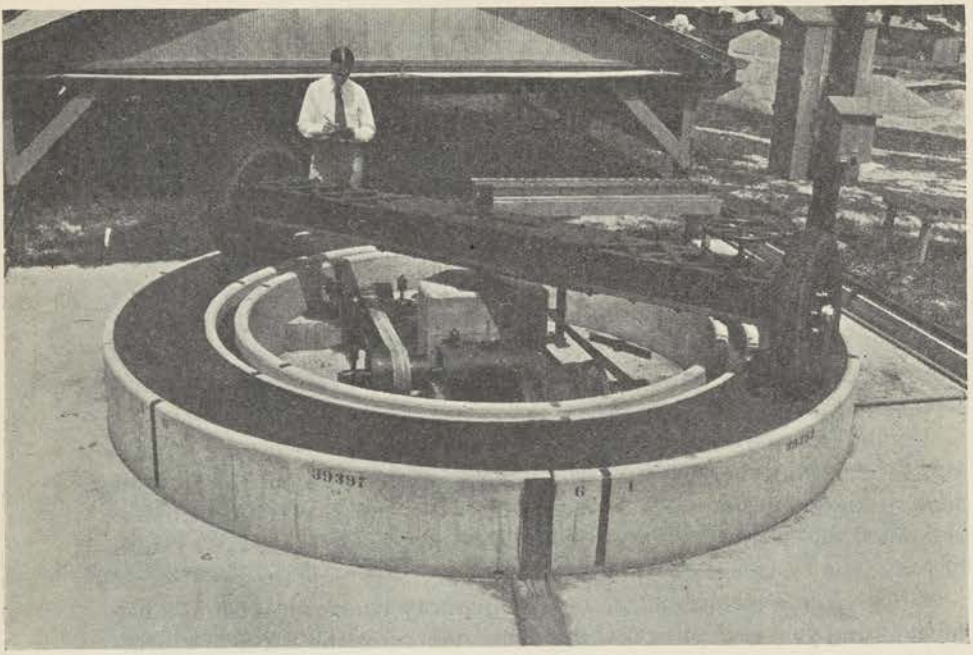
Research investigations are now under way concerning the quality of sand and gravel used in making concrete and of the effect of vibrating freshly placed concrete with various new devices being marketed.

Studies of Bituminous Materials

Bituminous materials (asphalt and tar) are used in many different types of road, and in combination with a wide variety of stones, slags, gravels, sands, and soils, and under a great range of climatic conditions. Success in building durable road surfaces depends upon using exactly the right kind of bituminous binder. Bituminous materials all look much alike. They are all black and sticky. But the bituminous chemist knows as a result of road failures in past years that the most careful tests are necessary to control the grade of asphalt or tar, that accurate judgment must be exercised in determining the quantity to be used and the degree of fluidity it must have at summer and winter temperatures.

As bituminous materials become available from new sources the old tests and requirements may not apply and new ones must be adopted. It is the job of the workers in the bituminous laboratory of the Public Roads Administration to develop all needed tests, to supply all information needed in writing specifications for materials and to indicate the best construction methods.

Tests of many different kinds are made to determine such things as percentage of impurities, fluidity, and loss by evaporation when



HOW LONG WILL IT LAST?

This machine built by the Public Roads Administration is answering that important question. It is testing soil and bituminous mixtures for road paving.

exposed to heat. A new apparatus called a weather-o-meter is now being used. A sample can be exposed to heat, light, and moisture in any desired combination. The effect produced by the apparatus in a short time is the same as that of a long period of exposure on a road surface. Tests can be quickly made in the laboratory that would take years if outdoor exposure were the only possible method.

In the construction of low-cost roads, samples of local materials are sent to the laboratory for advice as to the kind and quantity of bituminous binder to be used to make a durable, dustless road surface. Sieves are used to determine the quantity of particles of various sizes in the sample and with this information as a guide, trial mixtures with bituminous materials are decided upon.

Large samples are made up and placed on sections of a 12-foot circular track representing a small roadway. Then a pair of truck wheels, loaded to represent a vehicle, is made to travel continually around the track for thousands of trips. Under this treatment the poor mixtures are rutted and shoved into ridges while the good ones remain smooth and firm. Information is derived in a few days that might otherwise take years of actual road experimentation.

Investigations of Structural Design

One of the more important investigations now under way involves the application of scientific methods in determining if there is rock or soil where a highway cut must be made or if solid rock for a bridge foundation can be found at reasonable depth.

In the early stages of building roads the engineer concerned himself primarily with surface configurations in locating a new highway. He built roads over or around hills and mountains and crossed valleys barely above the high-water level. Present day rapid transportation makes necessary the elimination of sharp curves and steep grades and requires adequate sight distances for safety in passing. We now project our roads through hills and across valleys on high-level bridges to make them safe and easy to travel. The engineer must know what lies beneath the ground surface. He must locate suitable foundations for bridges and he must know what he will encounter while making roadway cuts as much as 50 or 100 feet below the surface. He must locate deposits of sand, gravel, and stone for use as surfacing materials in areas where their presence beneath the ground is not indicated at the surface.

Holes dug by hand and cores drilled from the earth have been and are being used to obtain the necessary information. Such methods are slow and costly and do not readily lend themselves to rapid recon-

naissance surveys. The geophysicist has brought forward methods by which rapid and relatively inexpensive tests may be made at the surface of the earth from which reasonably accurate predictions are possible regarding the character and position of the materials lying below. He can obtain information in 1 or 2 hours which formerly required days or weeks.

The methods involve the measurement of the electrical resistance of the subsurface materials or the velocity of transmission of seismic waves (caused by exploding a blasting cap) through these materials. Ordinary soils have a low resistance as compared to sand, gravel, and solid rock. Where a change of material occurs, a corresponding change in resistance is obtained. The velocity of seismic wave travel in rock and gravel is relatively high when compared to velocities in soils. Rather abrupt changes in velocity occur when the waves pass from one stratum to another having differing degrees of compaction and rigidity. Light, portable instruments for measuring earth resistivity and seismic wave velocities have been constructed and are now being used in field studies which have for their purpose the development of an ever-broadening field of usefulness for geophysical methods of test in highway construction.

Investigations are now under way to develop more accurate methods of designing road surfaces. At present pavement thickness and other features are based largely on experience with roads built in past years. Two distinct problems are presented since rigid pavements such as concrete, and flexible pavements such as gravel or stone bound together with asphalt, differ widely in their characteristics.

Pavements must be designed not only to withstand the impact of swiftly moving vehicles but also the forces of nature such as stresses caused by variations in temperature and by the freezing of water in the soil beneath the pavement. Few people realize that variations in the temperature of a concrete pavement may be more destructive to the pavement than the heaviest loads permitted on highways.

The investigations are highly technical, and require the use of a great deal of special apparatus. Some instruments used are so accurate as to indicate if a 1-inch length of concrete changes its length under pressure as much as one-millionth of an inch.

The work is all pioneering in a new field and no one knows when final results can be obtained. When they are obtained it will be possible to design surfaces accurately for the many different conditions that exist throughout the country and which change even from mile to mile of road.

WORK OF THE PUBLIC WORKS ADMINISTRATION

★
★ ★

THE Public Works Administration has pushed near to completion the vast, Nation-wide public construction job undertaken in a series of programs, started in the dark days of 1933 to create employment and to promote economic recovery.

Federal aid, provided through the Public Works Administration in the past 7 years, made possible the building of permanent and useful public works of all kinds and sizes, from small rural schools to bridges, tunnels, and great hydroelectric developments.

Into their building has gone the labors of a great army of workers and a vast supply of materials. Men have been gainfully employed in their construction and have been enabled to support themselves and their families. Material orders have kept factory wheels turning. The construction and related industries have been benefitted.

Communities large and small have obtained public improvements they needed and wanted but which they were not immediately able to finance without some assistance.

Now the sound of hammer and saw on this great construction program is being succeeded by the hum of commercial and defense activities.

At the fiscal year-end PWA's accomplishments since 1933 included 33,621 projects completed at a total estimated cost of $5,013,198,026. Statistical details of this work are given in Appendix D.

The Public Works Timetable

At the beginning of the 1940 fiscal year, July 1, 1939, and coincident with PWA's incorporation in the Federal Works Agency, construction under the 1938 program was well under way.

This program was the fifth and last which the Congress had directed the agency to carry out to increase employment by assisting in financ-

ing useful public works. Six months before, in January 1939, the then Administrator of PWA, Harold L. Ickes, had written:

MY DEAR MR. PRESIDENT: I am happy to report the program is on schedule. Six thousand one hundred and eighty projects are under way.

There also, at the beginning of the fiscal year, remained for completion a large number of projects commenced under the previous programs and including projects which had been held up by litigation.

The great majority of these projects, the uncompleted public works of the 1938 and the preceding programs, were pushed to completion during the fiscal year. PWA kept to a timetable on which it was placed by the Public Works Administration Appropriation Act of 1938.

The 1938 act had provided a total appropriation of $965,000,000, of which $724,000,000 was available for direct Federal grants and loans to aid States, counties, municipalities, and other public bodies in constructing non-Federal public works, and $200,000,000 was available for allocation to other Federal agencies for Federal projects.

Allotments to projects were to be limited to those which could be commenced before January 1, 1939, or substantially completed before June 30, 1940. Sponsors had until September 30, 1938, to file applications with PWA. The agency was authorized, with Presidential approval, to provide 45 percent of the cost of approved projects as direct Federal grants, to make loans toward the 55 percent to be borne by the sponsors, and to make allotments to various Federal agencies. Allotments were made, under the 1938 program, for 7,978 projects with a total estimated cost of $1,645,745,755.

Thus PWA, at the beginning of the 1940 fiscal year, already had passed the first two points on a three-point timetable regulating its non-Federal projects, the application deadline and the time-limit for commencing construction.

All of the 1938 program projects, except some held up by litigation, met the January 1 starting deadline. Even before the starting limit some smaller projects of types lending themselves to rapid construction had been started and completed. Work on others proceeded steadily and by spring construction was climbing toward a seasonal peak.

This program of timed public works, construction geared to the immediate need for employment and economic stimulation of industry, continued through the 1939 construction season to advance with unprecedented speed.

At the beginning of the 1940 fiscal year 2,884 projects of the 1938 program had been completed. There remained at that time for com-

pletion 5,440 projects with a total estimated cost of $2,405,729,000, including 345 projects of previous programs. On June 30, 1940, the program reached the third point, the time limit for substantial completion. The program as a whole substantially was completed during the fiscal year except for some large projects.

What PWA Has Built

New and improved public works throughout the country afford visible evidence of the accomplishments of the PWA programs. Aside from the "life-saving" effect on labor and the construction industry, these PWA programs have procured, for the money spent, dollar for dollar value in increased "plant" valuation. The projects constructed are capital investments for the owners whether such owners be the Federal, State, or municipal governments and will provide satisfactory service for many years to come.

They include schools, hospitals, city halls, courthouses, libraries, waterworks, sewage treatment plants, flood control, river and harbor improvements, and the various other types of public works PWA was authorized to assist in financing, an actual range from abattoirs to zoos, with educational buildings predominating.

In the unprecedented 7 years of building, allotments were made for projects in all but 3 of the 3,071 counties in the country.

Resulting improvements have been of the types most needed and wanted by the communities themselves, which proposed them, directed their construction by private contractors, and paid the major share of their cost. PWA sought to assure that sound and usable public works resulted, that both the local and the Federal Governments received full value for their investments.

Outstanding among the improvements effected by PWA non-Federal programs are those in the educational building field. In the 7 years the agency assisted in the construction of more than a billion dollars worth of schools in 7,322 projects.

These projects resulted in the construction or improvement of 12,700 educational buildings, including 113 public libraries. Some 59,600 classrooms were provided, affording accommodations for 2,400,000 students. It was estimated that PWA projects accounted for from 60 to 75 percent of the construction in this field since 1933, based on competitive bids and contract awards. New and improved schools of all types, from small rural buildings to college and university structures, stand in almost every section of every State. Improvements ranged from a 16-story building for Hunter College in New York to a 1-room school in an isolated rural community.

OREGON STATE CAPITOL

When the old State Capitol building burned, Public Works Administration helped the State erect a new marble structure, topped by the heroic figure of a woodsman.

PWA hospital projects provided a considerable increase in the Nation's facilities for the sick and the aged. One of the largest institutions of its kind, the 3,000 bed Charity Hospital, was constructed at New Orleans. The Allegheny General Hospital at Pittsburgh, and the State tuberculosis sanitarium at Mount Alto, Pa., were among the larger in this field. Many projects involving new buildings were located in smaller communities where adequate hospital facilities became available for the first time.

Sanitary sewer systems were improved and complete new systems, including sewage treatment plants, were constructed as PWA projects in hundreds of communities. The value of these improvements, from the standpoint of the reduction of stream pollution alone, constitutes a benefit on which it is impossible to place a monetary value. The largest single sewage disposal project in history was built at Chicago, and other larger cities such as Cleveland, San Francisco, St. Paul, and Minneapolis made major improvements.

PWA waterworks projects have afforded safe and adequate water supplies for millions of people. Numerous villages, towns, and unincorporated communities were enabled to construct public waterworks systems. Metropolitan centers such as New York, Cleveland, Denver, and San Francisco installed needed improvements to their water systems.

With PWA assistance Denver constructed an unusual water supply system costing $9,567,500 to carry water from the western to the eastern slope of the Continental Divide, for use by its citizens and for irrigation. A water purification works at Cincinnati and a filtration plant at Milwaukee were large projects.

PWA highway, street, and bridge projects have effected widespread improvements. Outstanding among these are the great Triborough Bridge, Lincoln Tunnel, and the East River Drive and Belt Parkways, in New York; the Overseas Highway from the mainland of Florida to Key West; the great 160-mile Pennsylvania Turnpike; and Oregon's Coastal Highway from the Columbia River to the California State Line.

The Nation's map has been dotted with needed new public buildings of many kinds and descriptions. They range from town halls serving the needs of smaller communities up to auditoriums, city halls, county courthouses, and State buildings.

Among these are Oregon's new State capitol at Salem, replacing a building destroyed by fire in 1935; the Queens County Courthouse at Jamaica, N. Y.; the State administration and finance building at Harrisburg, Pa., Kansas City's skyscraper city hall and its huge auditorium; the buildings grouped in the civic center at Oklahoma

City; the public auditorium at Topeka, Kans.; and the Davidson County Public Building and Courthouse at Nashville, Tenn.

In addition, civil airports, municipal markets, wharves and docks, and many other kinds of public works completed as PWA projects are in service throughout the country.

Local Improvements in 1940

PWA help has directly improved the service and effectiveness of local government. Good water, efficient sewage disposal, good schools and other buildings, paved streets and sidewalks are among the major results of its programs.

The last fiscal year added 3,693 completed PWA non-Federal projects costing $1,112,966,569 to the accomplishments of the preceding 6 years.

These included, by types, 311 waterworks projects costing $48,901,828; 298 sewer and sewage projects costing $200,501,499; 179 hospital projects costing $94,542,781; 321 streets, roads, bridge, and highway projects costing $106,194,677; and 1,782 educational building projects costing $396,015,905.

The year brought the completion of many outstanding undertakings, including projects allotted under the previous programs and which by their magnitude required considerable time to construct.

Chicago's sewage collection and sewage treatment system, greatest of its type in history and one of the largest single projects of PWA, was among these. The 58-million-dollar project was undertaken with PWA loan and grant funds in January 1934, when the city was financially unable to carry on the large-scale improvements necessary to end its practice of using Lake Michigan water to flush its sewage down the Chicago and Illinois Rivers to the Mississippi.

The project included a new lock and control works between the lake and the river, the laying of pipes under streets of Chicago and numerous nearby towns in the sanitary district, many miles of intercepting sewers, some of which are the largest sewers ever built, and the construction of several treatment plants. The largest of these treatment plants, on the southwest side, cost $15,000,000.

At Seattle, Wash., the new PWA-financed Floating Bridge across Lake Washington was completed and placed in use. Unusual in that it rests on concrete pontoons for more than a mile, the bridge eliminates a long detour which traffic had been forced to make around the lake.

Further improvement in New York's traffic facilities was effected through the completion of work and equipment of 18 miles of subway

structures at a total cost of $25,349,000, and of a westerly approach to the Triborough Bridge at a cost of $5,410,000.

Oregon's new State capitol and its library office building at Salem were finished during the fiscal year, as were a complete new sewage-disposal plant for Denver, Colo., and water-system extensions costing $1,676,200 to provide an adequate water supply for Portland, Maine.

Other representative larger projects completed included $2,122,796 worth of buildings and improvements at the Arkansas Tuberculosis Sanatorium near Booneville; dormitories and dining facilities for a thousand men students at the University of Michigan, Ann Arbor; and dormitories at Oklahoma A. and M. College, Stillwater.

An 18-story building was finished at the Western State Psychiatric Hospital, Pittsburgh; highway improvements including tunnels, bridges, and approaches costing $8,310,000 in Allegheny County, Pa.; a five-story hospital building and other improvements at the County General Hospital, Chattanooga, Tenn.; and hospital construction costing $2,655,000 at St. Louis.

Labor on the Job and in Industry

If due appreciation is to be had of the effect of the PWA programs on labor, the conditions existing in the summer of 1933 must be recalled. Activity in the construction industry, and its allied trades employing the third largest group of workers in America, had come to an almost complete stop. Contractors had disbanded their organizations, and manufacturers of materials and equipment had closed their plants as the volume of construction dropped to less than one-third of the volume attained in the peak years of 1928–29.

The first PWA program then became a reality. As a result of this and subsequent PWA programs, hundreds of thousands of skilled, semiskilled, and unskilled workers were employed in the construction of PWA projects and as the direct result of the PWA programs.

Since 1933 more than 20,000 contractors have shared in the nearly 55,000 principal general construction contracts, awarded on the basis of competitive bids, for the construction of PWA non-Federal projects. Thousands of other contractors shared in the thousands of subcontracts and contracts for materials and equipment.

Workers employed by private contractors labored directly at PWA project sites. In the 7 years it was estimated that PWA programs provided approximately 2,058,000,000 man-hours of direct employment in addition to indirect employment.

One phase of so-called indirect employment relates to workmen engaged in mining, manufacturing, processing, and transporting con-

struction materials. While it is difficult to estimate such employment the Bureau of Labor Statistics of the Department of Labor through a series of studies on the subject determined that for each man-hour of site employment there was provided 2½ man-hours of off-site employment of this type.

In addition to this off-site employment both the man on the job and the men employed in providing construction materials required consumers goods and services which in turn created additional employment.

PWA non-Federal projects created employment in another field. This was the overhead employment afforded in general contractors' offices, and among professional help, draftsmen, architects, lawyers, and engineers of the sponsors before and during construction of a project.

An important factor of all of the employment mentioned is that these workers, whether employed at the project site or otherwise, were engaged in their normal occupations. The projects carried on employed workers normally engaged in the construction and related industries. The retention of these employees in the industry, particularly in the skilled crafts, played an important part in the speed of the construction phase of the defense program.

Workers directly employed on PWA projects in the 7 years received about $1,600,000,000, including $206,234,491 earned in the 1940 fiscal year. Application of studies made by the Bureau of Labor Statistics of the Department of Labor to the PWA programs would indicate that:

Of the fiscal year PWA project pay rolls the families of workers spent, in the respective communities, $65,995,037 for food, $22,685,794 for clothing, $32,997,519 for housing, $32,997,519 for household operation, furnishing, and equipment, $18,561,104 for transportation, $10,311,725 for recreation, $22,685,793 for medical care and other items.

Men hired by private contractors to construct the PWA projects were obtained through local employment agencies designated by the United States Employment Service or through recognized local unions. They were paid wages prevailing in the particular locality in which the project was constructed.

Workers who were qualified by training and experience and who were duly certified for work on a project were given equal opportunity without distinction or discrimination because of race, creed, color, or political affiliations.

In pursuing this policy, a penalty deduction of $3,313.35 from the PWA grant base on construction of a $408,000 school was ordered during the year after investigation had clearly shown that racial

discrimination had been shown in the employment of workers on the project.

PWA endeavored to see that the workers were properly treated. In 6 years a total of $644,000 was returned to laborers who had been forced to make "kick-backs" or, in effect, forced to pay part of their wages for their jobs.

Employment on the non-Federal projects declined from the fiscal year peak reached during the week ending July 22 as projects were completed.

Materials for Public Works

Into the construction of the PWA non-Federal projects has gone a vast supply of materials and the mining, manufacturing, and transporting of these materials has afforded indirect employment for hundreds of thousands of men.

These material orders amounted, in the 7 years, to a total of $2,700,000,000, including $342,000,000 worth in the fiscal year.

The great buying order placed with the Nation's industries since 1933 included such items as $820,600,000 worth of iron and steel products, $496,500,000 worth of machinery, $764,300,000 worth of stone, clay, and glass products, $237,900,000 for forest products, and so on down the list.

Material orders were widely distributed geographically. Construction of a project in one community had its effect through material orders on communities hundreds of miles away. Often materials manufactured and produced in as many as a score of States went into the construction of a single project.

A typical PWA non-Federal project, a $647,250 school at Calumet City, Ill., used materials from 16 States, including:

Brick, cement, electrical instruments, glass, paint, and varnish, plumbing equipment, stone, structural steel, and terra cotta, from Illinois.
Drains, sand, and steel from Indiana.
Conduit, tile, and steel pipe from Ohio.
Lumber from Kentucky and Tennessee.
Cast-iron pipe from Alabama.
Fire-alarm station and metal windows from New York.
Time clocks, wall and desk phones, wire and cable from Massachusetts.
Enameled fixtures, wrought-iron pipe from Pennsylvania.
Vitreous china fixtures from New Jersey.
Electric equipment from Connecticut.
Cast iron, cut stone and granite from Minnesota.
Fuses and metal lockers from Missouri.
Lumber, stage-control board, wood-working machinery, from Wisconsin.
Copper from Arizona.

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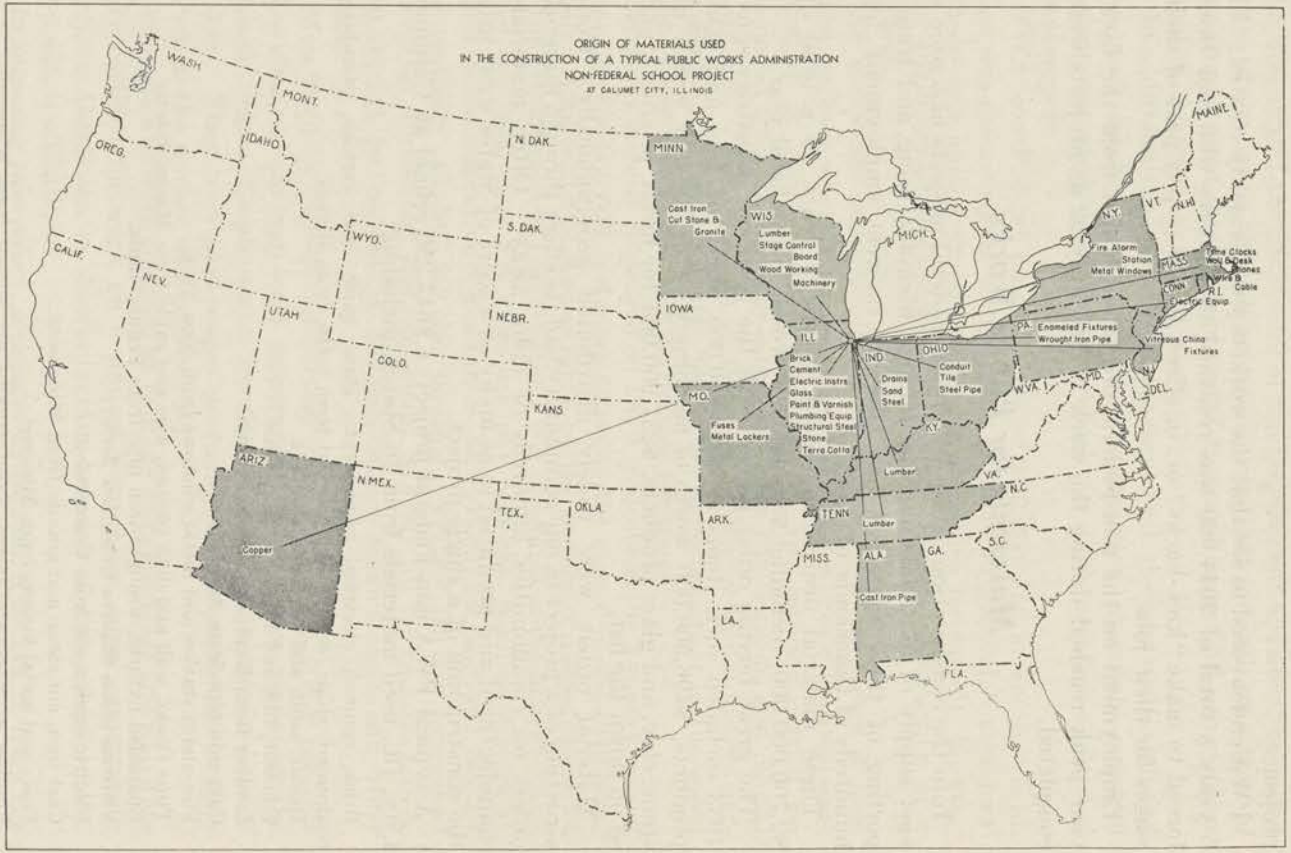
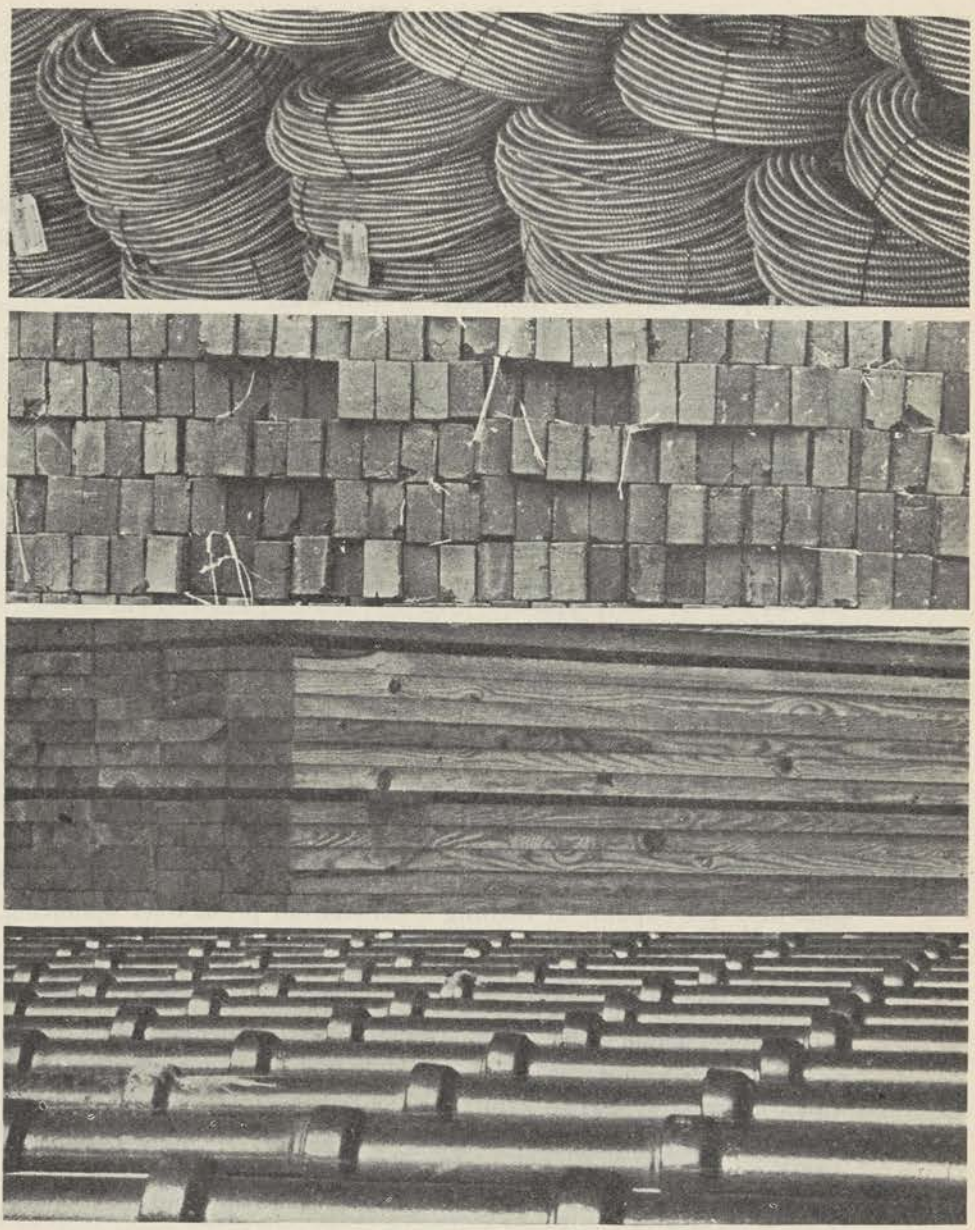

ORIGIN OF MATERIALS USED
IN THE CONSTRUCTION OF A TYPICAL PUBLIC WORKS ADMINISTRATION
NON-FEDERAL SCHOOL PROJECT
AT CALUMET CITY, ILLINOIS
WASH.
OREG.
CALIF.
IDAHO
NEV.
MONT.
WYO.
UTAH
ARIZ.
COLO.
N.MEX.
N.DAK.
S.DAK.
NEBR.
KANS.
OKLA.
TEX.
MINN.
IOWA
MO.
ARK.
LA.
WIS.
ILL.
MICH.
IND.
OHIO
KY.
TENN.
MISS.
ALA.
GA.
FLA.
S.C.
N.C.
VA.
W.VA.
PA.
N.Y.
MD.
DEL.
N.J.
CONN.
R.I.
MASS.
VT.
N.H.
MAINE
Cast Iron Cut Stone & Granite
Lumber
Stage Control Board
Wood Working Machinery
Brick
Cement
Electric Instrs
Glass
Paint & Varnish
Plumbing Equip
Structural Steel
Stone
Terra Cotta
Fuses
Metal Lockers
Copper
Drains
Sand
Steel
Conduit
Tile
Steel Pipe
Lumber
Lumber
Cast Iron Pipe
Enameled Fixtures
Wrought Iron Pipe
Fire Alarm Station
Metal Windows
Vitreous China Fixtures
Time Clocks
Wood & Desk
Electric Equip



IT TAKES A LOT OF MATERIALS to make public buildings. Wire, brick, lumber, and pipe are only a few of the dozens of different kinds of building materials consumed by the carload every year in Federal construction activity.

Returns From PWA Projects

Public Works Administration projects in use have, in many instances, already demonstrated their economic soundness, usefulness, and desirability.

In addition to annual dividends of health, security, and happiness, some are paying in more conventional currency, and demonstrating their economic soundness and usefulness. Revenues are being collected on PWA bridges, and municipal utilities from waterworks to electric plants are more than paying their way.

In New Jersey, PWA loan and grant allotments made possible the construction of the Cape May bridges to the famous seashore resort area. Opened to traffic June 14, 1940, the bridges were used in the following three and a half months by 404,000 cars. This was almost as many as preliminary estimates indicated would use them in the entire first full year of operation. The traffic volume left little doubt that the income from tolls would be adequate to meet all operating and maintenance costs plus debt service on the project's revenue bonds, even though the toll rate was reduced from a proposed 25 cents a passenger car per bridge, to 15 cents.

Income from tolls on the Lake Washington Floating Bridge at Seattle in the first few months of operation likewise far exceeded the most optimistic estimates made before it was undertaken. The volume of traffic passing over the new bridge across the Susquehanna River at Havre de Grace, Maryland, in the first 3 weeks of operation was larger than had been anticipated.

Some of the municipal power plants constructed with PWA assistance have been in operation a sufficient time to have demonstrated that they are capable of earning a substantial profit over operating, maintenance, and debt service charges while affording customers low-cost current. Plants at Culpeper, Va.; California, Mo.; and Floydada, Tex., are examples.

Culpeper, which built a generating plant and distribution system, was able to reduce its residential electric rates 35 percent below those which a privately owned utility had charged, and to cut its tax rate from $1.25 to $1 per $100 assessed valuation. Revenues from the system have retired $30,000 in water bonds, $10,000 in paving bonds, and $5,000 in sewer bonds besides meeting operating and debt service charges.

The town of Union, W. Va., with a population of about 350, obtained a PWA loan and grant to aid in financing improvements to its waterworks system. The loan was to be secured by revenue bonds which the town felt, because of its small population and limited credit, could not be marketed publicly at a favorable interest rate. A year after

completion of the project the bonds were sold by PWA to a local bank. This case is typical of PWA's experience in many small communities.

The town treasurer wrote PWA in a letter dated August 22, 1939, that:

> . . . of the $12,000 bonds issued, we have retired $2,000 or four bonds of $500 each due 1937, 1938, 1959, and 1960 and the funds are now on deposit with the State sinking fund commission to retire bonds due September 1, 1939, and to pay all interest to that date.

Of PWA's assistance in improving the waterworks system, the town treasurer wrote:

> Our citizens are highly pleased and appreciative of our new water system and had it not been for PWA I don't know what we would have done. Our old system was about gone, pipes rusted out and an inadequate supply of water, and we were powerless under the law to have bonded the town for sufficient money to have constructed a new system. The system has worked perfectly, and we have had no operating problems to contend with.
>
> Our little town has been growing of late, and our dependable water supply has been partly responsible for the construction of some new business buildings and a new high school building.

Loans made by PWA for dormitory construction in schools and colleges throughout the country and payable from rents and student fees were secured by bonds which have, in many instances, been sold at premiums which indicate the success of this type of investment.

The Medical College of Virginia, at Richmond, whose hospital facilities were overcrowded and whose medical building, built in 1845, had become unsafe for continued use, constructed new hospital and medical facilities costing about $2,500,000. It was stated that the improvements were indispensable to the welfare of upward of 2 million people.

No loan was involved since the college provided its share of the cost from State appropriations, private donations, and bank borrowings. Since PWA purchased no bonds in connection with the project, no question of the adequacy of college revenues is involved. However, the project affords an illustration of the far-reaching benefits of PWA aid in constructing projects which are vital to the welfare of all the people.

Montana State Water Board officials reported that water stored in PWA-financed reservoirs in that State saved thousands of dollars worth of sugar beets and other principal crops threatened by a water shortage in the 1940 season.

The State Tuberculosis Board of Florida, with PWA loan and grant funds constructed a modern tuberculosis sanatorium at Orlando, to which the first patient was admitted February 1, 1938. The need for such facilities was most apparent when the board filed its appli-

cation as there were no facilities in the State for the treatment of tuberculosis other than poor and inadequate provisions in several county hospitals, usually operated in connection with county poor farms.

Since the project was completed its great social desirability has been definitely established as shown by the fact that during the 1939 fiscal year there were hospitalized an average of 312.8 patients a day, compared with a bed capacity during that period of from 312 to 400. In the 1940 fiscal year the average patients a day increased to 353.97.

The PWA loan was evidenced by revenue bonds payable from gross revenue of the sanatorium after deduction only of reasonable operating costs and maintenance. Gross revenues are being obtained almost entirely from the care of indigent patients, the hospitalization of which is being paid two-thirds by the State and one-third by the counties, in advance.

During the 2½ years of operation, the hospital has demonstrated its social and economic desirability. This fact has been recognized by investment dealers who recently purchased the bonds from the Government at a substantial premium over par.

As would be expected, with 34,512 projects, not all have done as well financially as these mentioned, but on the whole PWA improvements have demonstrated their economic soundness and social desirability.

Among the public works prosecuted during the past 7 years by the various agencies of the Federal Government were many miles of farm-to-market roads built in addition to those constructed under the regular Federal-aid program. In the strategic agricultural areas and natural market centers a number of modern markets were built with PWA assistance and in cooperation with the railroads and other business organizations concerned with the distribution of food.

These farm-to-market roads, plus these marketing facilities, have not only speeded up transportation for market products but they have accomplished what seemed impossible—they have increased the farm income while at the same time they were reducing the cost of food to the urban consumer. Increased consumption, increased production, and increased employment are among the products of our public works programs.

Cheap Power for Factory and Home

One hundred and eleven Public Works Administration-financed non-Federal power projects, completed during the fiscal year, began providing cheap power for domestic and industrial use.

THE GIANT'S STRIDE

This new bridge over the Neches River, Jefferson County, Tex., is one of many similar structures built with the assistance of the Public Works Administration and the cooperation of the Public Roads Administration, both units of FWA.

At the fiscal year-end only 39 of the total of 366 such projects for which PWA had allotted funds remained unfinished. Of these, 30 were under construction and 9 were delayed by litigation.

These projects had been fought from the outset by privately owned utilities on the ground that additional power-producing capacity was unnecessary. They demonstrated during the year, however, that their production was not in excess of requirements and that even more power was needed.

In the bitterly contested Greenwood County, S. C., case a steam plant with 6,000-kilowatt capacity was added to a hydroplant which already had a capacity of 15,000 kilowatts. The combination of the two plants made for a much more efficient and economical system, but it was reported from Greenwood County that even more energy could be marketed than was being produced.

During the year one of the largest of the PWA-financed hydroelectric projects, Lower Colorado River Authority in Texas, began successful operation. It found a market for its output in municipalities and rural electrification cooperatives in 16 counties in Texas and in private utilities.

Within the 16-county area the Lower Colorado River Authority's residential rates were approximately 45 percent lower than the power company rates in effect when the Authority filed its project application with PWA, in June 1935.

The demand for Lower Colorado River Authority power exceeded the installed capacity. Plans promptly were approved clearing the way for the Bureau of Reclamation to increase the height of Marshall Ford Dam and the Authority was authorized to install additional capacity.

In Nebraska the three large public power districts which had received PWA loans and grants for power production and irrigation reached a joint operating agreement which it was expected would be to the great advantage not only of the districts but the State.

Many cities which received PWA allotments for municipal distribution systems in competition with private utilities since have arranged for the purchase of the private utilities. Scope of these projects was changed, to the great benefit of the cities, from competitive systems to complete noncompetitive systems.

This was particularly true in the TVA area and in the Lower Colorado River Authority's 16-county area in Texas. In LCRA and the TVA areas this change was made possible by the purchase of the privately owned transmission lines by the authorities.

South Carolina's vast 50-million-dollar Santee-Cooper hydroelectric and navigation project, begun in the summer of 1939, during the year

progressed steadily toward completion in 1941. PWA supplied loan and grant funds for the project and, in addition, the Work Projects Administration made allotments to the project for clearing land.

This important PWA hydroelectric development involves the damming of the Santee River, the creation of two great reservoirs, and the eventual release of water into the Cooper River. The 8-mile concrete, steel and earth-fill Santee Dam will be the world's longest.

Turbines in a powerhouse near Pinopolis will generate, in a year of average stream flow, 700,000,000 kilowatt-hours of low-cost power for domestic, commercial, and industrial use, tending to relieve the power shortage in that region and opening the way for new industrial and defense operations.

The project also will create a usable channel for navigation from Charleston to the confluence of the Congaree and Wateree Rivers near Columbia. A lock with a 75-foot lift, one of the highest single lift locks in the world, will make navigation of the new waterway possible.

In Northeastern Oklahoma, the Grand River hydroelectric and flood-control project, financed by PWA at a total estimated cost of $22,750,000, neared operating stages during the fiscal year. Power generated through the harnessing of the Grand River with a long-multiple-arch dam, will be made available for use in a wide area of Oklahoma and neighboring States.

In addition to hydro projects, such as the large ones mentioned above, PWA has financed the construction of steam plants, Diesel plants, transmission lines and distribution systems in nearly every State of the Union. Among these are the steam plants for the cities of Cleveland, Ohio, and Jacksonville, Fla., and distribution systems for Memphis and Chattanooga, Tenn.

Federal Projects

PWA Federal projects have resulted in the necessary improvement in the many units of the Nation's governmental plant, the strengthening of the Nation's defenses, and in the carrying out of activities important to the national welfare.

PWA funds made possible the construction of post offices in all parts of the country, of veterans' hospital facilities, the building or improvement of thousands of miles of roads and highways under the administration of what is now the Public Roads Administration of the Federal Works Agency; of flood control and conservation works, of schools and hospitals on Indian reservations, Army and Navy housing, service facilities for the increased fleet, and other types.

The Muskingum Valley Flood Control and Conservation project in Ohio, the flood control works on the Upper Mississippi River, the National Airport in Washington, D. C., the United States Gold Depository at Fort Knox, Ky., and the United States Mint at San Francisco are among these. PWA projects provided supplemental water for western lands already under irrigation but which lacked adequate water supplies.

Differing from the non-Federal PWA projects in that they were constructed by the Federal agencies and financed entirely by Federal funds, these projects were made possible by provisions of two preceding congressional appropriations and the $200,000,000 provision of the 1938 program.

As of June 30, 1939, allotments had been made to 79 agencies for the construction of 17,872 Federal projects with a total allotment value of $1,910,052,065. Additional allotments were made during the year from funds appropriated under the previous acts and the transfer of balances not required for work under previous allotments, increasing the Federal project allotment total to $1,914,709,731.

At the beginning of the fiscal year 1940, 1,408 Federal projects, having an allotment value of $443,698,937, were incomplete. A total of 856 Federal projects with an allotment value of $165,887,880 were completed during the fiscal year 1940.

There remained incomplete at the end of the fiscal year 552 Federal projects with an allotment value of $277,811,057. It was anticipated that these Federal projects all would be completed by December 31, 1941, the completion rate from the beginning of the 1941 fiscal year to that date being fairly constant.

PWA funds allotted to Federal agencies have gone into the construction of the great Boulder Dam project, the All-American Canal, and of the Bonneville and Grand Coulee Dams on the Columbia River in Washington and Oregon.

At a time when attention was centered on the national defense, considerable interest was shown during the 1940 fiscal year in PWA's contributions for such purposes in the preceding years.

These projects, for which PWA provided hundreds of millions of dollars, included the Navy's two aircraft carriers, the *Yorktown* and the *Enterprise*, and other units of the "PWA Fleet" of cruisers, destroyers, submarines, and gunboats.

PWA funds provided airplanes for the Army and the Navy, motorized equipment for the Army and new cutters and patrol boats for the Coast Guard. They resulted in improvements at Army posts, at naval bases, construction of training facilities for the National Guard, improvements at arsenals, renovation of guns and stored

ammunition, and in wind tunnels and other buildings for the National Advisory Committee for Aeronautics.

While these items figured largely in the provision of national defense there is another factor which probably plays a still greater role in the present defense program. As a result of PWA activities, its diverse types of projects, and the wide geographic distribution of these projects, there were available, in all sections of the country, organized and equipped groups skilled in the design and construction of practically all types of work. The very existence of such organizations can be traced, in a great many instances, to the fact that work provided directly and indirectly by PWA projects necessitated their creation and/or maintenance. Thus, responsible organizations, each trained and equipped for work in its own particular field were readily available to step quickly into the operations involved in the accomplishment of the huge defense program.

On some of its Federal projects PWA enlisted the cooperation of the Work Projects Administration to speed up commencement of construction. WPA labor was used in excavating foundations, pouring footings, and other work incident to bringing structures to the ground level in the interval between the advertisement of bids and the letting of construction contracts.

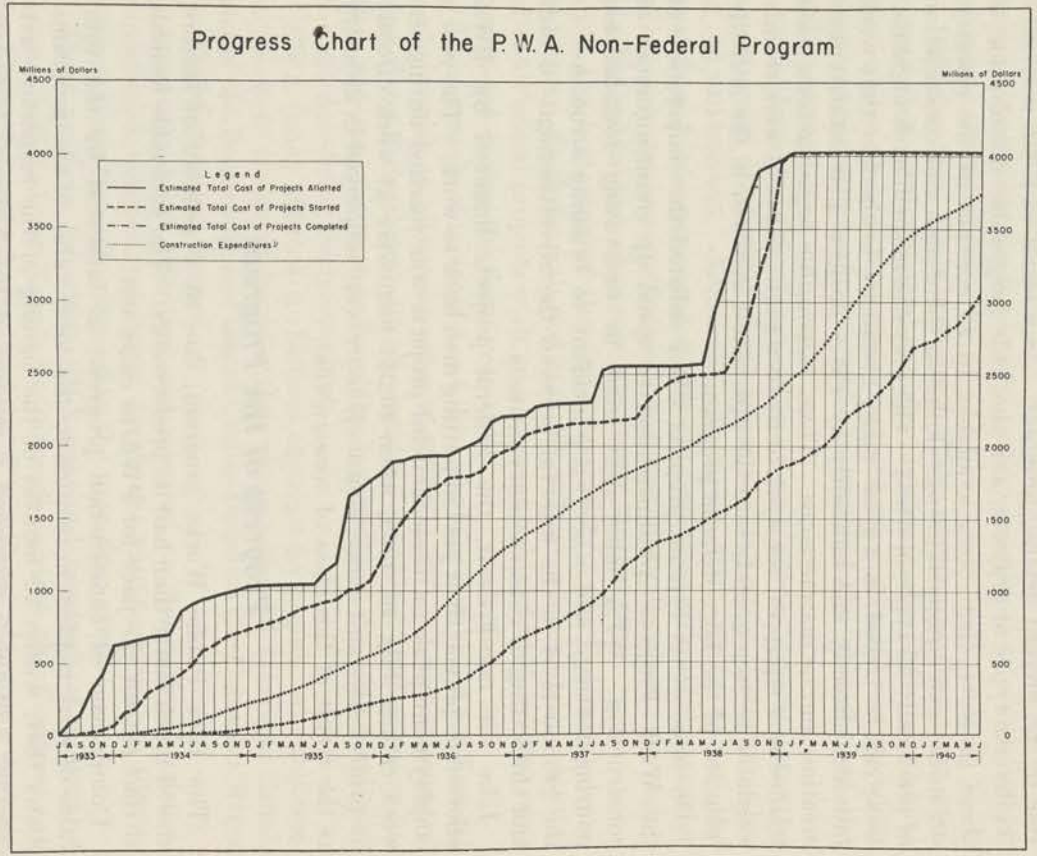
Like the non-Federal, the Federal projects financed by PWA allotments played their part in putting men back to work. The year's employment peak on these Federal projects was reached during the week ending July 29, 1939, when 40,251 men were at work directly on project sites and many thousands more were employed in industry as the result of this class of construction.

Progress of the Program

The 1938 Public Works program, due to a number of factors, moved much faster than had its predecessors. The timetable formula of that act set the pace for PWA to carry out.

Comparison of construction progress, as indicated by the total value of work in place in relation to the total value of the programs, shows that, within 12 months of the signing of the respective acts creating 3 of the 5 programs, 6 percent of the National Industrial Recovery Act program of 1933, 10 percent of the emergency relief acts programs of 1935, and 39 percent of the 1938 Public Works Administration Appropriation Act program were in place.

Within 24 months of the respective dates on which the acts went into effect about 32½ percent of the NIRA program, 65 percent of the ERA, and about 88 percent of the PWA program were in place.


Progress Chart of the P.W.A. Non-Federal Program
Millions of Dollars
Millions of Dollars
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Legend
Estimated Total Cost of Projects Allotted
Estimated Total Cost of Projects Started
Estimated Total Cost of Projects Completed
Construction Expenditures
J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J
1933
1934
1935
1936
1937
1938
1939
1940

PWA had had to start at scratch on its first program developing its organization and its procedure as it went along. By the time it launched the 1938 program, the organization had accumulated experience in expediting work and had improved its procedure. The timetable on which its program operated was more definitely fixed and both the agency and the communities sponsoring PWA projects were alert to the need for speed in getting projects into construction and putting men to work.

In accelerating operations the agency employed a system of controls in the central office and in the field. Progress of applications and the completion of necessary steps by the agency and the project sponsors were checked at all times. PWA pushed for action when delays were encountered and threatened rescission of allotments if other means were not effective.

Elapsed time between the various steps, the receipt of an application, making of an allotment, the sending and acceptance of PWA's offer by a community, the awarding of the first contract, and the start of construction, was reduced materially.

Keeping Jobs on Schedule

The non-Federal PWA program made steady progress in the 1940 fiscal year. In the race to get jobs done, numerous projects of the 1938 program even had beaten the starting limit by many weeks. Some, such as paving jobs at Dearborn, Mich., and Webster City, Iowa, were finished 3 months ahead of the starting dead line which had been established.

At the beginning of the fiscal year on the 1938 non-Federal program, work costing $562,000,000 was completed. A month later the work in place stood at $654,200,000 and by January 1, 1940, it had mounted to $1,044,500,000. By February it had reached $1,085,200,000, by March $1,123,000,000, by April $1,158,000,000, by May $1,195,000,000, by June $1,234,000,000, and by July 1, 1940, the total work in place amounted to $1,270,000,000.

The rate at which PWA non-Federal projects were completed affords other evidence of progress of the program. For some months completions climbed steadily upward. Four hundred and thirteen such projects with a total estimated cost of $40,613,558 were finished the first month of the 1940 fiscal year and 478 with a total estimated cost of $128,616,106 in August 1939.

During September 444 were finished, in October 431, in November 385, and in December 345. Then, as the program moved into its final stages, 256 were added to the completed list in January 1940, and 202

in February, 195 in March, 160 in April, 186 in May, and 198 in the final month before the completion deadline.

In the 12-month period there was finished a total of 3,693 non-Federal projects with a total estimated cost of $1,112,966,569. At the close of the year, coincident with the construction deadline, approximately 80 percent of the PWA non-Federal projects had been completed. Of those for which allotments had been made under the 1938 program, only 297 remained for completion as of June 30, 1940, and many of these were in near-final construction stages. The completed projects represented 64 percent of the total dollar amount allotted.

From the time the projects were approved and the Federal funds allotted, PWA sought to impress on the sponsoring communities the importance of meeting the deadlines, and of keeping construction to the completion dates, which were a part of their contracts with the Federal Government. When it appeared in August 1939, that construction of some of the large public works was lagging, PWA pushed the sponsors of these projects to greater efforts.

Telegrams went out to nearly a hundred public bodies engaged in building PWA projects costing more than $181,000,000. "Your job is behind schedule," they were told. "Since your project must be completed within the date agreed upon, you cannot expect grant on work done after that date."

The results of this step were so favorable that it was repeated a month later. This notice went to sponsors of 49 large projects, scattered over 21 States, and involving construction costs of $37,501,758.

Sponsors met this challenge by speeding up and coordinating their work and often by arranging with their contractors for the employment of additional men or additional shifts of men. Due to the redoubling of the efforts of the sponsoring communities, the majority of the projects which had been in the doubtful class finished on time.

In some instances it became apparent that factors beyond the control of the municipalities or of PWA would prevent the completion of projects on schedule. The agency, therefore, approved time extensions where necessary in such cases.

For example, it was necessary to extend the time to complete the Pennsylvania Turnpike project for the following reasons:

1. To allow settlement of heavy fills before paving.
2. To increase roof supports in tunnels.
3. Adverse weather conditions.
4. Removal of slides through cut sections in mountainous area.

Amendatory applications for projects filed before the closing date were approved by PWA when the changes proposed were considered essential to the adequacy and usefulness of the project.

Communities wanted many, many more public improvements than PWA had funds to finance.

President Roosevelt signed the 1938 act June 21 of that year. In the time between acceptance of applications and the September 30, 1938, deadline, municipalities, States, and local bodies throughout the country broke all records by filing requests for 12,814 projects, involving more than 4 billion dollars, worth of construction.

Funds appropriated for PWA were not sufficient to permit loans and grants for all of these, and a large number failed to receive allotments. When the Congress adjourned in the summer of 1939 without providing for any further PWA program, the agency began returning the pending applications to the public bodies which had submitted them.

In all, some 5,043 applications involving requested grants of $766,803,691, and loans of $242,445,063 for non-Federal projects with a total estimated cost of $1,748,832,977 were returned. A large percentage of them had been passed upon favorably by the PWA examining divisions and could have been built if funds had been available.

In returning the applications, PWA emphasized that the applicants were free to make other arrangements if they desired to proceed with their projects. It was hoped that many of them would be privately financed so that the benefits of the contemplated construction would not be lost.

Of the returned applications, 3,017, covering projects which would have resulted in the expenditure of $716,662,000, had been examined by the PWA examining divisions. It was estimated that these 3,017 projects, if built, would have resulted in the expenditure of about $197,600,000 in wages for site labor. They would have created 247,000,000 man-hours of employment on project sites, extensive industrial employment, and the expenditure of $390,000,000 for materials.

The returned applications covered all types of public works permitted under the 1938 act. They are significant as an indication of what the Nation still needed and wanted in the way of public works.

PWA analyzed these returned applications and reported that:

Public buildings of all types constituted the largest group, numbering 3,026, or 60 percent of all the applications returned. Their estimated cost was $666,753,330 or 38 percent of the total estimated cost of all the proposed projects. In this group were educational buildings, auditoriums and armories, courthouses, hospitals, offices, laboratories, shops, and similar structures.

Of the public buildings, educational building projects such as elementary and high schools, universities and colleges, and libraries, accounted for 2,153 projects with a total estimated cost of $339,870,909. In relation to the total construction involved in the returned applications, educational buildings comprised 42 percent in number and 23 percent in value.

Street and highway project applications numbering 443 and having an estimated total cost of $285,558,045 represented 8 percent by number and 16 percent by value of the total projects; sewer, waterworks, power and similar facilities accounted for 1,108 or 25 percent by number and $480,506,505 or 28 percent by value; flood control, waterpower, and reclamation projects totaling 67, represented 1 percent in number and with a value of $84,621,036, 4 percent of the total estimated cost; engineering structures, including bridges, viaducts, wharves, piers, subways, and tunnels number 151 or 3 percent and their value, $154,940,924, represented 8 percent of the total estimated cost. The remaining 4 percent, both in value and number, were accounted for by navigation aids, aviation, recreational and miscellaneous projects.

Some of these public works since have been constructed, either entirely through private financing or as Work Projects Administration projects.

Orderly Liquidation of PWA

Scheduled to go out of existence on June 30, 1941, PWA during the last fiscal year began an orderly liquidation. Early action was taken in view of approaching completion of the program and the desire to keep administrative expenses as low as efficient operations would permit.

Prior to the inauguration of the 1938 program, the agency, in the interests of efficiency and economy, had consolidated the direction of its field operations in seven regional offices. These were located in New York City, Chicago, Atlanta, Omaha, Fort Worth, San Francisco, and Portland, Oreg.; with subregional offices at Harrisburg, Pa., and Columbus, Ohio.

An experienced organization had been built up to man these and the central office in Washington and to carry on the field work of the 1938 program. PWA's staff organization never had been static but had been increased as new programs were started and reduced as the work-load declined.

Reduction in personnel and consolidation of regional and subregional offices were ordered in mid-August of 1939. Extensive furloughing of employees began September 1, to continue until the

personnel, which at that time numbered more than 9,000 employees in the central office and in the field, had been reduced by one-half.

Elimination of regional offices began with the consolidation of regions 6 and 7, combining the San Francisco and Portland offices with headquarters at San Francisco. Subregional offices at Harrisburg and Columbus were discontinued. Regional offices at Omaha, Fort Worth, and Atlanta were closed early in 1940, and then the San Francisco office later in the year. The New York and Chicago regional offices continued to function with greatly reduced personnel.

Further reductions in personnel continued through the remainder of the fiscal year. By June 30, 1940, PWA's staff was down to 2,800 employees in the central office and the field.

Employees were placed on furlough status and were assured of preference for reemployment in the event of a continuation of the public works program in some form. They also were placed on a preferential list for possible employment in other Federal agencies.

PWA encouraged its former employees to seek employment in private industry and, in cooperation with the personnel division of the Federal Works Agency, made a determined effort to assist them in obtaining such employment. Most of them had come from private industry and had received valuable training and experience in PWA. Their availability was emphasized in letters to industrial, commercial, and professional concerns and civic organizations, and in contacts with other governmental agencies.

As a result of these and other efforts several thousand employees have obtained satisfactory employment elsewhere.

Financial Operations

The Public Works Administration is in a different category from many of the agencies and corporations which have been engaged in lending activities in the past several years. By the terms of its authorizing acts, it was directed to disburse a large part of the funds made available to it for grants which were not expected nor intended to be recoverable. Making loans was, in effect, an activity subsidiary to its main purpose of aiding in recovery by the creation of employment and construction of useful public works.

In order to make effective the program of municipal construction it was necessary for the Federal Government to stand ready to lend the sponsors their share of project costs in addition to making nonreimbursable grants. It was felt that the purpose of the legislation authorizing the Public Works Administration to make loans was to provide a reservoir of credit to those sponsors of projects which found

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this method of financing advantageous, and particularly for those projects dependent upon revenues derived therefrom for liquidation of the indebtedness and which required seasoning before private capital would be interested in investing. A default on general obligation bonds was not considered a bar to a loan secured by the revenues of a utility enterprise, provided it could be shown that the revenues would be ample and could be segregated and pledged for the payment of revenue bonds. Immediate marketability of obligations was never a criterion.

The Administration has purchased bonds and other securities of a par value of $789,014,000, of which $670,534,000 have been retired at or prior to maturity, or sold either to or through the Reconstruction Finance Corporation at a profit to the Government of $13,206,570; $10,958,000 have been cancelled in payments of grants; $10,142,000 have been transferred to the United States Housing Authority in accordance with the law, to be included in the assets of that agency. This leaves a balance of $97,380,000 held by the Public Works Administration for liquidation.

Since the authority of PWA to make loans and grants for new projects expired January 1, 1939, the financial operations of the agency during the fiscal year were limited to disbursement of funds already allotted and to the servicing and sale of securities already purchased.

Grant disbursements during the year amounted to $269,849,941 and securities were purchased in accordance with loan agreements amounting to $58,709,253. On the credit side $20,375,700 par value of bonds were sold to the Reconstruction Finance Corporation, and $714,447 paid or repurchased by issuers, leaving a net balance of securities on hand on June 30, 1940, of $97,379,894. Interest amounting to $1,573,169 was collected and turned over to the Treasury.

The great majority of the securities originally purchased by the Public Works Administration had been sold to the Reconstruction Finance Corporation prior to the beginning of the fiscal year, in accordance with the provisions of law creating a revolving fund for additional loans and grants by the Public Works Administration. The Reconstruction Finance Corporation has, since 1934, handled practically all of the sale of Public Works Administration securities. The premiums received on such sales are held in an account at the Reconstruction Finance Corporation against which any losses on future sales will be charged, the net balance to be returned to the Public Works Administration when liquidation of the portfolio is completed.

Up to the beginning of the fiscal year, the RFC had sold $496,945,708 of the securities acquired from PWA, upon which it received a net

premium of $12,451,048. Starting the fiscal year with $143,998,339 par value bonds the RFC purchased $20,375,700 and sold $28,433,028, adding $459,752 to the premium account which, at June 30, 1940, showed a balance of $12,910,800 in addition to profits of $309,548 on sales made by PWA direct.

Through the operations of the two agencies, loans made by PWA through the purchase of securities aggregating $556,005,390 have been entirely liquidated up to the end of the fiscal year and the money made available for additional loans and grants, in accordance with the provisions of law. Experience indicates that most of the balance of the portfolio can be liquidated in a similar manner.

Although the PWA program was nearly complete on June 30, 1940, there still remained on that date for disbursement in fulfillment of commitments already made a total of $200,602,157 for grants and $35,283,000 for the purchase of securities.

Winding up the Program

Still ahead of PWA at the end of the last fiscal year was the task of completing some of the large projects undertaken in the preceding years, of concluding its connection with many others, and of winding up its affairs as a Federal agency.

Still under construction on June 30, 1940, were some of the largest building jobs ever undertaken in this country. Among them was the 70-million dollar Pennsylvania Turnpike, then lacking only finishing touches before it was opened to the public October 1, 1940.

New York's 58 million dollar Queens Midtown Tunnel under East River still was under construction, as was Chicago's 56 million dollar subway, and the big power projects in South Carolina, Nebraska, Tennessee, Texas, and Oklahoma.

PWA had ahead of it the continued supervision of construction of these and the other projects on the unfinished list. There also remained the completion of the various details in connection with projects which, while substantially complete in construction, were not considered complete from a PWA standpoint and on which final payments of Federal funds had not yet been made.

Final payment of the Federal funds follows 100 percent completion of the project, the making of final audits, acceptance of the project by its owners and other necessary procedure. Only after these steps have been completed can PWA make the final payments of its allotments and end its connection with the projects.

Completion of the remaining functions will add further accomplishments to those credited to PWA in the past unprecedented 7 years of

Nation-wide public construction with their resulting needed improvements and widespread employment. At the same time, the procedure developed by the agency in its operations will afford a pattern for any future public works program that may be found necessary.

WORK OF THE UNITED STATES HOUSING AUTHORITY

★

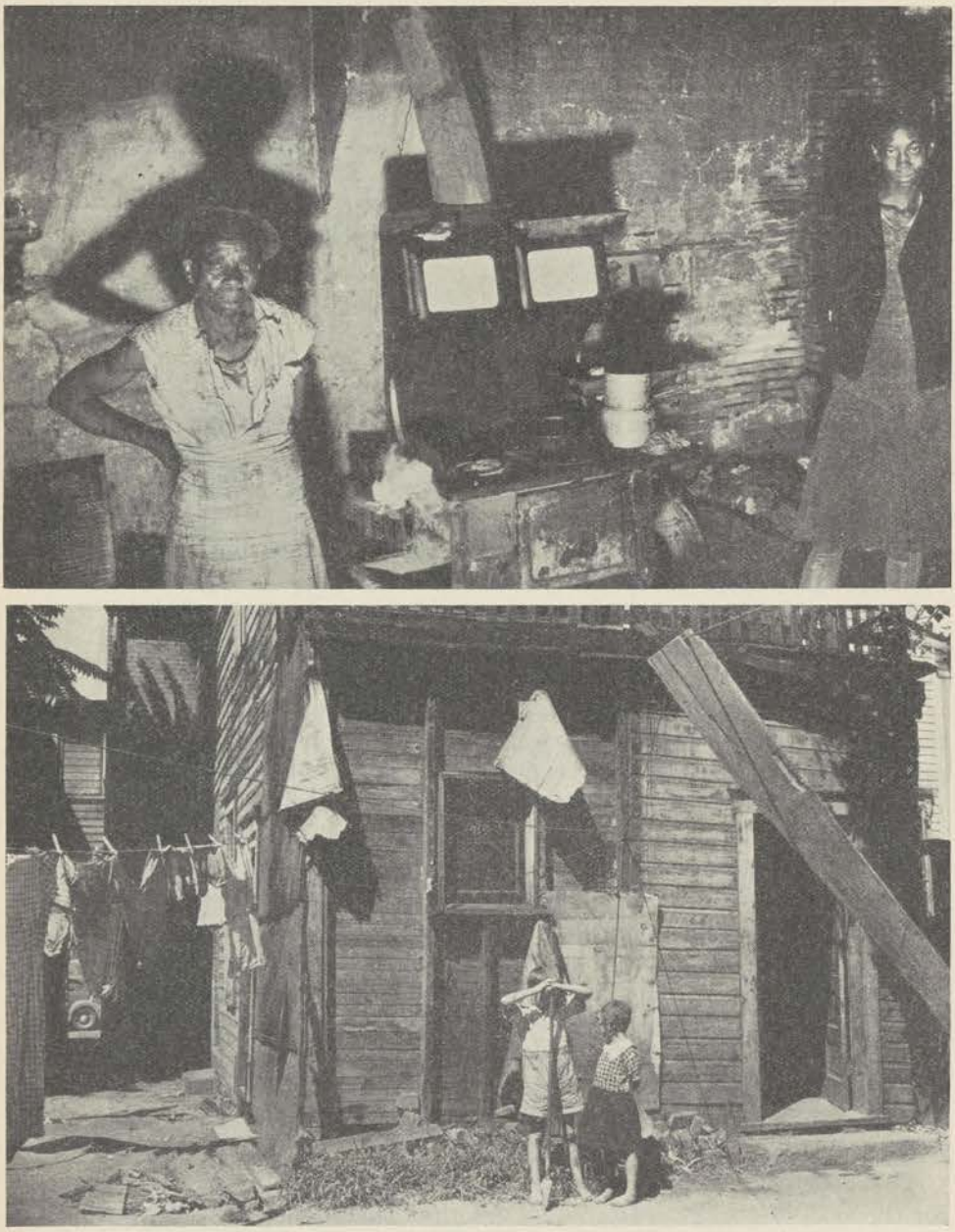
★ ★

AS THE third year of the Federal Government's decentralized public housing program becomes history, the striking fact emerges that a concept—new in 1937—has been developed into an instrument of Government and has been tested and proved successful. The local authorities are clearing the slums of America, and rehousing families in the lowest income group.

This decentralized program is not the first entry of the Federal Government in the public housing field. Aside from the direct construction of homes and the financial aid rendered to assist others in home construction during the last World War, the Federal Government has in more recent years undertaken other public housing programs. The Federal Emergency Administration of Public Works, it will be recalled, made loans to seven limited-dividend corporations and undertook the direct construction of 51 projects, to house 21,650 families in 41 localities. (In November 1937, the securities evidencing the loans to limited-dividend corporations and the projects initiated or constructed by the PWA Housing Division were transferred to the USHA. By a subsequent Executive order, two of these projects were transferred to the Puerto Rico Reconstruction Administration.)

So the present public housing program was not inaugurated without a substantial precedent of Government activity in public housing. The essential difference between the former housing program and the present one is the difference between centralized activities and decentralization.

This difference was by no means an arbitrary reversal or a change for the sake of change. It grew out of the realization that there are many advantages in a decentralized program based on local initiative and deriving its impetus from local support. A decentralized public housing program recognizes that local authorities, working closely with their local governments, are the best agencies to plan for projects in



SLUMS DOOMED TO DISAPPEAR

Under the slum-clearance program administered by USHA one unfit dwelling is torn down, repaired, or otherwise eliminated by local housing authorities for every new dwelling erected. In 1940 slums began to decrease for the first time.

accordance with known local conditions, to place local projects consistent with orderly city planning, to construct projects in line with locally accepted building practices, to establish rents to fit the incomes of low-income families in their respective communities, and to select tenants on the basis of local needs.

Local Authorities Make Good

The low-rent housing and slum-clearance program administered by the United States Housing Authority has achieved real decentralization. At the time the program began, almost all of the scattered local authorities then in existence were, through no fault of their own, inexperienced, inactive, and ill-staffed. Since then, however, scores of local housing agencies have gradually acquired practical housing knowledge and practical housing experience. Today, these local authorities make most of the decisions with respect to their own housing programs, from the selection of sites to the selection of tenants. They are completely responsible for planning, constructing, and operating their own projects.[1]

The decentralized public housing program is all of this, and more. For entirely apart from the local authorities' day-by-day, steady prosecution of their housing programs, decentralization has resulted in the development of a Nation-wide local authority framework that is not only functioning smoothly to meet present needs but which is experienced, equipped, and organized to meet potential needs as well.

Three years ago this was the dream of a few. Today it is a reality—a mechanism of several hundred local authorities in all parts of the country, bound to each other by their common aim of decent housing for those unable to pay what private enterprise must charge, and carrying on their work with financial and technical assistance from the Federal Government.[2]

Public-Spirited Citizens Serve

These local authorities are independent entities, existing by virtue of enabling legislation in 38 States. The authorities' boards are generally made up of five uncompensated individuals appointed by the mayor or other head of the local government. The members of these authorities are the real policy-shapers in today's public housing program, for it is they who make decisions. It is upon their integrity,

[1] Localities with USHA loan and annual contribution contracts or for which loan earmarkings had been made by June 30, 1940, are listed in USHA table 4, pp. 348–352.

[2] For a list of local housing authorities known by the USHA to have been set up by the end of the fiscal year, see Appendix E, pp. 341–344.

Summary of USHA-aided projects as of June 30, 1940

Loan and annual contribution contracts:	
Number of projects under loan and annual contribution contracts	413
Number of dwelling units	145, 646
Localities represented	188
States and territories represented	35
Total estimated development cost of projects	$709, 595, 000
Construction:	
Number of projects under construction or completed	228
Number of dwelling units	84, 927
Localities represented	125
States and territories represented	30
Total estimated development cost of projects	$407, 891, 084
Outstanding funds advanced by USHA under loan contracts plus short term borrowings carrying USHA commitments	$318, 670, 518. 22
Average estimated costs per dwelling unit:	
Over-all cost of new housing	$4, 414
Dwelling facilities cost	$3, 390
Net construction cost	$2, 762
Estimated value of construction materials for these projects	$145, 927, 000
Estimated wages to be paid at the sites for these projects	$113, 032, 000
Rents and family incomes:	
Number of projects for which management resolutions have been approved	64
Average monthly shelter rent per dwelling unit	$12. 92
Average annual family income anticipated in projects	$787. 00
Number of projects in northern States	30
Average monthly shelter rent per dwelling unit	$14. 45
Average annual family income anticipated in projects	$871. 00
Number of projects in southern States	34
Average monthly shelter rent per dwelling unit	$10. 48
Average annual family income anticipated in projects	$639. 00
Occupancy data:	
Number of projects having units open for occupancy	35
Localities represented	29
States represented	15
Number of dwelling units opened for occupancy	13, 566
Number of dwelling units occupied	11, 963
Equivalent elimination:	
Number of projects reported	118
Total number of new dwelling units being provided	48, 362
Total number of unsafe or insanitary dwelling units already eliminated	31, 237
Court decisions:	
Number of States in which public housing legislation has been tested in highest courts	25
Number of decisions by highest State courts on public housing legislation	37
Number of decisions favorable	37

their reputation, and their effectiveness that the integrity, the reputation, and the effectiveness of the local programs depend. This is why it is particularly significant that the men and women serving on the authorities come from all walks of life. About half of them come from local business, banking, and industrial circles; around a third have professional pursuits; while labor and white-collar workers, persons engaged in agricultural activities, public officials, and civic leaders make up the rest.

In far less time than was anticipated, most of these local authorities have developed from hollow shells into living organisms. They have become the housing centers of their communities, the repositories of local housing data, the construction agents of new projects, the management directors of completed low-rent homes. The flexibility of the local authority as a new concept in the field of public administration has been abundantly demonstrated by the adaptability of this new instrument not only to further an urban low-rent housing and slum-clearance program, but also to promote rural housing, to undertake the speedy construction of defense housing, and to operate, under leases from the USHA, most of the projects built directly by the former Housing Division of PWA.

A Program of, by, and for People

The wisdom of decentralization, on which the USHA-local authority partnership is based, need no longer be questioned, for the past 3 years have demonstrated what can be done by Federal-local cooperation.

Any appraisal of the public housing program in this country must be made against the background of this USHA-local authority relationship. The program is not one "dictated by Washington." It is not exclusively USHA's any more than it is exclusively a local authority program. In essence, it is a gigantic low-rent housing and slum-clearance partnership under which each partner performs the task for which it is best equipped. The facing table summarizes the achievements to the end of the fiscal year under this partnership and more detailed information will be found in the tables in Appendix E.

Of the many forms which public service may take, few offer the opportunities or the challenge inherent in the housing program. It is a program where the least common denominator is people, families who, but for the assistance provided, would be condemned to live in overcrowded, unsafe, and insanitary quarters and be exposed to the inevitable physical and social evils associated with such a squalid and miserable existence. Public housing projects are not built as structures that are ends in themselves. The real end is the housing of people.

Principles of Tenant Selection

Who are the tenants in the houses built with USHA aid? How are they selected? What do they earn? What rents do they pay? These are the fundamental questions, for these are questions about people, and in the last analysis it is the people in these new homes, not simply the homes themselves, with which the public housing program is concerned.

The United States Housing Act sets up two tenant eligibility requirements. One is that only families in the lowest income group may be rehoused in USHA-aided homes. The other is that no family may be admitted to a project built with USHA assistance if its net income is more than five times the shelter rent plus the cost of utilities in the proposed new dwelling, unless the family has three or more minor dependents, in which case the income may be as high as six times the rent plus utilities.[3] Under the decentralized program, local authorities are free to determine the standards that are to be used in selecting tenants from among those who apply and who meet these requirements of the act.

Descriptive of the types of families who apply for homes in the new projects are the following quotations from the comments of the investigator who examined the housing conditions of prospective tenants in Vincennes, Ind.:[4]

1. BOYD ———
   Family composition—Man, wife, 1 daughter 8 years of age, 1 daughter 5 years of age, 1 son 3 years of age, 1 daughter 11 months old.
   Annual income $577.20.
   Housing need—Occupying 2-room house in outskirts of Vincennes. House has been sold and they have been given notice to move. Pump and privy. Oil lamps. Stove heat.
2. CHARLES ———
   Family composition—Man, wife, 1 daughter 4 years of age, 1 daughter 2 years of age, and 1 son 7 months old. Husband's mother 65 years old.
   Annual income $726.
   Housing need—Occupying 2-room house that was formerly a restaurant. Have no pump, carry water. No privy, use neighbors'. Electricity and stove heat. Very hazardous location—faces C. & E. I. tracks. Acute housing need.

[3] By a provision in the Independent Offices Appropriation Act for the fiscal year 1941, approved in April 1940, Congress effectively prohibited USHA-aided projects from serving aliens by providing that except for payments required on contracts entered into prior to April 18, 1940, no annual contributions could be paid on any project during the 1941 fiscal year unless the public housing agency involved should have adopted regulations prohibiting as a tenant any person other than a citizen of the United States.

[4] *Annual Report of the Housing Authority of the City of Vincennes for the Year 1939*, Vincennes, Ind., 1940.

PREVIEW OF PUBLIC HOUSING

Prospective tenants and the curious public jammed Yellow Mill Village, recently occupied low-rent project of the Bridgeport (Connecticut) Housing Authority.

3. BERTHA ———
Family composition—Mother, 1 son 12 years old, 1 son 10 years old, 1 daughter 7 years old, and 1 son 4 years old.
Income $348 annually.
Housing need—Occupying two rooms next to B. & O. tracks. Pump and privy; electricity and stove heat. Very undesirable location for children.
4. CLAUDIUS ———
Family composition—Father and son 25 years of age.
Annual income $577.20.
Housing need—Occupying two rooms in rear of barber shop, one which is located upstairs. This upstairs bedroom is a firetrap for invalid son. Very definite housing need here.

These comments amply illustrate typical conditions which the authority is trying to remedy, the need for the project in Vincennes and the type of people who will benefit from the program.

Income limits substantially lower than the statutory limits have generally been observed in selecting tenants from among those who meet the basic requirements of the act. Various other priority standards have been indicated by the local authorities in their management resolutions and publications. Here, for example, are the tenant selection principles drawn up and published by the Housing Authority of the city of Syracuse, N. Y.[5]

Those to be given preference include the following:

(*a*) Those who are citizens of the United States or who have received first naturalization papers at least six months before applying for admission.

(*b*) Those who have resided in Syracuse at least one year.

(*c*) Those who have lived under substandard housing conditions for more than 6 months. This will eliminate the possibilities of families moving into substandard dwellings so that they may be selected as tenants for the project.

(*d*) Those who, together with members of their families, have no large amount of savings or other realizable income.

(*e*) Self-supporting families will be preferred, although with the approval of the Authority, work and home relief families may be considered.

Application will be deferred if any of the above qualifications are not met.

Other preferences which will be given weight include:

(*a*) Families who were occupants of the site of the project at the time it was acquired by the Authority.

(*b*) Families living under the worst housing conditions.

(*c*) Families having the lowest net income with due regard to the requirement that dwellings shall be assigned to families on the basis of furnishing housing to the largest possible number of persons.

(*d*) Families with children under 17 years of age.

(*e*) Families with children attending schools which are in the vicinity of the project.

(*f*) Families whose primary source of employment is within one and a half miles of the project.

(*g*) Families having special health or social problems.

[5] *The Syracuse Housing Authority, Its Program and Project*, Syracuse, N. Y., 1939.

MAINTAINED BY TENANTS

Low-rent housing in Florida comes naturally by its Spanish moss and lush vegetation. Proud tenants in this Jacksonville project, Brentwood Park, are determined to keep their new homes and attractive gardens looking their best.

Jacksonville Project Is Typical

July 1, 1939, was an important date in Government circles. On that day a new fiscal year began. But for many families of meager income in Jacksonville, Fla., the first of July 1939 was a never-to-be-forgotten day, because for them it was not a new year but a new life which then began. Brentwood Park, a completely tenanted project of 230 homes, has now been open for more than a year. One of the first public housing projects to be operated under the decentralized program, Brentwood Park is an example of what public housing was meant to do and is doing. Here, thanks to the joint efforts of the USHA and the Housing Authority of the City of Jacksonville, 230 appreciative low-income families testify to the kind of life a dynamic democracy can make possible.

Let a recently published statement of the local authority speak for itself:[6]

> Since there has been some question, by those with selfish interests, whether low-rent housing, as carried out by local authorities under the guidance and with the assistance of the United States Housing Authority, is reaching the people and relieving the conditions for which it has been designed, we give herewith excerpts from a survey recently completed in Brentwood Park. This covers the first 230 families moving into this new Jacksonville project, and we believe the information developed certainly speaks well for the program.
>
> The program is designed to make available to the lowest income group the decent, safe, and sanitary living conditions which they cannot otherwise obtain. The [present] average weekly income of our 230 families is only $13.92, and since there are 814 persons in the total, or 3.54 per family, this means that the weekly per person income is but $3.93.
>
> The maximum income of the present tenant families is $19.03 for one family of six persons, and the lowest income family receives only $5.54 per week. Surely it appears that the lowest income group is benefiting from this program. * * *
>
> Families cannot be accepted into Brentwood Park unless their present living conditions are rated as substandard. The fact that the majority of these people were overcrowded (as many as five living in one room) and were without private baths and toilets, is further proof that the program is reaching those for whom it is intended. To quote from the survey, 148 of these families had to share their baths and toilets, in some cases with three or more families; 62 had no adequate and safe heating facilities. * * *

Cleaners, Bakers, Candy Makers

Over 50 vocation and trade groups are represented by the tenants of Brentwood Park, including bakers, dry cleaners, dental assistants, candy makers, glaziers, stenographers, salesmen and salesladies, painters, sailors, taxi drivers, teachers, retired war veterans, etc.

Applicants are not disqualified because of receiving relief, or being employed by

[6] *Brentwood Park—Vital Statistics of First 230 Families*, Jacksonville, Fla., 1940.

WPA. However, in order not to discriminate against other employment groups, The Housing Authority of Jacksonville has limited the number of relief clients and WPA workers to 10% of the total tenants accepted.

Children are welcome to Brentwood Park. The project was designed to afford the maximum of safety and convenience to children, and they are now here—370 strong—enjoying fresh air, sunlight, and wide play areas, safe from traffic and other hazards which menaced so many of them in their former neighborhoods.

Each family has its own private front and back entrance, and there are no common hallways in any of the buildings. Uniform laundry poles are embedded in concrete in back of each unit, and a visit to the project will show that tenants do not hold their soiled clothes over for Mondays—every day seems to be washday here.

The Authority is pleased with the manner in which the tenants are maintaining their homes, and their front and back yards, showing definite appreciation of the opportunity of improved living conditions.

All citizens who have learned about Brentwood Park are proud of what has been accomplished, and of the part they are playing in a program which is not only of direct benefit to so many deserving families, but to the city as a whole.

It is the wish of this Authority that it be called upon at any time for further information. It will be a pleasure to answer questions at any time.

Rents Are Low in All Projects, and Incomes Too

This simple, convincing statement of just one of scores of active local housing agencies makes reference to many of the tests which public housing must meet. The statement discloses none of the tedium and care that enter into project planning, the painstaking efforts to reduce costs, the constant checking of construction progress, the careful and critical approach to tenant qualifications, or the tedious statistical and other types of necessary research. Yet all these and many more demanding tasks confronted the Housing Authority of Jacksonville just as they confront all local authorities taking part in the USHA program.

It is no accident that all over the country the story is the same as that in Jacksonville. Success has been achieved in one community after another in rehousing families of low income, in setting rents such families can afford to pay—rents generally lower than those charged in substandard housing, and in providing amenities consistent with our present American standards. For the same application to detail, the same concern about results, the same cooperation with USHA which characterize the local authority's actions with respect to Brentwood Park obtain uniformly in this decentralized public housing program.

If the test be incomes of families rehoused, consider the $787 average family income for the 64 projects covered by management resolutions approved by the end of the fiscal year. If the test be low

rents, consider the $12.92 average monthly shelter rent per family in these 64 projects.[7] If the test be the nature of tenants' former quarters, consider the fact that no family living in decent, safe, and sanitary accommodations provided by private enterprise is admitted to a public housing project. If the test be the comparison between rents formerly paid and the rents charged for bright new homes, consider the fact that in practically all cases average rents in projects under the USHA program are less than those paid by families living in substandard lodgings in the locality.

These 64 projects are but the first contingent of projects under the present USHA program which will ultimately rehouse about 160,000 low-income families. As of June 30, 1940, 84,927 dwellings were completed or under construction.[8] As of June 30, 1940, 11,963 families were living in clean, new homes built under the USHA program, and thousands more are being rehoused each month.

In order that the cost to the tenants of shelter plus utilities in these new homes may be kept as low as possible (and hence that lowest income families may be served, since the statutory income limitations are based on this shelter-plus-utilities cost), utility lines within project boundaries are generally included in the development of projects. This makes possible the wholesale purchase of water, gas, and electricity at rates that are usually substantially lower than the ordinary domestic charges.

Men at Work

One of the major economic benefits of the public housing program is the employment it is creating, directly and indirectly. Detailed information as to direct employment provided under the USHA program during the 1940 fiscal year as well as since the program began is contained in Appendix E. Thousands of men are already on the job in localities all over the country, and additional men are going to work as more projects get under way from week to week. The entire present program calls for about 115,000 man-years of direct employment for carpenters, plasterers, plumbers, bricklayers, and other building trades workers at prevailing wages, under good conditions. An estimated additional 170,000 man-years of indirect employment away from project sites will be required in mines, mills,

[7] For an analysis of the average family size, rent, and income in each of these projects, see USHA table 8, pp. 374–375. For an analysis of the projects opened for occupancy and the percentage of occupancy, see USHA table 9, p. 376.

[8] See USHA table 7, pp. 358–373, for a list of projects for which construction contracts had been let by June 30, 1940.

and factories, and additional thousands of man-years of indirect employment will be called for in administrative, architectural, and engineering work.

Under the present program, about $280,000,000 is being spent for brick, cement, glass, steel, hardware, lumber, and other building materials.

Another major item under the public housing program is the amount of money being expended in the acquisition and clearing of land for the new projects, which will reach an estimated total of $109,000,000.

How the Program Operates—A Thumbnail Review

The USHA makes available to local authorities both financial assistance and technical advice. So far as financial assistance is concerned, this takes two forms: loans, not in excess of 90 percent of a project's development cost, and annual contributions, limited to the amount necessary to assure low rents. Since the loans are to be repaid with interest, the cost of the public housing program to the Federal Government, aside from administrative expenses, is simply the net cost of the rent-reducing annual contributions. The maximum annual amount that can be paid out in USHA contributions toward low rents under the present program is $28,000,000. With more and more operating economies being put in effect, it is anticipated that when the present program reaches its peak, the amount of rent-reducing contributions actually necessary to be paid will be about $22,400,000 instead of $28,000,000. If from this figure is deducted the spread between the interest rate the USHA pays and the higher interest rate paid it, the result will be a net cost to the Federal Government of about $6.40 a month to rehouse a family.

During the fiscal year 1940, no annual contributions were paid by the USHA. The only expense of the entire program to the Federal Government during the past fiscal year was the amount expended for administrative expenses of the USHA, which was a little more than $4,000,000.[9]

Why Federal Subsidies?

Subsidies are paid to bridge the gap between what tenants can afford to pay and the economic rent of the project. This gap, under

[9] Total administrative and nonadministrative expenses during the fiscal year 1940 are listed in USHA table 18, p. 405. The USHA's balance sheet and reconciliation of surplus are contained in USHA tables 19 and 20, pp. 406–407 and 408, respectively.

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the decentralized program, is bridged by subsidies from the Federal Government and from the localities.

The past year has been a significant one for USHA from the point of view of subsidy reduction. During the earlier part of the program the full annual Federal contribution was considered a constant factor in achieving low rents. It is now recognized that the subsidy should vary with local conditions. After existing slum rents have been surveyed by local authorities, and rental markets thus established, the subsidies are reckoned as the difference between these average rents and the full economic rents which would otherwise have to be charged in the projects.

Under the greatly reduced operating budgets now being approved it is expected that full subsidy will not be required for most projects. The average subsidy anticipated is about 20 percent less than the legal maximum.

The Value of Local Subsidies

The United States Housing Act requires that the localities also make annual contributions toward low rents in the new projects. This has generally been accomplished through local tax exemption. Studies of the cost of maintaining slums conducted in scores of communities in recent years make it apparent that local governments stand to gain, rather than lose, in subsidizing slum clearance and the provision of decent new housing to this extent. Here, for example, is what the Philadelphia Housing Authority had to report with regard to its local slum-clearance and rehousing activities: [10]

Such a program saves the city of Philadelphia many thousands of dollars annually, since it has been proven, conclusively, that blighted areas are a heavy drag on this city.

The Philadelphia City Planning Commission, an agency of the city, made exhaustive surveys of the blighted areas between Girard Avenue and Washington Avenue and between the Delaware and the Schuylkill, the west area lying to the west of Broad Street and the other east of Broad between these boundaries.

Here are some of the dramatic facts which the Commission brought out in comparing these two blighted areas with the rest of the city:

Although the rest of the city had a *tuberculosis death rate* of only 0.65 per 1,000, the tuberculosis death rate in one blighted area was 1.14 per 1,000, and in the other, 2.00 per 1,000.

Although the rest of the city had a *juvenile delinquency rate* of 13.18 per 1,000 juvenile population, the juvenile delinquency rate was more than twice as high in one blighted area, and in the other, almost three times as high.

[10] *What the Philadelphia Housing Authority Is Doing*, Philadelphia, Pa., 1940.

Although the rest of the city had a *truancy rate* of 110.31 per 1,000 school enrollment, the truancy rate in one blighted area was 128.88 per 1,000, and in the other 203.91 per 1,000.

Although the rest of the city had a *rate of arrests* amounting to 79.79 per 1,000 adult population, the rate of arrests in one blighted area was more than three times as great, and in the other, almost seven times as great.

Although the rest of the city had *housing and sanitation complaints* at the rate of 83.70 per 1,000 residences, the rate of complaints in one blighted area was about two and a half times as great, and in the other, more than three times as great.

Although the rest of the city had *fire alarms* at the rate of 14.52 per 1,000 buildings, the rate of fires in one blighted area was 18.75, and in the other, almost twice the rate in the balance of the city.

Continuing, the report points out:

Studies indicate that cities spend in excess of four times the tax receipts in slum areas in order to meet charges due to such conditions as indicated by these City Planning Commission figures. It is such studies as these that indicate the need for the program of the Authority.

In answer to this same question, "How costly are slums?" the City of Detroit Housing Commission had this to say: [11]

In areas proposed for slum clearance by the Housing Commission and various city departments, areas considered perhaps the most serious liabilities of any sections in the city, it has been found that government services rendered are out of all proportion to the taxes levied. In a 40-block east side area, it was found that the cost of fire protection amounted to 37.5 percent of the total taxes levied, as compared to a ratio of 10.7 percent for the city as a whole. According to a crime survey, for major crimes committed January 1933–June 1938, inclusive, five times as many crimes were committed per unit of population in this area, as in a normal residential area, and 15 times as many criminals per unit of population, were living in the area, as lived in normal residential areas.

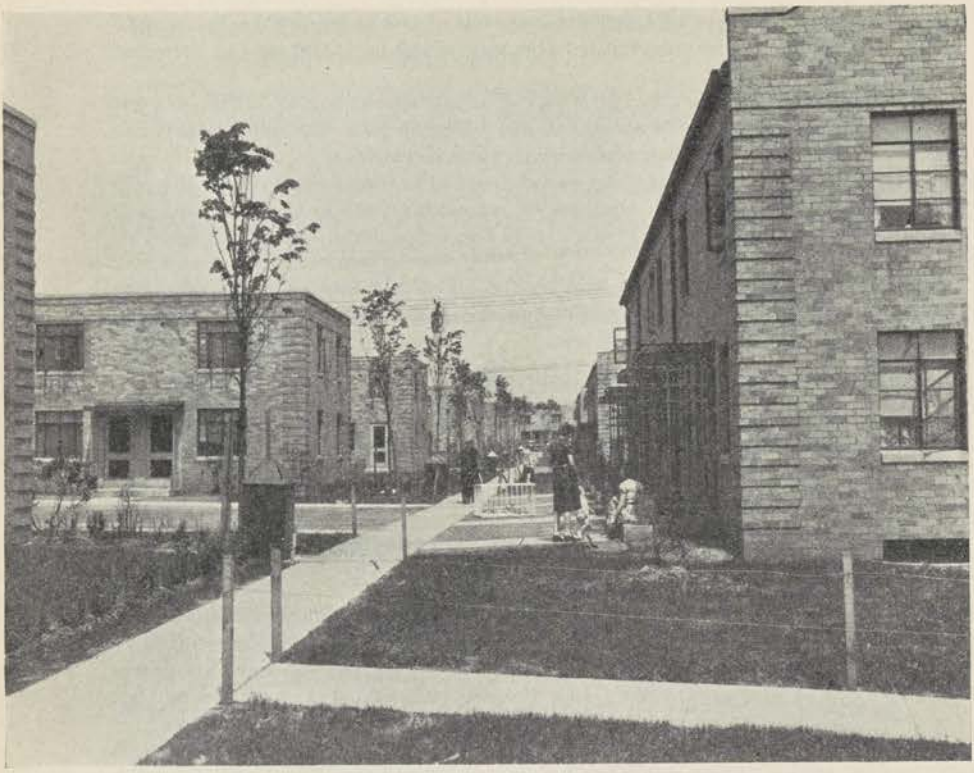
Health statistics for the east-side area show that in 1930, infant mortality was six times greater than for normal residential areas, the death rate for pneumonia three times greater, and the death rate for tuberculosis 10½ times greater.

Recent years have shown a considerable downward trend in assessed valuations in blighted areas. Thus, the revenue of slum districts becomes smaller and smaller with the passage of time. In all these ways, the taxpayers of Detroit pay for areas of dilapidation and blight.

No Regimentation of Family Life

With the opening of projects by local authorities in the past fiscal year, the social benefits are becoming clear. It is now possible to see how the USHA-local authority partnership has worked toward the real goal of public housing. In the projects that have opened, Americans live as Americans should. Homes are simple, clean, light, and airy. Opportunity is provided for recreation and for sound

[11] *101 Questions and Answers Concerning Slum Clearance and Low-Rent Housing*, Detroit, Mich., 1940.



BUILT FOR A LONG LIFE

In Toledo, Ohio, the Housing Authority, aided by USHA loans and annual contributions, has been able to extend a project of the old PWA Housing Division.

community activities. Rules and regulations kept to a minimum consistent with sound business management. It is confidently expected that juvenile delinqency in these projects will be practically zero. Tenants, proud of their new homes, are prompt in rent payments,[12] anxious to cooperate with their local authorities, quick to adapt themselves to an environment so conducive to good citizenship.

The USHA has long recognized the health implications of a public housing program and has maintained a close cooperative relationship with the United States Public Health Service. In fact, from this latter agency staff members have been assigned to the USHA to act in an advisory capacity regarding various health aspects of housing. As a result of this joint endeavor and of the active cooperation of the local authorities and local health officials, matters of heating, lighting, ventilation, and structural standards best suited to serve the health interests of project occupants have been vigorously explored. Nor have the efforts been restricted to the construction of the projects. For many local authorities, in collaboration with the Public Health Service and the USHA, have worked out plans for health centers, health services, and health education for tenant groups.

The Housing Authority of the City and County of San Francisco describes its carefully developed management plans for Holly Courts, the city's first public housing project, in this way: [13]

> Approximately 1 month before occupancy in June the tenants will have been selected and a very careful program initiated preparing them to meet financial and furniture problems incident to their occupancy.
>
> At the time the lease is signed a sworn statement of family's total income will be taken and thereafter once yearly. * * *
>
> The management will encourage a program of community activities which will get under way slowly as residents express a desire for them.
>
> Every effort will be directed toward integrating the project into the existing community life, and neighborhood facilities will be utilized where available. In furthering the same, neighbors will be invited to use project facilities wherever possible.
>
> A social hall, fully equipped with kitchen stove, china, and silver, is provided for meetings, clubs and, at a small charge, for the private use of the residents. Fine play facilities are available for school children across the street at Holly Park, and recreation equipment within the courts will meet the needs of preschool children. Three large sand boxes and a number of garden benches will be located within the five interior courts. Most families will have individual gardens for their private use and enjoyment. It is anticipated that a considerable reduc-

[12] For income and expense statement of USHA-aided projects in which any units were occupied by the end of the fiscal year, see USHA table 13, pp. 382-384.

[13] *Second Annual Report of the Housing Authority of the City and County of San Francisco*, San Francisco, Calif., 1940.

tion in maintenance costs will be achieved through fostering a spirit of cooperation and pride among the residents in caring for their new homes.

The New York City Housing Authority has this to say about one of its projects: [14]

The 448 families who in South Jamaica Houses enjoy modern conveniences, comfort and safety, came from homes that lacked the minimum decencies of sanitation, homes that were unsafe firetraps, dangerous to safety, health and morals.

In South Jamaica Houses, every apartment has a modern bathroom, completely equipped kitchen with electric refrigerator and gas stove, and every room has at least one outside window. In addition, there are laundry tubs, coin-meter washing machines, and clothes drying rooms in the basement, baby carriage storage spaces, spacious inner courts which include playgrounds for little children, and indoor recreational rooms for the adults.

Yet the average family at South Jamaica pays $5 a month less rent than it paid for the substandard quarters from which it moved!

Forty-one percent of the families were chosen because they came from homes in buildings with major fire hazards, 35 percent because they had no private toilets, and 3 percent because their apartments contained illegal interior rooms with no windows.

This does not mean that the 41 percent from buildings with major fire hazards had private toilets, or that those who were selected because they had no private toilets had no interior rooms or lived in buildings which were adequately protected against fire. On the contrary, many of the tenants had combinations of these defects. For the purposes of tabulation, the major factor influencing selection was used in arriving at the above percentages. Actually, 55 percent had no private toilets, 66 percent had no private bathrooms, 43 percent had no central heat and 30 percent had no hot water supplied in their homes. * * *

Settling Down to a New Way of Life

Even more interesting than the figures revealed in a statistical survey of the tenants of South Jamaica Houses is the attitude of the tenants themselves, now that they have settled down to a new way of life in a public-housing project. They are organizing community activities and developing community leadership more rapidly than any of the other projects did and, unlike some of the other projects, it is the men, rather than the women, who have taken the initiative in this activity.

A South Jamaica Project Association has been formed by the men with the following avowed purpose: "To promote and maintain civic, social, and athletic activities in order that we may make life more livable and interesting in our new community, for the physical, mental and cultural advancement of ourselves and our loved ones."

Officers have been elected, a constitution adopted, and an ambitious program undertaken. A committee on social events has been appointed, and arrangements are being made for forum meetings and for a series of health lectures. An eight-piece band and a basketball team have been formed, Boy and Girl Scout troops are being organized, and tenant instructors in baseball, boxing, and other athletics have been appointed.

[14] *South Jamaica Houses, A Chapter in Public Housing*, New York City Housing Authority, New York, 1940.

Not far behind are the mothers, who have already developed a unique arrangement for taking care of each other's children on certain "shopping" days. They, too, are forming a club of their own and have plans for a "home-making center."

The children? Their lively faces already show the beneficial effects of happiness found in romping in the broad playgrounds of the project, away from the dangers of traffic-laden streets and congested neighborhoods. South Jamaica playgrounds are located within the project, where they can be observed from the apartment windows by the mothers, and they are equipped with jungle gyms, swings, slides, and play tables.

Slum Sites or Vacant Land?

It is axiomatic that no local housing program can be successful unless it relates to a logical city plan. That is why the closest cooperation has existed between local housing authorities and local city planning commissions wherever the latter are in existence. The assistance of local welfare and recreation agencies has also been enlisted.

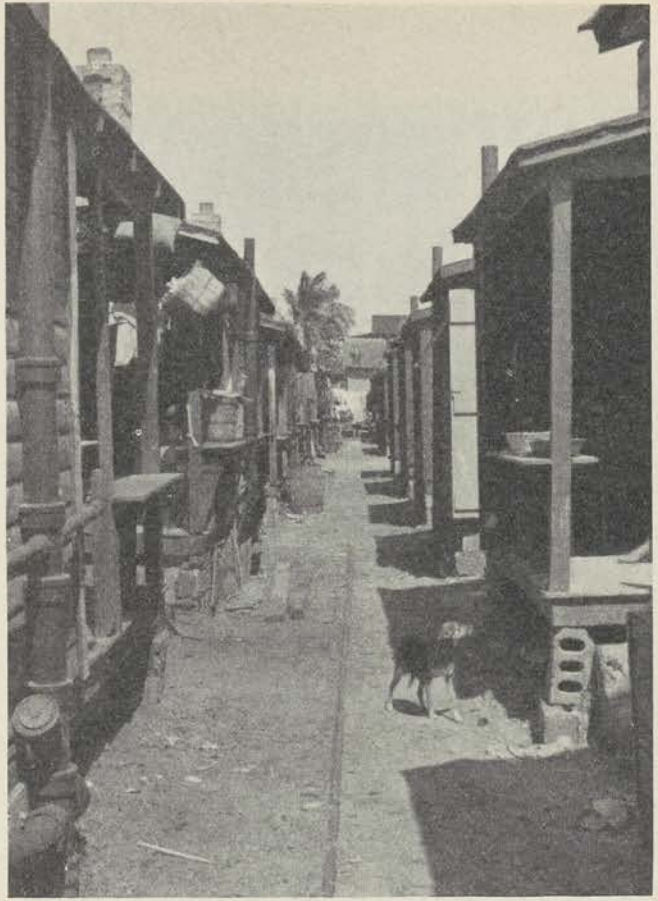
Here is how one local authority describes the way it went about the matter of site selection: [15]

After consultation with representatives of the United States Housing Authority, Mr. S. R. DeBoer and Associates were employed to make careful studies of 10 available sites and submit recommendations to the Authority. The studies included the relations of the prospective sites to existing schools, utilities, shopping centers, transportation lines, and centers of employment. They considered the effects on surrounding neighborhoods where juvenile delinquency, infant mortality, fire hazards, overcrowding, and lack of sanitation are the highest in the city and call for outlays of public funds out of all proportion to the tax revenues derived from these areas. They considered the possibilities of rehabilitating some of the older and blighted areas of the city with a modernization program in the areas immediately surrounding the projects and the probable effects on real-estate values in the downtown commercial districts of the city. The prospective sites were considered in their relation to the city plan.

In arriving at a decision in the selection of sites, all of these factors were considered, and the economies to be gained by the use of tax title land owned by the city, or cheap vacant land in outlying districts were weighed against the many municipal benefits to be gained by the rebuilding of some of the older sections. The decision was made in favor of the latter, and with the approval of consultants from the United States Housing Authority, three sites were selected. * * *

These three sites seemed to best meet all of the requirements of housing and city planning; all are located in blighted areas which have ceased to develop for residential purposes; all contain a considerable proportion of substandard dwellings; existing schools and utilities were ample to serve the new projects. The three sites surround the main business district, each about 1 mile distant, and within walking distance of employment and shopping centers * * *. They are in areas of high infant mortality and juvenile delinquency. Preliminary appraisals indicated that the sites should be purchased at fairly reasonable prices.

[15] *Annual Report of the Housing Authority of the City and County of Denver for the Year 1939*, Denver, Colo., 1940.



YESTERDAY AND TODAY Slum neighborhoods like this one in Miami, Fla. (left), are being wiped out in connection with the development of Miami's attractive new USHA-aided project, Liberty Square Addition (right).

Clearing the Slums

The United States Housing Act requires that for each new dwelling constructed under the program, one substandard home must be demolished, closed, or repaired. In the observance of this "equivalent elimination" provision, local authorities are given a weapon to fight the age-old battle of the city slums and the town shacks without being restricted to slum sites for the new projects.[16]

For a little more than half of the projects, local authorities have selected predominantly slum sites, which means that in those localities, death warrants have been signed for thousands of dangerous, insanitary, overcrowded dwellings with the consequent reduction, if not elimination, of the annual toll these slums have taken in juvenile delinquency, crime, preventable sickness and death, and excessive public expenditures for fire, health, and police services.

But even if a local authority selects a vacant site for its projects, the equivalent elimination provision is operative. Somewhere in that locality a home unfit for human habitation will be demolished, closed, or repaired, and thus will no longer beckon some helpless low-income family.

Real civic improvement results from low-rent projects, whether they are built on slum or vacant sites. One of the most dramatic achievements under the local authorities' operations, for instance, is the topographical face-lifting job that is being carried out by the Pittsburgh Housing Authority in connection with the development of its local program. Three bleak and desolate hills in the center of the city have been converted into building sites by slicing off over 4,000,000 cubic yards of earth—in some cases to the extent of more than 100 vertical feet—and filling in the intervening valleys.

In Buffalo a public housing project has been built on the site of an abandoned penitentiary and the remains of the old Erie Canal. In New Orleans, a notorious "red-light" district was converted into a project of decent homes for low-income families. And in scores of other communities from coast to coast, slums have given way to comfortable modern new homes.

The Variety and Scope That Are America

Administering a Nation-wide decentralized public housing program is no part-time job. Aside from maintaining a competent staff to see that the statutory requirements are observed, the USHA has also

[16] USHA table 12, pp. 379-381, indicates the progress made in meeting this equivalent elimination provision in projects on which reports had been received by June 30, 1940.

undertaken the important task of keeping local authorities informed as to developments in techniques and standards, and of assisting the growing body of local authorities in starting their local programs.[17] This has meant that the USHA has been called upon to render assistance to local authorities on survey techniques, design of projects, construction procedures, suggested legislation, briefs in litigation, land-acquisition policies, negotiations for utility and insurance rates, tenant selection activities, and operation activities, to name but a few of many types of USHA aids available to local authorities.

Though assistance has been provided at various stages of project development by the local authorities, the projects completed or under construction are far from rubber-stamp developments. Under a decentralized program it is obvious that no two projects could be exactly alike in all details. There are flat- and pitched-roofed dwellings, homes built of brick and tile and concrete, simple row houses based upon local building patterns, huge six-story elevator apartment buildings in the larger cities, and detached frame dwellings in rural areas.

Helping Those Who Help Themselves

In addition, the USHA has been able to make signal contributions to the public housing field in the form of tested technical studies. The local authorities have been quick to take advantage of these scientific developments, and their utilization in the program has saved the local authorities considerably more than the expense of preparing and testing these technical suggestions.

For example, in an effort to promote greater variety and interest in building arrangement and site plan patterns, USHA technicians during the past year developed the quatrefoil plan, an economical adaptation of the cross-type plan. This consists of four 2-story dwelling units arranged around a central axis, each dwelling unit having three exposures and two party walls. From the point of view of variety and interest in exterior appearance, the quatrefoil plan is definitely superior to the row plan. At the same time, it retains the interior virtues of good light and cross ventilation.

Even the sun's rays are being harnessed to provide hot water for families rehoused under the USHA program. In the "solar" heating system recommended by USHA technicians as particularly effective in southern localities, a shallow glass-covered box is installed on the roof of each dwelling. The sun's rays, beating down upon a series of copper pipes inside the box, heat the water inside to a temperature of 180° F.

[17] See appendix E, pp. 409–411, for a list of available USHA publications, including bulletins on policy and procedure.

within a few hours. The hot water is then drawn off and stored in well-insulated tanks also on the roofs.

Through the cooperation of refrigerator and range manufacturers, USHA-suggested specifications have been developed for ranges and refrigerators in public housing projects. These recommendations are based on quality and omit refinements that are included chiefly for the purpose of increasing "sales appeal." For example, the electric refrigerators specified have no interior light and no door on the ice-tray compartment. They are finished without exterior decoration. Gas ranges are specified without pilot-light burner ignition, and with only one burner for broiler and oven instead of the usual two.

Windows are another item on which USHA recommendations have been made. A great variety of window sizes and types offered by manufacturers over the country has complicated the selection of the most suitable windows for low-rent dwellings. A survey of one group of USHA-aided projects revealed that in 21 of them 53 different types of steel casements were used, while in 18 projects 75 different types and sizes of wood double-hung windows were used. Recognizing that economies would be possible through the standardization of windows, and that certain relationships between room sizes and window areas are desirable from a health standpoint, the USHA invited manufacturers to assist in establishing a limited number of sizes and types suitable for low-rent housing. Through cooperative effort, five sizes of steel casement windows and seven sizes of wood double-hung windows, with standard design details for economical construction, have been agreed upon and are now being recommended to local housing authorities for use in their projects.

Electric meters have been another topic of USHA study. The meters that have been available on the market were designed by utility companies for the purpose of obtaining accurate records of consumption under varying types of loads. As the result of cooperation between the USHA and a leading manufacturer, an electric meter has been developed which is less complicated in design, less expensive, and particularly suited to low-rent housing needs. This type of meter is now being recommended as standard for USHA-aided projects with individual tenant metering plans.

In addition to cooperation with the National Bureau of Standards and other Federal agencies in the establishment of standards directly benefiting consumers, the USHA is participating in the work of various private organizations concerned with standards. These include the American Standards Association, the American Society for Testing Materials, the American Public Health Association, the National Association of Housing Officials, and many trade associations.

Cost comparisons

A. NET CONSTRUCTION COST

Definition	Comparable with—	Net construction cost per dwelling unit	
		Under USHA program	Private houses
Cost of building the house, including the cost of plumbing, heating, and electrical installation.	The cost of private building, because, as defined, the items are the same as those included in building-permit averages for private construction published by the Bureau of Labor Statistics, U. S. Department of Labor.	The average net construction cost per dwelling unit on the 228 USHA-aided projects under construction or completed by June 30, 1940, was **$2,762.**	The average net construction cost per dwelling unit of private homes in the same localities as the USHA-aided projects covered by the figure in the preceding column was **$3,687.**

B. DWELLING FACILITIES COST

Definition	Comparable with—	Dwelling facilities cost				
			Per dwelling unit		Per room	
			Cities of 500,000 or less	Cities over 500,000	Cities of 500,000 or less	Cities over 500,000
Cost of building the house, including the cost of plumbing, heating, and electrical installation, plus the cost of dwelling equipment, plus the pro-rata share of architects' fees, local administrative expenses, carrying and contingent charges.	The United States Housing Act limitations, which are: $4,000 per unit and $1,000 per room in cities of 500,000 population or less, and $5,000 per unit and $1,250 per room in the larger cities.	Statutory limit	**$4,000**	**$5,000**	**$1,000**	**$1,250**
		Average dwelling facilities cost on the 228 USHA-aided projects under construction or completed by June 30, 1940	**3,286**	**3,609**	**786**	**870**

C. OVER-ALL COST OF NEW HOUSING

Definition	Comparable with—	Over-all cost of new housing per dwelling unit	
Cost of building the house, including the cost of plumbing, heating, and electrical installation, plus the cost of dwelling equipment, plus architects' fees, local administrative expenses and carrying and contingent charges, plus the cost of land for present development and its pro rata share of acquisition expenses, and nondwelling facilities.	The over-all cost of new private housing.	The average over-all cost of new housing per dwelling unit on the 228 USHA-aided projects under construction or completed by June 30, 1940, was **$4,414.**	The average property valuation of new single-family homes accepted for premium-paying mortgage insurance by the Federal Housing Administration in 1939 was **$5,352.**

The Record on Costs

The costs of construction under the USHA program have consistently been driven downward by the local authorities. On the projects under construction or completed, the dwelling facilities costs as shown in the preceding table are 18 percent lower in smaller communities and 28 percent lower in larger cities than the applicable maxima prescribed by the United States Housing Act. The same table also shows that the net construction costs are about 25 percent lower than the corresponding costs of housing undertaken by private enterprise in the same communities—this despite the fact that the local authorities' projects are built to last several generations and are constructed with labor paid prevailing wages.

This cost record is a signal tribute to the local authorities' concern with economy. What makes the record all the more significant is that it has been achieved without sacrifice of any basic standards. The local authorities have been able to effect these low costs through cautious land-acquisition plans, through meticulous attention to detail, and the avoidance of unnecessary frills and luxury items in projects, through the letting of contracts on competitive bids, with large-scale purchasing, and the intelligent timing of labor on the sites, through substantial savings in the cost of insurance, and through considerable savings in financing costs by virtue of the short-term financing device described in the Annual Report of the United States Housing Authority for the fiscal year 1939.[18]

As a matter of fact, private capital has gone farther than short-term financing. It will be recalled that under the regular USHA program the USHA may not lend more than 90 percent of a project's development cost. Not only has outside capital been attracted by the local authorities' obligations representing the remaining 10 percent, but in a number of cases, more than this 10 percent of obligations has been purchased by non-Government sources. Well over $75,000,000 will ultimately be raised by the local authorities through the sale of these bonds to investors other than the USHA, or through local donations toward development cost, in connection with the projects for which USHA loan contracts or earmarkings had been made by the end of the fiscal year. And what adds significance to this record is the fact that the interest rates on these private loans have been lower than the USHA would, by law, have been compelled to charge had the loans been made by the USHA.

[18] USHA table 5, pp. 353-356, lists outstanding funds advanced by the USHA to local authorites, along with outstanding short-term borrowings by local authorities from sources other than the USHA, as of June 30, 1940.

The Stimulating Effect of Public Housing

The participation of private enterprise in public housing is not confined to lending money. Local authorities use private contractors; private architects, and engineers are employed on local authority staffs or on a fee basis; materials are privately manufactured; and land is purchased from private owners.

In the development of the public housing program private enterprise is not only utilized; it is actually stimulated. Techniques of planning, construction, and management proved practical by public housing have been adopted in private large-scale housing. Furthermore, there is substantial evidence that the construction of public housing projects has stimulated neighboring construction and the improvement of private property.

Here is the way the Housing Authority of the City of Corpus Christi, Tex., describes this aspect of its program in its annual report: [19]

> Already broken down is one portion of the talk against the program—that it would tend to discourage the general neighborhood in which the projects were built. About two blocks away from Kinney Place a modern community center is building up, a new drug store, grocery, and filling station. Two small retail stores have gone in on another side of the project, a general cleaning up of property has been noticed in the neighborhood, and the strip of vacant land on the Buford Street side and below Nineteenth Street is fast filling up with modern five- and six-room homes. Approximately 20 new homes have been built in the immediate neighborhood and plans are made for 39 new houses in this section of development.

The Hartford, Conn., Housing Authority summarizes [20] as an integral part of its two years of operation its—

> suggestions for other lines of activity aside from its own [two projects] that would contribute to the improvement of housing conditions in Hartford. It does not look solely to its own program for the eradication of slums and of blight and for a solution of the problem of providing decent homes at rents which the largest group of local wage earners can pay. Rather does it believe that public and private housing agents must act together, each attacking the problems within the range of its functions, until that time when it can be honestly stated that housing has been improved to the point where a considerable percentage of it no longer impairs the public welfare nor unnecessarily drains the public treasuries through its demands made upon police, fire, health, and welfare services. * * *
>
> The Authority's contributions to efforts to arrest the decentralizing movement of Hartford's residential population and business to the suburbs has been of a threefold nature. As already indicated, it has constructed its own projects in downtown centers in an effort to encourage the rehabilitation and the redevelopment of such areas on a large scale by private interests. It has attempted to

[19] *Annual Report of the Housing Authority of the City of Corpus Christi*, Corpus Christi, Tex., 1940.
[20] *First Annual Report, Housing Authority of the City of Hartford, 1938-40*, Hartford, Conn., 1940.

show a market for "investment housing" in garden apartments of medium rentals. Finally, through extensive analysis of the whole problem of decentralization on the basis of all the facts and principles it could accumulate, it has sought to outline a method of procedure for the guidance of local civic groups in meeting this problem.

What is happening in Corpus Christi and in Hartford is happening in scores of localities throughout the country. Naturally the results of this wholesome stimulation of new construction and repairs are gratifying to the localities involved. Aside from the not inconsiderable benefits accruing from the improvement in physical appearance, the municipalities gain in the increased valuation of these structures and the consequent increased tax returns. Parenthetically, it may be pointed out in this connection that local treasuries have frequently been substantially increased because of the public housing program, by virtue of the fact that local authorities, in acquiring tax-delinquent land, pay these back taxes in order to get good title to the land involved.

A report of the Chicago Housing Authority reaffirms the conviction that local public-housing programs can do much along these lines:[21]

Among its many worries, big-city real estate has none more acute than that of residential decentralization and its stimulating effect on the spread of blight. As cities mushroomed in size during the hectic period of this country's expansion, life in them naturally became less and less physically attractive. Since 1900, it is interesting to observe, the rate of population increase has been greater in the suburban areas of 96 leading metropolitan communities than within the central cities themselves. * * *

To the Chicago Housing Authority it seems clear that public housing communities can and must play a prime role in all this [neighborhood rehabilitation]. Indeed, such communities are the very spearhead of any beginning movement in neighborhood reclamation within any city, offering a solid foundation on which to plan any real estate recovery program of this nature. When you stop to think of it, public housing communities—supplying as they do a whole new heart to the deeply decayed neighborhoods in which they are developed—are so far the only really positive major accomplishments in this so-much-talked-about field.

Standards Are Established

As has been pointed out earlier in this report, a public housing program is more than the aggregate of the buildings constructed. Unless the families being rehoused are better off in their new homes, the contribution of a public housing program is merely structural and superficial.

No real progress results if, for example, a low-income family of six persons moves from an unfit shack with four bedrooms to a new

[21] *The Chicago Housing Authority: Manager and Builder of Low-Rent Communities*, Chicago, Ill., 1939.

home with only two bedrooms in a public housing project, or if a soundly constructed exterior covers a poorly lighted interior, or if behind new coats of paint are inadequately ventilated dwellings, or if carefully laid-out walks lead to homes with closet-size rooms. Similarly, attention cannot be restricted to room sizes and arrangement, or to windows and ventilation, or to occupancy standards and ceiling heights. The location of the project and the relation of that site to the community, the density of the project, the spacing of and access to buildings, the availability of central recreation and family-use areas, and the provision of streets and walks are but a few of the many nondwelling factors with which a sound public housing program must be concerned.

Recognizing its responsibility for seeing that decent standards are observed in public housing, the USHA has established a group of standards designed not only to insure at least minimum amenities for the families served in public housing projects, but also, by setting practical examples, to exert some influence on basic standards adopted by private builders. In this way the USHA can make and is making a twofold contribution toward raising the American standard of living.

For instance, projects approved by the USHA for loans must be located on sites selected with relation to official city or county plans and related to inexpensive transportation facilities, to free and adequate schools, to recreation areas, and to places of employment. The neighborhood must be of a residential character and free from smoke, noise, fumes, and odors from industrial plants. Project streets must be laid out to insure privacy and safety. Indoor space for community use is recommended, as well as areas for family use and recreation, and wading and spray pools.

USHA minimum standards have been established not only for such nondwelling features of a project as have been mentioned, but also for the dwelling units themselves. These standards relate to sanitary facilities, to the number of bedrooms, the arrangement and size of rooms, occupancy standards, ventilation, window requirements, ceiling heights, closet space, kitchen equipment, and the like.

85,000 Homes under Construction or Completed

As of June 30, 1940, 84,927 dwelling units were under construction or had been completed in USHA-aided projects, in large towns and small, all over the United States. Of this total, 13,566 new homes had been opened for occupancy.

Large cities do not have exclusive rights to substandard housing. A structurally unsafe dwelling is no more a hazard in a city of a

million population than it is in a thinly populated rural area. Disease-breeding germs do not read census reports on population. Overcrowded, unsafe, dilapidated housing conditions flourish in any soil nurtured by inattention and indifference.

Local authorities in smaller towns and rural areas are well aware of their housing problems. The past year has witnessed the extension of the public housing program to scores of small communities, climaxed by progress in the development by the USHA, with the cooperation of the Department of Agriculture, of the first low-rent rural projects under the USHA program.[22]

Local Authorities Take Over PWA Housing

In carrying out the requirement of the United States Housing Act that the PWA Housing Division projects be disposed of as soon as practicable, the USHA has leased more and more of these developments to local authorities. By the end of the fiscal year, 40 of the 49 projects were under lease.[23] In most of the localities with Federal projects still being operated by the USHA, no local authorities have been set up to whom these projects could be leased. (Under the act, only local authorities are eligible as lessees or purchasers of PWA Housing Division developments.) The ability of local authorities to take over and operate almost all of the PWA Housing Division projects is further evidence of the flexibility and usefulness of the local authorities. Their management of these Federal projects has been characterized by economy, efficiency, and fairness.

An interesting commentary on the local authorities' operation of PWA Housing Division projects is the decision of several authorities to construct their own low-rent projects with USHA aid on sites immediately adjoining the leased Federal project and thus enjoy the advantages of economy resulting from joint operation.

Good Homes a Part of Total Defense

The flexibility of the local authority mechanism has been further and conclusively demonstrated during the past few months. In the last month of the fiscal year Congress adopted an act which recognized

[22] These projects are analyzed in USHA table 10, p. 377.

[23] For an analysis of the average family size, rent, and income in projects built directly by the former PWA Housing Division and transferred to the USHA for lease or sale upon the adoption of the decentralized program, see USHA table 15, pp. 386–387. USHA tables 16A, 16B, and 16C, pp. 388–403, contain income and expense statements on PWA Housing Division projects leased to local housing authorities as well as on those operated by the USHA itself. Obligations and stocks of PWA limited-dividend corporations transferred to the USHA in 1937 and held by it at the end of the 1940 fiscal year are listed in USHA table 14, p. 385. See USHA table 17, p. 404, for occupancy data on PWA limited-dividend projects.

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the important role that the local authorities can play in defense housing. Although no funds were appropriated for that purpose, the legislative framework for local authority participation in the defense program was thereby established.

Among the lessons which the last World War taught not the least was the necessity of providing decent accommodations for the workers engaged in war industries. Impairment of health resulting from overcrowding, inefficiency in work due to deplorable living conditions, increase in costs due to the high labor turn-over attributable to inadequate shelter, maladjustments in living programs due to the high proportion of income going to rents skyrocketed by housing shortages—all combined to cause such serious bottlenecks in the war plans as to occasion concern and the serious attention of responsible officials.

There was then no Nation-wide machinery ready to meet the situation. Today, thanks to the integrated housing machinery of the Federal Government, defense housing can be speedily provided. Among the available agencies we now have a functioning group of local authorities thoroughly familiar with local conditions, competently staffed to undertake the construction of an augmented local program, unquestionably equipped to take over the operation of these defense housing projects, and—what is most important—willing and prepared to enlist themselves in the gigantic undertaking of sheltering the men and their families engaged in defense industries.

Defense Housing Construction Speeded

Stressing the importance of the problem, the need for speed, and the availability of these local authorities, the War and Navy Departments enlisted the USHA's aid. By recapturing funds wherever feasible from inactive earmarkings, allocations for the construction of 25 projects estimated to cost about $31,369,000 were made to 17 local authorities and to the War and Navy Departments.[24] So quickly did the local authorities adjust themselves to this defense housing activity, that in many cases the remarkable time record of only 3 or 4 months from construction to occupancy has been achieved.

New Strength for the Foundations of Democracy

No one seriously claims that the present USHA program does more than scratch the surface in meeting the Nation's housing needs. Local authorities know that the need exists, and judging from the fact

[24] These defense housing projects are analyzed in USHA table 11, p. 378.

that more than a billion dollars of unfilled requests are in the files of the USHA, these local authorities are prepared to shoulder the responsibility of meeting that need.

It should be added that this billion dollars of unfilled requests does not represent an amount which, if available, would solve the Nation's low-rent housing and slum-clearance problem. Since the USHA has been low in funds for more than a year, many localities, aware of this fact, have refrained from applying for funds in the face of almost certain rejection.

Needless to say, the outlook for rehousing the low-income farm family is no more promising than the entire housing outlook. The 1,300 families to be rehoused in the six rural projects already initiated by local authorities would be lost in the crowd of the hundreds of thousands of inadequately housed American farm families.

The local authorities, aware of and ready to meet the Nation's urban and rural housing needs, are no less familiar with and equipped to meet our defense housing needs. They are waiting to be pressed into service.

WORK OF THE WORK PROJECTS ADMINISTRATION

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THE Work Projects Administration was created in the summer of 1935 for the purpose of providing jobs for unemployed workers on useful public projects. With the development of the WPA program, the Federal Government discontinued the Federal Emergency Relief Administration program of grants-in-aid to States for general relief. The policy underlying the establishment of the Work Projects Administration was to give employable workers in need an opportunity to support their families through useful public work, and to preserve the skill, work habits, health, and morale of that part of the Nation's unemployed labor supply.

By the winter of 1935–36 more than 3 million workers had been transferred from State and local relief to employment on WPA projects. Since that time the WPA has operated a program of great flexibility: it has provided temporary employment for individuals during periods when they and their families were destitute, and as a whole it has expanded or contracted rapidly as the volume of employment and need for WPA jobs has changed.

In the 5 years from the summer of 1935 through the fiscal year ending in June 1940, 7,800,000 different workers have at one time or another had temporary employment on a WPA project. That is, in addition to the 1,750,000 workers employed on the program in June 1940, more than 6 million other workers have been assisted through WPA employment at some time in the past. These workers have been economic heads of families and have represented nearly every occupation and profession in the Nation's economic life. Unskilled work, skilled work, professional, clerical, and other white-collar work have been provided during these years for men and women of all ages from 18 upward.

The total number of jobs provided on the program has varied from month to month and from year to year, paralleling the course of un-

employment and need. Project operations and employment have been curtailed in periods when private employment was expanding; and, because of the plans and methods that have been followed in operating the program, it has been possible to expand project employment rapidly during periods of severe economic recession and increasing unemployment.

The flexibility of the program has also enabled the WPA to take an important part in meeting emergency needs arising from natural disasters. The victims of drought conditions, storms, and hurricanes have been aided through employment on WPA projects or through the assistance of WPA workers in the stricken areas.

The WPA operates a Federal program in cooperation with State, local, and other governmental agencies. Local public welfare agencies determine the relative need of applicants and refer to the WPA lists of workers who are eligible for assignment to projects. Local, State, and, in some instances, Federal agencies plan and sponsor project work and pay for part of the project costs. In general, the WPA pays the wages of project workers, and a part of the costs of materials from Federal funds; sponsors meet most of the costs of materials, equipment, and other nonlabor items; frequently sponsors pay the wages of highly skilled, technical, or supervisory personnel who cannot be obtained from certified lists.

WPA projects have been operated for communities in every part of the country. The kinds of public facilities and services resulting from WPA operations in each locality have been determined by the needs of that locality, as reflected in the projects planned and sponsored by its public agencies.

A large share of the physical accomplishments of the program consists of construction work: roads, streets, and airports have been built and improved; sewer and water systems, parks, and public buildings have been constructed and reconditioned; and a variety of other construction work has been done to meet sanitation and health, conservation, and flood control needs of the communities. Part of the work on roads and buildings, and practically all of the work on airports, have contributed materially to national defense. The nonconstruction work of the WPA has produced clothing for families in need; provided leadership in recreation and instruction in adult and nursery school education; supplied significant public services in the fields of music, writing, and other arts, and in the field of public health; assisted in the improvement of public records; and developed information of special value through many research projects and statistical surveys.

Employment on WPA Projects

The Work Projects Administration provided jobs for an average of 2,054,000 persons during the year ending June 30, 1940. This was about a third less than the average employment of 3,014,000 persons in the preceding 12 months. During most of the fiscal year 1940, WPA employment was lower than at any other time since the beginning of the program in 1935, except for 1937 when improved employment conditions in private industry had permitted a heavy reduction in WPA employment.

The number of persons employed by the WPA in the months since it was established in the summer of 1935 has fluctuated considerably. These fluctuations reflect changes in the volume of need arising from unemployment and from distress in agricultural areas; and they are also necessarily governed by the amount of funds appropriated for the program. In the first months of its operation the WPA program developed rapidly until an average of 3,019,000 persons had project jobs in February 1936. From that time until September 1937, a period of expanding employment in private industry, the number of WPA workers was reduced gradually, except in the drought areas, where several hundred thousand drought victims were provided with jobs in the last 6 months of 1936. In September 1937 only 1,456,000 workers were employed on projects. The sharp recession in business activity that began in the fall of 1937 and the high level of unemployment during the ensuing year, however, necessitated an expansion in WPA employment that continued for more than 12 months. The serious condition of the tenant farmers and farm laborers in the South in the summer and fall of 1938 and the New England hurricane, which occurred in September, accentuated the need for WPA jobs and brought project employment totals to new high levels. In the early months of 1939 private industry improved and unemployment declined. During this period the number of persons at work on the WPA program was reduced steadily, in line with the increase in opportunities for private employment, to less than 2,600,000 in June, the last month of the 1939 fiscal year.

The improvement in economic conditions continued throughout the summer of 1939, and the rate of increase in industrial production was accelerated after the outbreak of hostilities in Europe early in September. By the end of the year, however, many industries had accumulated large inventories. As a result, industrial production was reduced sharply in January and February 1940, and nearly 1,200,000 nonagricultural workers lost their jobs during these 2 months. This sharp contraction was followed by an upward trend in

Average number of persons employed on WPA projects,[1] United States and Territories

[Quarterly, September 1935–June 1940]

Month	Number of persons	Month	Number of persons
1935		*1938*	
September	374,316	March	2,321,541
December	2,667,190	June	2,743,025
		September	3,213,609
1936		December	3,161,080
March	2,960,315		
June	2,285,622	*1939*	
September	2,453,602	March	3,009,110
December	2,247,461	June	2,578,041
		September	1,720,996
1937		December	2,123,431
March	2,129,475		
June	1,878,008	*1940*	
September	1,455,977	March	2,310,541
December	1,596,676	June	1,755,526

[1] Includes employment on projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939, beginning in September 1938.

private employment that continued throughout the remaining months of the 1940 fiscal year. Although by June 1940 nonagricultural employment had not yet entirely offset the decline from the previous October, the number employed in that month was nearly a million greater than in June 1939.

WPA employment during the 1940 fiscal year followed the general trend of business activity and private employment, except for the normal seasonal increases in the number of project jobs provided during the winter months when unemployed workers are most in need of jobs and wages. The number of persons at work on the program was reduced during the summer from the June 1939 average of 2,578,000 to an average of 1,721,000 in September. This unusually steep decline resulted in part from the application of the 1939 ERA Act provision which required that all certified workers, except veterans, who had been continuously employed on WPA projects for 18 months or longer must be separated from the program. The act required that the termination of all workers whose 18 months of employment had been completed by the beginning of the fiscal year be effected by the end of August. Because of the large number of workers affected, replacements could not be made as rapidly as terminations were required, with the result that total WPA employment dropped sharply.

Seasonal increases in applications for WPA jobs with the approach of winter brought employment up to 2,123,000 in December 1939. The decline in private employment in January and February, together with seasonal factors, necessitated further additions, bringing the total up to about 2,310,000 workers in February and March of 1940. In the spring months the rise in farm employment and the gradual

increase in the number of jobs available in nonagricultural industries permitted a reduction in WPA employment. However, because of the limited amount of funds available, the reduction was made at a more rapid rate than the increase in private employment and in June the number of project workers averaged 1,756,000, the lowest June average in WPA history.

Relation of WPA Employment to Unemployment

Only a part of the total number of workers who do not have private jobs are employed by the WPA. Within the limits of available funds, therefore, employment is provided for the unemployed workers who need it most. The need for WPA employment is related basically to the total volume of unemployment, but this relationship is modified by a number of factors, which are discussed below.

The relative need of an individual unemployed worker is determined primarily by the amount of his savings and the length of time he has been out of work. Some workers have been able to accumulate more than others and can provide for their families without outside help for longer periods. Some families are supported by relatives for at least a short time after the family head loses his job. Many unemployed workers are eligible for unemployment-compensation payments. Some are members of families in which another worker has employment. Those with no resources whatever need some form of public assistance as soon as they are thrown out of work. In general, the proportion of the unemployed workers who are in need increases as the average period of unemployment for the entire group lengthens.

An important factor affecting the relationship between the number of workers seeking WPA employment and the total number unemployed is the need which exists among rural and farm families. A tenant farmer, for example, is technically excluded from a count of unemployed workers, although his need for a job may be as acute as that of an industrial wage worker.

Droughts, that cut off farm income, and other disasters and emergencies, such as hurricanes or floods, that have no relation to employment or previous need, have necessitated rapid expansion of WPA employment at various times, further modifying its relationship to total unemployment.

The proportion of the unemployed workers who have received WPA employment has declined since 1936. On the basis of the unemployment estimates of the National Industrial Conference Board, the ratio declined from 33½ percent in the calendar year 1936 to 28 percent in 1937, 27 percent in 1938, and 26½ percent in the calendar year 1939.

In the first half of the calendar year 1940 the ratio was 23½ percent. The decline in the ratio is accounted for in part by the operation of the unemployment-compensation program and by other factors affecting the proportion of the total number of unemployed workers in need. In part, it is an indication of the changing proportion of the need for employment that the WPA program has met.

Relation of WPA Employment to Other Programs

The WPA program is one of a number of programs which provide jobs for the unemployed on public work or construction projects and assistance for various groups of persons who are unable to work. Employment is also provided through the youth programs of the Civilian Conservation Corps and National Youth Administration; the construction projects of the Public Works Administration, the Public Roads Administration, and the other constituent administrations of the Federal Works Agency; and the construction projects of other agencies and departments of the Federal Government. The WPA during the fiscal year 1940 provided considerably more than half of the total number of jobs on all of these work programs.

Destitute persons who are unable to work receive aid through the public assistance programs. Programs extending aid to dependent children, the aged, and the blind are financed in part by the Federal Social Security Board. Assistance for certain low-income farm families is provided through the subsistence grants administered by the Farm Security Administration of the Department of Agriculture. State and local governments extend general relief to families and single persons who are in need but for various reasons cannot be aided through these Federal employment or assistance programs.

Since no Federal agency collects statistics on the unduplicated total numbers of individuals or households aided by all the public relief and work programs noted above, the WPA and the Social Security Board have cooperated in preparing estimates of these totals. The estimates indicate that about 5,700,000 different households containing approximately 16,100,000 persons were benefiting from the various programs in June 1940. These numbers reflected net reductions of 14 and 18 percent, respectively, from the June 1939 totals and represented the lowest June figures since 1937. Throughout most of the period of WPA operations, jobs on WPA projects have provided for a larger portion of the total number of households than any other program. The relationship among the various components of the unduplicated totals does not remain constant, however, because of the many different influences to which the several programs are subject.

WPA Labor Turn-Over

Constant change within the group of persons who have project employment has always characterized the WPA program. Thousands of workers leave the program each month and thousands of other workers are assigned to project work. Altogether at some time during the 5 years in which the program has been in operation, more than 6,000,000 persons had been employed on WPA projects in addition to some 1,750,000 workers who held project jobs in June 1940, the last month of that period.

Many of the workers leaving WPA employment do so of their own volition in order to accept private employment or for other reasons. Voluntary separations have usually numbered in the neighborhood of 100,000 a month. Discharges and lay-offs also are made to some extent in each month, and assume predominant importance in periods when large reductions in WPA employment are required. Among the monthly accessions to project employment are some persons who have never before worked on the program as well as large numbers of former WPA employees who had left for private jobs or had been separated for other reasons but were again in need of employment.

The total volume of labor turn-over in the 12 months ending with June 1940 was considerably greater in relation to the level of employment than in preceding years. Separation rates in 1940 ranged from 9 to 39 percent of employment at the beginning of the month, as compared with a variation of from 6 to 12 percent in the 1939 fiscal year. Similarly, assignment rates ranged from 5 to 23 percent during the year ending in June 1940, and from 3 to 11 percent in the preceding year. The high rates of turn-over in 1940 reflect the fluctuations in total WPA employment, and also the application of the 1939 ERA Act provision which required the dismissal of all project workers, except veterans, who had been continuously employed for 18 months or longer.

Approximately a third of the workers employed on WPA projects at the beginning of July 1939 had been continuously employed for 18 months or more. Application of the 18-month provision required the termination of these workers before the end of August. Consequently nearly 783,000 WPA employees were separated from project jobs during July and August. These terminations account largely for the high separation rates of 20 and 39 percent, respectively, in those months. After September 1, the number of workers separated in accordance with the 18-month provision declined considerably, totaling only about 257,000 in the 4 months from September through December and 206,000 from January through June 1940.

Workers dismissed under the 18-month provision were made ineligible for WPA employment for at least 30 days; at the end of that period they might be recertified if still in need. That a considerable number of the workers dismissed under this provision were subsequently reassigned to WPA jobs is indicated both by the unusually large numbers of reassignments in the 5 months beginning with September, and by the results of a survey conducted in 23 large cities. More than a sixth of the workers dismissed in these cities in July and August 1939 were interviewed in September and November 1939 and in February 1940. The November interview indicated that only about 13 percent of the dismissed workers had obtained employment in private industry and that 27 percent had been reassigned to WPA jobs. By February scarcely any more of the dismissed workers had found private employment, but 54 percent of them had been reassigned to WPA project work.

Distribution of Employment

Most WPA workers are employed on projects operated by the WPA itself; but a small proportion, ranging between 2 and 5 percent during the 1940 fiscal year, are employed on WPA projects operated by other Federal agencies with funds allocated to them by the WPA. About 86,000 of the 1,756,000 WPA workers in June 1940 were employed on projects operated by 28 other Federal agencies. Projects for the improvement of Army posts, stations, and airfields that were operated by the Quartermaster Corps of the War Department provided jobs for 26,400 workers, and projects of the Navy Department's Bureau of Yards and Docks, that were undertaken to improve naval and air base facilities and to develop a submarine base, employed 10,500 persons. About 12,900 workers were engaged in the conservation and improvement of forest and range areas, and in the development of recreational areas through WPA projects operated by the Forest Service of the Department of Agriculture. Three other Federal agencies—the Soil Conservation Service and the Bureau of Entomology and Plant Quarantine of the Department of Agriculture, and the National Park Service of the Department of the Interior—were operating projects that provided jobs for more than 5,000 WPA workers. Workers employed on projects operated by the remaining 22 agencies aggregated 12,000 in June 1940.

The 1,583,000 persons working on projects operated by the WPA at the end of June 1940 were engaged in a wide variety of activities, among which construction work predominated. More than 40

percent of them were employed on highway, road, and street projects. Predominance of this type of work has been typical of the entire period of WPA operations. A large fraction of the 673,000 persons employed on highway projects at the end of the 1940 fiscal year were engaged in constructing or improving farm-to-market roads and other secondary roads. At that time approximately 158,000 workers—about a tenth of the total—were at work on projects for the construction or improvement of sewer systems, water supply and purification systems, and other public utilities. A slightly smaller number (144,000 persons) were employed on projects for the construction or renovation of public buildings among which were a large number of schools and libraries as well as recreational, administrative, and other kinds of public buildings. Projects for the development of parks and other recreational facilities provided jobs for about 90,000 workers, and nearly 40,000 persons had jobs on conservation projects directed chiefly toward the reduction of soil erosion and water conservation. The construction and improvement of airports and of airway facilities and sanitation work, including drainage improvement and mosquito control activities, were other major types of projects on which construction workers were employed.

To provide jobs for women who are eligible for WPA employment and for men whose training or experience has been in fields other than construction work, a variety of nonconstruction projects have been operated by the WPA. Professional and service projects at the end of June 1940 were employing nearly 400,000 persons, or about a fourth of all WPA workers. Welfare projects, on which most of the workers were women, employed some 200,000 persons. More than half of these employees were working in sewing rooms and the remainder were serving as housekeeping aides, preparing and serving hot lunches for school children, aiding in the distribution of surplus commodities, and engaging in similar activities. Slightly more than 100,000 persons were at work on community service projects, among which were education, recreation, library, and art, writing, and music projects. The remainder of the nonconstruction workers were engaged chiefly on research and survey projects and in work on public records. The various professional and service projects provided jobs for practically all the women project workers of the WPA; these numbered 243,000 in June 1940, and constituted 15 percent of all WPA project employment at that time.

Only minor changes in proportionate employment are found in the major types of project activities. Road and street work has provided a somewhat larger share of the total WPA jobs during the last 2 years than it did earlier in the history of the program, and professional and

service projects also have increased in relative importance. Projects for the improvement of recreational facilities, conservation activities, and sanitation work, on the other hand, have recently employed a smaller percentage of the total workers than they did during the first few years of WPA operations. These changes in the emphasis placed on the various kinds of projects have been associated with changes in the levels of total WPA employment, since workers can be assigned to or taken from some types of projects more easily than from others when the amount of employment must be expanded or contracted rapidly. Other factors effecting changes in relative importance are the shifts that occur in the distribution of occupational skills among the persons needing project jobs and in the types of workers required by private industry, and the changes in the State and local requirements for public improvements and services. Seasonal influences limit certain kinds of construction work when weather conditions are generally bad.

A considerable share of the employment on projects operated by the WPA has always been provided in the most thickly populated areas of the country. At the end of June 1940 about 40 percent of the WPA workers were working in these areas—counties in which there is a city with a 1930 population of 100,000 or more. Nearly 16 percent were in counties having cities ranging between 25,000 and 100,000 in population, and 23 percent worked in counties in which the largest town had between 5,000 and 25,000 inhabitants. The remaining 21 percent of the workers in June 1940 were employed in rural counties that had no town with as many as 5,000 inhabitants according to the 1930 census.

Workers employed on WPA projects are paid monthly wages in accordance with an established schedule of rates. One of the factors determining the monthly rates is the degree of skill required for the job. On the basis of this criterion the workers assigned to project employment are classified into unskilled, intermediate, skilled, and professional and technical wage classes. The unskilled wage class was divided into two groups by a new classification introduced during the 1940 fiscal year. Employees who do simple work that requires little education or training and that is neither hazardous nor arduous are assigned in the group designated as "unskilled B"; seamstresses, janitors, and messengers are included in the "B" group. The remainder of the unskilled workers are designated as "unskilled A."

Nearly two-thirds (63 percent) of the persons employed at the end of June 1940 on projects operated by the WPA were doing unskilled work. The ratio of workers assigned in the unskilled wage classes was somewhat smaller in June than it had been a year earlier, but

during the intervening months fairly wide fluctuations occurred, the percentage for unskilled workers reaching as high as 72 in two winter months. Unskilled "A" workers represented 56 percent of the total in June and persons in the "B" classification made up 7 percent. Workers in the intermediate (semiskilled) class, such as carpenters' helpers, truck drivers, and operators of light equipment, represented 17 percent of the June employment, and skilled workers, such as bricklayers and cement finishers, represented 13 percent. The remainder of the workers either were assigned in the professional and technical wage class, which made up 3 percent of the workers, or were project supervisory employees, who constituted 4 percent of the total employment.

A majority of the jobs on projects operated by the WPA have always been for unskilled workers, but in general the unskilled are relatively most numerous during periods of expansion in employment and least numerous when the program is being curtailed. During the summer months of 1937, when the trend of WPA employment was downward, unskilled workers made up about 63 percent of the total as compared with over 70 percent in the spring of 1938, when the number of WPA workers was increasing. Departures from this general tendency, however, have resulted from the application of certain legislative provisions. The provisions of the 1939 act which prohibited more than 18 months of continuous WPA employment and which lengthened the hours of work, particularly for skilled personnel, both tended to make the number of skilled workers relatively smaller and the number of unskilled workers relatively larger than during other periods of declining employment.

Eligibility Requirements and Assignment Regulations

Need of employment has always been a fundamental condition of eligibility for WPA jobs since the inception of the program. Other requirements for eligibility are that the worker be at least 18 years of age and a citizen of the United States. These basic requirements have been specified by the various acts appropriating funds for the WPA. Recent appropriation acts have provided, in addition, that a needy worker shall not be considered eligible for employment if he is a Communist or a member of a Nazi bund or if he advocates, or is a member of an organization that advocates, the overthrow of the United States Government.

For determining whether or not applicants meet the various eligibility requirements, working procedures have been developed by the WPA in cooperation with local public-welfare or relief agencies. In

nearly all areas the local agency reviews the needs and resources of persons who apply for relief, and is responsible for determining eligibility for WPA employment so far as those basic conditions are concerned. Determination of employability—ability to perform work on a project in a satisfactory manner—is made by the WPA. A worker who has been found to be employable and who meets the other eligibility requirements mentioned above receives a notice of certification from the WPA and becomes available for assignment to a project.

The number of persons certified as eligible for WPA employment is larger than the number of WPA jobs available. In placing workers on projects, preference within the group awaiting assignment and qualified to perform a specific job is first given on the basis of relative need. Where the relative need is found to be the same, preference is given to veterans as required by statutory provisions and, since July 1, 1940, to the wives of unemployable veterans and veterans' widows who have not remarried. No discrimination is made on the basis of age among the persons awaiting assignment if the worker is able to perform project work satisfactorily. An individual will not be assigned if another member of his family is already employed on a WPA project. The family head, or the chief wage earner, is usually the member assigned to WPA employment.

A relatively small number of persons who have not been certified as in need may be assigned to project work. These exceptions from the basic certification requirement are made in order to permit the employment of key persons essential to the efficient operation of a project—such as certain types of skilled labor, experts, technicians, and supervisory personnel—who may not be available on the relief rolls in sufficient numbers. Noncertified personnel represented about 3 percent of the total number of persons employed on WPA projects during the year ending June 30, 1940, and at no time since the beginning of the program have noncertified workers constituted more than 6 percent of the total number employed.

The need status of certified WPA workers was reviewed once every 6 months during the fiscal year 1940, in accordance with statutory requirements. During the 6 months ending December 1939, 2.7 percent of the workers whose eligibility was reviewed were found to be ineligible, and their employment was therefore terminated. During the second half of the fiscal year, about the same proportion of the certifications reviewed were canceled. In the ensuing year the review will be made only once, in accordance with provisions of the ERA Act for the fiscal year 1941.

In making assignments to project work the WPA endeavors to

place the individuals on the kind of jobs for which they are best qualified. Proximity of the worker's residence to the project site is also considered, and workers are assigned to projects nearest their homes so far as practicable.

The WPA program endeavors not only to distribute its employment most effectively in terms of the need arising out of unemployment, but also to facilitate the reemployment of its workers in private industry. WPA workers must maintain active registration with the public employment agencies. The regulations of the WPA require that project workers must accept bona fide job offers from private employers if wages and working conditions are reasonable. A WPA employee who leaves a project job to accept private employment is eligible for prompt reassignment to WPA work if the job proves to be of short duration through no fault of the worker and if he is still in need.

The intention of transferring WPA employees to private jobs was implicit in the statutory provision that requires the separation of all workers (except veterans) who have been continuously employed on WPA projects for 18 months. Such workers are ineligible for WPA employment for a period of 30 days; at the end of that time if they are still in need they may be recertified as eligible for WPA employment. This provision was modified in the ERA Act for the fiscal year 1941 to exempt wives of veterans who are unemployable and veterans' widows who have not subsequently remarried.

Employment of WPA workers in private industry is likewise being facilitated by the Nation-wide vocational training project sponsored by the Advisory Commission to the Council of National Defense and cosponsored by the United States Office of Education. On this project WPA employees and other workers are being trained for jobs in strategic industries.

Monthly Earnings of WPA Workers

WPA project workers have always received wages in accordance with a schedule of monthly rates. The earnings specified by the schedule vary for different workers according to the skill required for the work, the region of the country in which the project work is located, and the population of the largest city in the county in which the project is operated. The schedule which has been followed since September 1, 1939, was made in conformity with the ERA Act of 1939. The act required that monthly earnings should not vary "for workers of the same type in different geographic areas to any greater extent than may be justified by differences in the cost of living." It

also provided that revisions of the schedule should not affect substantially the previous national average labor cost per WPA worker.

Under this schedule the country is divided into three wage regions. Wage Region I includes the northeastern and north-central part of the country; Region II, the Western States; and Region III, the southeastern and south-central sections of the country. The rates paid in Regions I and II differ only in the areas with relatively small populations; they are higher for workers in the less populated areas of the West than in areas of the same degree of urbanization in the northeastern and north-central part of the country. Differences existing in the West between the cost of living in small towns and the cost of living in large cities are typically less than similar differences in other sections of the country. Wage rates in both Regions I and II are higher than those in Region III, where living costs are relatively low.

Within each wage rate region, counties are distributed among four urbanization groups to which differentials in wages apply. The four groups consist of counties in which the largest city had 100,000 or more inhabitants in 1930, between 25,000 and 100,000 inhabitants, between 5,000 and 25,000 inhabitants, or less than 5,000 inhabitants. In 19 large metropolitan districts, the wage schedule of the county with the largest municipality applies to the entire metropolitan area as defined in the 1930 census of population.

In differentiating according to the skill required for the work performed, five wage classes were established—unskilled B, unskilled A, intermediate, skilled, and professional and technical.

Monthly earnings established by the schedule range from $31.20 to $94.90. The lowest wages apply to employees doing work classified as unskilled B in counties in Wage Region III in which the 1930 population of the largest town was less than 5,000. Highest rates apply to workers holding professional or technical jobs in the counties of Regions I or II that contain a city which had a population of 100,000 or more in 1930.

The full-time monthly wage for employees in the unskilled wage classes varies from $31.20 in the rural counties of the southern wage region to $57.20 in the metropolitan areas of the North and the West. Intermediate (semiskilled) workers are paid between $42.90 and $68.90, and skilled workers between $54.60 and $89.70 per month. Professional and technical workers receive the highest rates paid under the schedule, which range from $55.90 per month in the rural counties of the South to $94.90 in northern and western cities.

New regulations in regard to the working hours of persons employed on WPA projects became effective July 1, 1939, in accordance with

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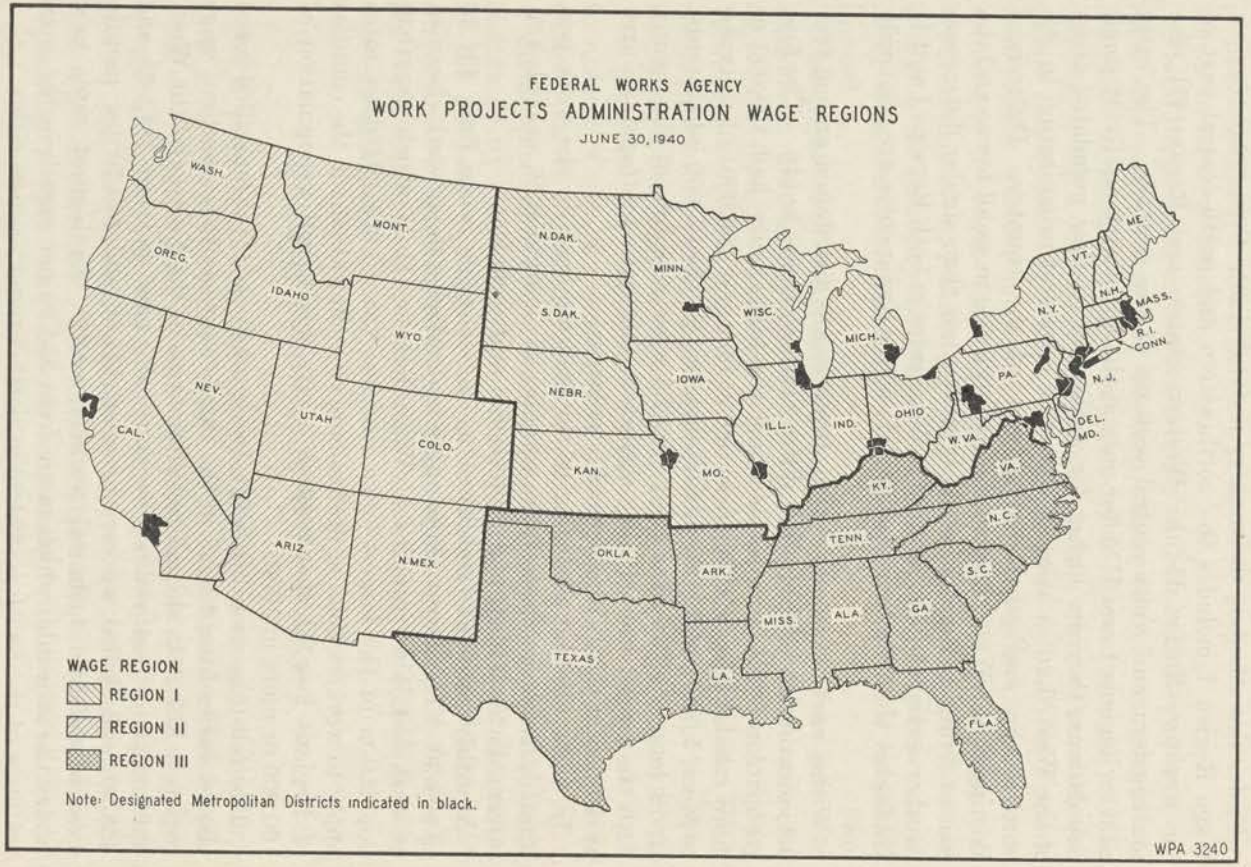

FEDERAL WORKS AGENCY
WORK PROJECTS ADMINISTRATION WAGE REGIONS
JUNE 30, 1940
WASH.
OREG.
CAL.
IDAHO
NEV.
MONT.
WYO.
UTAH
ARIZ.
COLO.
N.MEX.
N.DAK.
S.DAK.
NEBR.
KAN.
OKLA.
TEXAS
MINN.
IOWA
MO.
ARK.
LA.
WISC.
ILL.
MICH.
IND.
OHIO
KY.
TENN.
MISS.
ALA.
GA.
FLA.
S.C.
N.C.
VA.
W.VA.
PA.
N.Y.
ME.
VT.
N.H.
MASS.
R.I.
CONN.
N.J.
DEL.
MD.
WAGE REGION
REGION I
REGION II
REGION III
Note: Designated Metropolitan Districts indicated in black.
WPA 3240

Schedule of monthly earnings on WPA projects

[Effective September 1, 1939]

Counties in which the 1930 population of the largest municipality was—	Wage Class				
	Unskilled B	Unskilled A	Intermediate	Skilled	Professional and technical
	Wage Region I				
100,000 and over [1]	$52.00	$57.20	$68.90	$89.70	$94.90
25,000 to 100,000	48.10	52.00	62.40	81.90	84.50
5,000 to 25,000	42.90	48.10	57.20	74.10	76.70
Under 5,000	39.00	42.90	52.00	67.60	68.90
	Wage Region II				
100,000 and over [1]	$52.00	$57.20	$68.90	$89.70	$94.90
25,000 to 100,000	48.10	52.00	62.40	81.90	84.50
5,000 to 25,000	46.80	50.70	61.10	79.30	81.90
Under 5,000	44.20	49.40	59.80	76.70	78.00
	Wage Region III				
100,000 and over [1]	$46.80	$50.70	$61.10	$79.30	$81.90
25,000 to 100,000	42.90	48.10	57.20	74.10	75.40
5,000 to 25,000	36.40	40.30	48.10	62.40	65.00
Under 5,000	31.20	35.10	42.90	54.60	55.90

Wage Region I.—Connecticut, Delaware, District of Columbia, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, West Virginia, Wisconsin.

Wage Region II.—Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

Wage Region III.—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia.

[1] The schedule of monthly earnings applicable to counties in which the 1930 population of the largest municipality was 100,000 or more is applicable to the entire area included within the following metropolitan districts, as such districts are defined by the 15th Census of the United States, 1930: Baltimore; Boston; Buffalo-Niagara; Chicago; Cincinnati; Cleveland; Detroit; Kansas City, Kans.-Kansas City, Mo.; Los Angeles; Milwaukee; Minneapolis-St. Paul; New York City-Northeastern New Jersey; Philadelphia; Pittsburgh; Providence-Fall River-New Bedford; St. Louis; San Francisco-Oakland; Scranton-Wilkes-Barre; Washington, D. C.

provisions of the Emergency Relief Appropriation Act of 1939. Under these provisions all project workers, except supervisory employees, are required to work 130 hours per month but not more than 8 hours in any 1 day or 40 hours in any 1 week. Prior to the introduction of the 130-hour regulation each employee worked as many hours as were necessary to reach the monthly wage at which he was assigned, at the prevailing hourly rate of pay for the type of work performed. This procedure had caused considerable difficulty in scheduling project operations, because it necessitated several work shifts of various lengths on individual projects. The standard work month has made possible a considerable simplification of project working plans and has increased operating efficiency.

Exceptions to the requirements as to hours of work and monthly earnings may be made by the Commissioner of Work Projects or his authorized representative in order to protect work already done on a

project, to permit making up lost time, or to meet an emergency (such as flood or hurricane) that affects the public welfare. Certified workers with no dependents may be required to work less than the usual 130 hours and receive correspondingly smaller earnings. Hours and earnings on projects certified by the Secretary of War or the Secretary of the Navy as being important for military or naval purposes may likewise be exempted from the provisions, at the discretion of the Commissioner of Work Projects. Further exceptions up to a maximum of 5 percent of all project workers in any State are permitted for the purpose of securing supervisory personnel essential to project operations, when such workers are not available in sufficient numbers on the relief rolls.

Full-time monthly earnings during the year ending June 30, 1940, increased slightly throughout the year and averaged about $57.50. The increase was due in part to the new schedule and in part to variations in the relative amounts of employment in the various classifications which form the bases for differentials in the monthly earnings—the several wage classes, the different sections of the country, and the various community size groupings. Since workers may lose time during a pay-roll period because of interruptions in project operations, transfers between projects, and other factors outside of their control, and because of time voluntarily lost through illness or other causes, actual earnings of workers employed during the year averaged a little less than full-time earnings, or about $54 a month. Project workers are permitted to make up time lost involuntarily but are not always able to do so completely.

The average hourly earnings of project workers reflect the statutory change in the length of the work month. With a fixed number of hours of work and an established monthly earnings schedule, hourly wages are determined by the monthly rate at which the worker is assigned. During the fiscal year 1940 the average hourly wage was 44 cents as compared with an average of 49 cents per hour during the earlier years of WPA operations (July 1935 through June 1939). The decrease of 5 cents an hour resulted chiefly from the general increase in hours worked per month under the 130-hour rule, and increases in the relative numbers of workers employed at the lower wage rates in the rural areas and in the unskilled wage classes were also partly responsible for the decrease in hourly earnings.

During the fiscal year 1940, employees worked a total of more than 2,900,000,000 hours on projects operated by the WPA. Work on projects operated by other Federal agencies brought the total for the WPA program to a little more than 3,000,000,000 hours. Nearly 1,240,000,000 work hours, or 42.5 percent of the total number, were

spent on highway, road, and street projects, which typically employ large numbers of unskilled workers. Projects for the construction of sewer systems and other utilities accounted for nearly 10 percent of the total, or slightly more than 282,000,000 hours of work. Persons employed on public buildings projects worked some 234,000,000 hours, and those on projects for the development of recreational facilities over 174,000,000 hours. Nonconstruction activities accounted for more than 720,000,000 hours, or about a fourth of the total for projects of all types. On sewing projects the employees worked nearly 238,000,000 hours.

Comparison of the relative numbers of hours worked during the fiscal year 1940 on different types of projects with a similar distribution for the entire period of WPA operations reveals certain changes in emphasis. Highway, road, and street projects and the various kinds of professional and service work increased in relative importance during the last fiscal year, whereas the percentage of total hours spent on recreational facilities, conservation, sanitation, and sewing projects declined relative to the earlier period. Road work, nevertheless, has accounted for more than two-fifths of the total of 14,400,000,000 hours worked on WPA projects during the 5 years since the program was initiated.

WPA Funds Available

Funds for the operation of the program of the Work Projects Administration during the year ending June 30, 1940, were appropriated by the Emergency Relief Appropriation Act of 1939, approved on June 30, 1939. This act provided a specific appropriation of $1,477,000,000 for the WPA and reappropriated the unobligated balances of funds made available to it under prior acts, amounting to $42,824,000. The gross amount available for the fiscal year thus aggregated $1,519,824,000. After deductions of $579,000 from the gross amount—$500,000 for the work relief supply fund, and $79,000 for administrative expenses of the Federal Works Agency—a net sum of $1,519,245,000 was left available for all operations financed with WPA funds, including funds for allocation to other Federal agencies for the operation of projects similar to WPA projects, under WPA rules and regulations. The net amount was approximately one-third less than that made available for the same purposes in the preceding fiscal year.

By the end of June 1940, $1,401,393,000 of the total amount available had been allocated for projects operated by the WPA. Allocation of the remainder of the funds was determined largely by statutory provisions which specified the maximum amounts to be used for

administrative purposes and for projects to be operated by other Federal agencies. Approximately $53,661,000 was allocated for administrative costs of the activities conducted by the WPA, $59,934,000 was transferred to other Federal agencies, and $42,000 was allocated for miscellaneous items. These allocations left undistributed on June 30, 1940, a balance of $4,214,000 from the total WPA appropriation.

Twenty-eight Federal agencies received allocations from the WPA during the fiscal year 1940. The largest amount was allocated to the Quartermaster Corps of the United States Army, which received $17,512,000 for the construction or improvement of buildings, landing fields, roads, and other facilities at army posts. The Bureau of Yards and Docks of the Navy Department received $10,000,000 for new construction and improvement work at the principal naval bases on the Atlantic and Pacific coasts. Relatively large amounts also were allocated to various units of the Department of Agriculture: $6,619,000 to the Forest Service for the extension of its conservation and development work in forest and range areas; $5,883,000 to the Bureau of Entomology and Plant Quarantine for the control and eradication of insect pests and plant diseases; and $4,643,000 to the Soil Conservation Service for the enlargement of its erosion control and soil conserving activities. The National Park Service of the Department of the Interior received $5,693,000 for further development of public recreational areas in national parks. None of the 22 other agencies to which WPA funds were allocated received more than 2 million dollars.

For continuing the WPA program in the year beginning July 1, 1940, the Emergency Relief Appropriation Act, fiscal year 1941, appropriated the sum of $975,650,000 together with the unobligated balances of funds made available to the WPA under the previous act. Because of the uncertainty as to the economic outlook for this year, the act provided that this appropriation might be apportioned over a period of less than 12 months (but not less than 8 months) if in the judgment of the President unemployment conditions necessitate such action.

Expenditures of WPA Funds

Over the 12-month period ending with June 1940 WPA expenditures averaged $127,000,000 per month. In the 1939 fiscal year, when WPA employment was at a considerably higher level, the monthly average was $186,000,000. The monthly average was $119,000,000 during the fiscal year 1938 and $152,000,000 in the year ending June 1937.

Fluctuations in expenditures from month to month have reflected the changes in WPA employment. Following the initiation of the

program in the summer of 1935, monthly expenditures from WPA funds increased until in March and April 1936 a level of approximately $180,000,000 per month was reached. During the ensuing 8 months expenditures averaged somewhat less than this amount, and further reductions during the spring and summer of 1937 brought monthly expenditures to about $96,000,000 in October and November 1937. When the rapid decline in private employment that began in October 1937 required an expansion in WPA project work that continued for 12 months, outlays of WPA funds increased correspondingly and reached their highest level during the quarter ending December 31, 1938. In that quarter expenditures averaged about $204,000,000 per month. Curtailment of the program in the spring of 1939 reduced expenditures to an average of about $169,000,000 in April, May, and June.

Project operations declined during the first 3 months of the fiscal year 1940 (July-September 1939). This decline was partly due to the fact that, under the 1939 act, more than 18 months of continuous WPA employment was (with minor exceptions) prohibited; and WPA workers were being discharged, in conformity to this provision, more rapidly than replacements could be made. By the end of the quarter, funds were being spent at a level only slightly above the monthly rate that prevailed in the autumn of 1937, when project employment was at its lowest point.

The normal increase in WPA employment that begins with the approach of the winter season raised the monthly rate of expenditures gradually in the months from October through December 1939. During the next 2 months the unusually severe weather conditions which prevailed over large sections of the country curtailed project operations, prevented the employment of a full quota of workers, and resulted in loss of working time on the part of many employees.

As soon as the weather conditions made it possible, the workers were allowed to make up the time they had lost involuntarily, and expenditures in March increased about $20,000,000 over the January–February level. Workers continued to make up lost time during the spring, and because of this factor and the normal lag between employment and expenditures the totals for April and May showed only moderate declines from the March peak, averaging about $133,000,000. Expenditures in June amounted to less than $120,000,000.

WPA funds expended for all purposes during the fiscal year ending June 30, 1940, totaled $1,520,106,000. This amount includes checks issued in liquidation of obligations incurred under prior acts that were carried over into the 1940 fiscal year, as well as expenditures of funds appropriated by the ERA Act of 1939. Expenditures for work proj-

ects operated directly by the WPA amounted to $1,408,572,000. WPA administrative expenses amounted to $53,171,000, or 3.6 percent of the total cost of activities conducted by the WPA. An additional sum of $47,000 was expended by the WPA, covering settlement of property damage claims, relief for Minnesota tornado victims, and final payments in connection with the programs initiated under the 1938 ERA Act for purchasing and distributing surplus clothing and aiding self-help and cooperative associations. Thus a total expenditure of $1,461,790,000 was made for programs operated by the WPA. Expenditures for programs operated by other Federal agencies with WPA Federal funds totaled $58,316,000.

Amount of WPA funds expended for programs operated by WPA and other Federal agencies, year ending June 30, 1940

Total	$1, 520, 106, 078
Programs operated by WPA	1, 461, 790, 340
Project operations	1, 408, 571, 637
Labor	1, 289, 469, 619
Nonlabor	119, 102, 018
Administration	53, 171, 371
Miscellaneous [1]	47, 332
Programs operated by other agencies	58, 315, 738

[1] Includes expenditures for tornado relief and for settlement of property damage claims and final payments in the purchase of surplus clothing and aid to self-help and cooperative associations programs.

Most of the WPA funds have been expended for wages of project workers. During the fiscal year 1940 approximately $1,289,470,000, or nearly 92 percent of total expenditures on projects operated by the WPA, was spent for this purpose. A limited amount of WPA funds has been made available for the nonlabor costs of project operation, in proportion to the amount of employment provided. This nonlabor allowance under the ERA Act of 1939 was limited to $6 per worker per month in any State. Expenditures for nonlabor costs of WPA-operated projects made on this basis amounted to $119,102,018 during the 1940 fiscal year.

The administrative costs of activities conducted by the WPA, which totaled $53,171,000 during the fiscal year 1940, were one-fourth less than the amount spent for this purpose during the previous year. The expenditure in fiscal year 1940 was the smallest annual amount spent by the WPA for administration in the 5 years of its existence. Most of the administrative expenditures were made for the salaries of the administrative staff; salary payments amounted to $43,583,000, or 82 percent of the total administrative cost. The number of persons employed in administrative work averaged 26,900; the average included 25,100 in State and local offices, 1,500 in the central office in

Washington, and 300 in regional offices or other positions in the field. Funds spent for administrative purposes other than salaries were for travel, communication, and other contractual services ($6,077,000); purchases of materials, supplies, and equipment ($2,076,000); and rent of buildings and equipment ($1,398,000).

Expenditures by Project Sponsors

As part of their sponsorship of WPA projects, State and local agencies have contributed substantial amounts to supplement WPA funds. They have been required to meet engineering and other costs associated with the planning of project work. Sponsors have also supplemented the Federal allowances for project nonlabor costs by providing additional funds for materials, supplies, and equipment. The amounts contributed have varied with the type of WPA projects which the communities have requested and with the financial ability of the communities. During the year ending June 30, 1940, sponsors expended $494,378,000. This represented 26 percent of the total cost of projects operated by the WPA.

The ERA Act of 1939 provided that sponsors must meet at least 25 percent of the costs of all non-Federal projects approved after January 1, 1940. This requirement applies to the aggregate of all non-Federal projects within a State, thus enabling sponsors to balance a relatively low contribution rate on some projects with higher rates on others. Although sponsors' expenditures during the 1940 fiscal year represented a higher percentage of total project costs than in any earlier period, and exceeded the 25 percent requirement in the country as a whole, many of the projects had been approved and placed in operation prior to January 1, 1940, and were not subject to the 1939 act provision.

Sponsors' expenditures for WPA projects have increased each year since the beginning of the WPA program. The 1940 total of $494,378,000 exceeded expenditures in fiscal year 1939 ($493,939,000) even though WPA funds had been reduced by about a third. Sponsors' expenditures in the fiscal year 1938 totaled $371,608,000, having increased from $300,604,000 in the fiscal year 1937 and $132,890,000 in 1936. The share of the cost met by sponsors has increased in terms of the percentage of total project costs, as well as in the absolute amount of expenditures, throughout the period of WPA operations. The percentage of total costs paid by sponsors, however, is necessarily affected by the level of WPA operations. When the volume of WPA employment and expenditures is unusually high the percentage of sponsors' contributions is likely to decline, notwithstanding the fact

that sponsors have increased the absolute amounts of their expenditures when WPA employment has been increased. This tendency reflects the greater financial ability of the Federal Government to deal quickly with changes in unemployment and the less flexible financial resources of the States and localities.

WPA and Sponsors' Expenditures

The $494,378,000 provided by sponsors during the 1940 fiscal year, together with the $1,408,572,000 from Federal funds appropriated to the WPA brought the total amount expended for projects operated by the WPA to $1,902,950,000. This sum, which does not include expenditures for WPA projects operated by other Federal agencies, represents a reduction of about one-fourth from the total used for the same purpose in fiscal year 1939.

Most of the WPA funds spent for projects operated by the WPA were used, as has already been noted, to pay the wages of project workers. The larger share of the sponsors' funds, on the other hand, was used for the procurement of materials, supplies, and equipment required for project operation. Of the total of $1,902,950,000 expended on projects operated directly by the WPA in the 1940 fiscal year, $1,368,986,000 was expended for wages and salaries. This sum represented 72 percent of the combined project expenditures from WPA and sponsors' funds. This percentage was slightly lower than in previous years, because of the increase in sponsors' expenditures for materials and equipment. More than 92 percent of the total wage payments were made from WPA funds. The labor costs met by sponsors represented wages of specially qualified workers who were necessary for project operations but who could not be hired from certified lists.

Expenditures for nonlabor purposes during the year ending June 30, 1940, totaled $533,963,000 ($119,102,000 from WPA funds and $414,861,000 from sponsors' funds). They included $298,181,000 for materials, supplies, and equipment purchased; $175,178,000 for rent of equipment; and $60,605,000 for rent of buildings, contractual services, and miscellaneous items.

A wide variety of materials, supplies, and equipment was purchased with the expenditure of $298,181,000, of which $81,007,000 was from WPA funds and $217,174,000 from sponsors' funds. Practically every kind of construction material is required for WPA project activities as well as many goods of a nonconstruction nature. Cement, sand, and gravel, crushed stone, and other stone, clay, and glass products accounted for nearly one-third ($102,737,000) of the ex-

penditures made during the past fiscal year. A large quantity of metal products was used; about $58,834,000 was spent for cast-iron pipe and fittings, structural and reinforcing steel, and other metal products other than machinery.

Lumber and lumber products and bituminous mixtures for paving and other purposes were also purchased in large amounts, requiring the expenditure of $27,709,000 and $26,498,000, respectively. Other relatively important types of construction materials were chemicals and allied products and petroleum products. Textiles, used chiefly on sewing projects, were the principal nonconstruction material purchased in large quantities. Expenditures for textiles amounted to $19,785,000 during the 1940 fiscal year.

From the beginning of WPA operations through the end of June 1940, purchases of all kinds of materials, supplies, and equipment from many branches of American industry amounted to $1,335,381,000, of which project sponsors contributed 61 percent. The relative importance of the various kinds of materials was approximately the same on the 5-year basis as during the 1940 fiscal year.

Some machinery and equipment is purchased for use on projects, but most of it, particularly the heavy and expensive equipment, is rented. During the fiscal year 1940 about $16,283,000 was spent for the purchase of machinery and equipment. Rental of equipment, including road scrapers, power shovels, paving equipment, and other construction machinery, amounted to $175,178,000.

Construction activities accounted for about three-fourths of the total expenditure of $1,902,950,000 in WPA and sponsors' funds for projects operated by the WPA during the year ending June 30, 1940. The other fourth was used for education, health, sewing, and other professional and service projects.

Among the various types of projects, highway, road, and street work predominated, as it has throughout the WPA program. The $791,863,000 spent for work of this type represented nearly 42 percent of the year's total. Second in importance among types of construction activities was the work done on sewer and water supply systems and other public utilities, which accounted for about $199,839,000, or nearly 11 percent of total expenditures from Federal and sponsors' funds. A total of $183,448,000 was expended for the construction and improvement of public buildings. Work on recreational facilities, excluding recreational buildings, cost about $119,000,000, which was 6.3 percent of the total expended for project activities. The other major types of construction work—conservation projects, airports and airways, and sanitation projects—represented 3.4, 2.0, and 1.6 percent, respectively, of the total expenditures during the fiscal year.

BUILDINGS FOR THE NAVY

These barracks for sailors at the New London Submarine Base were built by WPA. Before America can have a two-ocean Navy there must be many submarine classes like this one. WPA has built many similar defense buildings.

Community services, such as educational and recreational activities, arts projects, and library and museum work, accounted for more than one-fourth of the expenditures made for nonconstruction work and represented nearly 7 percent of all project costs during the fiscal year. Expenditures for sewing projects represented 6 percent of all WPA project costs. Expenditures on research and records projects amounted to 5 percent of all WPA project costs. Another 5 percent was expended for welfare projects other than sewing, including among other activities, the provision of housekeeping aid for families in need, preparation and serving of hot lunches to school children, distribution of surplus commodities, and health work.

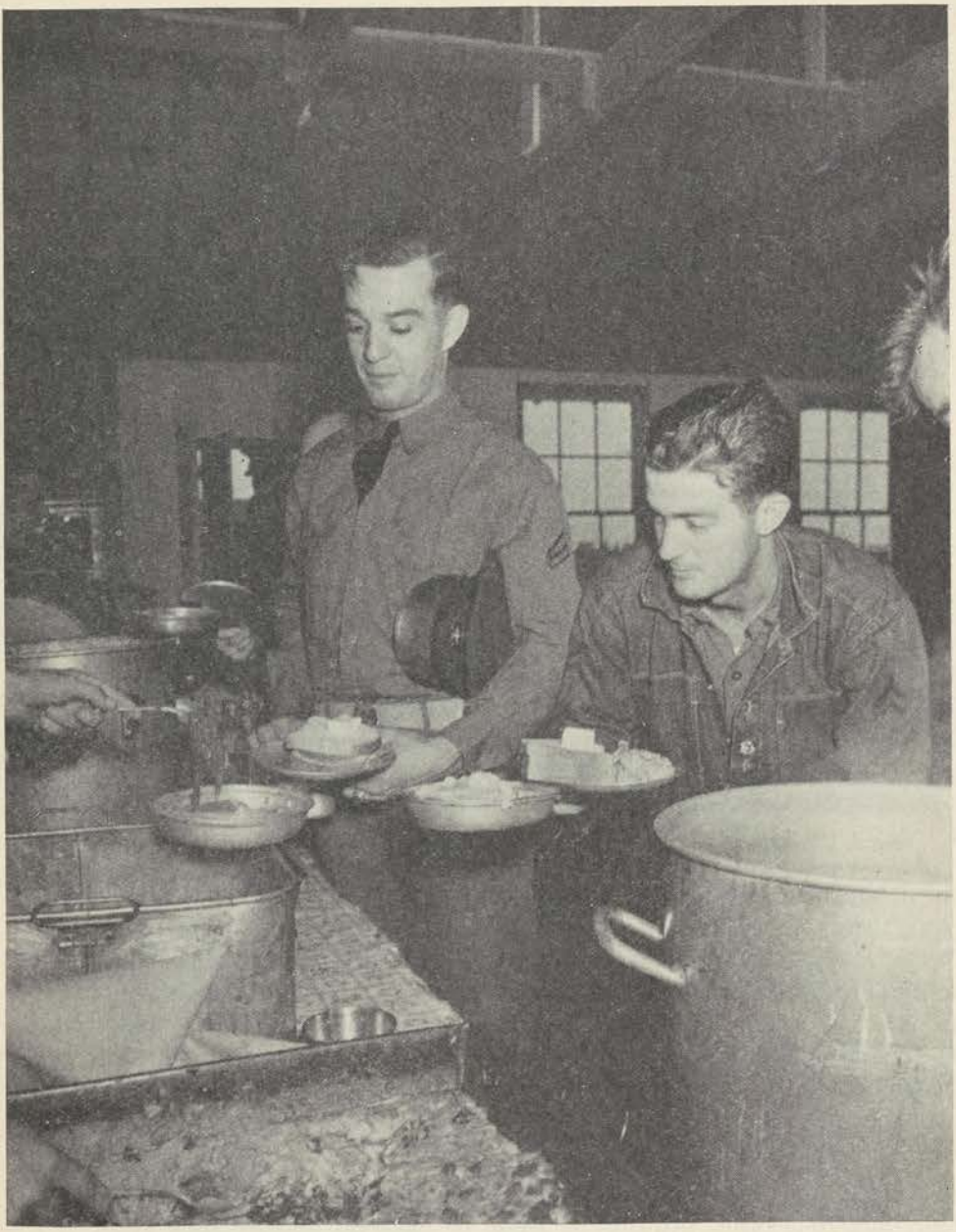
National Defense Work

The WPA has been carrying on work, throughout the 5 years of its operation, that has greatly strengthened the defense of the United States. Projects for the construction and the improvement of military and naval facilities have been operated at many army reservations and naval bases in the continental United States and in Puerto Rico, Hawaii, Alaska, and the Virgin Islands. Besides these projects specifically designed for defense purposes and sponsored or operated by the War Department, Navy Department, and the Coast Guard, many other projects have contributed to military effectiveness although they were not originally undertaken for that purpose. Roads, bridges, civil airports, and other construction work initiated primarily for the benefit of specific communities have also materially strengthened the defenses of the country as a whole.

An expansion of the types of work that are of especial importance for defense purposes was undertaken just before the close of the fiscal year 1940. Legislation was enacted in June to increase the use of WPA labor for defense work during the fiscal year 1941. Regulations and limitations that usually apply to project operations were modified in order to permit the operation of a larger number of projects vital to the national defense and to speed up defense work throughout the Nation.

Defense Work Completed By June 30, 1940

Many projects sponsored or operated by military or naval agencies, and numerous other projects of value to national defense that are sponsored by the National Guard, by municipalities, or by other State and local agencies had been completed by the end of June 1940. New or improved airports with paved runways and various ground facilities such as hangars, repair shops, and administration



ARMY CHOW IN A NEW MESS HALL

At the Massachusetts Military Reservation on Cape Cod this new mess hall, built by WPA last year, is being used by an antiaircraft unit of the new Army.

buildings have resulted from this project work. Many arsenals, armories, barracks, hospitals, roads, rifle ranges, training fields, and warehouses also have been completed through project operations. In addition to the physical facilities that have been constructed, many varieties of nonconstruction work that are of value to defense, such as engineering surveys, the indexing of military records, and the preparation of military handbooks and maps, have been carried on by project employees.

Airport and airway work has been one of the most important accomplishments of WPA project activities, so far as national defense is concerned. The improvement of Air Corps flying fields and the development of other landing areas to accommodate large concentrations of aircraft, and to facilitate the movement of aircraft between strategic points, help to meet important needs of military aviation. Improvement of ground facilities at existing airports, installation of airway markers and beacons, the construction of emergency landing fields, and other work directed toward the development of civil aviation, have also contributed to the development of air defense.

Through WPA activities during the 5 years ending in June 1940, nearly 200 new airports were developed and a considerably larger number were improved or reconditioned. Work was done at about 90 percent of the airports that were air-line stops in June 1940, among them major air terminals such as those in New York, Cleveland, Chicago, and San Francisco. Also among the airports built or improved by WPA workers were many like those in Hyannis, Mass.; Hickory, N. C.; and Tomahawk, Wis.; designed chiefly for the use of private planes in areas where the existing landing facilities were inadequate, and which are of value in the training of pilots.

As a part of the airport work some 1,970,000 linear feet of new runways have been completed. Most of these runways were built at municipal airports used primarily by commercial and transport planes; about 10 percent of the runways were constructed at Army and Navy airfields. In addition to the landing facilities for landplanes, seaplane ramps and landing platforms have been built. WPA project work also included hundreds of new or reconditioned hangars, administration buildings, repair shops, and other structures that are useful for defense purposes.

Among the many examples of WPA work at military and naval air-stations are Maxwell Field near Montgomery, Ala., and Reeves Field in Los Angeles (San Pedro), Calif. At Maxwell Field runways and taxi strips were paved, runway lights installed, and barracks, mess halls, warehouses, and other buildings were constructed or enlarged. At Reeves Field, WPA workers have developed facilities for both

LEARNING TO SHOOT STRAIGHT

Army marksmanship is being improved through this machine gun class assembled on the new parade grounds at Fort Dix, N. J. WPA leveled gravel pits here. Similar projects have improved many other posts being used by the new Army.

landplanes and seaplanes; they have paved runways, built a concrete seaplane haul-out ramp and platform, installed lighting systems, and erected hangars, barracks, storehouses, and numerous other buildings.

WPA work at Berry Field, the municipal airport in Nashville, Tenn., included the construction of a hangar which now houses planes of the 105th Aero Squadron of the National Guard and is used by visiting Army and Navy aircraft. Moline Airport, developed entirely by WPA workers, is of military importance because of its nearness to Rock Island Arsenal and to the Savanna Ordnance Depot on the Mississippi River. The work at this airport, however, was undertaken primarily to develop a unit of the Nation's air transportation system, with complete facilities for air-line passengers and the servicing of transport planes, and to develop a center for private flying operations. Similarly the municipal airport which WPA workers have built at Morgantown, W. Va., is considered of strategic importance in the protection of the industrial area between Morgantown and Pittsburgh, although it was constructed primarily to provide safe landing facilities for commercial planes in the mountainous terrain. The construction of hundreds of other airports, ranging in size from La Guardia Field, the huge international air terminal in New York City, to small fields in the vacation areas of Michigan and Maine, are likewise useful for the defense of the Nation.

Public building projects, in addition to the buildings at airports, have been an important part of the construction program operated for defense agencies. By the end of June 1940, about 600 armories had been built or improved through projects operated by the WPA. Nearly all of them were sponsored by units of the National Guard. Through other projects operated by the WPA that were sponsored by the War and Navy Departments, the National Guard, and the Coast Guard, 11,000 other buildings were built or reconstructed. These included barracks, officers' quarters, hospitals and infirmaries, storage buildings, kitchens, mess halls, and administrative buildings. Extensions and improvements have been made to water mains, distribution lines, sanitary and storm sewer mains, and other utilities, principally at Army reservations. At many Army posts, such as Fort Dix, N. J., and Fort Ord in California, camp-wide improvements have been made. Similarly at Navy bases projects covering a wide variety of improvements have been completed.

At Fort Dix, the famous World War cantonment in New Jersey, improvements included the renovation of barracks, the reconstruction of concrete tent floors, and the construction of mess halls, rifle pits and targets, and gun supports, as well as the development of a landing area and the improvement of roads. A large amount of work

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was also undertaken for the National Guard at Camp Ripley in Minnesota. At this camp sewer and water systems have been built, underground electric power lines and telephone lines have been installed, roads paved, and an airport with hangars, storage houses, repair shops, and garages has been developed. At Fort Ord, on California's Monterey Peninsula, 17,000 acres of brush-covered terrain have been made into an important military training center. The work included clearing thousands of acres for maneuver grounds, construction of many miles of roads, development of gun ranges for rifles, pistols, and machine guns; wells were dug, storage tanks built, and pumps were installed to assure an adequate supply of water.

Among the activities undertaken at naval bases in many sections of the country was the construction of powder magazines and modernization of machine shops at the Philadelphia Navy Yard. Extensive improvements have been made for the Naval Operating Base at Hampton Roads in Virginia and at the Portsmouth Navy Yard. At Toledo, Ohio, a large armory has been completed for the United States Naval Reserve Corps. Considerable work also has been done on the Pacific coast, which includes extensive modernization of facilities at the Mare Island Navy Yard; the restoration of buildings, road construction, and the development of a large drill field at the Marine Base in San Diego Bay; and the construction of the large Naval and Marine Corps Reserve Armory at Elysian Park in Los Angeles.

Many nonconstruction projects have been sponsored by the War and Navy Departments, the Coast Guard, and the several units of the National Guard, and the work performed through the operation of these projects is of immediate value in the development of defense activities. Analysis of ocean current data, sponsored by the Navy Hydrographic Office in Philadelphia, has produced a series of navigation tables by which sea and air navigators can compute positions almost instantly. White-collar workers in New York have been working on handbooks and translations of reference material on military terms and have been engaged in modernizing a filing system and personnel card index for the New York Division of the Coast Guard. Other white-collar workers in several States have compiled data for strategic maps and have drafted and reproduced such maps for the use of the War Department.

Through June 1940, $432,272,000 had been expended on WPA projects operated for the improvement of facilities of military and naval agencies or for the development of civil airports and airways. About $352,491,000 of the total was supplied from WPA appropriations and $79,781,000 was provided by the sponsoring agencies. Approximately $182,197,000 was expended for work on civil airports

sponsored by municipalities, States, counties, and other political subdivisions. Projects operated or sponsored by the War Department accounted for $154,131,000; those by the Department of the Navy, for $44,591,000; those by the United States Coast Guard, for $1,201,000; and those by the units of the National Guard, for $50,151,000.

Amount of WPA and sponsors' funds expended on WPA airport projects and on other WPA projects sponsored or operated by military and naval agencies, by agency and by source of funds, cumulative through June 30, 1940

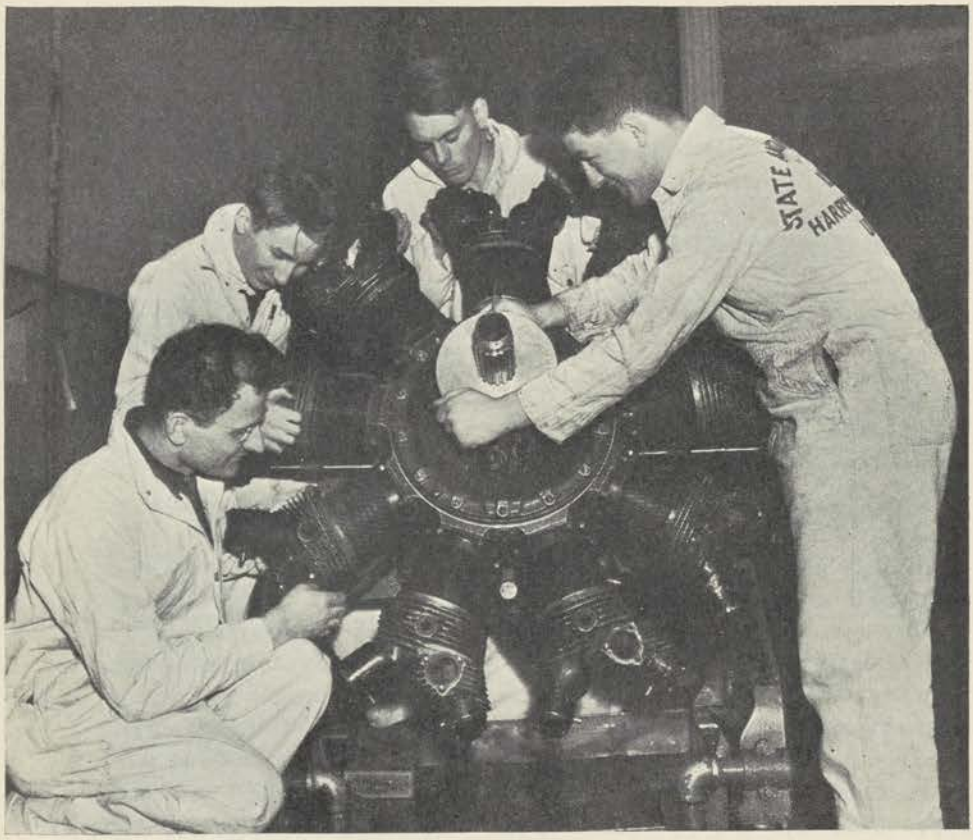
[United States and Territories]

Agency	Total funds	WPA funds	Sponsors' funds
All agencies	$432,272,198	$352,490,985	$79,781,213
Department of War	154,131,047	134,169,839	19,961,208
Department of the Navy	44,591,255	40,353,013	4,238,242
United States Coast Guard	1,201,044	955,629	245,415
National Guard	50,151,409	41,013,130	9,138,279
Other agencies (for airports and airways only)	182,197,443	135,999,374	46,198,069

Program for the Year Beginning July 1, 1940

The availability of WPA workers, the experience of the WPA field organization in operating nearly every type of public project in all parts of the country, and the flexibility of the program have been important factors in the ability of the WPA to adapt its activities to many of the needs of defense agencies under the expanded defense program initiated in 1940. Special procedures were initiated in June to expedite the review and approval of WPA projects related to national defense, and to establish their priority over other projects approved for operation.

The Emergency Relief Appropriation Act, fiscal year 1941, also contained a number of specific provisions intended to permit greater and more rapid use of the WPA program as a means of strengthening the country's defenses. Several restrictions that ordinarily apply to WPA project work were waived to expedite the operation of projects certified by either the Secretary of War or the Secretary of the Navy as being important for military or naval purposes. Such projects were exempted from the provision which requires that sponsors furnish at least one-fourth of the total cost of non-Federal projects approved in each State after January 1, 1940. Work of importance to defense plans, such as the construction of civil airports, barracks, and National Guard armories, frequently involves nonlabor costs which project sponsors would be unable to finance without more Federal assistance than the $6 per worker per month ordinarily permitted by law for nonlabor purposes. Accordingly, the act authorized the use of $25,000,000 to supplement the usual Federal nonlabor allowance of $6 per worker per month, where such additional funds are necessary to



TRAINING DEFENSE WORKERS

The four men studying this airplane motor are part of the special defense-training programs of WPA to prepare aviation ground servicemen and other defense employees. More than 50,000 workers have been enrolled for such instruction.

permit the operation of defense projects. Exemptions from the regular schedule of monthly earnings and hours of work were likewise authorized for certified defense projects.

Projects certified by the Secretary of War or the Secretary of the Navy as important for defense purposes are of the same general type as those which were operated for these agencies by the WPA in the first 5 years of its program. Construction and improvement of military airports, barracks, hospitals, and facilities of all types at Army reservations and Navy bases are being given priority in project operation. Work on municipal airports and airway projects sponsored by State and local public bodies, which have an important place in defense plans, is being continued and expanded.

The WPA is also cooperating with the War and Navy Departments and with the Public Roads Administration in the improvement of roads of strategic military importance. Access roads to Army posts, to naval stations, and to military and naval depots, arsenals, and reservations, and roads within these reservations are being improved. Road shoulders of strategic highways are being widened sufficiently to permit the parking of army convoys without obstructing usual traffic. The WPA will assist particularly in the development of auxiliary roads that parallel main routes included in the strategic highway network. Bridges are being widened and strengthened and obstructions eliminated. Roads and streets in industrial areas and those providing access to important civil, military, and naval airports also are being improved through WPA projects.

Under a Nation-wide vocational training project approved July 1, 1940, WPA employees and other workers are being trained for jobs in strategic industries. WPA workers assigned to the training project receive monthly security wages during the period of their assignment. This project, sponsored by the Advisory Commission to the Council of National Defense and cosponsored by the United States Office of Education, was certified by the Secretary of War as important for defense purposes. Regular staff members of State and local vocational education authorities are serving as instructors. For many of the trainees, already grounded in the fundamental skills, the work is in the nature of "refresher" courses. Others receive training that is supplemental to employment experience.

WPA Project Work

The work undertaken in all parts of the country through WPA projects is carried on in cooperation with public agencies; these agencies develop plans and specifications for the work to be done by

WPA workers, and participate in the financing and prosecution of the projects that they sponsor. The great majority of projects are sponsored by State and local agencies—highway and street commissions, departments of health, welfare, and education, and other legally-constituted agencies of municipalities, townships, counties, and States. Projects are also sponsored by Federal agencies such as the Departments of War, Navy, Agriculture, and Interior. Until August 31, 1939, the WPA itself sponsored a small number of projects that were Nation-wide in scope, but all such projects have been discontinued.

Sponsoring agencies initiate formal consideration of work that they wish to have undertaken by submitting to the WPA proposals which give detailed construction and cost specifications and other pertinent data. Each proposal must also indicate the part of the cost of the work to be met by the sponsor. Sponsors are expected to provide a large part of the cost of the materials, supplies, and equipment needed for the job. In any State, all costs of this type over and above an average of $6 per worker per month must be provided from sponsors' funds, except in the case of projects related to national defense. The size of sponsors' contributions was not fixed by law, either in relative or absolute terms, until the beginning of 1940, but was controlled by limiting the amount of Federal funds allotted for nonlabor costs. However, statutory provisions now require that in every State at least 25 percent of the total cost of all non-Federal projects approved on and after January 1, 1940, must be supplied by the sponsor. (Under the ERA Act, fiscal year 1941, projects certified as important for national defense may be exempted from this requirement.)

Project proposals and applications are reviewed by the WPA for conformity with the rules and regulations of the WPA program and the general eligibility requirements that have been laid down in the various acts appropriating funds for the WPA. To be eligible for WPA operation, projects must meet three general requirements: They must provide benefits needed by the community, without taking over functions which the sponsor could normally carry on and without displacing persons already employed; they must be adaptable to the occupational skills of the eligible unemployed workers in the community where the work is to be done; and they must promote the public welfare rather than benefit any private institution or individual. With certain limited exceptions provided by law, projects must be sponsored by public agencies and operated on public property. Other regulations prohibit the operation of projects that would compete with private industry, or projects for the manufacture or construction of naval vessels, munitions, or implements of war.

The scope of project activities that may be operated is defined by the WPA appropriation law. Types of work which may be prosecuted include, among others, road work, construction of public buildings, recreational facilities, airports, and public utilities such as sewer systems and water supply systems; conservation activities; and professional and service projects. The construction projects may involve either improvement of existing facilities or new construction work. Nonconstruction activities include educational, recreational, and other cultural and community service types of work, as well as a wide variety of public welfare and research activities.

Applications for certain types of projects are reviewed not only by the WPA but also by various other governmental agencies performing related work or having an advisory interest in such work. This review enables the WPA to benefit from the technical experience of these agencies, and insures that the projects will conform to their general policies and be coordinated with other proposed work. Projects for construction or improvement work on Federal-aid highways, for example, must be approved by the Public Roads Administration before they are approved by the WPA in Washington. In all cases, after an application is approved by the WPA it must also be approved by the President before the project becomes eligible for operation.

From the reservoir of projects that have received Presidential approval, the State WPA administrator may at any time select those best suited for operation under the conditions then prevailing. Once a project is selected, it may be operated in its entirety as approved or in parts that represent self-contained units of work. The chief considerations in selecting a project are the need for the type of employment which it would supply, the immediate availability of the kinds of labor required, and the usefulness of the project to the community. Cost factors are also important in project selection.

By means of the reserve of approved projects a high degree of flexibility is maintained in the program. Employment can thus be expanded quickly when an increased number of jobs is needed for eligible unemployed workers, and the program can be modified to meet changes in the occupational distribution of workers available for assignment.

Physical Accomplishments

The inventory of physical accomplishments and public participation on projects during the 5 years from the beginning of the program through the end of June 1940 indicates the extent and diversity of WPA

work. Such a statistical record of necessity provides no measure of accomplishment in terms of the jobs provided, in terms of the maintenance of the skills of individual workers and of the total national labor force, or in terms of the preservation of the health and morale of American families. It does indicate the contribution that the WPA program has made to the physical assets and public services of the Nation.

Roads

The most extensive physical accomplishment of WPA workers has been the construction and rebuilding of roads and streets. From the beginning of the program through June 1940, work was completed on more than 517,000 miles of highways, roads, and streets. By far the largest part of this mileage (455,000 miles) has been on farm-to-market and other secondary roads. Road work is particularly well suited to the requirements of the program in rural areas because of the relatively large numbers of unskilled workers that may be employed and the flexibility of operation that this kind of project offers. Farm-to-market roads in all sections of the country have been improved through the grading and widening of the roadbeds, provision of adequate drainage, elimination of steep grades and sharp curves, and surfacing or resurfacing of the roadbed with gravel or crushed stone. In addition to the 421,000 miles of this kind of road work that was completed in rural areas, nearly 34,000 miles of rural roads were paved with concrete, bituminous, or other hard-surface materials.

Work on streets has been a large item of accomplishment in municipalities. The need for this type of civic improvement has been accentuated in recent years by marked increases in traffic. Completed work, ranging all the way from construction of heavy-duty concrete or asphalt pavements to the opening of gravel streets in small communities, totaled some 54,000 miles at the end of the 1940 fiscal year. Through some projects streets were widened to permit additional lanes of traffic on principal thoroughfares, and through others cobblestone, brick, or other worn-out surfacing was replaced with adequate materials. Sometimes the projects are for the widening and paving of streets in outlying sections to enable through highway traffic to avoid the congested business districts of cities. In suburban areas much grading and drainage work was done, and surfaces adequate for light traffic were laid. There were also completed more than 8,000 miles of new or improved roads in parks and other areas, such as military reservations of various types.

Road improvement work has included the construction or improve-

ment of bridges and viaducts, culverts, curbs, gutters, guardrails, and other appurtenant structures. About 64,000 new bridges and viaducts were completed by the end of June 1940, and those that had been reconditioned totaled nearly 40,000. About 48,000 of the new bridges were small wooden structures averaging about 30 feet in length but wide enough for two-lane traffic. Some of these, particularly in areas of the South where heavy rainfall is a problem, have been built of creosoted timber in order to reduce upkeep, which was costly on the old-type wooden bridges. Nearly 12,000 bridges and viaducts were constructed of masonry or concrete and 4,900 were of steel; these often replaced out-moded bridges that were unsafe for the increasingly heavy truck and bus traffic. A large portion of the reconditioned bridges were made of wood, but the relative number of steel spans was much larger for this group than for the newly built bridges.

In connection with the highway program, WPA workers installed 780,000 new culverts and improved nearly 94,000 others, completed approximately 135,000 miles of roadside drainage work, and built or reconditioned about 25,000 miles of curbs and gutters and 3,000 miles of guardrails and guardwalls. They also erected 692,000 traffic signs for the convenience and safety of motorists.

Buildings

Work on public buildings has been another outstanding contribution of the WPA program during the 5 years ending with June 1940. In this period 25,800 new buildings were completed, 67,700 were renovated and reconstructed, and 3,200 were enlarged.

Nearly 36,000 of the 96,700 buildings were for educational purposes. Thousands of school buildings that had become obsolete or had fallen into disrepair during depression years have been modernized. Structural faults have been remedied, new heating, plumbing, and lighting facilities installed, and other improvements made. Some school buildings have been enlarged by the construction of additional wings, which often contain study halls, laboratories, and rooms for other special purposes as well as classrooms. Many new school buildings have been completed, particularly in the Southern States. Among these are buildings for vocational schools, like one built in a small Alabama town which provides a food laboratory, sewing room, and carpentry shop in addition to general classrooms. Besides serving their normal educational function, the schools in many instances also serve as centers for a variety of community activities. In addition to the school buildings, thousands of libraries and university dormitories and laboratories have been built or renovated by WPA workers.

TEN MINUTES FOR RECESS

This new school at Santa Fe, N. Mex., was constructed by WPA. School buildings comprise one-third of all buildings built or improved by the WPA in 1940.

About 12,200 recreational buildings have been completed through project operations. Among them are hundreds of auditoriums and civic centers and several thousand gymnasiums, many of which were added to schools and buildings at other public institutions. An example of these is the gymnasium-auditorium built by WPA workers in one Iowa town; it contains a standard court for basketball games—a major recreational interest of the entire community in winter months—and can also be used for dramatic and musical productions and other general programs, as well as for physical education purposes. Thousands of park pavilions, bathhouses, and zoological buildings are also included under the recreational group.

Other public buildings, on which project work ranging from minor improvements to major remodeling and new construction was completed by WPA workers, include about 5,000 office and administrative buildings, 1,800 hospitals, and many buildings for charitable, medical, and mental institutions. Some of the new hospitals were built in communities that previously had been without hospital facilities of any kind. Others replace obsolete and inadequate structures with buildings containing modern operating and X-ray rooms as well as adequate bed capacity. Still others were designed to care for victims of particular diseases such as a hospital in New Mexico which provides facilities for the hospitalization and clinical examination of crippled children and makes it possible to use the curative powers of natural hot springs in the treatment of infantile paralysis and orthopedic diseases.

Many armories, garages, and storage buildings have been built by WPA workers. Armories that have been constructed, renovated, or enlarged numbered over 600. Garages on which construction or remodeling has been completed total nearly 3,500; among these are structures that have been built to house county highway equipment and to provide adequate space for its repair and servicing. Some 4,000 storage buildings have been constructed or renovated. The construction of buildings at military reservations also has been extensive.

Recreational Facilities

Public facilities for outdoor recreation were greatly extended by WPA project activities during the 5 years preceding June 30, 1940. Work of this type, which has received particular emphasis in urban centers, included the building and reconditioning of roads and walks and landscaping work in nearly 5,700 parks and the development of nearly 1,400 new parks. In connection with park improvements, the construction of band shells, pavilions, and outdoor theaters with seat-

ing capacity for thousands of persons has been undertaken in some localities. Some of the parks provide recreational centers for entire rural counties and include picnic areas, outdoor ovens, athletic fields, swimming pools, lakes, and parking areas for hundreds of cars. WPA workers have built more than 2,500 new playgrounds and have improved 8,400 others, many of them on school grounds. About 1,800 new stadiums, grandstands, and bleachers have been built and some 700 renovated or enlarged.

Facilities for practically every form of sport also have been built or improved in large numbers—nearly 4,900 athletic fields with provisions for baseball or football; thousands of handball, horseshoe, and tennis courts; many hundreds of swimming and wading pools; and some 1,100 ice-skating areas, 350 miles of ski trails, and 74 ski jumps. Outstanding among facilities for winter sports built by WPA workers are a ski jump, toboggan chute, bobsled run, slalom course, and miles of ski trails at Belknap Mountain Recreation Center in New Hampshire, where extensive facilities for outdoor recreation in other seasons have also been provided.

Utilities

Provisions for adequate water supply and distribution and for proper sewerage disposal are prominent among WPA project accomplishments. Much of the WPA work on water-supply systems has involved the installation of aqueducts, water mains, and distribution lines for localities where people formerly had to depend upon private wells and cisterns. In other localities, facilities installed many years ago had been outgrown, and leakage and loss of pressure were common developments. In some communities the water was of poor quality. Among these was one in Minnesota where residents formerly hauled water to town in tank wagons because the well water in this area was made unfit for domestic use by underlying beds of salt; WPA work there has resulted in a modern filtration and softening plant which provides 300,000 gallons of good water daily. In other areas unprecedented drought conditions had demonstrated the necessity for greater sources of supply and for expanded storage facilities.

To improve such situations, WPA workers have installed more than 11,200 miles of water mains and distribution lines, built 139 new water-treatment plants, drilled or dug 3,400 wells, and constructed 2,300 storage tanks and reservoirs. Some of the 834 new pumping stations that were constructed by WPA workers were for water-supply systems. Improvements to facilities of these types have been numerous.

Sanitary facilities in many communities have been improved and extended by the installation of nearly 18,000 miles of new storm and sanitary sewers, the reconditioning of 3,200 miles of sewers, and the construction or improvement of about 1,000 sewage-treatment plants. Some of the new sanitary sewer lines and treatment plants constructed by WPA workers were installed to serve communities which previously had no modern sanitation facilities. Among these was a small Ohio town where a complete sewage system, including a disposal plant and 6 miles of sewers, was completed through WPA operations. WPA work was undertaken in other areas in order to improve inadequate sewage systems. In an eastern city, for example, a disposal plant large enough to provide service for 30,000 persons, and the necessary sewer lines, were added to the existing system. Work on storm sewers has often been undertaken to reduce damage to property and interference with traffic that is caused by flooding during heavy rainfalls.

Project work on sanitary and storm sewers has been frequently related to building construction and the development of parks. It has also included the construction of sewer lines for connection with main trunk lines and for extension of water-supply mains. In rural regions where it was impracticable to install sewage-disposal systems, WPA workers have constructed 1,900,000 sanitary privies.

Airports

Accomplishments on the WPA airport program during the 5 years of its operation have made significant contributions to the air-transportation facilities of the Nation and to the facilities for its defense. This work, carried on in close cooperation with the Civil Aeronautics Authority, has included both the construction of new airports and the improvement and expansion of those already in operation.

The construction of about 1,970,000 linear feet of new runways and the reconditioning or resurfacing of 650,000 feet of existing runways, the installation of thousands of boundary lights, and the improvement of airport drainage systems serving an area of some 180,000 acres, are among the many items of completed work. To improve the ground facilities at airports all over the country, more than 1,600 airport buildings have been built or renovated. Among them are 436 hangars, ranging in size from the large structures at La Guardia Field in New York City to small buildings accommodating a few two-seater planes; 147 administrative buildings; and about 1,000 other airport buildings such as machine shops, storage buildings, and garages. In addition to the facilities for landplanes, 25 seaplane ramps and

landing platforms have been built and two others have been renovated. WPA workers also have placed nearly 10,500 airway markers on roofs and roads and in parks and other public areas and have installed or reconditioned about 80 airway beacons.

La Guardia Field, New York's municipal airport, is an outstanding example of WPA airport work. WPA workers reclaimed about 60 percent of the field's 560 acres of land from the East River, using cinders and refuse transported from a dump across the channel. They built four macadam-paved runways, the largest of which is 6,000 feet in length, and a passenger landing float and seaplane haul-out ramp, installed complete lighting systems, and did other work necessary for the provision of adequate landing facilities for transcontinental and transoceanic transport planes. Separate marine and landplane terminal buildings, six hangars for landplanes and one for seaplanes, and numerous other buildings were also constructed.

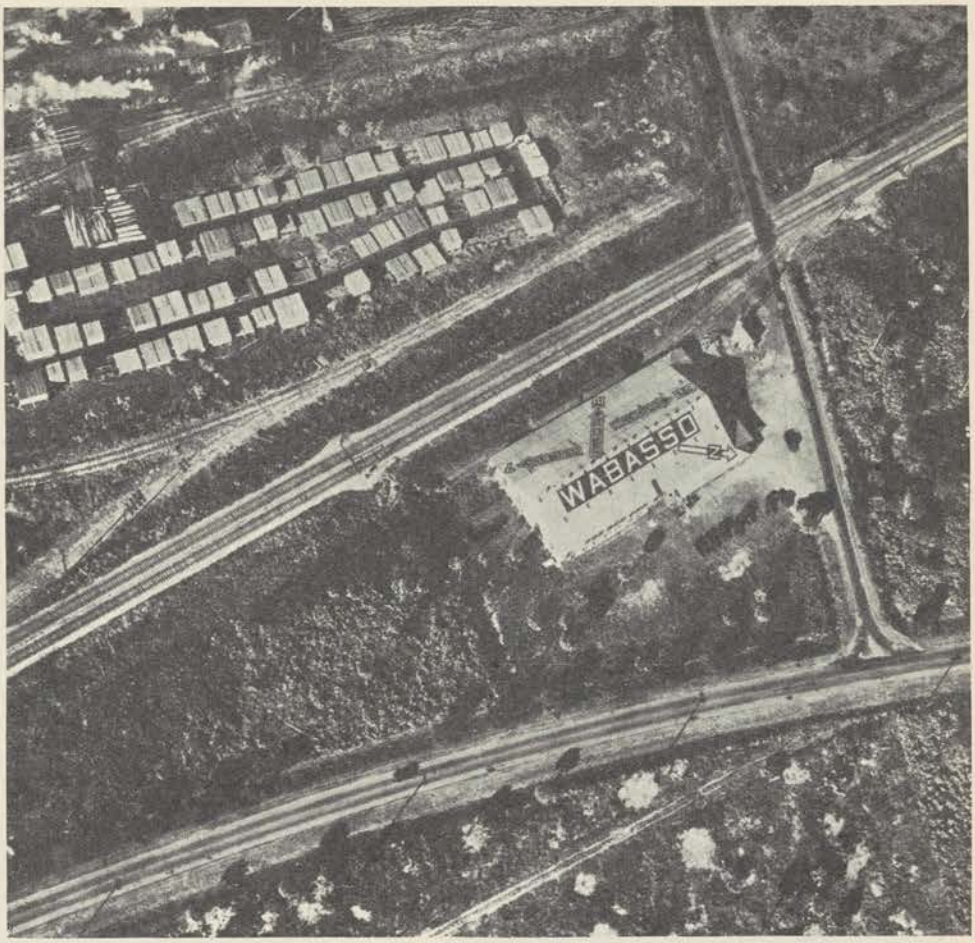
Conservation

Conservation work carried on through WPA projects has been chiefly in rural areas of the Western and Midwestern States. The construction of 15,800 small dams for water-conservation purposes and the reconditioning of nearly 800 others, in areas that have suffered acutely from drought, is helping to conserve water supplies and aiding generally in the rehabilitation of certain communities. WPA work that has contributed either directly or indirectly to the conservation of soil and water resources and to flood control includes about 11,000 miles of riverbank, streambed, and shore-line improvement; the construction of hundreds of miles of levees and retaining walls; and the riprapping of millions of square yards of critical slopes and shore lines. In addition, nearly 400 fish hatcheries have been built, improved, or enlarged, and millions of bushels of oysters have been planted to replenish depleted beds.

Nonconstruction Work

Nonconstruction activities of the WPA have been undertaken with the primary purpose of providing jobs for unemployed women and men with experience or training in other than construction fields who were eligible for WPA employment. The work performed by these persons on professional and service projects has extended substantially the community services available to the American public.

A major WPA accomplishment in the field of public services has been the provision of educational opportunities in two spheres outside



GUIDE FOR AVIATORS

One of 10,000 similar air markers constructed by WPA, these signs painted on the roofs of buildings provide aviators with check points for contact navigation.

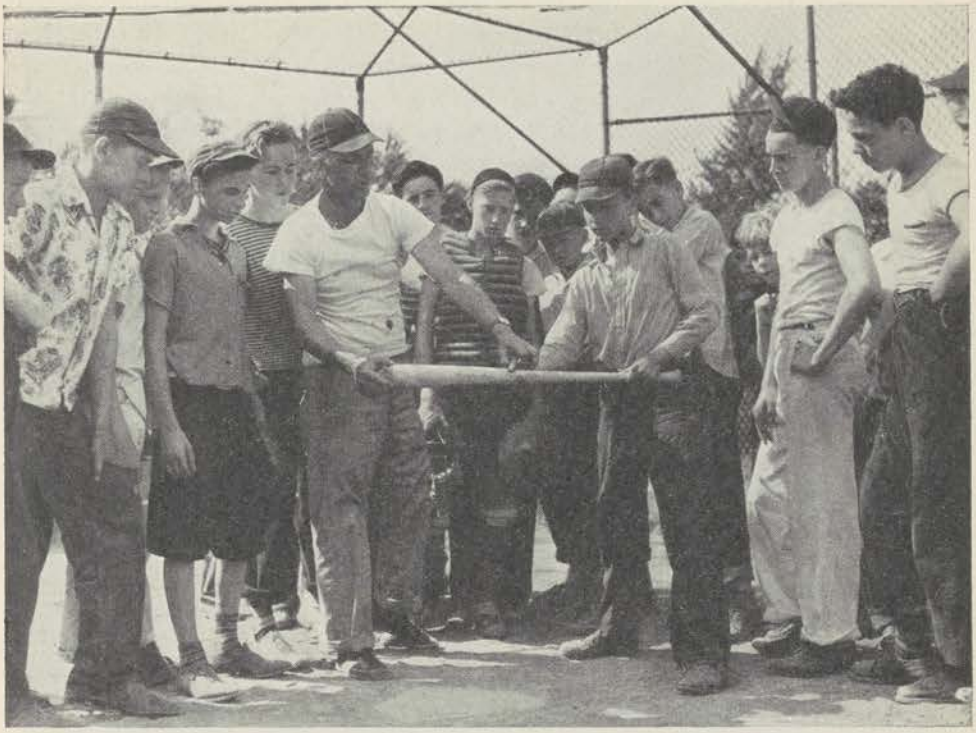
the usual scope of public-school systems—adult education and nursery school activities. This work has been carried on under the sponsorship of State departments of education, in order to assure its integration with the regular school systems. Classes for persons beyond school age offer a wide variety of instruction and in June 1940 had a total enrollment of approximately 860,000. In addition many thousands of persons received art and music instruction and attended lectures and forums. About 40,000 preschool children from low-income families were enrolled in 1,369 WPA nursery schools, where they received an adequate noonday meal and other advantages that they would not have had at home.

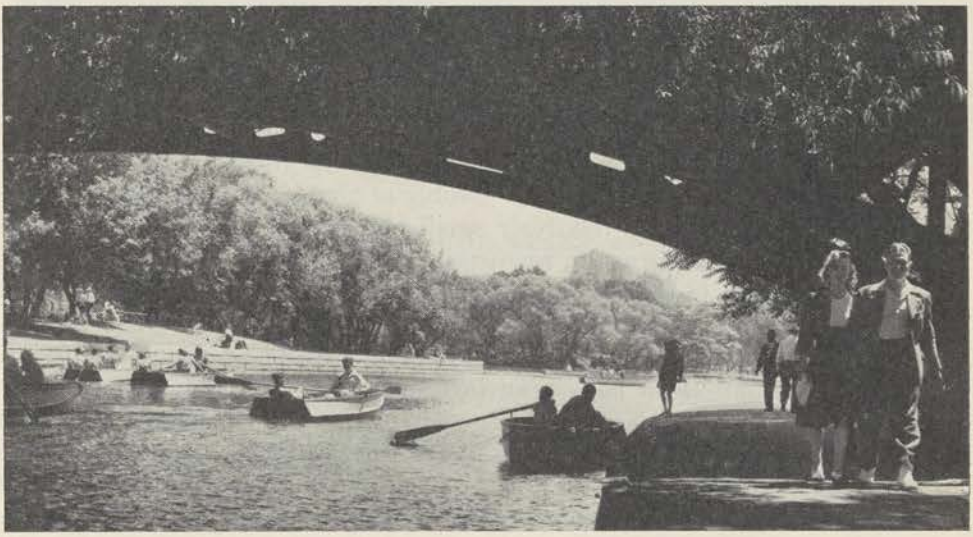
WPA literacy classes are directed toward the reduction of illiteracy and the extension of educational opportunities to persons who lack all but the most elementary education. In the naturalization classes aliens are instructed in the principles of democratic government, the responsibilities of citizenship, and the history of the United States, in order to aid them in becoming citizens. Literacy and naturalization classes, which had a total enrollment of almost 258,000 persons in June 1940, are conducted both in the congested areas of large cities where foreign-born persons are numerous, and in remote mountain and rural areas where educational opportunities in the past have been exceedingly limited.

Another important type of WPA adult education work is the vocational training classes, in which about 189,000 persons were enrolled in June 1940. These classes provide specialized training for various occupations for both men and women.

Instruction in a wide variety of other subjects was made available to nearly 399,000 persons in June 1940. Among these were subjects related to home life and family relationships, such as diets, menu planning, child care, home management, and home beautification. The work also included health education classes with emphasis on safety, first aid, and home hygiene, and classes in public affairs in which such local problems as sanitation and the provision of public recreational facilities are discussed. In addition to the thousands of persons who attended these classes, some 15,000 persons in all parts of the country were receiving instruction through WPA correspondence courses in June 1940, and 29,000 institutionalized and handicapped persons were receiving special instruction.

In another educational field—library work—project activities have resulted in expansion of the library facilities available in many communities. Project workers operated or assisted in the operation of 9,400 libraries during December 1939. Most of them were public school or municipal libraries. Some were mobile units or "book-





PLAY—AND PLAY WELL

WPA has built many playgrounds, parks, and other recreational centers, such as this boating lagoon in Chicago, and through programs of recreational instruction is teaching thousands of children and adults to play, thus building a healthier nation.

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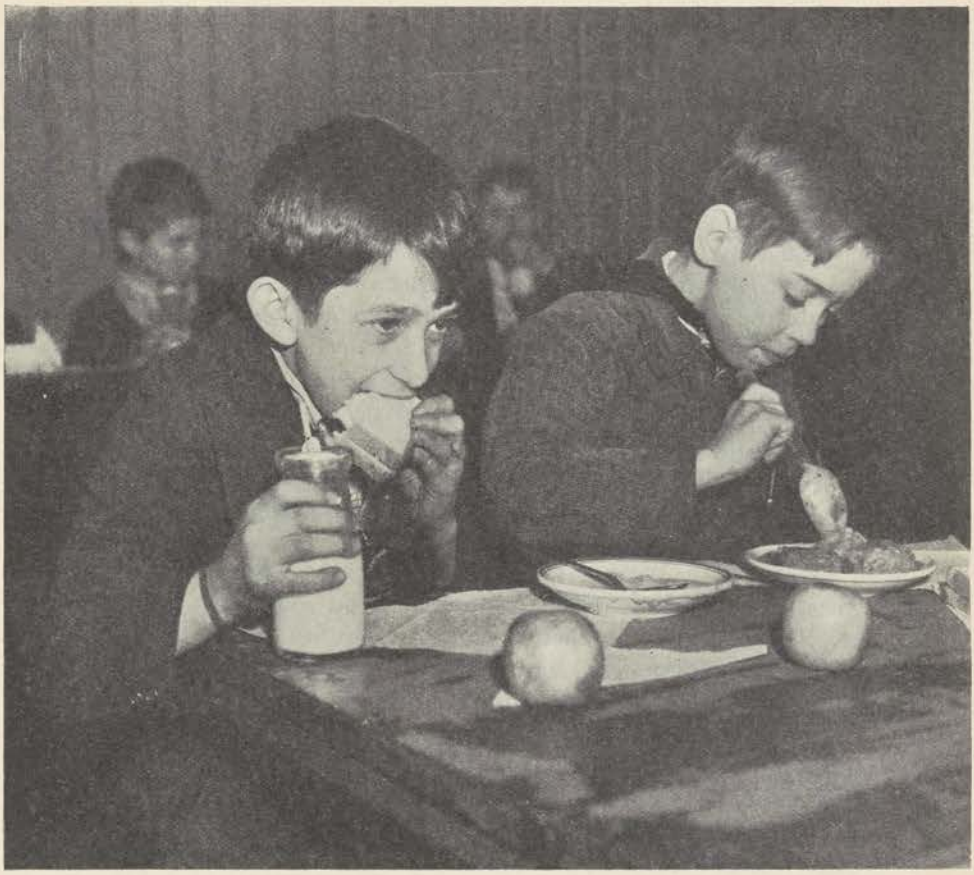
mobiles" operated for the benefit of rural or other communities that are without adequate library facilities. Other library work completed by the end of December 1939 included the renovation of some 67,000,000 volumes for public school and other libraries, and the transcription of nearly 4,000,000 pages of Braille for the use of blind readers. Visual aids to education, such as models, maps, and projection slides, have been made by workers on museum extension projects, and other project workers have helped museum staffs to classify and index a wide variety of art, archeological, and historical material.

WPA recreation projects, carried on in nearly all States and in three-fifths of the counties of the United States, have made a considerable contribution to the public welfare by providing leadership and supervision for public recreational activities. Through cooperation with some 5,500 local recreation councils, leisure-time programs have been organized for people of all ages. The programs include nearly every sport and type of recreation, although they vary somewhat with the section of the country and season of the year in which they are undertaken.

Physical recreation has been most popular, in terms of hours of participation, according to the results of surveys made in sample winter and summer weeks. Ball games, gymnastics, snow and ice sports, swimming and water sports, or other outdoor games in the appropriate seasons have accounted for about two-fifths of the total hours of participation in the recreation program. Indoor games, dancing, and other kinds of social recreation have accounted for approximately a third of the participant hours. Participation in recreation having a cultural emphasis, which includes such activities as art and craft work, play productions, puppet shows, and instrumental and choral music, has been almost as great and has accounted for about a fifth of the total number of hours. The remainder of the program, which is relatively small in terms of participant hours, is devoted to therapeutic recreation, carried on in hospitals, asylums, and other institutions for dependent or handicapped persons and delinquents, and to activities in children's play centers.

Direct medical and health services for persons who could not otherwise afford them have been furnished on a group of WPA projects that employ many unemployed physicians, dentists, registered nurses, and chemists. Usually these services are supplementary to those provided by local health agencies, but often they are extended into regions where such services are not otherwise available. WPA doctors, dentists, and nurses assisted in the examination and treatment of 243,000 children and adults in clinics and schools as well as in homes during a 2-week period in January 1940. Workers on these



ONE SQUARE MEAL A DAY

The school-lunch program of Work Projects Administration puts one hot, nourishing meal into the stomachs of thousands of needy school children each day.

projects also made about 83,000 tests (such as the Schick test for susceptibility to diphtheria), and administered 17,000 immunizations against diphtheria, typhoid fever, and other infectious diseases.

Also contributing greatly to the public welfare are the services extended through housekeeping aide, school lunch, and sewing projects. Through the end of December 1939 WPA housekeeping aides had made about 17,000,000 visits to the homes of needy families, where they gave temporary assistance in the housework and in the care of the children while the mother or regular homemaker was ill, or during other emergencies. At public schools WPA workers prepared and served free hot lunches for needy children. Products of WPA gardening and canning projects, surplus commodities, and food donated by local sponsors are used for the lunches. From the beginning of the program through December 1939, more than 384,000,000 lunches had been served, and during a typical month (March 1940) children in 13,700 schools in all sections of the country received a total of approximately 22,800,000 lunches.

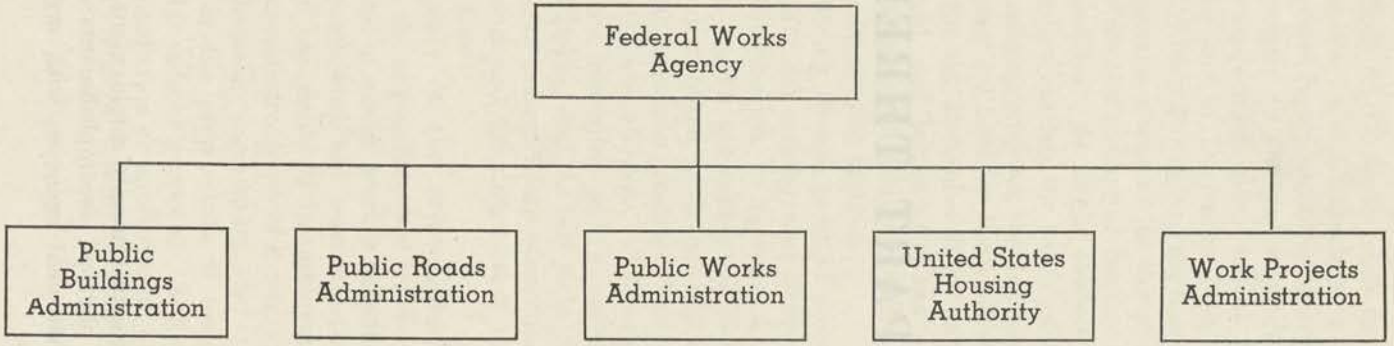
Workers in WPA sewing rooms, most of whom are women, had produced nearly 291,000,000 articles and garments by the end of December 1939 for distribution to families aided through public relief agencies and to public tax-supported institutions. Some of the articles have been distributed to victims of hurricanes and floods. Among the 223,000,000 garments produced were articles of wearing apparel for men, women, and children. The other articles included many types of household necessities such as sheets, pillow cases, and towels, and hospital supplies, such as bed jackets and surgical dressings. Left-over scraps of materials are often made into toys for use in WPA nursery schools and for distribution to children in needy families at Christmas time.

Physical measurements of the accomplishments of the WPA employees engaged in the improvement of public records, in research and survey projects, and in similar work is extremely difficult. Their highly diversified research work has been undertaken to throw light on many problems in the fields of unemployment, public health, family incomes and expenditures, cost of living, and taxation. They have also assisted in housing, engineering, and traffic surveys, social welfare studies, and in the preparation of maps that are of considerable importance for defense purposes. Still other WPA workers have assisted in the installation or improvement of property appraisal records, delinquent tax ledgers, records of vital statistics, and police records.

PART THREE

STATISTICAL TABULATIONS of employment, Federal expenditures, project costs, and physical accomplishments of the Federal Works Agency and its constituent agencies; with organization charts and lists of publications.

FEDERAL WORKS AGENCY
ORGANIZATION CHART



As of November 1, 1940

Appendix A

FEDERAL WORKS AGENCY

Reorganization Plan No. I

Prepared by the President and transmitted to the Senate and the House of Representatives in Congress assembled, April 25, 1939, pursuant to the provisions of the Reorganization Act of 1939, approved April 3, 1939. Effective July 1, 1939.

* * * * * * *

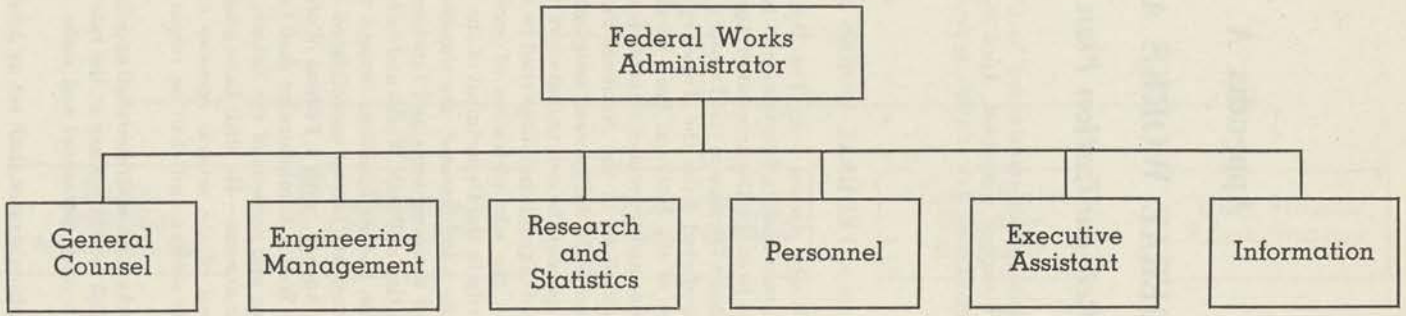
PART 3. FEDERAL WORKS AGENCY

SEC. 301. *Federal Works Agency.*—(*a*) The Bureau of Public Roads in the Department of Agriculture and its functions and personnel (including the Chief thereof) are transferred from the Department of Agriculture; the Public Buildings Branch of the Procurement Division in the Treasury Department and its functions and personnel are transferred from the Treasury Department; the Branch of Buildings Management of the National Park Service in the Department of the Interior and its functions and personnel (except those relating to monuments and memorials), and the functions of the National Park Service in the District of Columbia in connection with the general assignment of space, the selection of sites for public buildings, and the determination of the priority in which the construction or enlargement of public buildings shall be undertaken, and the personnel engaged exclusively in the administration of such functions, and the United States Housing Authority in the Department of the Interior and its functions and personnel (including the Administrator) are transferred from the Department of the Interior; and all of these agencies and functions, together with the Federal Emergency Administration of Public Works and its functions, and all of the Works Progress Administration and its functions (except the National Youth Administration and its functions) are hereby consolidated into one agency to be known as the Federal Works Agency, with a Federal Works Administrator at the head thereof. The Federal Works Administrator shall be appointed by the President, by and with the advice and consent of the Senate, and shall receive a salary at the rate of $12,000 per annum. He shall have general direction and supervision over the administration of the several agencies consolidated into the Federal Works Agency by this section and shall be responsible for the coordination of their functions.

(*b*) The Federal Works Administrator shall appoint an Assistant Federal Works Administrator, who shall receive a salary at the rate of $9,000 per annum, and he may also appoint such other personnel and make such expenditures as may be necessary.

(*c*) The Assistant Administrator shall act as Administrator during the absence

FEDERAL WORKS AGENCY
OFFICE OF THE ADMINISTRATOR
ORGANIZATION CHART



As of November 1, 1940

or disability of the Administrator, or in the event of a vacancy in that office, and shall perform such other duties as the Administrator shall direct.

(*d*) The several agencies and functions consolidated by this section in the Federal Works Agency shall carry with them their personnel.

SEC. 302. *Public Roads Administration.*—(*a*) The Bureau of Public Roads and its functions shall be administered as the Public Roads Administration at the head of which shall be the Chief of the Bureau of Public Roads whose title shall be changed to Commissioner of Public Roads. Hereafter the Commissioner of Public Roads shall be appointed by the Federal Works Administrator.

(*b*) All functions of the Secretary of Agriculture relating to the administration of the Bureau of Public Roads are hereby transferred to, and shall be exercised by, the Federal Works Administrator.

SEC. 303. *Public Buildings Administration.*—(*a*) The Public Buildings Branch of the Procurement Division and its functions, the Branch of Buildings Management of the National Park Service and its functions (except those relating to monuments and memorials) and the functions of the National Park Service in the District of Columbia in connection with the general assignment of space, the selection of sites for public buildings, and the determination of the priority in which the construction or enlargement of public buildings shall be undertaken, are hereby consolidated and shall be administered as the Public Buildings Administration, with a Commissioner of Public Buildings at the head thereof. The Commissioner of Public Buildings shall be appointed by the Federal Works Administrator and shall receive a salary at the rate of $9,000 per annum. The Commissioner of Public Buildings shall act under the direction and supervision of the Federal Works Administrator.

(*b*) All functions of the Secretary of the Treasury and the Director of Procurement relating to the administration of the Public Buildings Branch of the Procurement Division and to the selection of location and sites for public buildings, and all functions of the Secretary of the Interior and the Director of the National Park Service relating to the administration of the functions of the Branch of Buildings Management and the functions of the National Park Service in the District of Columbia in connection with the general assignment of space, the selection of sites for public buildings, and the determination of the priority in which the construction or enlargement of public buildings shall be undertaken, are hereby transferred to, and shall be exercised by, the Federal Works Administrator.

SEC. 304. *United States Housing Authority.*—(*a*) The United States Housing Authority and its functions shall be administered by the United States Housing Administrator under the direction and supervision of the Federal Works Administrator.

(*b*) All functions of the Secretary of the Interior relating to the administration of the United States Housing Authority are hereby transferred to, and shall be exercised by, the Federal Works Administrator.

SEC. 305. *Public Works Administration.*—The Federal Emergency Administration of Public Works and its functions shall be administered as the Public Works Administration with a Commissioner of Public Works at the head thereof. The Commissioner of Public Works shall be appointed by the Federal Works Administrator and shall receive a salary at the rate of $10,000 per annum. The Commissioner of Public Works shall act under the direction and supervision of the Federal Works Administrator.

SEC. 306. *Work Projects Administration.*—The Works Progress Administration and its functions (except the National Youth Administration and its functions) shall be administered as the Work Projects Administration, with a Commissioner

of Work Projects at the head thereof. The Commissioner shall be appointed by the Federal Works Administrator and shall receive a salary at the rate of $10,000 per annum. The Commissioner shall act under the direction and supervision of the Federal Works Administrator.

SEC. 307. *Transfer of records and property.*—All records and property (including office equipment) of the several agencies which, with their functions, are consolidated by section 301 into the Federal Works Agency are hereby transferred to the jurisdiction and control of the Federal Works Agency for use in the administration of the agencies and functions consolidated by that section.

SEC. 308. *Transfer of funds.*—(*a*) So much of the unexpended balances of appropriations, allocations, or other funds available (including those available for the fiscal year ending June 30, 1940) for the use of any agency (except the United States Housing Authority) in the exercise of any functions transferred by this part, or for the use of the head of any department or agency in the exercise of any functions so transferred, and so much of such balances available to the United States Housing Authority for administrative expenses, as the Director of the Bureau of the Budget shall determine, shall be transferred for use in connection with the exercise of the functions transferred by this Part. In determining the amount to be transferred the Director of the Bureau of the Budget may include an amount to provide for the liquidation of obligations incurred against such appropriations, allocations, or other funds prior to the transfer: *Provided*, That the use of the unexpended balances of appropriations, allocations, or other funds transferred by this section shall be subject to the provisions of section 4 (d) (3) and section 9 of the Reorganization Act of 1939.

(*b*) All unexpended balances of appropriations, allocations, or other funds available (including those available for the fiscal year ending June 30, 1940) for the use of the United States Housing Authority, other than those transferred by subsection (*a*) of this section, are hereby transferred with the United States Housing Authority and shall remain available to it for the exercise of its functions.

SEC. 309. *Administrative funds.*—The Director of the Bureau of the Budget shall allocate to the Federal Works Agency, from appropriations, allocations, or other funds available (including those available for the fiscal year ending June 30, 1940) for the administrative expenses of the agencies and functions consolidated by section 301, such sums, and in such proportions, as he may find necessary for the administrative expenses of the Federal Works Agency.

SEC. 310. *Personnel.*—Any of the personnel transferred by this part found to be in excess of the personnel necessary for the efficient administration of the functions transferred by this part shall be retransferred under existing law to other positions in the Government service, or separated from the service subject to the provisions of section 10 (a) of the Reorganization Act of 1939.

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[1] For a given month this average is computed as follows: PBA—the mean of the weekly pay-roll counts made during the period between the 15th of the previous month and the 15th of the given month. PRA, PWA, and USHA—the mean of the weekly pay-roll counts made during the calendar month. WPA—the mean of the number of persons assigned to projects as of Wednesday of each week within the calendar month. Persons employed on projects operated by other Federal agencies and financed by WPA funds are included beginning in July 1938.

[2] This is an unduplicated total and, as such, is not necessarily the sum of the totals for the constituent agencies. Duplication in the reported figures exists between PWA and PBA and between PWA and PRA insofar as projects which were a part of the PWA program were administered, supervised, or inspected by PBA and PRA. Since July 1933 PBA has participated in projects with $118,300,000 of PWA allotments; PRA, in projects with $442,000,000 of PWA allotments. This duplication is eliminated in the total given for the Federal Works Agency.

Source: Employment data are received directly by each of the agencies except the Public Buildings Administration. Figures shown for that agency have been drawn largely from reports submitted by contractors to the Bureau of Labor Statistics, Department of Labor.

TABLE 1. FEDERAL WORKS AGENCY.—*Average number*[1] *of persons employed on Federal Works Agency projects, United States and Territories, by constituent agency and by month, July 1935–June 1940*

Year and month	Federal Works Agency, total[2]	Public Buildings Administration	Public Roads Administration	Public Works Administration	United States Housing Authority	Work Projects Administration
1935						
July	422,564	17,693	191,041	284,183	----------	----------
August	622,253	16,484	178,756	270,583	----------	220,163
September	747,050	17,119	143,455	259,545	----------	374,316
October	1,058,046	17,109	135,660	243,087	----------	705,169
November	2,119,744	16,519	118,898	204,053	----------	1,814,958
December	2,951,667	16,140	103,493	193,112	----------	2,667,190
1936						
January	3,126,853	13,484	82,731	173,510	----------	2,879,733
February	3,242,858	12,423	70,418	159,654	----------	3,019,098
March	3,278,243	16,253	86,050	238,513	----------	2,960,315
April	3,021,895	18,857	132,834	271,103	----------	2,626,367
May	2,901,814	18,702	193,269	323,655	----------	2,396,719
June	2,845,213	16,012	237,330	335,368	----------	2,285,622
July	2,796,514	15,816	249,271	313,745	----------	2,245,328
August	2,905,094	15,790	247,841	337,229	----------	2,332,380
September	2,951,746	14,256	227,916	281,110	----------	2,453,602
October	3,008,896	15,610	206,113	258,862	----------	2,552,574
November	2,972,362	15,275	172,295	255,971	----------	2,551,042
December	2,573,855	14,140	128,314	202,525	----------	2,247,461
1937						
January	2,383,028	12,708	76,829	176,209	----------	2,131,079
February	2,362,572	11,775	57,844	156,504	----------	2,149,369
March	2,367,914	11,329	69,946	172,942	----------	2,129,475
April	2,338,078	11,367	88,361	177,214	----------	2,078,221
May	2,336,972	10,679	122,655	202,546	----------	2,021,579
June	2,191,783	10,332	145,375	178,702	----------	1,878,008
July	1,940,854	10,397	159,489	160,896	----------	1,631,204
August	1,829,851	11,070	163,331	166,954	----------	1,510,894
September	1,737,599	11,511	152,784	136,242	----------	1,455,977
October	1,726,991	12,082	143,617	125,986	----------	1,462,605
November	1,716,955	12,789	121,394	84,308	9,692	1,503,720
December	1,763,588	11,616	85,365	76,839	6,443	1,596,676
1938						
January	1,941,882	10,389	54,899	79,379	4,385	1,803,102
February	2,129,762	9,461	49,713	72,014	3,918	2,003,840
March	2,461,779	8,958	51,229	84,695	4,183	2,321,541
April	2,702,161	9,127	67,829	89,747	4,298	2,540,464
May	2,837,981	8,580	98,179	97,075	4,273	2,640,246
June	2,953,986	7,977	114,373	96,570	2,515	2,743,025
July	3,215,901	7,356	123,038	93,234	2,584	2,999,021
August	3,357,028	6,953	126,860	103,887	2,398	3,125,244
September	3,451,780	6,967	132,390	104,748	2,100	3,213,609
October	3,572,165	7,123	129,270	155,822	1,503	3,286,611
November	3,618,736	7,788	110,073	173,122	1,765	3,334,594
December	3,435,958	7,760	82,268	190,446	2,233	3,161,080
1939						
January	3,292,127	7,208	57,554	210,268	2,633	3,021,595
February	3,260,100	7,096	46,804	213,173	3,466	2,996,554
March	3,300,493	7,931	47,559	239,397	4,923	3,009,110
April	3,124,974	7,952	65,517	264,215	6,508	2,792,362
May	3,022,261	8,172	89,108	287,347	8,340	2,645,550
June	2,992,301	8,556	110,566	303,217	11,556	2,578,041
July	2,664,275	8,529	118,300	260,729	15,111	2,282,087
August	2,396,399	9,074	119,202	298,231	18,158	1,970,688
September	2,082,791	9,785	117,088	229,589	21,905	1,720,996
October	2,219,915	9,285	104,652	214,685	25,927	1,877,439
November	2,358,014	9,693	89,228	178,919	28,713	1,960,518
December	2,350,496	9,643	62,779	129,763	30,507	2,123,431
1940						
January	2,354,942	9,415	26,458	79,236	25,282	2,216,314
February	2,452,669	8,380	27,455	81,865	27,273	2,309,218
March	2,476,913	8,445	37,792	88,634	33,426	2,310,541
April	2,338,501	8,183	60,815	88,270	39,604	2,144,040
May	2,205,075	7,737	83,507	90,676	44,297	1,981,661
June	1,986,486	8,036	96,370	81,920	47,293	1,755,526

For footnotes, see p. 244.

TABLE 2. FEDERAL WORKS AGENCY.—*Unemployment in the United States as estimated by nongovernmental organizations, by month, January 1929–June 1940*

[In thousands; 000 omitted]

Year and month	Alexander Hamilton Institute	Congress of Industrial Organizations	American Federation of Labor[1]	National Industrial Conference Board
1929				
January	4,204	3,794	.....	2,083
February	4,105	3,579	.....	2,055
March	3,801	2,908	.....	1,517
April	3,522	1,975	.....	701
May	3,418	1,221	.....	[2]—105
June	3,286	798	.....	[2]—597
July	3,197	822	.....	[2]—617
August	2,851	696	.....	[2]—862
September	2,768	399	.....	[2]—1,219
October	2,851	595	.....	[2]—482
November	3,549	1,944	.....	760
December	3,923	3,230	.....	1,919
Average	3,456	1,831	1,864	429
1930				
January	5,262	4,585	.....	3,144
February	5,688	4,827	.....	3,426
March	5,813	4,546	.....	3,338
April	5,860	3,911	.....	2,932
May	6,072	3,448	.....	2,433
June	6,526	3,491	.....	2,231
July	7,248	4,032	.....	3,253
August	7,734	4,458	.....	3,764
September	7,659	4,891	.....	3,671
October	7,880	4,874	.....	4,529
November	8,529	6,214	.....	6,080
December	8,877	6,238	.....	6,802
Average	6,929	4,710	4,735	3,809
1931				
January	10,082	8,414	.....	7,923
February	10,349	8,416	.....	8,179
March	10,340	8,029	.....	7,838
April	10,158	7,480	.....	7,270
May	10,245	7,217	.....	6,890
June	10,512	7,227	.....	6,850
July	10,984	7,755	.....	7,483
August	11,266	8,155	.....	7,948
September	11,292	8,125	.....	7,838
October	11,558	8,573	.....	8,682
November	12,220	9,832	.....	9,931
December	12,265	10,637	.....	10,522
Average	10,939	8,322	8,568	8,113

Year and month	Alexander Hamilton Institute	Congress of Industrial Organizations	American Federation of Labor[1]	National Industrial Conference Board
1932				
January	13,425	11,652	.....	11,397
February	13,574	11,751	.....	11,670
March	13,792	11,704	.....	11,859
April	14,254	11,607	.....	11,982
May	14,741	11,675	.....	12,069
June	15,216	11,869	.....	12,321
July	15,757	12,350	.....	12,906
August	15,667	12,530	.....	12,941
September	15,128	12,070	.....	12,469
October	14,855	11,952	.....	12,961
November	15,152	12,766	.....	13,404
December	15,170	13,518	.....	13,768
Average	14,728	12,120	12,870	12,478
1933				
January	16,103	14,492	.....	14,262
February	16,047	14,471	.....	14,535
March	16,467	14,465	.....	14,762
April	16,018	13,971	.....	14,410
May	15,667	13,290	.....	13,891
June	14,858	12,530	.....	13,025
July	14,120	12,063	.....	12,377
August	13,239	11,506	.....	11,475
September	12,388	10,744	.....	10,647
October	12,261	10,605	.....	10,796
November	12,735	11,524	.....	11,248
December	12,824	12,058	.....	11,500
Average	14,394	12,643	13,271	12,744
1934				
January	13,528	12,669	.....	11,544
February	12,904	12,178	.....	11,200
March	12,255	11,415	.....	10,213
April	11,987	10,682	.....	9,965
May	11,858	10,017	.....	9,484
June	12,021	9,792	.....	9,277
July	12,418	10,223	.....	9,898
August	12,373	10,375	.....	10,086
September	12,673	10,387	.....	10,232
October	12,353	10,244	.....	10,597
November	12,556	10,991	.....	11,211
December	12,102	11,172	.....	11,086
Average	12,419	10,845	11,424	10,400

TABLE 2. FEDERAL WORKS AGENCY.—*Unemployment in the United States as estimated by nongovernmental organizations, by month, January 1929–June 1940*—Continued

[In thousands; 000 omitted]

Year and month	Alexander Hamilton Institute	Congress of Industrial Organizations	American Federation of Labor [1]	National Industrial Conference Board
1936				
January	12,659	11,741	.....	11,234
February	12,283	11,412	.....	10,777
March	12,018	10,941	.....	10,395
April	11,804	10,808	.....	9,942
May	11,902	9,919	.....	9,572
June	11,924	9,704	.....	9,168
July	11,983	9,699	.....	9,018
August	11,649	9,482	.....	8,947
September	11,127	9,133	.....	8,640
October	10,792	8,940	.....	8,729
November	10,999	9,481	.....	8,737
December	10,499	9,847	.....	9,099
Average	11,629	10,050	10,652	9,522
1936				
January	11,464	11,030	.....	9,434
February	11,374	10,893	.....	9,479
March	11,019	10,129	.....	8,883
April	10,534	9,349	.....	8,346
May	10,388	8,595	.....	7,705
June	10,318	8,211	.....	7,296
July	10,179	8,218	.....	7,034
August	9,771	7,768	.....	6,393
September	9,151	7,385	.....	6,294
October	8,870	7,369	.....	6,521
November	8,846	7,950	.....	6,676
December	8,188	8,173	.....	7,120
Average	10,099	8,756	9,395	7,599
1937				
January	9,250	9,751	.....	7,574
February	8,764	9,293	.....	7,507
March	8,338	8,652	.....	6,865
April	8,130	8,033	.....	6,431
May	7,959	7,370	.....	5,585
June	7,964	7,115	.....	5,441
July	7,971	7,231	.....	5,155
August	7,892	7,186	.....	5,134
September	7,618	6,974	.....	5,066
October	7,883	7,251	.....	5,691
November	8,977	8,658	.....	7,175
December	9,671	9,791	.....	8,841
Average	8,361	8,109	8,282	6,372
1938				
January	11,830	11,714	.....	10,328
February	12,046	11,693	.....	10,687
March	12,122	11,535	.....	10,721
April	12,159	11,086	.....	10,680
May	12,719	11,156	.....	10,754
June	12,903	11,032	.....	10,352
July	12,932	11,018	.....	10,347
August	12,414	10,820	.....	10,023
September	11,704	10,242	.....	9,314
October	11,487	10,242	.....	9,244
November	11,317	10,774	.....	9,429
December	10,601	11,055	.....	9,304
Average	12,020	11,030	10,933	10,099
1939				
January	11,754	12,323	11,369	10,012
February	11,689	12,183	11,185	10,105
March	11,420	11,805	10,902	9,800
April	11,724	11,543	10,854	9,595
May	11,740	10,981	10,617	9,382
June	11,412	10,359	10,143	8,933
July	11,493	10,459	10,268	9,384
August	11,136	10,302	10,084	8,838
September	10,388	9,704	9,439	8,192
October	9,827	9,513	9,181	7,969
November	9,754	10,124	9,346	8,331
December	9,282	10,456	9,248	8,257
Average	10,968	10,813	10,220	9,067
1940				
January	10,479	11,927	10,656	9,163
February	10,640	11,869	10,593	9,417
March	10,552	11,576	10,301	9,269
April	10,708	11,268	10,228	9,017
May	10,686	10,669	9,977	8,822
June	10,459	10,173	9,552	8,225

[1] Monthly data for 1929–38 not available. In process of revision.
[2] Negative unemployment results when estimated employment exceeds the estimate of the total labor supply.

TABLE 3. FEDERAL WORKS AGENCY.—*Average number*[1] *of persons employed on Federal Works Agency projects, by month and by State, for fiscal year ending June 30, 1940*

State	1939					
	July	August	September	October	November	December
Total	2,664,275	2,396,399	2,082,791	2,219,915	2,258,014	2,350,496
Alabama	55,303	51,010	44,962	48,448	45,497	56,090
Arizona	9,310	8,986	7,056	7,291	7,425	8,212
Arkansas	44,217	39,531	34,806	37,051	39,112	44,893
California	109,536	97,922	84,862	88,890	89,646	97,210
Colorado	30,371	25,445	23,736	25,659	25,827	27,382
Connecticut	27,823	24,055	24,185	23,655	23,958	23,121
Delaware	4,070	4,030	3,455	2,911	2,575	2,633
District of Columbia	15,389	14,576	11,614	11,762	13,366	15,097
Florida	44,101	43,839	39,223	44,017	39,849	42,109
Georgia	59,988	54,097	47,567	51,671	52,468	55,288
Idaho	12,096	10,525	9,732	9,995	10,445	11,193
Illinois	188,606	177,399	148,886	162,096	165,775	173,328
Indiana	82,505	74,953	58,204	59,610	65,369	67,858
Iowa	29,909	29,481	25,051	26,984	26,505	27,030
Kansas	32,413	25,297	21,958	26,404	25,257	29,191
Kentucky	59,735	53,612	44,272	47,843	48,041	49,922
Louisiana	46,910	41,104	36,191	37,978	39,088	42,668
Maine	9,975	8,733	8,639	8,727	8,917	8,190
Maryland	21,449	21,718	18,470	19,603	29,015	19,533
Massachusetts	104,492	94,256	81,328	82,175	83,269	91,606
Michigan	148,504	112,044	91,228	92,372	96,596	93,845
Minnesota	59,756	54,734	46,659	52,360	50,344	50,106
Mississippi	47,533	42,709	40,126	43,131	45,583	48,459
Missouri	89,199	79,542	66,897	72,654	78,125	82,170
Montana	16,733	14,976	14,360	15,622	13,869	14,908
Nebraska	28,530	27,215	22,948	26,113	28,444	29,316
Nevada	2,229	2,141	1,956	2,369	2,374	2,382
New Hampshire	9,628	9,555	7,872	8,660	8,360	7,677
New Jersey	85,272	76,262	64,585	72,881	71,884	77,155
New Mexico	12,444	12,369	11,407	11,707	11,913	13,228
New York	217,339	188,736	168,258	178,786	180,297	177,899
North Carolina	51,171	45,329	42,928	44,161	46,071	49,112
North Dakota	13,719	9,481	10,396	11,925	11,863	14,075
Ohio	205,357	169,731	142,547	149,204	149,713	151,436
Oklahoma	55,849	50,022	45,738	46,769	47,307	52,043
Oregon	17,990	17,189	13,925	14,746	15,302	17,098
Pennsylvania	171,806	170,784	152,544	169,353	169,620	162,914
Rhode Island	14,679	14,840	12,405	13,045	13,643	13,812
South Carolina	45,783	42,533	36,336	39,675	38,589	42,547
South Dakota	14,595	12,662	12,282	13,022	13,457	15,748
Tennessee	46,366	43,105	37,643	40,385	41,025	43,920
Texas	105,436	102,223	86,371	88,700	91,678	102,878
Utah	12,256	11,592	10,062	10,769	11,591	12,715
Vermont	6,281	5,842	4,603	4,654	4,579	4,821
Virginia	37,267	34,105	29,528	31,338	31,259	31,400
Washington	37,402	32,767	29,301	30,848	33,758	31,605
West Virginia	43,076	39,395	34,752	32,161	34,310	36,097
Wisconsin	65,863	59,044	53,415	57,094	51,946	55,089
Wyoming	5,661	5,198	5,530	4,511	4,226	4,322
Outside United States	8,353	9,705	11,992	18,130	18,884	19,165

For footnote, see FWA table 1.

TABLE 3. FEDERAL WORKS AGENCY.—*Average number*[1] *of persons employed on Federal Works Agency projects, by month and by State, for fiscal year ending June 30, 1940*—Continued

State	1940					
	January	February	March	April	May	June
Total	2,354,942	2,452,669	2,476,913	2,338,501	2,205,075	1,986,486
Alabama	57,573	57,796	56,309	48,626	44,344	39,834
Arizona	8,983	9,321	9,367	8,350	7,773	6,629
Arkansas	47,673	48,541	46,230	38,226	33,479	28,372
California	96,371	100,077	104,747	101,596	98,417	84,483
Colorado	28,213	30,251	30,821	28,420	23,556	19,704
Connecticut	21,646	21,737	22,353	21,236	21,282	20,540
Delaware	2,581	2,596	2,915	3,056	3,167	3,103
District of Columbia	15,898	15,751	14,937	14,428	14,103	14,453
Florida	44,807	47,413	48,030	40,516	36,899	28,845
Georgia	55,287	56,613	56,723	52,075	48,687	42,488
Idaho	11,234	12,495	12,220	10,570	9,447	7,983
Illinois	169,797	184,856	189,314	182,894	171,535	148,921
Indiana	66,155	68,114	68,008	63,841	58,588	52,469
Iowa	26,315	28,138	27,645	27,785	27,575	22,222
Kansas	30,238	31,122	30,578	28,365	26,802	22,786
Kentucky	48,005	51,061	52,944	47,560	44,320	39,816
Louisiana	40,364	41,869	41,308	37,303	35,259	28,815
Maine	8,523	10,259	10,170	9,200	8,219	7,296
Maryland	17,034	18,664	19,553	19,295	19,797	19,619
Massachusetts	100,359	107,385	106,700	94,805	82,792	73,068
Michigan	85,864	89,941	91,052	87,408	82,487	72,116
Minnesota	50,506	51,598	51,002	45,889	42,236	38,787
Mississippi	47,034	44,019	44,819	39,351	37,391	32,541
Missouri	86,931	92,159	91,285	83,023	75,774	69,205
Montana	15,002	15,573	15,751	14,254	12,831	11,237
Nebraska	29,989	32,335	31,728	29,533	27,199	24,725
Nevada	2,256	2,356	2,343	2,340	2,251	1,994
New Hampshire	8,269	8,960	9,110	8,280	7,709	7,041
New Jersey	78,330	80,877	81,690	78,681	70,016	65,037
New Mexico	13,872	15,046	15,097	13,399	12,535	10,698
New York	173,534	173,109	172,823	170,926	166,813	161,812
North Carolina	50,550	55,058	56,738	51,476	47,253	43,067
North Dakota	15,191	16,076	14,498	12,378	11,607	10,659
Ohio	146,759	151,014	154,528	155,043	147,161	130,107
Oklahoma	53,612	56,878	56,459	49,119	43,071	40,439
Oregon	16,908	17,058	16,729	16,198	15,893	14,879
Pennsylvania	156,150	154,061	158,475	176,155	193,364	184,861
Rhode Island	14,151	14,696	15,037	13,602	13,039	12,553
South Carolina	45,572	49,766	51,448	44,351	40,070	34,731
South Dakota	16,384	16,744	15,461	12,963	12,285	10,875
Tennessee	44,903	47,606	48,938	46,728	43,656	39,587
Texas	107,178	116,102	117,727	104,086	94,610	82,309
Utah	12,923	13,781	13,099	11,746	10,572	9,686
Vermont	4,895	5,341	5,545	5,397	5,074	4,575
Virginia	29,372	30,948	31,573	32,114	32,114	31,519
Washington	35,316	34,957	36,863	34,494	31,687	26,634
West Virginia	37,201	39,162	40,719	38,937	35,706	32,096
Wisconsin	55,870	57,111	56,744	51,665	45,557	40,104
Wyoming	4,287	4,628	4,864	5,143	4,574	3,904
Outside United States	19,077	21,650	23,896	25,675	24,499	27,182

For footnote, see FWA table 1.

TABLE 4. FEDERAL WORKS AGENCY.—*Hours worked and earnings of workers employed on Federal Works Agency projects, by State, for fiscal year ending June 30, 1940*

State	Hours worked	Earnings	State	Hours worked	Earnings
Total	3,421,023,441	$1,669,830,001	Nebraska	43,061,734	$19,753,495
			Nevada	3,440,164	1,935,537
Alabama	72,887,273	27,946,179	New Hampshire	12,744,542	6,186,938
Arizona	12,444,243	6,699,434	New Jersey	113,314,862	63,864,756
Arkansas	60,734,474	20,859,216	New Mexico	19,574,781	9,010,219
California	141,960,031	79,247,791			
Colorado	39,286,681	20,305,240	New York	266,537,114	168,018,691
			North Carolina	71,292,119	26,700,080
Connecticut	34,221,867	20,698,330	North Dakota	18,925,229	8,031,894
Delaware	4,321,345	2,179,816	Ohio	216,896,566	112,470,024
District of Columbia	20,770,932	13,740,247	Oklahoma	72,661,599	27,974,190
Florida	62,775,047	25,846,636			
Georgia	76,948,698	29,720,155	Oregon	24,615,020	13,664,600
			Pennsylvania	251,939,618	135,467,286
Idaho	16,097,152	7,651,234	Rhode Island	20,414,962	11,102,161
Illinois	253,065,843	130,827,797	South Carolina	63,635,851	24,207,761
Indiana	95,892,262	47,248,514	South Dakota	21,198,363	8,657,385
Iowa	40,239,445	19,027,815			
Kansas	41,085,226	18,202,531	Tennessee	64,069,867	24,740,811
			Texas	143,802,979	56,329,086
Kentucky	74,966,002	29,512,810	Utah	17,667,828	9,029,305
Louisiana	56,800,206	24,613,727	Vermont	7,657,880	3,437,479
Maine	13,414,757	5,996,752	Virginia	46,122,805	19,488,413
Maryland	28,243,816	16,155,935			
Massachusetts	137,680,356	75,035,569	Washington	48,760,232	28,482,028
			West Virginia	54,136,696	23,961,831
Michigan	142,635,531	70,062,376	Wisconsin	80,570,051	40,283,899
Minnesota	73,763,173	37,417,956	Wyoming	7,146,116	3,882,336
Mississippi	63,313,000	22,375,048	Outside United States	27,653,298	7,584,986
Missouri	117,448,473	52,107,361			
Montana	22,187,332	12,086,341			

TABLE 5. FEDERAL WORKS AGENCY.—*Estimated total expenditures (Federal and non-Federal) for Federal Works Agency projects, United States and Territories, by constituent agency and by fiscal year, 1934–40*

Fiscal year ending—	Federal Works Agency, total [1]	Public Buildings Administration [2]	Public Roads Administration [3]	Public Works Administration [4]	United States Housing Authority [5]	Work Projects Administration [6]
June 30—						
1934		$75,843,351	$316,572,934	$567,363,321		
1935		50,738,924	364,032,915	1,103,685,214		
1936		59,973,944	260,034,986	897,175,131		$1,326,457,262
1937		66,206,035	419,547,656	870,597,749		2,051,890,076
1938		68,855,782	368,233,916	510,725,018	$1,145,875	1,735,173,997
1939		48,790,865	350,979,708	954,242,981	47,423,300	2,632,176,582
1940	$3,394,969,301	61,182,875	312,858,762	889,771,016	184,729,707	1,959,106,155

[1] An unduplicated total is given for the fiscal year (1940) during which the constituent agencies operated under the Federal Works Agency.

[2] Figures show actual Federal disbursements. No non-Federal funds are expended for PBA projects.

[3] Figures given are the estimated total cost of projects completed during the fiscal year.

[4] Figures represent the estimated cost of material placed (including the cost of labor performed) and miscellaneous costs on that portion of the work completed. Estimated costs and construction expenditures have not been adjusted to final audited project costs.

[5] Figures given are the expenditures of the local housing authorities.

[6] Figures given are the sum of project expenditures financed by WPA and of sponsors' contributions. Includes projects operated by other Federal agencies and financed by WPA funds.

TABLE 6. FEDERAL WORKS AGENCY.—*Estimated total expenditures (Federal and non-Federal) for Federal Works Agency projects, by constituent agency and by State, for fiscal year ending June 30, 1940*

State or Territory	Federal Works Agency total [1]	Public Buildings Administration [2]	Public Roads Administration [3]	Public Works Administration [4]	United States Housing Authority [5]	Work Projects Administration [6]
Total	$3,394,969,301	$61,182,875	$312,858,762	$889,771,016	$184,729,707	$1,959,106,155
Alabama	64,657,294	523,944	10,516,054	11,554,860	6,424,485	35,637,951
Arizona	15,640,028	66,041	4,563,352	2,350,286	250,307	8,410,042
Arkansas	40,103,311	220,613	6,729,634	3,859,046		29,294,018
California	151,186,423	6,013,272	12,683,463	31,500,863	4,211,401	97,187,856
Colorado	42,945,749	1,244,647	7,470,265	11,338,590	342,540	23,389,789
Connecticut	47,975,714	1,497,463	1,641,849	21,357,613	3,318,361	21,120,052
Delaware	4,872,396	26,647	1,064,877	1,461,773		2,319,099
District of Columbia	37,439,258	13,810,739	1,148,670	14,574,163	1,757,777	10,621,935
Florida	51,482,408	615,277	5,137,726	5,687,760	9,103,492	30,956,042
Georgia	65,702,147	575,249	8,140,587	9,638,260	12,739,583	34,608,468
Idaho	15,862,750	210,203	4,174,785	1,296,960		10,180,802
Illinois	241,483,535	1,119,478	15,636,674	62,524,197	5,942,682	156,260,541
Indiana	94,003,264	2,273,467	6,611,482	29,579,908	1,614,033	55,595,339
Iowa	45,390,067	432,614	8,238,454	11,506,280		25,212,719
Kansas	39,389,131	388,096	5,751,397	10,322,173		22,927,627
Kentucky	58,708,802	1,087,813	6,660,421	12,902,137	5,088,711	33,683,337
Louisiana	52,502,540	2,304,837	3,380,021	12,145,458	8,618,878	26,053,378
Maine	12,450,689	97,131	3,227,057	2,182,370		6,944,131
Maryland	45,027,287	1,886,803	5,012,058	20,377,722	5,428,768	13,392,265
Massachusetts	134,530,568	2,613,181	4,017,077	28,796,654	11,042,215	88,086,854
Michigan	127,728,118	1,067,849	7,994,479	29,264,335	1,944,503	87,491,645
Minnesota	74,933,224	468,053	8,036,229	19,256,086		47,213,098
Mississippi	52,530,627	286,544	8,352,798	14,228,274	1,299,261	28,363,750
Missouri	87,054,451	2,690,337	6,539,604	14,585,924	39,546	63,541,722
Montana	27,121,776	512,746	6,483,844	6,035,536	438,039	13,956,397
Nebraska	51,650,599	286,507	7,771,036	17,287,969	2,343,388	23,961,699
Nevada	4,693,257	58,352	2,287,864	406,656		1,940,503
New Hampshire	11,787,452	197,950	1,434,146	3,906,168		6,249,188
New Jersey	119,900,769	766,968	2,887,850	29,322,434	12,260,218	74,666,348
New Mexico	16,792,062	51,802	3,667,489	2,154,280		10,918,491
New York	355,520,764	3,483,610	14,294,746	123,640,014	30,277,959	184,602,807
North Carolina	60,248,563	1,008,648	10,031,083	12,335,812	3,697,474	33,175,546
North Dakota	15,240,362	141,360	1,336,750	2,609,402		11,152,850
Ohio	212,168,812	1,195,732	11,986,553	52,956,780	13,090,333	133,001,426
Oklahoma	53,048,504	471,371	5,054,343	14,870,029		32,652,761
Oregon	26,076,889	231,878	6,016,148	4,769,266		15,059,597
Pennsylvania	258,055,340	2,801,806	14,881,391	82,863,365	16,438,587	141,078,478
Rhode Island	24,895,129	777,408	1,234,148	10,002,209	72,278	12,809,086
South Carolina	54,957,277	230,129	4,421,289	18,081,237	2,538,351	29,686,271
South Dakota	17,964,169	98,559	4,383,015	1,056,930		12,425,665
Tennessee	57,107,849	329,522	7,249,974	8,924,260	9,919,829	30,684,264
Texas	123,818,290	2,400,893	23,201,142	20,990,784	8,392,480	69,657,034
Utah	19,027,674	37,596	4,087,262	3,548,903		11,353,913
Vermont	6,766,736	59,787	1,010,418	1,639,247		4,057,332
Virginia	42,815,861	500,065	5,136,224	17,297,610	310,422	19,574,540
Washington	68,804,176	1,459,465	4,520,804	31,266,005	303,878	31,254,024
West Virginia	47,187,718	637,955	3,371,977	10,823,789	3,493,170	28,866,101
Wisconsin	79,201,654	732,437	7,374,563	19,527,271	3,768	51,563,615
Wyoming	8,855,393	66,417	3,220,325	1,952,334		3,616,317
Alaska	1,558,334	441,387	400,522	518,912		197,513
Hawaii	5,711,586	76,440	1,527,295	1,253,631	892,590	1,961,630
Puerto Rico	12,966,169	469,230	857,548	6,461,465	1,090,400	4,087,526
Virgin Islands	964,456	136,557		374,253		453,646
Various	6,461,900			602,773		5,859,127

For footnotes, see FWA table 5.

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TABLE 7. FEDERAL WORKS AGENCY.—*Federal expenditures [1] (direct payments and loans) for Federal Works Agency projects, United States and Territories, by constituent agency and by fiscal year, 1934–40*

Fiscal year ending—	Federal Works Agency [2]			Public Buildings Administration, direct payments	Public Roads Administration, direct payments	Public Works Administration		United States Housing Authority, loans [5]	Work Projects Administration, direct payments [6]
	Total	Direct payments	Loans			Direct payments [3]	Loans [4]		
June 30—									
1934				$75,843,351	$238,655,718	$461,099,527	$154,200,070		
1935				50,738,924	291,632,831	691,390,692	256,515,090		
1936				59,973,944	237,975,137	539,072,931	167,552,234		$1,193,567,378
1937				66,206,035	349,025,975	401,177,497	55,860,614		1,751,286,222
1938				68,855,782	231,509,995	223,796,552	33,600,591	[7] $3,387,950	1,363,566,376
1939				48,790,865	200,322,324	500,875,683	51,802,556	55,562,177	2,138,237,522
1940	$2,358,848,624	$2,040,418,980	$318,429,644	61,182,876	173,797,818	353,389,480	58,709,253	259,720,391	1,464,728,021

[1] Expenditures are measured by the amount of checks issued, except for USHA expenditures for 1940 (see footnote 5) and for Federal PWA projects in which case the estimated cost of work in place is used.

[2] Unduplicated totals are given for the fiscal year (1940) during which the constituent agencies operated under the Federal Works Agency.

[3] These payments are made up of disbursements for non-Federal projects and estimated expenditures of Federal projects. The expenditures for Federal projects duplicate in part the payments shown for PBA and PRA. This duplication is estimated by fiscal years as follows: 1934, $208,000,000; 1935, $194,000,000; 1936, $48,000,000; 1937, $25,000,000; 1938, $6,000,000; 1939, $8,000,000; 1940, $13,000,000.

[4] Net loan amount. (Does not include amounts for bonds canceled in lieu of grant payment.)

[5] Net advances made under loan contracts by USHA to local housing authorities except for 1940, when the total represents the aggregate advances by the USHA during the fiscal year under loan contracts, plus the net amount of short-term borrowings made by local housing authorities from other sources, carrying a USHA commitment for redemption.

[6] Includes projects operated by other Federal agencies and financed by WPA funds.

[7] From Nov. 1, 1937 to June 30, 1938.

TABLE 8. FEDERAL WORKS AGENCY.—*Federal expenditures (direct payments and loans) for Federal Works Agency projects, by State, for fiscal year ending June 30, 1940*

State or Territory	Total	Direct payments	Loans
Total	$2,358,848,624	$2,040,418,980	$318,429,644
Alabama	44,470,909	33,447,509	11,023,400
Arizona	11,454,910	11,033,410	421,500
Arkansas	28,055,723	27,796,723	259,000
California	106,988,545	101,644,545	5,344,000
Colorado	31,355,758	30,139,758	1,216,000
Connecticut	29,744,182	22,886,182	6,858,000
Delaware	3,127,076	3,127,076	
District of Columbia	33,955,328	25,526,765	8,428,563
Florida	40,183,867	30,540,884	9,642,983
Georgia	51,480,031	34,493,241	16,986,790
Idaho	10,702,639	10,645,939	56,700
Illinois	159,009,932	148,168,932	10,841,000
Indiana	58,521,646	55,881,646	2,640,000
Iowa	25,780,046	25,780,046	
Kansas	25,293,537	25,335,537	Cr. 42,000
Kentucky	42,343,147	35,599,630	6,743,517
Louisiana	45,105,909	29,411,909	15,694,000
Maine	7,828,443	7,828,443	
Maryland	38,577,750	24,940,750	13,637,000
Massachusetts	95,902,965	83,686,640	12,216,325
Michigan	90,397,863	84,245,263	6,152,600
Minnesota	46,597,105	46,597,105	
Mississippi	29,758,348	27,304,008	2,454,340
Missouri	63,966,049	63,217,049	749,000
Montana	19,774,785	17,572,085	2,202,700
Nebraska	38,217,478	28,073,478	10,144,000
Nevada	3,752,480	3,752,480	
New Hampshire	7,110,681	7,110,681	
New Jersey	87,023,503	69,338,503	17,685,000
New Mexico	12,391,133	12,391,133	
New York	225,318,889	171,980,889	53,338,000
North Carolina	38,896,087	35,084,069	3,812,018
North Dakota	10,712,336	10,712,336	
Ohio	145,301,862	128,888,862	16,413,000
Oklahoma	44,048,872	34,440,872	9,608,000
Oregon	18,602,741	18,566,741	36,000
Pennsylvania	176,878,001	151,937,293	24,940,708
Rhode Island	13,677,774	13,399,774	278,000
South Carolina	40,381,548	30,562,548	9,819,000
South Dakota	11,459,699	11,416,699	43,000
Tennessee	42,386,392	30,910,392	11,476,000
Texas	92,772,269	78,664,769	14,107,500
Utah	12,849,833	12,722,333	127,500
Vermont	4,282,773	4,282,773	
Virginia	30,345,428	29,679,428	666,000
Washington	44,355,537	43,944,537	411,000
West Virginia	33,856,724	29,991,724	3,865,000
Wisconsin	51,316,429	51,305,429	11,000
Wyoming	6,418,814	5,975,814	443,000
Alaska	1,311,544	1,265,544	46,000
Hawaii	4,221,019	2,810,019	1,411,000
Puerto Rico	13,188,047	6,964,547	6,223,500
Virgin Islands	932,338	932,338	
Various	6,461,900	6,461,900	

NOTE.—"Cr" denotes bond cancellation in lieu of grant payment.

TABLE 9. FEDERAL WORKS AGENCY.—*Value of material orders placed on Federal Works Agency projects, United States and Territories, by type of material for the period July 1935 through June 1940, and by type of material and by constituent agency, for fiscal year ending June 30, 1940*

Type of material	July 1935 to June 1940 Federal Works Agency, total [1]	Fiscal year ending June 30, 1940						
		Federal Works Agency, total [1]	Public Buildings Administration	Public Roads Administration	Public Works Administration	United States Housing Authority	Work Projects Administration	
							Non-WPA operated	WPA operated [2]
All materials	$4,116,696,071	$844,312,568	$20,167,011	$113,615,868	$341,849,505	$65,060,844	$10,470,897	$298,181,017
Textiles and their products	95,361,175	21,710,232	46,156	----	1,578,979	238,699	68,612	19,784,699
Awnings, tents, canvas, etc	296,252	41,224	999	----	16,010	3,749	20,615	----
Carpets and rugs	386,854	192,752	----	----	192,752	----	----	----
Cordage and twine	366,571	49,242	562	----	41,541	1,522	5,701	----
Cotton products	138,456	13,363	7	----	12,468	7	882	----
Felt products	160,852	25,896	459	----	22,481	2,286	739	----
Jute products	139,609	20,876	176	----	17,482	2,336	908	----
Linoleum and asphalted felt-base floor covering	4,004,051	1,182,308	43,299	----	901,716	222,539	21,239	----
Sacks and bags, other than paper	66,206	4,117	----	----	3,599	----	518	----
Upholstering, filling, batting, padding, and wadding	21,276	1,638	----	----	1,622	----	16	----
Waste and related products	41,334	4,937	39	----	2,732	926	1,246	----
Textiles and their products, n. e. c [3]	89,739,714	20,173,879	615	----	366,576	5,334	16,748	19,784,699
Forest products	405,748,982	91,654,360	2,510,249	6,237,511	48,065,706	6,496,311	1,121,990	27,709,042
Cork products	1,017,921	301,999	9,458	----	289,191	2,302	2,464	----
Furniture and related products	62,561,914	30,164,563	182,201	----	29,660,303	313,905	35,445	----
Lumber and timber products, n. e. c	286,285,158	48,702,540	1,133,878	6,237,511	9,488,596	3,544,762	869,040	27,709,042
Planing-mill products	54,267,152	12,054,316	1,158,878	----	8,308,513	2,564,309	196,199	----
Window and door screens and weatherstrip	1,112,395	413,637	25,834	----	302,569	70,856	18,248	----
Forest products, n. e. c	504,442	17,305	----	----	16,534	177	594	----
Chemicals and allied products	69,708,298	15,810,714	279,015	----	5,281,165	623,976	459,484	9,208,866
Ammunition and related products	394,204	300	----	----	300	----	----	----
Compressed and liquefied gases	831,106	134,334	660	----	115,367	5,929	12,477	----
Explosives	9,634,010	1,433,919	2,319	----	1,350,228	24,272	57,448	----
Paints, pigments, and varnishes	32,273,240	3,183,535	274,113	----	2,126,482	568,332	255,666	----
Chemicals and allied products, n. e. c	26,575,738	11,058,626	1,923	----	1,688,788	25,443	133,893	9,208,866

Stone, clay, and glass products	1,279,472,781	256,878,876	5,776,766	39,799,638	88,725,213	19,092,461	2,317,819	102,737,005
Asbestos products, n. e. c	1,325,270	324,175	215		180,772	138,702	4,518	
Brick hollow tile, and other clay products, n. e. c	165,105,025	32,346,495	1,004,515		13,703,499	5,389,591	118,049	12,281,303
Cement	369,791,190	67,826,295	847,602	17,599,098	18,575,135	2,151,132	959,182	28,132,739
Concrete products	195,610,830	45,877,475	1,330,298	3,283,498	18,376,113	6,427,547	206,102	16,511,318
Crushed stone	146,584,959	29,514,441	93,332	6,305,680	4,873,814	260,658	456,964	17,649,630
Glass	8,814,333	2,114,609	204,066		1,682,292	238,210	20,607	
Lime	1,388,641	388,542	10,364		135,629	237,414	6,687	
Marble, granite, slate, and other stone, cut and shaped	57,043,465	12,062,636	1,215,213		10,589,998	399,840	39,606	
Minerals and earths, ground or otherwise treated	323,909	26,714	3,122		20,586	3,463	11	
Sand and gravel	237,061,719	44,262,545	508,740	12,611,362	10,342,637	1,009,655	329,103	19,760,566
Steam and other packing, pipe and boiler covering, and gaskets	5,561,365	1,874,116	105,666		1,197,209	580,370	6,698	
Tiling, floor and wall, and terrazzo	16,710,880	4,232,187	214,521		3,550,942	409,309	89,547	
Wall plaster, wallboard, and building insulation	24,447,237	6,009,145	227,151		4,088,690	1,668,461	58,867	
Stone, clay, and glass products, n. e. c	49,703,958	10,019,501	11,961		1,407,897	178,109	21,878	8,401,449
Iron and steel and their products, not including machinery	1,083,704,703	203,534,896	6,942,193	20,928,044	107,501,360	22,912,537	1,989,074	44,672,111
Bolts, nuts, washers, and rivets	7,035,486	801,225	47,161		714,442	14,093	32,593	
Doors, shutters, window sash and frames, molding and trim, metal	42,740,164	10,240,516	1,028,735		5,417,545	3,850,413	97,912	
Firearms	40,487							
Forgings, iron and steel	8,666,444	1,212,080	154,178		1,052,185		28,811	
Hardware, miscellaneous	33,433,145	6,420,796	369,592		4,597,278	1,247,113	262,172	
Heating and ventilating equipment, except pipe	100,580,252	18,461,528	1,058,376		15,345,802	2,153,168	62,711	
Nails and spikes	4,755,694	550,989	70,842		437,179	14,552	39,027	
Pipe and fittings, cast-iron	136,860,704	22,262,318	301,424		7,291,536	1,479,012	146,264	13,089,231
Pipe and fittings, wrought iron and steel	30,658,276	9,921,091	333,390		7,939,978	1,536,659	161,001	
Plumbing fixtures and supplies, except pipe	72,446,836	10,890,368	487,358		7,029,578	3,268,682	177,749	
Rail fastenings, except spikes	1,329,067	10,379			10,379			
Rails, steel	5,136,142	179,730			179,730			
Springs, steel	51,697	2,791	47		2,751			
Steel, reinforcing	152,358,324	25,506,164	1,177,126	7,953,110	11,244,274	5,135,411	313,388	
Steel, structural	258,665,607	48,853,853	1,277,165	8,521,191	36,664,456	2,421,636	311,595	
Stoves and ranges, other than electric	1,921,520	1,013,668	482		136,815	876,023	420	
Switches, railway	366,056	1,465			1,465			
Tools, other than machine tools	25,064,447	1,086,425	52,472		920,758	41,385	79,670	
Wire and wireworks products	15,415,991	1,934,027	284,300		1,434,204	174,723	83,384	
Iron and steel and their products, n. e. c	186,178,364	44,185,483	299,545	4,453,743	7,081,005	699,667	192,377	31,582,880

For footnotes, see p. 257.

TABLE 9. FEDERAL WORKS AGENCY.—*Value of material orders placed on Federal Works Agency projects, United States and Territories, by type of material for the period July 1935 through June 1940, and by type of material and by constituent agency, for fiscal year ending June 30, 1940*—Continued

Type of material	July 1935 to June 1940 Federal Works Agency, total [1]	Fiscal year ending June 30, 1940						
		Federal Works Agency, total [1]	Public Buildings Administration	Public Roads Administration	Public Works Administration	United States Housing Authority	Work Projects Administration	
							Non-WPA operated	WPA operated [2]
Nonferrous metals and their products	$38,637,812	$8,673,809	$530,450		$6,084,089	$2,043,211	$95,513	
Aluminum products	1,443,764	404,757	10,171		385,165	10,945		
Copper products	4,992,004	1,474,874	83,152		1,378,412	4,464	21,301	
Lead products	971,473	113,382	6,055		93,883	13,919	432	
Sheet-metal products	21,755,002	5,100,466	408,587		3,868,096	817,259	67,724	
Zinc products	29,456	2,243	242		2,038			
Nonferrous metals and their products, n. e. c	9,446,113	1,578,087	22,243		356,495	1,196,624	6,056	
Machinery, not including transportation equipment	454,072,959	83,572,984	3,611,825		60,619,508	5,717,642	1,047,851	$13,117,157
Electrical machinery, apparatus and supplies	110,369,636	22,869,756	134,072		15,731,959	225,015	162,022	6,636,770
Electrical wiring and fixtures	88,764,858	19,560,154	1,790,398		15,205,161	2,637,187	195,584	
Elevators and elevator equipment	21,607,296	5,192,055	1,369,732		3,631,503	384,304	11,682	
Engines, turbines, tractors, and water wheels	39,007,520	5,772,424	27,116		5,687,826	1,410	60,134	
Machine tools	5,500,749	1,117,097	6,967		1,102,728	872	7,573	
Meters (gas, water, etc.) and gas generators	1,977,913	339,743			321,782	17,814	147	
Pumps and pumping equipment	22,546,705	3,469,799	47,595		3,199,824	189,708	39,801	
Radio apparatus and supplies	596,448	132,912			132,775		137	
Refrigerators and refrigerating and ice-making apparatus	6,701,068	2,539,050	37,029		685,848	1,772,459	49,260	
Machinery, n. e. c	157,000,796	22,579,994	198,916		14,920,102	488,873	521,511	6,480,387
Transportation equipment, air, land, and water	18,401,010	1,021,424	2,936		746,709	9,073	263,146	
Boats, steel and wooden	461,283	15,079			13,822		1,257	
Carriages and wagons	106,374	20,698	439		19,139	865	321	
Locomotives, other than steam	65,418							
Locomotives, steam	128,535	64,316			64,316			
Motor vehicles, passenger	445,266	34,941			29,218	44	5,679	
Motor vehicles, trucks	12,366,243	623,337	2,075		522,038	8,946	91,489	
Railway cars, freight	3,239,444							
Transportation equipment, n. e. c	1,588,447	263,053	422		98,176	118	164,400	

Miscellaneous	671,588,351	161,455,273	467,421	$46,650,675	23,246,776	7,926,934	3,107,408	80,952,137
Belting, miscellaneous	145,586	9,885	9,890	----------	1,407	----------	69	----------
Coal and coke	6,178,795	576,411	17,558	----------	509,817	21,370	30,296	----------
Creosote	54,663	1,146	6	----------	608	7	526	----------
Instruments, professional and scientific	1,761,799	789,866	316	----------	785,468	1,573	2,556	----------
Mattresses and bed springs	353,798	190,503	----------	----------	189,630	----------	873	----------
Models and patterns	63,091	6,037	23	----------	5,990	----------	27	----------
Paper products	352,567	82,897	3,225	----------	34,337	39,896	5,922	----------
Paving materials, asphalt, tar, crushed slag, and mixtures	165,402,253	35,697,165	22,569	4,896,844	4,154,070	21,248	194,221	26,498,304
Petroleum products	153,452,445	31,126,309	62,006	16,019,838	5,184,228	417,908	424,971	9,310,316
Photographic apparatus and supplies	830,007	516,387	891	----------	500,885	4,138	10,607	----------
Roofing: Built-up, and roll, asphalt shingles and roof coatings, except paint	17,655,152	2,785,612	159,812	----------	1,737,642	805,492	106,603	----------
Rubber products	5,519,438	681,208	3,533	----------	643,968	12,267	21,969	----------
Theatrical scenery and stage equipment	1,132,562	370,287	----------	----------	369,931	356	----------	----------
Widow shades and fixtures	1,289,599	288,407	338	----------	207,558	79,949	613	----------
Other materials	317,396,596	88,333,153	187,254	25,733,993	8,921,237	6,522,730	2,308,155	45,143,517

[1] This is an unduplicated total and, as such, is not necessarily the sum of the totals for the constituent agencies. Duplication in the reported figures exists between PWA and PBA and between PWA and PRA insofar as projects which were a part of the PWA program were administered, supervised, or inspected by PBA and PRA. Since July 1933 PBA has participated in projects with $118,300,000 of PWA allotments; PRA, in projects with $442,000,000 of PWA allotments. This duplication is eliminated in the total given for the Federal Works Agency.

[2] Figures represent expenditures of WPA and sponsors' funds.

[3] N. e. c. signifies "not elsewhere classified."

Source: Data for WPA operated projects are from the Work Projects Administration; all other data are from the Bureau of Labor Statistics, Department of Labor.

TABLE 10. FEDERAL WORKS AGENCY.—*Number of employees [1] of the Federal Works Agency, by constituent agency and by month, for fiscal year ending June 30, 1940*

Year and month	Federal Works Agency total	Office of the Administrator	Public Buildings Administration [2]	Public Roads Administration [3]	Public Works Administration	United States Housing Authority [4]	Work Projects Administration
1939							
July	56,397	11	8,870	3,903	10,183	2,088	31,342
August	52,642	25	8,988	3,876	9,958	2,103	27,692
September	51,695	[5] 36	8,897	3,903	9,053	2,090	27,716
October	50,338	[5] 38	8,775	3,834	7,929	2,105	27,657
November	48,369	[5] 42	8,676	3,621	6,611	2,077	27,342
December	46,680	[5] 53	8,559	2,844	6,190	2,068	26,966
1940							
January	45,994	[5] 46	8,478	2,726	5,751	2,017	26,976
February	45,324	[5] 50	8,481	2,517	5,212	1,810	27,254
March	44,980	43	8,368	2,492	4,544	1,743	27,790
April	45,858	45	8,342	2,577	3,671	1,661	29,562
May	45,785	46	8,271	2,678	3,133	1,691	29,966
June	45,511	[6] 146	8,458	2,765	2,819	1,708	29,615

[1] Employees on the pay roll with pay during the last pay-roll period of the month.
[2] Includes custodial, operating, and repair forces.
[3] Includes employees engaged in road construction work for certain Federal agencies.
[4] Includes employees engaged in supervision and operation of projects built by the former PWA Housing Division.
[5] Figures for these months include from 8 to 14 employees of the National Power Policy Committee.
[6] Includes 95 employees transferred during the month from constituent agencies to centralized tabulating and exhibits sections to provide such services to constituent agencies.

TABLE 11. FEDERAL WORKS AGENCY.—*Administrative expenses of the Federal Works Agency, by constituent agency and fiscal year, 1936–40*

Fiscal year ending—	Federal Works Agency total [1]	Office of the Administrator	Public Buildings Administration [2]	Public Roads Administration [3] [7]	Public Works Administration [4] [8]	United States Housing Authority [5]	Work Projects Administration [6]
June 30—							
1936			$18,275,604	$4,747,448	$25,922,402		$64,562,871
1937			19,755,394	5,119,190	27,015,660		66,844,280
1938			20,329,361	5,038,201	14,501,406	$1,205,292	63,807,933
1939			22,704,298	5,071,982	24,308,513	3,479,307	73,401,072
1940	$102,811,582	[9] $209,017	23,181,507	5,175,035	17,125,777	4,181,946	53,171,371

[1] Total shown only for fiscal year (1940) during which constituent agencies operated under the Federal Works Agency. This is an unduplicated total.
[2] Includes the operation and servicing of buildings (250 as of June 30, 1940); the maintenance and repair of buildings (3,318 as of June 30, 1940); and certain administrative expenses, not charged to specific projects, connected with the construction of buildings (involving expenditures of $61,182,875 during the fiscal year 1940).
[3] Includes administrative expenses incidental to the construction of roads, bridges, and grade crossing elimination structures (involving for the fiscal year 1940 the completion of projects with an estimated total cost of $312,858,762 and the payment of Federal funds amounting to $173,797,818).
[4] Includes administrative expenses incidental to the examination, supervision, and inspection of Federal and non-Federal projects (involving during the fiscal year 1940, 5,440 projects with an estimated total cost of $2,405,729,868 of which 4,549 with an estimated total cost of $1,278,854,449 were completed during the fiscal year).
[5] Includes administrative expenses incidental to the planning, construction, and management of a low-rent housing program (involving as of June 30, 1940, 145,646 dwelling units with a total development cost of $709,595,000). Does not include expenses of supervision or operation of projects built by the PWA Housing Division which are paid from income received from those projects. These "nonadministrative" expenses are shown in detail for the fiscal year 1940 in USHA table 18, p. 405.
[6] Includes administrative expenses connected with a works program carried out through WPA operated projects (providing in the fiscal year 1940, 2,912,005,127 man-hours of work with a Federal expenditure of $1,408,571,637) but does not include administrative expenditures for projects financed from funds transferred by WPA to other Federal agencies.
[7] Expenditures from all funds including funds transferred from other agencies. Includes certain expenditures for laboratory equipment from funds available for administrative expenses. Expenditures from other appropriations of the Department of Agriculture 1936–39 for the benefit of the Bureau of Public Roads not included.
[8] Figures include the following transfers: 1936 to Public Roads, $50,000; 1937 to Public Roads, $300,000; 1938 to Public Roads, $90,000; to U. S. Housing Authority, $1,468,324; 1939 to Public Roads, $98,000; to Public Buildings, $99,892; 1940 to Public Roads, $63,500; to Office of Administrator, $80,000; to Public Buildings, $89,571.
[9] Includes $30,000 for National Power Policy Committee.

List of Publications of the Federal Works Agency

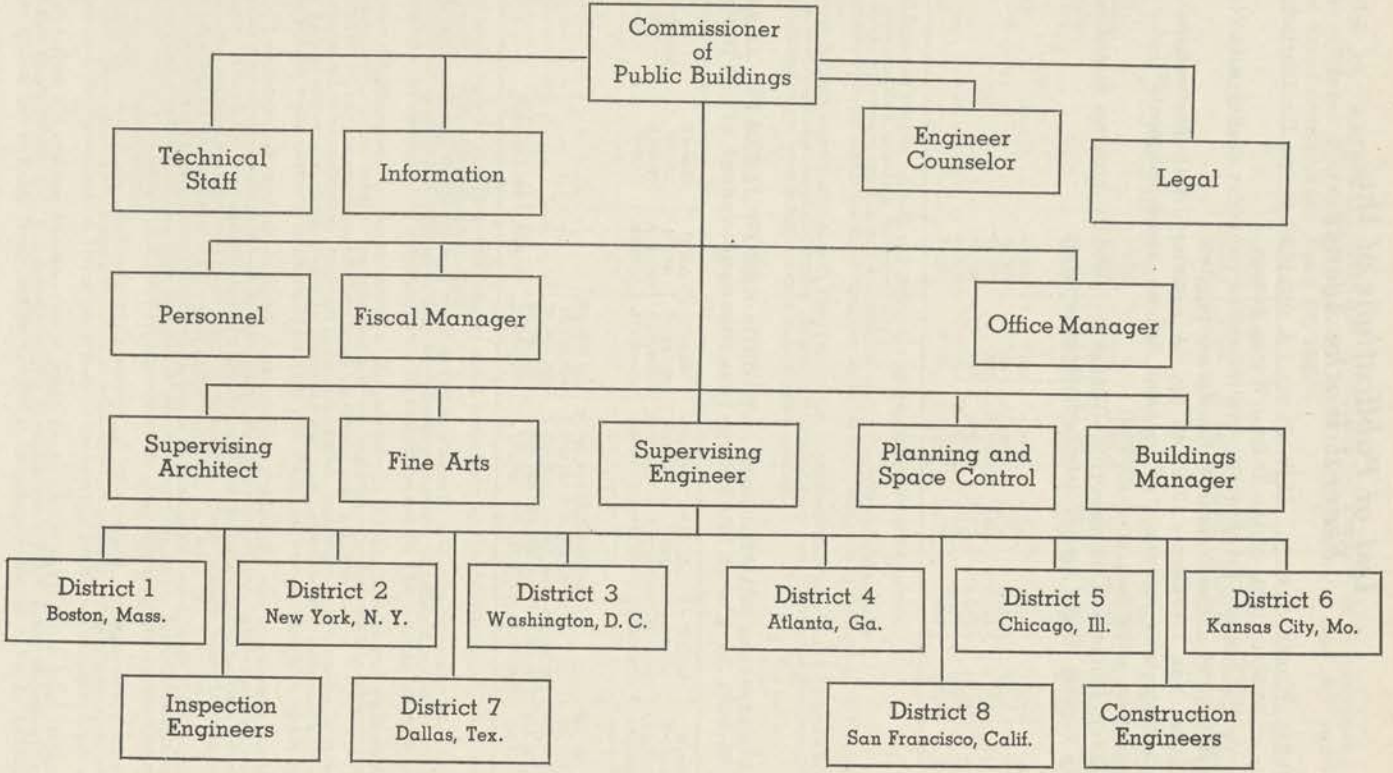
FEDERAL WORKS AGENCY. 1940, 26 pp. A pamphlet giving the functions of the constituent units of the Federal Works Agency.

WAY OF PROGRESS. 1940, 24 pp. An illustrated pamphlet dealing with Negro participation in the Federal Works Agency program.

MILLIONS FOR DEFENSE. 1940, 46 pp. A summary, with illustrations and Administrator's foreword, of national defense accomplishments under the emergency work programs, 1933–40.

DEFENSE HOUSING CONSTRUCTION BULLETIN. Weekly progress statistics on the Federal Works Agency defence housing program.

FEDERAL WORKS AGENCY PUBLIC BUILDINGS ADMINISTRATION ORGANIZATION CHART



As of September 30, 1940

Appendix B

PUBLIC BUILDINGS ADMINISTRATION

TABLE 1. PUBLIC BUILDINGS ADMINISTRATION.—*Average number*[1] *of persons employed on PBA projects, United States and Territories, by month, July 1935–June 1940*

Year and month	Total	Regular funds	PWA funds	Year and month	Total	Regular funds	PWA funds
1935				*1938*			
July	17,693	4,962	12,731	January	10,389	9,535	854
August	16,484	4,772	11,712	February	9,461	8,787	674
September	17,119	4,199	12,920	March	8,958	8,424	534
October	17,109	4,725	12,384	April	9,127	8,628	499
November	16,519	5,349	11,170	May	8,580	8,285	295
December	16,140	6,120	10,020	June	7,977	7,816	161
1936				July	7,356	7,291	65
January	13,484	5,252	8,232	August	6,953	6,939	14
February	12,423	4,593	7,830	September	6,967	6,823	144
March	16,253	5,057	11,196	October	7,123	6,623	500
April	18,857	5,595	13,262	November	7,788	7,047	741
May	18,702	5,876	12,826	December	7,760	6,937	823
June	16,012	5,877	10,135	*1939*			
July	15,816	6,746	9,070	January	7,208	6,375	833
August	15,790	7,517	8,273	February	7,096	6,190	906
September	14,256	8,904	5,352	March	7,931	6,622	1,309
October	15,610	10,020	5,590	April	7,952	6,634	1,318
November	15,275	10,885	4,390	May	8,172	6,656	1,516
December	14,140	10,409	3,731	June	8,556	6,863	1,693
1937				July	8,529	6,824	1,705
January	12,708	10,141	2,567	August	9,074	7,331	1,743
February	11,775	9,557	2,218	September	9,785	7,937	1,848
March	11,329	9,254	2,075	October	9,285	7,541	1,744
April	11,367	9,643	1,724	November	9,693	7,994	1,699
May	10,679	9,299	1,380	December	9,643	8,127	1,516
June	10,332	9,219	1,113	*1940*			
July	10,397	9,313	1,084	January	9,415	8,198	1,217
August	11,070	9,854	1,216	February	8,380	7,213	1,167
September	11,511	10,513	998	March	8,445	7,217	1,228
October	12,082	11,156	926	April	8,183	7,191	992
November	12,789	11,945	844	May	7,737	6,855	882
December	11,616	10,660	956	June	8,036	7,424	612

[1] Average number of persons employed is computed as the mean of the weekly pay-roll counts made during the period between the 15th of the previous month and the 15th of the given month.

Source: Bureau of Labor Statistics, Department of Labor.

TABLE 2. PUBLIC BUILDINGS ADMINISTRATION.—*Average number*[1] *of persons employed on PBA projects, by month and by State, for fiscal year ending June 30, 1940*

State	1939						1940					
	July	August	September	October	November	December	January	February	March	April	May	June
Total	8,529	9,074	9,785	9,285	9,693	9,643	9,415	8,380	8,445	8,183	7,737	8,036
Alabama	80	46	48	71	76	148	164	203	191	183	174	139
Arizona	24	23	17	17	0	2	8	16	22	23	24	26
Arkansas	50	71	77	60	77	104	87	94	110	98	73	64
California	560	714	793	884	998	990	980	1,070	1,106	953	812	770
Colorado	238	234	275	264	280	223	187	199	132	125	124	96
Connecticut	338	350	370	320	283	247	176	151	151	182	151	134
Delaware	0	0	0	0	0	0	0	0	12	11	12	14
District of Columbia	592	962	1,237	927	1,317	1,600	2,230	1,620	1,302	1,319	1,286	1,637
Florida	167	132	127	105	69	90	98	116	147	144	114	132
Georgia	84	86	91	60	128	159	186	159	190	170	128	109
Idaho	3	8	25	11	31	47	70	62	44	37	36	39
Illinois	121	63	91	107	212	238	207	146	255	245	262	277
Indiana	260	277	302	328	368	334	268	228	285	310	336	214
Iowa	190	181	153	146	126	108	71	28	40	38	34	70
Kansas	150	142	132	125	87	88	70	67	85	99	96	104
Kentucky	253	258	270	239	233	192	133	103	158	144	171	135
Louisiana	210	178	276	273	402	397	414	485	520	439	374	435
Maine	26	39	70	69	81	20	6	4	16	7	15	18
Maryland	562	590	549	482	392	296	258	244	232	152	84	43
Massachusetts	135	316	260	116	126	252	551	492	562	561	584	593
Michigan	215	173	173	60	124	159	141	158	187	218	222	231
Minnesota	118	86	66	129	51	46	42	30	33	54	39	26
Mississippi	46	41	69	98	105	88	72	60	52	81	49	78
Missouri	822	749	770	646	339	297	218	171	203	230	227	236
Montana	109	123	126	92	114	95	70	56	68	54	50	41
Nebraska	29	19	11	16	47	46	47	10	32	63	42	46
Nevada	7	9	17	9	9	0	0	0	0	0	0	0
New Hampshire	21	73	57	58	57	31	26	9	34	44	19	15
New Jersey	117	98	129	147	154	121	115	124	100	93	103	87
New Mexico	0	13	34	70	60	39	31	10	0	0	0	0
New York	599	575	755	652	646	596	362	299	271	275	352	339
North Carolina	112	131	144	229	331	319	317	301	264	272	195	184
North Dakota	18	17	19	21	27	34	21	27	34	48	55	69
Ohio	173	209	259	223	159	138	82	65	59	61	58	62
Oklahoma	97	87	138	138	141	114	120	106	87	91	92	111
Oregon	22	12	7	0	4	43	36	32	61	66	56	68
Pennsylvania	610	496	437	487	506	518	320	191	193	181	162	161
Rhode Island	101	132	125	131	192	208	195	151	119	126	82	32
South Carolina	49	38	36	25	3	22	18	50	75	84	81	76
South Dakota	19	15	15	22	41	42	21	11	16	33	37	31
Tennessee	61	55	71	88	45	44	21	35	47	52	106	142
Texas	909	988	881	867	676	594	443	428	382	369	428	548
Utah	5	8	15	17	21	15	8	8	16	23	25	6
Vermont	0	0	1	13	14	4	0	1	0	0	0	5
Virginia	0	35	46	51	104	99	97	131	116	92	53	58
Washington	69	73	77	185	184	166	169	176	177	40	82	90
West Virginia	26	19	9	13	1	1	0	0	0	0	0	3
Wisconsin	82	82	90	102	124	104	124	142	133	141	129	106
Wyoming	25	23	22	23	23	19	0	0	0	0	0	14
Other	25	25	23	69	105	106	135	111	126	152	103	122

For footnote, see PBA table 1.

Source: Bureau of Labor Statistics, Department of Labor.

TABLE 3. PUBLIC BUILDINGS ADMINISTRATION.—*Hours worked, earnings of workers, and average hourly earnings on PBA projects, by State, for fiscal year ending June 30, 1940*

State	Hours worked	Earnings	Average hourly earnings	State	Hours worked	Earnings	Average hourly earnings
Total	12,349,562	$12,393,909	$1.00	Nebraska	39,998	$33,985	$0.85
				Nevada	7,276	6,763	.93
Alabama	159,985	121,952	.76	New Hampshire	44,932	35,939	.80
Arizona	21,321	20,664	.97	New Jersey	118,264	162,977	1.38
Arkansas	87,686	59,223	.67	New Mexico	29,850	23,973	.80
California	1,248,956	1,260,445	1.01				
Colorado	255,049	274,649	1.08	New York	562,198	784,274	1.39
				North Carolina	324,784	201,771	.62
Connecticut	382,272	389,281	1.02	North Dakota	49,406	42,654	.86
Delaware	7,995	5,073	.63	Ohio	140,180	142,540	1.02
Dist. of Columbia	2,055,846	2,494,362	1.24	Oklahoma	140,805	114,753	.81
Florida	162,625	113,530	.70				
Georgia	184,121	107,857	.58	Oregon	46,736	43,506	.93
				Pennsylvania	521,551	542,945	1.04
Idaho	47,747	41,651	.87	Rhode Island	177,620	185,302	1.04
Illinois	212,144	237,482	1.12	South Carolina	63,323	39,109	.62
Indiana	447,858	498,882	1.11	South Dakota	32,118	21,161	.66
Iowa	124,159	103,680	.83				
Kansas	131,612	101,507	.77	Tennessee	81,056	58,205	.72
				Texas	930,960	754,686	.81
Kentucky	319,183	285,366	.89	Utah	19,824	16,616	.84
Louisiana	574,310	463,875	.81	Vermont	3,434	2,174	.63
Maine	41,119	28,544	.69	Virginia	114,769	71,378	.62
Maryland	449,427	526,845	1.17				
Massachusetts	415,331	462,901	1.11	Washington	145,669	166,865	1.14
				West Virginia	8,224	6,068	.74
Michigan	209,110	194,727	.93	Wisconsin	161,622	149,384	.92
Minnesota	85,802	70,975	.83	Wyoming	20,125	20,129	1.00
Mississippi	104,403	60,109	.57	Outside United States	148,592	81,848	.55
Missouri	546,423	608,719	1.11				
Montana	141,762	152,605	1.08				

Source: Bureau of Labor Statistics, Department of Labor.

TABLE 4. PUBLIC BUILDINGS ADMINISTRATION.—*Expenditures for construction, including extensions, remodeling, and major alterations, of Federal public buildings (expenditures for land excluded) by State and by fiscal year 1934–40*

State or Territory	1934	1935	1936	1937	1938	1939	1940
Total	$72,359,879.35	$43,740,553.04	$53,746,995.87	$60,594,398.68	$65,275,218.18	$43,834,094.09	$53,591,933.47
Alabama	123,892.85	389,995.21	644,595.59	593,798.39	380,567.35	216,873.44	486,794.36
Arizona	104,438.62	206,187.40	491,054.81	320,312.22	134,038.28	285,791.37	66,041.05
Arkansas	355,372.61	32,210.04	227,715.78	590,881.56	431,557.57	248,321.74	213,512.43
California	2,742,963.02	2,268,555.11	2,862,462.96	2,697,612.13	5,602,351.15	4,759,780.82	5,949,271.77
Colorado	36,521.85	50,517.24	802,692.56	690,507.23	275,490.09	500,599.61	1,036,646.87
Connecticut	466,190.74	260,433.32	309,359.73	578,832.26	374,823.50	460,249.76	1,459,507.28
Delaware	24,927.40	49,620.19	482,734.14	482,710.96	76,031.61	22,777.06	21,646.99
District of Columbia	17,831,262.86	8,696,151.55	10,607,671.29	13,019,944.17	8,973,217.42	5,070,581.50	10,816,726.01
Florida	1,062,486.81	310,931.71	659,245.30	981,013.91	425,976.56	533,927.34	592,127.37
Georgia	911,527.70	652,455.19	606,099.86	626,127.55	478,879.94	91,752.28	556,618.58
Idaho	106,649.77	68,712.23	177,403.01	169,460.94	300,755.40	24,657.72	210,202.61
Illinois	4,127,096.74	1,042,578.59	1,963,698.91	2,459,342.02	2,797,046.80	1,928,841.88	932,133.32
Indiana	313,411.70	316,994.16	553,931.42	1,235,576.36	1,630,857.33	784,414.46	2,062,490.24
Iowa	573,132.10	313,842.50	699,170.29	573,957.24	810,958.72	216,194.09	388,163.66
Kansas	365,915.27	52,220.44	647,976.02	365,937.37	466,498.22	407,921.94	381,596.07
Kentucky	1,848,903.51	1,594,584.75	647,075.26	464,497.58	655,283.03	920,255.36	1,021,288.02
Louisiana	445,021.37	295,394.59	252,399.18	376,373.43	330,770.22	266,463.12	2,294,921.95
Maine	598,157.77	306,816.22	318,818.68	133,657.18	231,111.94	161,146.65	67,231.42
Maryland	1,019,252.32	762,365.24	370,714.69	854,237.91	595,714.06	2,009,950.89	1,868,593.35
Massachusetts	1,884,151.32	1,334,147.51	2,515,532.87	1,669,727.42	847,832.90	1,008,466.20	1,841,983.05
Michigan	1,814,616.86	565,186.40	968,423.42	1,425,971.11	1,002,556.61	1,037,017.58	938,212.82
Minnesota	3,919,789.37	939,186.71	491,151.15	703,091.62	770,100.11	355,181.92	428,703.11
Mississippi	687,528.34	164,680.53	377,937.77	759,886.06	304,784.16	291,075.91	256,769.46
Missouri	1,517,763.14	1,837,416.19	1,985,416.59	2,245,635.84	1,854,409.73	4,426,435.48	2,666,436.99
Montana	265,671.11	43,953.86	184,287.31	418,690.26	517,691.33	299,631.74	504,646.12
Nebraska	455,404.66	180,167.45	106,421.84	299,497.63	224,991.26	107,838.36	262,529.78
Nevada	355,722.43	87,827.88	31,273.88	25,612.19	130,342.32	26,699.93	53,931.73
New Hampshire	253,004.04	113,674.15	138,117.75	154,472.73	193,357.59	134,416.60	190,450.02
New Jersey	2,116,328.35	1,281,357.04	1,538,064.33	1,436,265.59	1,009,218.02	786,883.35	692,532.10
New Mexico	125,741.32	299,147.38	217,519.13	138,184.71	30,945.22	79,838.87	51,770.58

New York	7,118,891.46	10,268,761.02	11,034,090.15	8,841,625.44	16,775,577.80	4,931,955.55	3,014,880.74
North Carolina	735,398.62	486,872.34	509,576.29	1,334,001.11	986,311.08	541,497.39	987,998.09
North Dakota	16,290.69	34,291.97	14,317.42	286,069.05	300,280.09	41,959.93	134,735.36
Ohio	4,011,921.32	1,623,084.72	1,267,213.33	1,251,251.20	2,811,698.23	1,759,153.55	637,952.04
Oklahoma	379,359.91	205,256.24	502,333.33	480,676.06	436,732.41	406,939.07	455,430.99
Oregon	379,668.80	109,239.59	210,150.97	335,527.55	288,698.43	323,977.73	225,905.96
Pennsylvania	7,091,953.04	3,435,407.06	2,264,305.94	1,864,216.20	1,843,103.70	3,192,444.20	2,434,054.12
Rhode Island	20,555.77	41,545.72	25,733.46	106,189.93	40,035.78	172,682.56	769,208.39
South Carolina	27,557.17	163,039.24	487,416.49	672,244.86	614,080.51	209,816.20	225,557.94
South Dakota	80,665.92	11,379.32	58,729.42	349,086.73	473,874.38	78,244.55	85,409.08
Tennessee	1,491,065.35	570,935.51	369,663.61	846,371.45	864,503.36	365,366.66	300,214.30
Texas	1,498,095.82	798,600.47	3,032,421.50	4,801,317.98	3,614,439.17	2,374,996.71	2,137,743.19
Utah	407,898.95	63,860.65	6,568.15	17,502.16	211,565.78	46,042.47	33,596.27
Vermont	152,843.87	219,599.62	67,466.60	203,863.92	307,894.40	61,699.86	58,286.88
Virginia	1,336,813.63	385,301.85	979,952.73	848,290.30	606,778.98	347,439.46	472,064.82
Washington	377,188.73	425,963.45	306,602.67	324,646.01	662,993.70	188,678.88	1,350,464.58
West Virginia	109,975.02	105,899.66	186,368.92	642,971.12	770,936.47	293,067.21	62,982.62
Wisconisn	228,529.58	179,071.44	245,427.11	578,113.52	794,088.88	411,962.79	707,937.47
Wyoming	89,700.86	18,723.44	196,534.41	94,174.17	138,033.54	15,738.88	66,417.29
Alaska	55,924.96	8,571.20	3,139.56	89,327.20	515,732.60	316,092.04	441,386.99
Hawaii	261,507.53	56,640.42	66,100.14	13,313.61	201,934.31	209,266.05	76,440.47
Puerto Rico	35,226.40	11,176.43	33,347.95	121,645.71	2,438.59	64,717.97	463,230.13
Virgin Islands		20.90	570.20	157.83	155,327.55	16,367.41	136,556.64

TABLE 5. PUBLIC BUILDINGS ADMINISTRATION.—*Federal disbursements for PBA projects (construction and sites), by State, for fiscal year ending June 30, 1940*

State or Territory	Total	Construction	Sites	State or Territory	Total	Construction	Sites
Total	$61,182,875	$53,591,933	$7,590,942	Nebraska	$286,507	$262,530	$23,977
				Nevada	58,352	53,932	4,420
Alabama	523,944	486,794	37,150	New Hampshire	197,950	190,450	7,500
Arizona	66,041	6,041		New Jersey	766,968	692,532	74,436
Arkansas	220,612	213,512	7,100	New Mexico	51,802	51,771	31
California	6,013,272	5,949,272	64,000				
Colorado	1,244,647	1,036,647	208,000	New York	3,483,610	3,014,881	468,729
				North Carolina	1,008,648	987,998	20,650
Connecticut	1,497,463	1,459,507	37,956	North Dakota	141,360	134,735	6,625
Delaware	26,647	21,647	5,000	Ohio	1,195,732	637,952	557,780
Dist. of Columbia	13,810,739	10,816,726	2,994,013	Oklahoma	471,371	455,431	15,940
Florida	615,277	592,127	23,150	Oregon	231,878	225,906	5,972
Georgia	575,249	556,619	18,630	Pennsylvania	2,801,806	2,434,054	367,752
				Rhode Island	777,408	769,208	8,200
Idaho	210,203	210,203		South Carolina	230,129	225,558	4,571
Illinois	1,119,478	932,133	187,345	South Dakota	98,559	85,409	13,150
Indiana	2,273,467	2,062,490	210,977				
Iowa	432,614	388,164	44,450	Tennessee	329,522	300,215	29,307
Kansas	388,096	381,596	6,500	Texas	2,400,893	2,137,743	263,150
				Utah	37,596	33,596	4,000
Kentucky	1,087,813	1,021,288	66,525	Vermont	59,787	58,287	1,500
Louisiana	2,304,837	2,294,922	9,915	Virginia	500,065	472,065	28,000
Maine	97,131	67,231	29,900				
Maryland	1,886,803	1,868,593	18,210	Washington	1,459,465	1,350,465	109,000
Massachusetts	2,613,181	1,841,983	771,198	West Virginia	637,955	62,983	574,972
				Wisconsin	732,438	707,938	24,500
Michigan	1,067,849	938,213	129,636	Wyoming	66,417	66,417	
Minnesota	468,053	428,703	39,350				
Mississippi	286,544	256,769	29,775	Alaska	441,387	441,387	
Missouri	2,690,337	2,666,437	23,900	Hawaii	76,440	76,440	
Montana	512,746	504,646	8,100	Puerto Rico	469,230	463,230	6,000
				Virgin Islands	136,557	136,557	

TABLE 6. PUBLIC BUILDINGS ADMINISTRATION.—*Cumulative expenditures for Federal public buildings constructed by the Public Buildings Administration from 1836 through June 30, 1940*

Type of project	Cost of sites	Construction	Extensions, alterations, and special items	Annual repairs	Total expenditures June 30, 1940
Total	$217,607,692.83	$770,300,559.50	$128,902,798.27	$61,955,024.73	$1,178,766,075.33
Post office buildings	91,366,769.69	305,017,095.34	26,070,420.12	19,170,005.26	441,624,290.41
Courthouse buildings	5,967,784.69	22,379,949.40	2,103,058.16	692,734.22	31,143,526.47
Customhouse buildings	3,951,922.33	24,165,118.06	4,884,587.61	3,162,951.01	36,164,579.01
Combined post office, courthouse, and customhouse buildings	49,459,762.70	199,601,442.84	45,409,099.00	24,062,547.08	318,532,851.62
Marine hospital buildings	1,143,841.70	17,235,506.32	11,245,309.97	5,037,609.06	34,662,267.05
Quarantine station buildings	351,487.60	4,299,311.39	3,827,933.43	2,096,121.16	10,574,853.58
Veterans Hospital buildings		493,355.47	369,076.52	104,010.20	966,442.19
Miscellaneous buildings	65,366,124.12	197,108,780.68	34,993,313.46	7,629,046.74	305,097,265.00

TABLE 7. PUBLIC BUILDINGS ADMINISTRATION.—*Construction progress on PBA projects during the fiscal year 1940, by programs*

Project status	As of June 30, 1939		As of June 30, 1940	
	Number	Limit of cost	Number	Limit of cost
CONSOLIDATED STATEMENT; ALL PROGRAMS AND COMMISSIONS				
Completed	1,620	$266,651,795	1,955	$326,581,967
Under contract	290	85,715,422	258	83,823,827
Precontract stages	581	115,335,003	345	68,785,775
Total	2,491	467,702,220	2,558	479,191,569
Approximate complete program			2,570	480,950,113
PUBLIC WORKS ADMINISTRATION PROGRAM				
Completed	439	$75,053,359	442	$74,996,356
Under contract	2	32,000	2	120,000
Precontract stages	1	90,000	2	1,475,000
Total	442	75,175,359	446	76,591,356
Approximate complete program			446	76,591,356
EMERGENCY CONSTRUCTION PROGRAM, 1934				
Completed	359	$61,649,271	366	$65,863,743
Under contract	6	4,241,038	3	189,000
Precontract stages	5	274,000	2	42,800
Total	370	66,164,309	371	66,095,543
Approximate complete program			371	66,095,543
EMERGENCY CONSTRUCTION PROGRAM, 1935				
Completed	356	$53,022,118	361	$60,184,465
Under contract	4	7,375,764	3	109,600
Precontract stages	1	50,000	4	74,500
Total	361	60,447,882	368	60,368,565
Approximate complete program			368	60,368,565
EMERGENCY CONSTRUCTION PROGRAM, 1936				
Completed	343	$38,923,725	380	$50,150,664
Under contract	39	18,046,624	8	7,657,276
Precontract stages	24	3,171,000	24	2,449,500
Total	406	60,141,349	412	60,257,440
Approximate complete program			412	60,257,440
CONSTRUCTION PROGRAM, 1937 AND 1938				
Completed	71	$6,899,100	299	$33,527,583
Under contract	187	24,948,845	223	35,298,148
Precontract stages	545	92,635,811	309	59,415,725
Total	803	124,483,756	831	128,241,456
Approximate complete program			843	130,000,000

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TABLE 7. PUBLIC BUILDINGS ADMINISTRATION.—*Construction progress on PBA projects during the fiscal year 1940, by programs*—Continued

BUILDINGS IN DISTRICT OF COLUMBIA AND SERVICES FOR OTHER DEPARTMENTS

Project status	As of June 30, 1939		As of June 30, 1940	
	Number	Limit of cost	Number	Limit of cost
Completed	52	$31, 104, 222	107	$41, 859, 156
Under contract	52	31, 071, 151	19	40, 449, 803
Precontract stages	5	19, 114, 192	4	5, 328, 250
Total	109	81, 289, 565	130	87, 637, 209
Approximate complete program			130	87, 637, 209

TABLE 8. PUBLIC BUILDINGS ADMINISTRATION.—*Space utilized by Federal Government in Government-owned and in leased buildings as of June 30, 1939, and June 30, 1940*

Building space	As of June 30, 1939			As of June 30, 1940		
	Number of buildings	Net area in square feet	Annual rental	Number of buildings	Net area in square feet	Annual rental
Total				18, 370	148, 382, 339	$24, 650, 549
I. Total in District of Columbia				304	20, 203, 189	3, 743, 788
District of Columbia: Exclusive of the White House, Capitol, and Museum Groups:						
A. Federal building space assigned by PBA	119	15, 450, 540		120	15, 948, 875	
B. Rented buildings, leases approved by PBA	146	3, 897, 488	$3, 645, 827	158	4, 175, 497	3, 651, 956
C. Rented buildings, leased by Post Office Department	(1)	(1)	(1)	26	78, 817	91, 832
II. Total outside District of Columbia	15, 444	116, 650, 000	18, 642, 210	18, 066	128, 179, 150	20, 906, 761
Outside of District of Columbia: Exclusive of hospitals, quarantine stations, military and naval reservations, and departmental service buildings:						
A. Federal buildings, space assigned by PBA	127	5, 000, 000		136	5, 235, 600	
B. Federal buildings, space assigned by Post Office Department	2, 782	48, 900, 000		3, 055	52, 500, 000	
C. Federal buildings, space assigned by other Government agencies	35	950, 000		30	821, 000	
D. Rented buildings	12, 500	61, 800, 000	18, 642, 210	14, 845	69, 622, 550	20, 906, 761

[1] Not available.

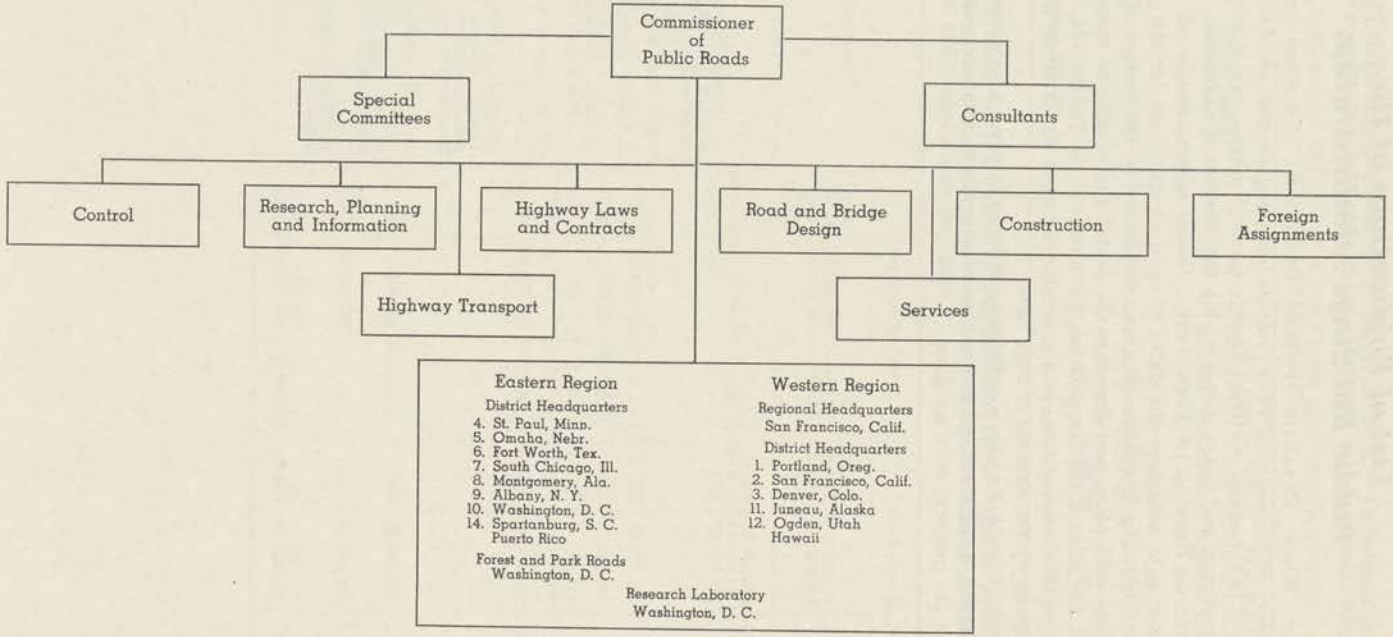
List of Publications of the Public Buildings Administration

WEEKLY WORK BULLETIN—PUBLIC BUILDINGS ADMINISTRATION. Periodic summary of the status of PBA projects including acquisition of sites, announcement of bid openings, contract awards, proceed notices, sale of surplus property, new projects, and space moves within the District of Columbia.

BULLETIN OF SECTION OF FINE ARTS. Issued approximately six times a year. Purpose is to announce the dates of open competitions for the comprehensive Federal building decoration programs conducted by the Section of Fine Arts. It specifies with plans and drawings the mural and sculptural spaces to be decorated, the rules of the competition, the names of the judges, etc. It reports on the results of competitions and generally discusses the progress of the contracts sponsored by the Section of Fine Arts.

MONTHLY STATUS REPORT OF OFFICE OF SUPERVISING ARCHITECT. Statistical statement of the status of Federal building projects by appropriation act under which the projects were assigned.

FEDERAL WORKS AGENCY
PUBLIC ROADS ADMINISTRATION
ORGANIZATION CHART



As of November 1, 1940

Appendix C

PUBLIC ROADS ADMINISTRATION

TABLE 1. PUBLIC ROADS ADMINISTRATION.—*Average number*[1] *of persons employed on road construction projects in which PRA participated, United States and Territories, by month, July 1933–June 1940*

Year and month	Number	Year and month	Number
1933		*1937*	
July	129,205	January	76,829
August	111,211	February	57,844
September	115,047	March	69,946
October	154,016	April	88,361
November	185,860	May	122,655
December	174,358	June	145,375
1934		July	159,489
January	154,154	August	163,331
February	156,814	September	152,784
March	144,053	October	143,617
April	187,657	November	121,394
May	271,972	December	85,365
June	336,414	*1938*	
July	335,223	January	54,899
August	297,224	February	49,713
September	247,880	March	51,229
October	210,079	April	67,829
November	201,046	May	98,179
December	147,101	June	114,373
1935		July	123,038
January	96,594	August	126,860
February	81,257	September	132,390
March	90,999	October	129,270
April	123,063	November	110,073
May	167,535	December	82,268
June	193,263	*1939*	
July	191,041	January	57,554
August	178,756	February	46,804
September	143,455	March	47,559
October	135,660	April	65,517
November	118,898	May	89,108
December	103,493	June	110,566
1936		July	118,300
January	82,731	August	119,202
February	70,418	September	117,088
March	86,050	October	104,652
April	132,834	November	89,228
May	193,269	December	62,779
June	237,330	*1940*	
July	249,271	January	26,458
August	247,841	February	27,455
September	227,916	March	37,792
October	206,113	April	60,815
November	172,295	May	83,507
December	128,314	June	96,370

[1] Average number of persons employed is computed as the mean of the weekly pay-roll counts made during the calendar month.

TABLE 2. PUBLIC ROADS ADMINISTRATION.—*Average number of persons employed on PRA and State highway construction and maintenance, United States and Territories, by month, July 1933–June 1940*

Year and month	Number
1933	
July	332,277
August	329,813
September	337,973
October	384,029
November	420,069
December	362,031
1934	
January	315,989
February	306,090
March	296,265
April	345,278
May	466,504
June	545,013
July	549,203
August	531,034
September	498,151
October	450,322
November	426,603
December	323,700
1935	
January	240,414
February	221,406
March	217,539
April	282,740
May	331,000
June	362,339
July	375,442
August	382,846
September	340,073
October	323,374
November	290,523
December	252,229
1936	
January	202,884
Feburary	200,451
March	227,586
April	287,478
May	374,191
June	423,466
July	435,971
August	433,533
September	414,147
October	389,966
November	353,971
December	288,248
1937	
January	210,027
February	190,336
March	200,794
April	226,286
May	299,063
June	313,149
July	334,536
August	351,853
September	346,444
October	330,942
November	314,067
December	255,530
1938	
January	196,858
February	177,675
March	179,420
April	213,802
May	272,316
June	294,240
July	322,508
August	323,650
September	337,638
October	350,090
November	341,832
December	266,629
1939	
January	200,999
February	176,079
March	169,155
April	187,523
May	220,923
June	252,316
July	264,502
August	274,949
September	277,703
October	262,760
November	227,233
December	185,661
1940	
January	145,707
February	163,592
March	164,726
April	205,164
May	255,044
June	286,100

TABLE 3. PUBLIC ROADS ADMINISTRATION.—*Average number*[1] *of persons employed on PRA and State highway construction and maintenance, United States and Territories, by program and by month, for fiscal year ending June 30, 1940*

Year and month	Total construction and maintenance	Construction programs					Road maintenance by State highway departments
		Total Federal programs	Regular Federal-aid programs	Federal forests, parks, lands, and flood-relief	Federal work programs	State highways with State funds only	
1939							
July	264,502	118,300	90,279	6,774	21,247	20,045	126,157
August	274,949	119,202	92,871	6,525	19,806	23,586	132,161
September	277,703	117,088	93,131	6,383	17,574	25,780	134,835
October	262,760	104,652	85,628	6,289	12,735	29,252	128,856
November	227,233	89,228	74,534	5,344	9,350	23,588	114,417
December	185,661	62,779	53,019	4,234	5,526	19,066	103,816
1940							
January	145,707	26,458	23,310	1,967	1,181	16,502	102,747
February	163,592	27,455	24,970	1,634	851	15,812	120,325
March	164,726	37,792	34,018	2,374	1,400	22,625	104,309
April	205,164	60,815	53,769	4,765	2,281	32,911	111,438
May	255,044	83,507	73,563	7,164	2,780	47,345	124,192
June	286,100	96,370	85,965	7,475	2,930	55,679	134,051

For footnote, see PRA table 1.

TABLE 4. PUBLIC ROADS ADMINISTRATION.—*Average number*[1] *of persons employed on road construction projects in which PRA participated, United States and Territories, by month and by State, for fiscal year ending June 30, 1940*

State or Territory	1939					
	July	August	September	October	November	December
Total	118,300	119,202	117,088	104,652	89,228	62,779
Alabama	3,714	3,825	3,205	2,982	2,288	1,511
Arizona	969	948	1,091	1,091	1,087	1,025
Arkansas	2,017	1,697	1,258	839	743	736
California	2,921	2,800	2,419	1,966	1,855	1,851
Colorado	2,598	2,629	2,551	2,314	1,664	1,114
Connecticut	1,267	1,353	1,386	1,161	1,235	820
Delaware	14	96	294	149	33	49
District of Columbia	99	279	233	475	359	465
Florida	1,897	1,693	1,306	1,325	1,406	1,264
Georgia	4,914	4,421	4,528	4,117	3,162	2,147
Idaho	1,145	1,127	1,258	1,284	1,079	751
Illinois	5,236	4,950	4,881	4,661	4,568	3,667
Indiana	1,860	2,336	2,397	2,430	2,037	1,474
Iowa	2,814	2,807	2,399	2,689	1,870	1,367
Kansas	1,486	1,128	1,274	1,623	1,418	1,003
Kentucky	1,859	1,959	2,398	2,443	2,137	1,391
Louisiana	1,609	1,482	1,345	1,218	1,427	1,462
Maine	1,579	1,560	1,930	1,748	1,112	364
Maryland	1,179	1,103	887	783	680	635
Massachusetts	1,424	1,055	724	452	425	288
Michigan	4,395	3,842	4,374	4,011	3,823	2,437
Minnesota	4,208	4,718	4,150	3,157	2,468	1,183
Mississippi	7,561	7,827	7,845	7,447	6,805	4,608
Missouri	2,923	3,506	2,897	2,633	2,594	1,916
Montana	1,627	1,754	2,129	1,433	850	757
Nebraska	1,599	1,453	1,855	2,089	1,550	859
Nevada	487	371	481	614	581	442
New Hampshire	586	755	925	976	714	329
New Jersey	1,343	1,275	1,363	1,249	1,161	879
New Mexico	954	1,066	764	477	405	465
New York	4,126	4,637	4,853	4,928	3,910	2,588
North Carolina	4,838	4,646	4,381	3,992	3,331	2,620
North Dakota	1,018	1,242	1,573	1,346	877	217
Ohio	4,439	4,988	4,824	4,093	3,222	1,702
Oklahoma	289	489	1,192	1,482	1,298	1,087
Oregon	1,993	2,197	2,057	1,740	1,588	1,218
Pennsylvania	6,219	5,959	4,889	4,047	3,282	1,877
Rhode Island	491	351	399	193	401	118
South Carolina	2,422	2,215	1,593	1,222	872	978
South Dakota	800	863	1,171	893	639	329
Tennessee	2,389	2,603	2,939	2,155	1,790	1,111
Texas	9,899	9,314	8,049	6,233	6,641	4,714
Utah	1,129	1,133	947	771	602	664
Vermont	523	486	451	516	347	386
Virginia	3,083	3,091	3,244	3,305	2,784	1,930
Washington	1,724	1,310	2,011	1,377	1,031	604
West Virginia	2,116	2,409	2,024	1,640	1,310	736
Wisconsin	1,847	2,403	2,614	2,107	1,359	541
Wyoming	1,296	1,442	1,269	854	593	425
Alaska	46	63	54	62	46	58
Hawaii			409	497	513	466
Puerto Rico	1,329	1,546	1,598	1,363	1,256	1,151

For footnote, see PRA table 1.

TABLE 4. PUBLIC ROADS ADMINISTRATION.—*Average number*[1] *of persons employed on road construction projects in which PRA participated, United States and Territories, by month and by State, for fiscal year ending June 30, 1940*—Continued

State or Territory	1940					
	January	February	March	April	May	June
Total	26,458	27,455	37,792	60,815	83,507	96,370
Alabama	814	827	1,383	1,930	2,279	2,531
Arizona	652	622	622	642	750	775
Arkansas	573	661	987	1,238	1,185	1,361
California	1,424	1,436	1,842	2,545	3,152	3,500
Colorado	385	286	330	600	897	1,091
Connecticut	216	136	165	718	1,108	1,330
Delaware	69	54	72	174	263	325
District of Columbia	38	21	338	663	472	171
Florida	1,104	1,135	1,281	1,343	1,251	1,438
Georgia	906	675	978	1,683	2,136	2,242
Idaho	77	71	176	368	515	688
Illinois	454	584	859	2,128	3,223	3,769
Indiana	190	216	335	924	1,553	2,146
Iowa	352	366	314	1,686	2,475	2,950
Kansas	182	408	940	1,862	1,756	2,016
Kentucky	284	307	425	812	1,369	2,170
Louisiana	900	802	1,065	1,237	1,282	1,144
Maine	43	16	----------	71	419	798
Maryland	356	196	340	587	744	895
Massachusetts	82	61	77	333	713	867
Michigan	459	488	726	1,401	2,796	3,979
Minnesota	211	200	147	447	1,439	2,367
Mississippi	1,525	1,283	2,132	3,234	4,300	4,281
Missouri	228	311	658	1,533	2,308	3,805
Montana	234	163	302	933	1,620	1,739
Nebraska	139	224	641	1,681	2,345	2,608
Nevada	238	238	300	444	441	502
New Hampshire	33	35	22	105	338	539
New Jersey	295	277	391	740	1,130	1,245
New Mexico	549	504	750	1,104	1,198	1,112
New York	769	537	369	1,171	2,976	4,270
North Carolina	1,378	1,480	2,125	2,824	3,443	3,449
North Dakota	5	1	3	162	577	935
Ohio	348	439	753	1,887	3,552	4,569
Oklahoma	393	668	1,047	1,329	1,278	1,083
Oregon	621	624	731	1,015	1,405	1,805
Pennsylvania	417	306	452	1,975	4,348	5,166
Rhode Island	69	42	71	230	340	371
South Carolina	688	921	1,373	1,669	1,937	2,255
South Dakota	100	93	53	530	1,147	1,301
Tennessee	528	501	818	1,243	2,387	1,925
Texas	4,484	5,735	6,870	6,251	5,811	5,059
Utah	283	149	280	500	560	616
Vermont	107	62	18	140	522	725
Virginia	566	578	1,240	2,386	2,885	2,987
Washington	493	574	651	975	1,133	1,318
West Virginia	198	212	336	652	777	789
Wisconsin	105	79	90	185	465	912
Wyoming	180	205	355	874	1,117	1,195
Alaska	46	35	39	111	150	153
Hawaii	475	404	343	296	206	159
Puerto Rico	1,193	1,207	1,177	1,244	1,034	944

For footnote, see PRA table 1.

TABLE 5. PUBLIC ROADS ADMINISTRATION.—*Hours worked, earnings of workers, and average hourly earnings on road construction projects in which PRA participated, by State, for the fiscal year ending June 30, 1940*

State or Territory	Hours worked	Earnings	Average hourly earnings	State or Territory	Hours worked	Earnings	Average hourly earnings
Total	128,849,265	$79,487,258	$0.62	Nebraska	2,568,740	$1,364,217	$0.53
				Nevada	762,670	664,266	.87
Alabama	3,593,503	1,595,768	.44	New Hampshire	840,450	470,695	.56
Arizona	1,494,376	1,288,273	.86	New Jersey	1,559,615	1,236,943	.79
Arkansas	1,923,618	802,382	.42	New Mexico	1,365,753	912,701	.67
California	3,827,823	3,441,951	.90				
Colorado	2,312,942	1,761,636	.76	New York	4,795,729	3,619,198	.75
				North Carolina	5,920,589	2,395,557	.40
Connecticut	1,513,774	1,118,307	.74	North Dakota	986,789	654,447	.66
Delaware	198,033	105,858	.53	Ohio	4,319,880	3,353,358	.78
Dist. of Col	329,385	245,211	.74	Oklahoma	1,531,630	892,708	.58
Florida	2,399,753	1,098,555	.46				
Georgia	4,246,756	1,668,428	.39	Oregon	2,417,707	2,018,354	.83
				Pennsylvania	5,337,570	3,411,339	.64
Idaho	1,215,331	919,391	.76	Rhode Island	430,312	332,748	.77
Illinois	4,581,152	4,436,162	.97	South Carolina	2,588,752	1,041,697	.40
Indiana	2,470,633	1,815,485	.73	South Dakota	1,131,350	677,929	.60
Iowa	2,960,366	1,843,419	.62				
Kansas	2,077,923	1,155,151	.56	Tennessee	2,855,801	1,358,406	.48
				Texas	10,336,566	5,638,192	.55
Kentucky	2,560,323	1,381,488	.54	Utah	1,110,304	778,478	.70
Louisiana	2,220,240	1,241,586	.56	Vermont	664,609	368,079	.55
Maine	1,459,571	793,674	.54	Virginia	4,289,966	1,887,617	.44
Maryland	1,221,833	658,881	.54				
Massachusetts	822,623	660,833	.80	Washington	1,709,659	1,754,581	1.03
				West Virginia	1,785,310	949,157	.53
Michigan	4,474,758	3,034,839	.68	Wisconsin	1,655,435	1,341,227	.81
Minnesota	2,913,183	2,305,636	.79	Wyoming	1,404,367	1,059,661	.75
Mississippi	7,843,804	3,304,824	.42				
Missouri	3,400,397	2,061,803	.61	Alaska	139,117	128,338	.92
Montana	1,840,609	1,732,779	.94	Hawaii	570,965	347,284	.61
				Puerto Rico	1,866,912	357,761	.19

TABLE 6. PUBLIC ROADS ADMINISTRATION.—*Funds*[1] *available for programmed projects and allotments approved by PRA, by State, during fiscal year ending June 30, 1940*

State or Territory	Balances available at beginning of year	Additional funds made available[2]	Allotments to projects approved[3]	Balances available at end of year[4]
Total	$228,180,129	$156,000,000	$169,118,552	$215,061,577
Alabama	4,784,235	3,280,099	3,814,389	4,249,945
Arizona	2,480,310	2,042,306	2,139,645	2,382,971
Arkansas	3,484,522	2,720,217	3,897,807	2,306,932
California	6,461,228	6,048,689	7,082,095	5,427,822
Colorado	3,669,207	2,727,881	2,243,795	4,153,293
Connecticut	2,569,489	1,061,038	1,635,092	1,995,435
Delaware	1,826,562	780,000	742,240	1,864,322
District of Columbia	540,061	780,000	698,469	621,592
Florida	4,634,992	2,167,287	2,369,162	4,433,117
Georgia	10,597,651	3,995,118	4,890,852	9,701,917
Idaho	2,461,897	1,837,110	1,620,678	2,678,329
Illinois	6,675,036	6,802,015	6,777,325	6,699,726
Indiana	3,931,142	3,911,053	3,257,231	4,584,964
Iowa	4,565,644	4,114,562	5,782,732	2,897,474
Kansas	6,708,199	4,122,209	4,140,129	6,690,279
Kentucky	4,551,473	2,900,475	3,359,592	4,092,356
Louisiana	4,337,024	2,332,675	2,500,875	4,168,824
Maine	674,468	1,335,906	1,033,677	976,697
Maryland	3,378,493	1,367,490	2,043,487	2,702,496
Massachusetts	5,401,815	2,397,135	2,139,681	5,659,269
Michigan	6,200,559	4,888,128	7,541,690	3,546,997
Minnesota	6,568,130	4,289,428	4,472,222	6,385,336
Mississippi	4,608,922	2,745,854	3,266,312	4,088,464
Missouri	7,477,796	4,768,365	4,957,780	7,288,381
Montana	5,631,564	3,031,660	3,500,069	5,163,155
Nebraska	4,096,505	3,154,631	3,059,329	4,191,807
Nevada	1,909,056	1,799,026	2,326,010	1,382,072
New Hampshire	1,452,872	780,000	697,112	1,535,760
New Jersey	4,244,766	2,303,848	2,601,774	3,946,840
New Mexico	2,463,814	2,332,948	2,312,898	2,483,864
New York	10,059,884	8,299,635	10,970,635	7,388,884
North Carolina	3,476,489	3,775,397	3,362,000	3,889,886
North Dakota	4,738,020	2,446,151	2,130,515	5,053,656
Ohio	12,766,908	5,905,107	9,107,646	9,564,369
Oklahoma	7,112,480	3,705,207	3,789,297	7,028,390
Oregon	2,872,098	2,466,018	2,979,965	2,358,151
Pennsylvania	11,243,458	7,177,342	9,401,993	9,018,807
Rhode Island	1,360,378	780,000	953,020	1,187,358
South Carolina	3,795,720	2,172,330	2,041,726	3,926,324
South Dakota	5,604,718	2,494,579	2,246,991	5,852,306
Tennessee	7,099,323	3,263,228	3,115,608	7,246,943
Texas	10,938,683	9,728,530	9,075,393	11,591,820
Utah	1,503,172	1,656,784	1,490,703	1,669,253
Vermont	1,035,031	780,000	1,175,126	639,905
Virginia	2,474,100	2,916,341	1,290,927	4,099,514
Washington	1,886,067	2,495,370	2,262,539	2,118,898
West Virginia	3,851,207	1,799,715	1,961,013	3,689,909
Wisconsin	3,648,882	3,858,056	1,776,233	5,730,705
Wyoming	1,691,631	1,825,100	2,001,493	1,515,238
Hawaii	1,643,163	780,000	489,573	1,933,590
Puerto Rico	991,285	857,957	592,007	1,257,235

[1] Does not include Federal funds to be used for construction in national forests, national parks, or other Federal reservations.
[2] For detail by type of project, see PRA table 7.
[3] For corresponding estimated total cost, see PRA table 8.
[4] For detail by program and by type of project, see PRA table 13.

TABLE 7. PUBLIC ROADS ADMINISTRATION.—*Apportionment of Federal-aid funds for highways, secondary roads, and grade-crossing elimination, by State, for fiscal year ending June 30, 1941*

State or Territory	Total	Highways	Secondary roads	Grade crossings
Total	$156,000,000	$112,125,000	$14,625,000	$29,250,000
Alabama	3,280,099	2,380,349	310,480	589,270
Arizona	2,042,306	1,637,140	213 540	191,626
Arkansas	2,720,217	1,955,081	255,011	510,125
California	6,048,689	4,367,576	569,684	1,111,429
Colorado	2,727,881	2,080,133	271,322	376,426
Connecticut	1,061,038	718,741	93,749	248,548
Delaware	780,000	560,625	73,125	146,250
District of Columbia	780,000	560,625	73,125	146,250
Florida	2,167,287	1,548,961	202,038	416,288
Georgia	3,995,118	2,885,623	376,386	733,109
Idaho	1,837,110	1,410,297	183,952	242,861
Illinois	6,802,015	4,650,696	606,612	1,544,707
Indiana	3,911,053	2,788,741	363,749	758,563
Iowa	4,114,562	2,915,122	380,233	819,207
Kansas	4,122,209	2,977,130	388,321	756,758
Kentucky	2,900,475	2,093,355	273,046	534,074
Louisiana	2,332,675	1,652,720	215,572	464,383
Maine	1,335,906	1,002,926	130,816	202,164
Maryland	1,367,490	944,288	123,168	300,034
Massachusetts	2,397,135	1,580,826	206,195	610,114
Michigan	4,888,128	3,465,694	452,047	970,387
Minnesota	4,289,428	3,101,454	404,538	783,436
Mississippi	2,745,854	2,017,658	263,173	465,023
Missouri	4,768,365	3,430,445	447,449	890,471
Montana	3,031,660	2,330,932	304,035	396,693
Nebraska	3,154,631	2,328,436	303,709	522,486
Nevada	1,799,026	1,462,071	190,705	146,250
New Hampshire	780,000	560,625	73,125	146,250
New Jersey	2,303,848	1,520,740	198,357	584,751
New Mexico	2,332,948	1,843,554	240,464	248,930
New York	8,299,635	5,572,118	726,798	2,000,719
North Carolina	3,775,397	2,672,689	348,612	754,096
North Dakota	2,446,151	1,755,204	228,940	462,007
Ohio	5,905,107	4,118,378	537,180	1,249,549
Oklahoma	3,705,207	2,671,591	348,468	685,148
Oregon	2,466,018	1,884,937	245,861	335,220
Pennsylvania	7,177,342	4,853,536	633,070	1,690,736
Rhode Island	780,000	560,625	73,125	146,250
South Carolina	2,172,330	1,528,126	199,321	444,883
South Dakota	2,494,579	1,851,590	241,512	401,477
Tennessee	3,203,228	2,391,758	311,968	559,502
Texas	9,728,530	7,163,707	934,397	1,630,426
Utah	1,656,784	1,294,360	168,829	193,595
Vermont	780,000	560,625	73,125	146,250
Virginia	2,916,341	2,085,702	272,048	558,591
Washington	2,495,370	1,809,062	235,965	450,343
West Virginia	1,799,715	1,245,713	162,484	391,518
Wisconsin	3,858,056	2,771,243	361,466	725,347
Wyoming	1,825,100	1,440,222	187,855	197,023
Hawaii	780,000	560,625	73,125	146,250
Puerto Rico	857,957	560,625	73,125	224,207

TABLE 8. PUBLIC ROADS ADMINISTRATION.—*Estimated total cost of projects and Federal funds [1] allotted by States to projects approved by PRA, during the fiscal year ending June 30, 1940*

State or Territory	Estimated total cost	Federal funds	State or Territory	Estimated total cost	Federal funds
Total	$307,559,054	$169,118,552	Nebraska	$6,296,410	$3,059,329
			Nevada	2,753,344	2,326,010
Alabama	7,381,208	3,814,389	New Hampshire	1,499,369	697,112
Arizona	3,232,464	2,139,645	New Jersey	4,482,898	2,601,774
Arkansas	6,881,072	3,897,807	New Mexico	3,639,127	2,312,898
California	13,941,207	7,082,095			
Colorado	4,180,080	2,243,795	New York	19,544,845	10,970,635
			North Carolina	5,897,932	3,362,000
Connecticut	2,732,028	1,635,092	North Dakota	3,933,967	2,130,515
Delaware	1,398,056	742,240	Ohio	16,838,558	9,107,646
District of Columbia	1,320,389	698,469	Oklahoma	6,400,595	3,789,297
Florida	4,514,738	2,369,162			
Georgia	9,366,027	4,890,852	Oregon	5,028,009	2,979,965
			Pennsylvania	17,952,093	9,401,993
Idaho	2,758,915	1,620,678	Rhode Island	1,802,189	953,020
Illinois	13,200,852	6,777,325	South Carolina	3,975,629	2,041,726
Indiana	6,145,786	3,257,231	South Dakota	3,616,252	2,246,991
Iowa	10,957,478	5,782,732			
Kansas	7,844,044	4,140,129	Tennessee	6,155,040	3,115,608
			Texas	16,034,926	9,075,393
Kentucky	5,806,971	3,359,592	Utah	2,115,795	1,490,703
Louisiana	4,179,508	2,500,875	Vermont	2,351,766	1,175,126
Maine	1,975,647	1,033,677	Virginia	2,821,986	1,290,927
Maryland	4,075,109	2,043,487			
Massachusetts	3,852,995	2,139,681	Washington	3,705,654	2,262,539
			West Virginia	3,941,703	1,961,013
Michigan	13,276,306	7,541,690	Wisconsin	2,968,899	1,776,233
Minnesota	7,953,072	4,472,222	Wyoming	2,795,989	2,001,493
Mississippi	6,544,467	3,266,312			
Missouri	9,557,755	4,957,780	Hawaii	804,867	489,573
Montana	6,037,451	3,500,069	Puerto Rico	1,087,587	592,007

[1] Does not include Federal funds to be used for construction in national forests, national parks, or other Federal reservations.

TABLE 9. PUBLIC ROADS ADMINISTRATION.—*Federal funds paid to States by PRA during fiscal year ending June 30, 1940, by program and by State*

State or Territory	Total	Regular Federal-aid program			Works program		Public works 1934–35
		Highways	Secondary roads	Grade crossings	Highways	Grade crossings	
Total	$160,404,784	$100,209,398	$17,978,298	$28,857,946	$3,230,029	$8,441,206	$1,687,907
Alabama	3,248,401	2,307,829	224,995	495,790	11,809	177,036	30,942
Arizona	2,527,095	1,854,440	332,120	311,456	185	22,744	6,150
Arkansas	4,103,366	2,610,732	726,975	613,910	16,322	125,927	9,500
California	5,325,003	3,214,413	553,727	1,382,843	41,888	107,880	24,252
Colorado	3,504,064	2,172,462	528,101	393,245	343,518	66,738	
Connecticut	1,241,873	773,882	86,364	155,613	88,506	126,618	10,890
Delaware	608,672	478,262	68,311	16,441	22,167	23,491	
District of Columbia	660,459	333,591	55,700	271,168			
Florida	2,312,860	1,605,132	216,008	312,888		136,691	42,141
Georgia	3,494,086	2,159,554	103,379	503,734	130,387	472,019	125,013
Idaho	1,813,121	1,240,857	248,681	257,892	21,512	13,561	30,618
Illinois	8,448,265	5,205,011	847,849	1,975,026	48,812	292,411	79,156
Indiana	3,715,546	2,551,885	400,454	442,693	61,650	239,791	19,073
Iowa	3,236,295	2,304,054	414,381	297,769		220,091	
Kansas	2,830,735	1,798,306	258,853	754,333	10,132	9,111	
Kentucky	2,944,916	1,566,988	394,777	767,948	14,977	194,373	5,853
Louisiana	2,750,320	1,707,801	326,278	477,355	59,625	166,757	12,504
Maine	1,476,666	892,947	275,324	237,691	20,547	50,157	
Maryland	1,644,306	802,134	101,464	149,604	254,528	287,296	49,280
Massachusetts	1,806,924	833,821	189,691	285,522	185,162	250,479	62,249
Michigan	4,267,757	2,345,158	688,422	1,004,287	57,350	172,540	
Minnesota	3,638,858	2,185,001	331,018	814,228	77,167	177,942	53,502
Mississippi	3,139,089	2,003,254	391,459	491,657	33,564	188,460	30,695
Missouri	4,437,082	2,322,116	564,997	1,206,369		92,333	251,26
Montana	3,667,953	2,463,317	573,823	424,705	47,199	137,288	21,621
Nebraska	3,294,323	1,963,641	440,584	632,772	12,689	238,456	6,181
Nevada	1,626,228	1,282,425	196,594	127,264		19,945	
New Hampshire	758,910	546,937	57,972	114,288	6,385	33,328	
New Jersey	2,883,783	1,559,796	245,896	653,928	114,835	217,776	91,552
New Mexico	1,903,749	1,407,284	259,910	178,841	11,237	34,717	11,760
New York	9,727,878	5,613,248	1,037,017	1,522,480	736,986	610,330	207,817
North Carolina	5,132,310	3,376,341	522,074	869,520	39,415	317,923	7,037
North Dakota	1,480,649	572,573	51,913	631,701	6,321	83,955	134,186
Ohio	6,330,815	4,036,516	500,865	1,020,055	239,581	472,313	61,485
Oklahoma	2,693,425	1,730,470	393,567	389,957		176,431	
Oregon	2,727,556	1,616,845	387,234	477,775	76,583	135,859	33,260
Pennsylvania	7,548,686	4,511,216	987,985	1,355,290	103,787	474,495	115,913
Rhode Island	618,011	465,637	86,725	65,649			
South Carolina	1,869,083	753,081	161,348	671,346	23,444	203,921	55,943
South Dakota	1,764,778	1,434,491	15,025	206,462	15,107	84,041	9,652
Tennessee	4,062,681	2,766,950	329,469	579,955	20,420	365,887	
Texas	12,508,214	7,761,393	1,460,337	2,797,303	54,286	432,060	2,835
Utah	1,638,557	1,336,913	175,601	74,913	3,875	47,255	
Vermont	480,997	271,631	77,429	113,295		18,642	
Virginia	2,909,134	1,719,123	352,230	382,645	174,194	248,069	32,873
Washington	2,631,917	1,690,180	342,907	486,732	39,510	72,352	236
West Virginia	1,682,311	1,199,819	103,595	144,122		199,097	35,678
Wisconsin	3,915,777	2,537,816	419,710	846,541	297	111,413	
Wyoming	1,831,355	1,366,840	205,719	165,420	314	91,207	1,855
Hawaii	666,191	390,284	145,667	111,546	3,756		14,938
Puerto Rico	873,754	565,001	114,774	193,979			

TABLE 10. PUBLIC ROADS ADMINISTRATION.—*Estimated total cost of and PRA participation[1] in projects completed during fiscal year ending June 30, 1940, and of projects approved or under construction on June 30, 1940, by State*

State or Territory	Completed during fiscal year		Approved or under construction at end of year		Balances available at end of year
	Estimated total cost	Federal funds	Estimated total cost	Federal funds	
Total	$296,932,255	$172,951,909	$393,992,159	$219,103,095	$215,061,577
Alabama	10,503,294	5,697,337	9,057,431	4,990,776	4,249,945
Arizona	3,601,891	2,617,855	2,012,049	1,353,496	2,382,971
Arkansas	6,509,312	5,221,657	4,714,623	3,018,845	2,306,932
California	9,025,909	5,653,357	14,033,812	7,766,499	5,427,822
Colorado	6,903,305	4,298,866	3,256,099	1,940,637	4,153,293
Connecticut	1,641,850	845,459	3,819,938	2,250,420	1,995,435
Delaware	1,064,878	523,497	2,532,170	1,323,294	1,864,322
District of Columbia	1,148,484	729,990	755,084	369,364	1,933,590
Florida	5,009,000	2,725,325	5,221,457	2,761,138	4,433,117
Georgia	8,134,807	4,903,162	14,036,882	8,060,860	9,701,917
Idaho	3,462,190	2,158,859	1,997,815	1,276,224	2,678,329
Illinois	15,636,674	9,061,214	15,589,742	8,968,863	6,699,726
Indiana	6,611,482	3,651,306	10,549,718	5,769,542	4,584,964
Iowa	8,238,454	4,975,591	10,794,491	5,368,284	2,897,474
Kansas	5,751,396	3,309,663	11,332,859	6,197,985	6,690,279
Kentucky	6,294,973	3,242,958	7,847,628	4,348,084	4,092,356
Louisiana	3,360,408	2,005,268	16,245,060	5,799,073	4,168,824
Maine	3,206,202	1,779,655	2,534,744	1,432,492	976,697
Maryland	4,837,424	3,008,173	5,538,231	3,058,248	2,702,496
Massachusetts	4,017,077	2,248,907	5,765,490	3,187,993	5,659,269
Michigan	7,897,336	4,285,096	14,630,244	8,328,830	3,546,997
Minnesota	7,859,842	4,290,860	11,703,109	6,986,610	6,385,336
Mississippi	8,152,815	3,547,422	9,199,919	4,416,840	4,088,464
Missouri	6,395,131	3,510,063	14,030,525	7,463,412	7,288,381
Montana	5,785,140	3,633,785	6,073,075	3,576,450	5,163,155
Nebraska	7,765,133	4,319,561	9,522,442	5,142,766	4,191,807
Nevada	1,740,154	1,502,903	2,531,392	2,200,609	1,382,072
New Hampshire	1,258,400	672,554	2,127,854	1,075,693	1,535,760
New Jersey	2,887,850	1,818,527	7,303,100	4,167,828	3,946,840
New Mexico	3,302,876	2,088,005	3,120,947	1,996,000	2,483,864
New York	14,294,745	8,043,441	25,546,354	14,454,329	7,388,884
North Carolina	9,393,427	5,734,473	8,805,432	5,073,894	3,889,886
North Dakota	1,237,083	949,522	7,636,693	4,378,577	5,053,656
Ohio	11,001,005	6,479,610	22,703,680	12,834,051	9,564,369
Oklahoma	5,011,572	2,902,828	7,682,506	4,516,927	7,028,390
Oregon	4,728,089	2,992,113	4,832,206	2,865,716	2,358,151
Pennsylvania	14,865,698	7,828,385	20,617,166	11,642,848	9,018,807
Rhode Island	1,234,150	829,156	2,180,541	1,189,621	1,187,358
South Carolina	4,419,365	2,497,978	4,711,187	2,465,775	3,926,324
South Dakota	4,243,161	2,634,961	6,124,996	3,656,866	5,852,306
Tennessee	7,190,439	3,901,416	5,064,990	2,732,842	7,246,943
Texas	22,608,192	12,727,415	14,694,365	8,470,557	11,591,820
Utah	3,498,411	2,499,258	1,748,195	1,228,788	1,669,253
Vermont	959,389	477,432	2,541,510	1,284,783	639,905
Virginia	4,723,030	2,751,014	4,692,314	2,452,983	4,099,514
Washington	3,900,283	2,282,652	5,596,099	3,139,926	2,118,898
West Virginia	3,309,089	1,999,941	4,956,318	2,601,415	3,689,909
Wisconsin	7,328,904	4,184,284	8,953,900	5,000,124	5,730,705
Wyoming	2,599,422	1,650,542	3,043,229	2,146,474	1,515,238
Hawaii	1,525,566	830,683	1,406,769	806,528	621,592
Puerto Rico	857,548	427,930	2,575,779	1,562,916	1,257,235

[1] Does not include Federal funds to be used for construction in national forests, national parks, or other Federal reservations.

TABLE 11. PUBLIC ROADS ADMINISTRATION.—*Estimated total cost of and PRA participation[1] in projects completed during fiscal year ending June 30, 1940, by program and by State*

State or Territory	Estimated total cost	PRA participation						
		Total	Regular Federal-aid program			Works program		Public works, 1934–35
			Highways	Secondary roads	Grade crossings	Highways	Grade crossings	
Total	$296,932,255	$172,951,909	$106,892,922	$18,743,071	$32,731,071	$3,813,800	$8,339,154	$2,431,891
Alabama	10,503,294	5,697,337	3,863,858	436,439	1,047,240		6,000	343,800
Arizona	3,601,891	2,617,855	1,991,768	298,394	316,972	185	4,386	6,150
Arkansas	6,509,312	5,221,657	4,153,123	854,162	184,740		20,132	9,500
California	9,025,909	5,653,357	3,266,446	515,699	1,670,290		132,829	68,093
Colorado	6,903,305	4,298,866	2,327,858	568,158	626,889	768,645	7,316	
Connecticut	1,641,850	845,459	671,370	72,417	33,999	21,280	25,684	20,709
Delaware	1,064,878	523,497	455,106	39,067	7,839	21,485		
District of Columbia	1,148,484	729,990	351,590	60,900	317,500			
Florida	5,009,000	2,725,325	1,817,537	443,690	428,094		36,004	
Georgia	8,134,807	4,903,162	2,620,915	172,133	346,966	584,651	753,599	424,898
Idaho	3,462,190	2,158,859	1,429,520	322,698	280,535	50,255	25,117	50,734
Illinois	15,636,674	9,061,214	5,151,537	747,611	2,471,622	165,428	425,589	99,427
Indiana	6,611,482	3,651,306	2,290,863	423,398	855,554	81,491		
Iowa	8,238,454	4,975,591	2,294,632	500,412	1,170,981		1,009,566	
Kansas	5,751,396	3,309,663	2,152,021	139,178	993,870	24,594		
Kentucky	6,294,973	3,242,958	2,005,896	401,514	686,291	67,717	81,540	
Louisiana	3,360,408	2,005,268	870,857	445,833	513,661	97,070	72,000	5,847
Maine	3,206,202	1,779,655	1,124,921	223,934	412,717	11,475		6,608
Maryland	4,837,424	3,008,173	1,410,105	144,266	119,788	499,354	620,199	214,461
Massachusetts	4,017,077	2,248,907	1,573,441	185,203	490,263			
Michigan	7,897,336	4,285,096	2,557,444	734,264	864,284	20,549	108,555	
Minnesota	7,859,842	4,290,860	2,914,353	465,020	495,669		214,857	200,961
Mississippi	8,152,815	3,547,422	2,332,988	376,934	584,354	33,751	181,515	37,880
Missouri	6,395,131	3,510,063	2,259,656	554,418	695,989			
Montana	5,785,140	3,633,785	2,188,758	574,246	843,819	15,697		11,265

Nebraska	7,765,133	4,319,561	2,587,274	529,803	966,188	82,340	153,956	
Nevada	1,740,154	1,502,903	1,009,489	205,752	200,602	33,646	31,435	21,979
New Hampshire	1,258,400	672,554	508,949	55,299	101,921	6,385		
New Jersey	2,887,850	1,818,527	865,895	174,500	707,902			70,230
New Mexico	3,302,876	2,088,005	1,600,579	287,227	122,378	43,071	25,879	8,871
New York	14,294,745	8,043,441	4,791,056	946,407	1,872,132	215,932	42,314	175,600
North Carolina	9,393,427	5,734,473	3,059,170	520,851	1,267,940		886,512	
North Dakota	1,237,083	949,522	207,910	59,497	481,086	6,321	62,755	131,953
Ohio	11,001,005	6,479,610	3,715,069	347,370	530,780	141,049	1,717,774	27,568
Oklahoma	5,011,572	2,902,828	2,082,955	276,162	436,211		107,500	
Oregon	4,728,089	2,992,113	2,065,015	435,942	301,183	45,580	97,926	46,467
Pennsylvania	14,865,698	7,828,385	5,145,524	1,125,227	1,465,072	10,000		82,562
Rhode Island	1,234,150	829,156	335,467	46,890	446,799			
South Carolina	4,419,365	2,497,978	1,242,108	235,287	533,061	108,002	329,777	49,743
South Dakota	4,243,161	2,634,961	1,987,860	15,024	312,773	30,037	279,615	9,652
Tennessee	7,190,439	3,901,416	2,579,070	420,211	650,142		251,993	
Texas	22,608,192	12,727,415	8,092,088	1,425,706	2,690,719	179,840	167,798	171,264
Utah	3,498,411	2,499,258	1,867,809	200,505	394,694	36,250		
Vermont	959,389	477,432	350,426	75,034	27,207	13,865	10,900	
Virginia	4,723,030	2,751,014	1,452,451	341,341	726,883	144,235	68,679	17,425
Washington	3,900,283	2,282,652	1,416,481	310,357	417,400	45,392	46,426	46,596
West Virginia	3,309,089	1,999,941	1,269,384	115,713	374,881	98,871	141,092	
Wisconsin	7,328,904	4,184,284	2,525,682	495,708	878,511	72,000	171,523	40,860
Wyoming	2,599,422	1,650,542	1,189,596	286,619	120,314	33,601	20,412	
Hawaii	1,525,566	830,683	504,402	96,211	195,526	3,756		30,788
Puerto Rico	857,548	427,930	364,650	14,440	48,840			

[1] Does not include Federal funds to be used for construction in national forests, national parks, or other Federal reservations.
[2] For extent of these highway and grade crossing projects see PRA tables 15 and 17.

TABLE 12. PUBLIC ROADS ADMINISTRATION.—*Estimated total cost of and PRA participation[1] in projects[2] approved but uncomplete as of June 30, 1940, by program and by State*

State or Territory	Estimated total cost	PRA participation						
		Total	Regular Federal-aid program			Works program		Public works, 1934–35
			Highways	Secondary roads	Grade crossings	Highways	Grade crossings	
Total	$393,992,159	$219,103,095	$148,966,469	$19,155,274	$42,560,323	$2,596,145	$4,570,891	$1,253,993
Alabama	9,057,431	4,990,776	3,461,410	563,220	784,627	62,200	102,319	17,000
Arizona	2,012,049	1,353,496	900,288	156,118	201,771	38,548	37,198	19,573
Arkansas	4,714,623	3,018,845	1,558,897	175,417	1,215,188	18,137	51,206	
California	14,033,812	7,766,499	5,870,286	576,753	901,873	116,218	301,369	
Colorado	3,256,099	1,940,637	1,495,131	98,041	280,501		66,964	
Connecticut	3,819,938	2,250,420	1,306,256	178,009	766,155			
Delaware	2,532,170	1,323,294	1,061,586	76,118	185,590			
District of Columbia	755,084	369,364	287,300	25,196	56,868			
Florida	5,221,457	2,761,138	2,236,997	197,937	326,204			
Georgia	14,036,882	8,060,860	5,478,834	468,188	1,296,858	275,860	384,251	156,869
Idaho	1,997,815	1,276,224	947,379	53,921	274,924			
Illinois	15,589,742	8,968,863	5,156,204	1,118,385	2,570,274		124,000	
Indiana	10,549,718	5,769,542	4,494,284	283,981	899,857		113,299	8,121
Iowa	10,794,491	5,368,284	3,542,577	1,112,335	551,947	77,425	84,000	
Kansas	11,332,859	6,197,985	4,606,313	527,995	979,961	48,349	35,367	
Kentucky	7,847,628	4,348,084	2,656,161	380,830	1,171,769	5,044	134,280	
Louisiana	16,245,060	5,799,073	4,237,116	148,910	957,276	28,251	420,862	6,658
Maine	2,534,744	1,432,492	953,591	136,766	306,756		35,379	
Maryland	5,538,231	3,058,248	2,127,349	96,998	609,116	192,992	31,793	
Massachusetts	5,765,490	3,187,993	2,212,386	323,927	341,878	49,321	205,863	54,618
Michigan	14,630,244	8,328,830	5,316,131	826,058	2,186,641			
Minnesota	11,703,109	6,986,610	4,122,579	437,774	2,171,246	79,000	158,559	17,452
Mississippi	9,199,919	4,416,840	3,317,525	464,096	512,419		2,800	120,000
Missouri	14,030,525	7,463,412	4,527,836	392,934	1,984,435	333,960	224,247	
Montana	6,073,075	3,576,450	2,751,625	409,971	375,300		39,554	

Nebraska	9,522,442	5,142,766	3,679,365	492,897	748,841	29,108	185,230	7,325
Nevada	2,531,392	2,200,609	1,973,350	133,482	93,777			
New Hampshire	2,127,854	1,075,693	854,334	40,147	181,212			
New Jersey	7,303,100	4,167,828	2,839,054	295,265	813,846	86,562	40,000	93,101
New Mexico	3,120,947	1,996,000	1,442,386	301,784	250,947		883	
New York	25,546,354	14,454,329	8,469,593	1,312,890	3,791,212	519,060	351,549	10,025
North Carolina	8,805,432	5,073,894	3,159,677	549,552	1,105,423	70,099	116,529	72,614
North Dakota	7,636,693	4,378,577	3,645,495	115,285	542,750		58,940	16,107
Ohio	22,703,680	12,834,051	8,098,708	1,619,957	2,755,751	115,062	126,598	117,975
Oklahoma	7,682,506	4,516,927	2,908,542	475,251	987,539	13,953	118,758	12,884
Oregon	4,832,206	2,865,716	2,481,860	244,650	125,939	7,470		5,797
Pennsylvania	20,617,166	11,642,848	7,414,394	1,158,489	2,152,082	349,859	233,104	334,920
Rhode Island	2,180,541	1,189,621	873,050	115,001	194,789		6,781	
South Carolina	4,711,187	2,465,775	1,589,109	325,677	516,925		22,381	11,683
South Dakota	6,124,996	3,656,866	3,351,320	3,624	265,912		31,830	4,180
Tennessee	5,064,990	2,732,842	2,260,002	72,146	369,137	24,877	6,680	
Texas	14,694,365	8,470,557	5,161,604	712,113	2,109,853		486,987	
Utah	1,748,195	1,228,788	1,075,017	103,600	50,171			
Vermont	2,541,510	1,284,783	923,354	139,555	221,874			
Virginia	4,692,314	2,452,983	1,723,390	255,012	307,903	54,790	109,558	2,330
Washington	5,596,099	3,139,926	2,475,529	253,039	369,934		40,603	821
West Virginia	4,956,318	2,601,415	2,131,676	192,688	116,910			160,141
Wisconsin	8,953,900	5,000,124	3,310,434	430,220	1,240,883		18,587	
Wyoming	3,043,229	2,146,474	1,257,258	268,414	554,420		62,583	3,799
Hawaii	1,406,769	806,528	463,127	139,878	203,523			
Puerto Rico	2,575,779	1,562,916	808,800	174,780	579,336			

[1] Does not include Federal funds to be used for construction in national forests, national parks, or other Federal reservations.
[2] For extent of these highway and grade crossing projects see PRA tables 16 and 18.

TABLE 13. PUBLIC ROADS ADMINISTRATION.—*Balances of Federal funds available to States for programmed projects as of June 30, 1940, by program and by State*

State or Territory	Total	Regular Federal-aid program			Works program		Public works, 1934-35
		Highways	Secondary roads	Grade crossings	Highways	Grade crossings	
Total	$215,061,577	$129,670,737	$24,708,507	$55,457,505	$862,274	$4,028,992	$333,562
Alabama	4,249,945	2,792,968	538,292	864,506	19,865	20,345	13,969
Arizona	2,382,971	1,684,118	299,840	397,816		1,197	
Arkansas	2,306,932	1,475,127	242,552	589,253			
California	5,427,822	2,899,895	839,479	1,687,055		1,393	
Colorado	4,153,293	2,858,687	192,177	922,522	179,907		
Connecticut	1,995,435	1,199,263	206,069	459,960	23,882	102,341	3,920
Delaware	1,864,322	1,048,125	268,125	479,112	57,748	11,212	
District of Columbia	621,592	409,235	60,154	152,203			
Florida	4,433,117	2,464,359	425,456	1,328,581	46,358	160,120	8,243
Georgia	9,701,917	5,113,040	1,131,926	1,955,303	125,704	1,280,506	95,438
Idaho	2,678,329	1,955,063	244,207	439,501	8,292	31,266	
Illinois	6,699,726	4,063,844	408,283	2,205,709		21,890	
Indiana	4,584,964	2,332,955	945,980	1,305,684			345
Iowa	2,897,474	1,241,489	447,293	1,201,126		7,566	
Kansas	6,690,279	4,114,901	1,303,039	1,272,339			
Kentucky	4,092,356	3,143,407	339,278	606,126	3,545		
Louisiana	4,168,824	2,920,124	453,400	789,393	1,219	4,688	
Maine	976,697	680,386	31,214	254,878		10,219	
Maryland	2,702,496	1,325,837	417,585	798,625	33,867	103,784	22,798
Massachusetts	5,659,269	2,822,159	486,733	2,025,042	92,668	109,129	123,538
Michigan	3,546,997	1,965,483	630,105	951,409			
Minnesota	6,385,336	4,165,279	1,160,248	1,047,107	4,399	8,303	
Mississippi	4,088,464	2,532,032	573,008	913,824	19,519	28,469	21,612
Missouri	7,288,381	4,987,762	767,826	1,521,518		11,275	
Montana	5,163,155	4,087,726	641,509	433,920			
Nebraska	4,191,807	3,127,504	297,846	749,771	15,059	1,627	
Nevada	1,382,072	1,013,728	193,328	175,016			
New Hampshire	1,535,760	925,691	197,644	392,776	965	18,684	
New Jersey	3,946,840	2,145,319	524,785	1,240,283	7,991	25,962	2,500
New Mexico	2,483,864	1,643,995	190,111	645,923	2,356		1,479
New York	7,388,884	3,065,759	395,619	3,341,430	42,912	525,664	17,500
North Carolina	3,889,886	2,566,686	328,477	947,316		47,407	
North Dakota	5,053,656	3,247,421	1,014,688	780,868		10,679	
Ohio	9,564,369	5,301,074	865,205	3,026,039	39,805	332,246	
Oklahoma	7,028,390	4,160,373	924,501	1,937,141		6,375	
Oregon	2,358,151	1,482,545	302,774	553,304	1,315	18,213	
Pennsylvania	9,018,807	3,476,189	234,175	4,736,810	52,924	515,593	3,116
Rhode Island	1,187,358	996,396	95,049	95,913			
South Carolina	3,926,324	2,469,592	227,521	1,070,979	8,572	145,508	4,152
South Dakota	5,852,306	3,291,641	1,280,913	1,275,007		4,745	
Tennessee	7,246,943	4,299,748	1,006,149	1,753,235		187,811	
Texas	11,591,820	8,218,579	1,122,102	2,249,732		1,407	
Utah	1,669,253	1,129,748	193,707	345,798			
Vermont	639,905	356,275	35,000	248,630			
Virginia	4,099,514	2,315,395	362,797	1,198,319	35,016	173,035	14,952
Washington	2,118,898	1,198,580	340,572	579,746			
West Virginia	3,689,909	1,876,950	446,849	1,253,132	38,386	74,592	
Wisconsin	5,731,705	3,644,541	686,667	1,373,756		25,741	
Wyoming	1,515,238	1,185,041	150,806	179,391			
Hawaii	1,933,590	1,486,733	157,036	289,821			
Puerto Rico	1,257,235	761,970	80,408	414,857			

TABLE 14. PUBLIC ROADS ADMINISTRATION.—*Mileage of designated Federal-aid highway system, by State, as of June 30, 1940*

State or Territory	Total system	Routes outside Federal reservations	Routes within Federal reservations	State or Territory	Total system	Routes outside Federal reservations	Routes within Federal reservations
	Miles	*Miles*	*Miles*		*Miles*	*Miles*	*Miles*
Total	234,112	225,235	8,877	Nebraska	5,737	5,716	21
				Nevada	2,065	1,978	87
Alabama	4,142	4,142		New Hampshire	1,054	1,021	33
Arizona	2,355	1,705	650	New Jersey	1,675	1,675	
Arkansas	5,095	4,857	238	New Mexico	3,636	3,259	377
California	6,831	6,264	567				
Colorado	3,792	3,277	515	New York	9,888	9,872	16
				North Carolina	7,930	7,424	506
Connecticut	1,125	1,125		North Dakota	7,172	7,087	85
Delaware	826	826		Ohio	7,140	7,140	
District of Columbia	86	86		Oklahoma	6,865	6,814	51
Florida	2,769	2,757	12				
Georgia	6,582	6,449	133	Oregon	3,893	3,411	482
				Pennsylvania	8,156	8,048	108
Idaho	3,490	2,700	790	Rhode Island	562	562	
Illinois	9,604	9,596	8	South Carolina	4,410	4,158	252
Indiana	5,599	5,599		South Dakota	6,336	5,859	477
Iowa	8,396	8,394	2				
Kansas	8,870	8,856	14	Tennessee	4,676	4,610	66
				Texas	14,688	14,540	148
Kentucky	3,816	3,674	142	Utah	2,298	2,152	146
Louisiana	2,766	2,766		Vermont	1,095	1,043	52
Maine	1,679	1,675	4	Virginia	4,637	4,509	128
Maryland	2,223	2,223					
Massachusetts	1,991	1,991		Washington	3,516	3,112	404
				West Virginia	2,407	2,275	132
Michigan	6,016	5,783	233	Wisconsin	5,942	5,816	126
Minnesota	7,419	7,128	291	Wyoming	3,546	3,209	337
Mississippi	3,734	3,539	195				
Missouri	8,026	8,026		Hawaii	633	633	
Montana	5,750	4,701	1,049	Puerto Rico	1,173	1,173	

TABLE 15. PUBLIC ROADS ADMINISTRATION.—*Mileage of PRA projects[1] completed during fiscal year ending June 30, 1940, by program and by State*

State or Territory	Total	Regular Federal-aid program			Works program		Public works, 1934–35
		Highways	Secondary roads	Grade crossings	Highways	Grade crossings	
Total	*Miles* 11,397.4	*Miles* 7,799.1	*Miles* 3,194.3	*Miles* 201.4	*Miles* 97.8	*Miles* 53.4	*Miles* 51.4
Alabama	360.9	307.5	48.3	3.7			1.4
Arizona	203.8	150.7	51.7	.7			.7
Arkansas	339.8	236.9	98.3	4.6			
California	155.8	107.0	44.7	4.0		0.1	
Colorado	150.2	99.7	38.0	2.3	10.2		
Connecticut	18.9	16.0	2.9				
Delaware	54.1	31.5	17.5	.6	4.5		
District of Columbia	7.6	5.5	1.5	.6			
Florida	73.5	41.7	31.2	.6			
Georgia	369.0	277.2	44.2	7.5	25.1	7.6	7.4
Idaho	212.1	148.0	57.9	4.4	.5		1.3
Illinois	347.8	228.5	103.1	5.5	1.0	1.0	8.7
Indiana	177.3	93.6	77.8	4.7	1.2		
Iowa	461.0	229.4	222.8	4.7		4.1	
Kansas	304.2	244.2	48.7	11.1	.2		
Kentucky	233.3	130.5	95.6	7.1	.1		
Louisiana	151.6	54.0	79.6	7.1	10.4	.5	
Maine	90.3	57.3	26.5	5.3	1.1		.1
Maryland	71.5	39.5	20.2		6.9	2.0	2.9
Massachusetts	36.0	25.0	9.2	1.8			
Michigan	257.3	128.1	121.5	6.4	.7	.6	
Minnesota	515.3	389.7	122.3	2.7		.4	.2
Mississippi	348.0	274.5	70.7	2.6	.2		
Missouri	352.8	181.0	169.8	2.0			
Montana	341.8	237.0	95.5	5.4	2.3		1.6
Nebraska	697.5	468.7	223.0	3.9	.8	1.1	
Nevada	90.8	57.8	31.5	1.5			
New Hampshire	35.4	29.7	4.3	1.4			
New Jersey	30.3	15.5	12.1	1.6			1.1
New Mexico	254.9	211.4	42.1	1.4			
New York	295.7	187.1	95.0	8.6	5.5		1.5
North Carolina	479.8	361.5	109.5	7.0		1.8	
North Dakota	88.0	50.9	8.2	3.8	.7	9.8	14.6
Ohio	143.9	88.7	41.7	3.4	8.9	1.2	
Oklahoma	208.0	167.0	36.1	4.6		.3	
Oregon	206.6	123.8	81.6	1.0		.2	
Pennsylvania	248.1	116.7	128.4	2.0			1.0
Rhode Island	11.1	8.1	2.2	.8			
South Carolina	160.8	86.7	56.9	9.0	4.9	1.8	1.5
South Dakota	393.0	352.4	4.1	8.0	4.8	18.5	5.2
Tennessee	149.9	116.3	32.3	.7		.6	
Texas	1,227.6	866.3	328.9	32.4			
Utah	177.0	128.3	46.8	.1	1.8		
Vermont	24.9	18.4	6.5				
Virginia	163.6	89.2	68.3	3.4	1.5	.7	.5
Washington	96.2	41.9	51.0	3.3			
West Virginia	78.2	58.3	13.2	1.9	4.3	.5	
Wisconsin	230.1	187.6	36.6	5.3		.6	
Wyoming	226.8	200.2	26.1	.5			
Hawaii	26.1	15.9	6.2	2.1	.2		1.7
Puerto Rico	19.2	16.7	2.2	.3			

[1] For estimated total cost of and PRA participation in these projects and those shown in PRA table 17, see PRA table 11.

TABLE 16. PUBLIC ROADS ADMINISTRATION.—*Mileage of PRA projects [1] approved but uncomplete as of June 30, 1940, by program and by State*

State or Territory	Total	Regular Federal-aid program			Works program		Public Works, 1934–35
		Highways	Secondary roads	Grade crossings	Highways	Grade crossings	
Total	*Miles* 13,883.5	*Miles* 10,793.8	*Miles* 2,817.1	*Miles* 214.0	*Miles* 19.8	*Miles* 23.9	*Miles* 14.9
Alabama	291.0	232.0	57.8	1.2			
Arizona	77.3	62.9	11.3	3.1			
Arkansas	192.8	149.9	33.6	9.0	.3		
California	227.2	182.5	42.0	2.3		.4	
Colorado	95.1	92.4	1.9	.2		.6	
Connecticut	28.8	21.9	4.6	2.3			
Delaware	48.3	32.5	15.6	.2			
District of Columbia	6.1	5.5	.6				
Florida	134.9	126.1	7.4	1.4			
Georgia	578.7	476.6	85.5	6.5	7.3	2.0	.8
Idaho	171.9	150.7	16.6	4.6			
Illinois	317.8	225.3	86.5	6.0			
Indiana	214.2	174.4	37.2	1.7		.7	.2
Iowa	704.5	250.7	451.7	2.0	.1		
Kansas	652.2	572.4	72.2	7.2	.4		
Kentucky	236.6	142.6	87.9	5.4	.2	.5	
Louisiana	151.3	97.3	25.7	22.7		5.6	
Maine	61.3	44.8	15.7	.7		.1	
Maryland	66.2	53.8	10.4	1.3	.7		
Massachusetts	49.7	35.9	13.5	.2		.1	
Michigan	460.9	325.9	129.3	5.7			
Minnesota	702.3	555.0	125.6	19.9		.5	1.3
Mississippi	418.9	371.5	40.9	1.3			5.2
Missouri	430.1	311.6	108.6	3.1	.4	6.4	
Montana	396.6	309.3	82.8	4.5			
Nebraska	1,045.1	891.7	139.7	13.2	.5		
Nevada	138.4	104.4	33.6	.4			
New Hampshire	49.1	45.4	2.2	1.5			
New Jersey	64.2	41.8	19.5	1.8	.2		.9
New Mexico	170.9	142.3	27.8	.8			
New York	366.0	271.0	83.2	8.1	2.2	.8	.7
North Carolina	414.3	309.0	98.4	6.8		.1	
North Dakota	580.1	570.1	3.8	4.9		.2	1.1
Ohio	266.3	152.3	108.2	5.8			
Oklahoma	274.5	208.3	60.2	3.6	1.8	.6	
Oregon	228.3	164.8	63.0	.5			
Pennsylvania	240.4	155.0	69.9	7.6	5.7		2.2
Rhode Island	21.5	17.5	3.6	.4			
South Carolina	378.3	258.7	117.4	2.1		.1	
South Dakota	824.0	815.0		8.7		.3	
Tennessee	147.3	135.4	10.9	1.0			
Texas	772.7	550.6	195.5	22.1		4.5	
Utah	106.1	86.8	19.3				
Vermont	70.2	51.8	17.6	.8			
Virginia	128.7	92.7	33.4	2.4			.2
Washington	124.6	94.1	28.2	1.9		.4	
West Virginia	152.8	129.2	21.1	.2			2.3
Wisconsin	278.1	246.6	28.1	3.4			
Wyoming	259.1	215.2	42.8	1.1			
Hawaii	24.1	14.4	8.7	1.0			
Puerto Rico	43.7	26.2	16.1	1.4			

[1] For estimated total cost of and PRA participation in these projects and those shown in PRA table 18, see PRA table 12.

TABLE 17. PUBLIC ROADS ADMINISTRATION.—*Number[1] of grade crossing eliminations and protections completed during the fiscal year ending June 30, 1940, by program and by State*

State or Territory	Crossings eliminated				Separation structures reconstructed			Crossings protected			
	Total	Federal-aid grade crossings	Works program grade crossings	Other[2]	Total	Federal-aid grade crossings	Works program grade crossings	Total	Federal-aid grade crossings	Works program grade crossings	Other[2]
Total	414	305	81	28	87	72	15	1,201	945	206	50
Alabama	14	14			3	2	1	1	1		
Arizona	1	1						2		2	
Arkansas	4	3		1				8	4	4	
California	14	11	2	1				49	3	7	39
Colorado	6	6						29	25	4	
Connecticut								7	7		
Delaware	2	2									
District of Columbia	1	1									
Florida	3	2		1				12		12	
Georgia	17	8	9		4	1	3	30	7	23	
Idaho	4	4									
Illinois	27	16	4	7	5	5		76	76		
Indiana	3	3			1	1		112	103		9
Iowa	25	14	11					197	197		
Kansas	12	12						13	13		
Kentucky	10	9		1	5	4	1	16	16		
Louisiana	7	6	1								
Maine	4	4			2	2					
Maryland	10	1	8	1				15	14	1	
Massachusetts	4	4			2	2					
Michigan	7	6	1		2	2		45	45		
Minnesota	7	4	1	2	6	4	2	17	17		
Mississippi	9	8	1					4		4	
Missouri	5	5			1	1					
Montana	9	9									
Nebraska	24	22	1	1				43	43		
Nevada	2	1	1		3	3		13	13		
New Hampshire	7	7						1	1		
New Jersey	4	2		2	3	3		1	1		
New Mexico	3	3						1	1		
New York	5	5			8	8					
North Carolina	15	7	8		6	5	1	166	47	119	
North Dakota	11	7	4		1	1		2	2		
Ohio	18	8	10		1	1		4	4		
Oklahoma	7	6		1	1		1	51	50	1	
Oregon	4	3	1		1		1				
Pennsylvania	5	2		3	3	3		2	2		
Rhode Island	1	1			3	3					
South Carolina	10	7	2	1	9	7	2	11	11		
South Dakota	14	3	11		2	2		27	17	10	
Tennessee	4	2	2		3	2	1	16	5	11	
Texas	25	25			3	3		22	19	2	1
Utah	3	3						140	140		
Vermont								7	7		
Virginia	11	9	1	1	4	3	1	24	20	3	1
Washington	5	5			2	2		12	12		
West Virginia	13	9	2	2				2	2		
Wisconsin	12	9		3	1		1	14	11	3	
Wyoming	1	1			1	1		8	8		
Hawaii	4	4			1	1		1	1		
Puerto Rico	1	1									

[1] For estimated total cost of and PRA participation in these projects and those shown in PRA table 15, see PRA table 11.
[2] Financed from highway funds.

TABLE 18. PUBLIC ROADS ADMINISTRATION.—*Number[1] of grade crossing eliminations and protections approved but uncomplete as of June 30, 1940, by program and by State*

State or Territory	Crossings eliminated				Separation structures reconstructed			Crossings protected			
	Total	Federal-aid grade crossings	Works program grade crossings	Other[2]	Total	Federal-aid grade crossings	Works program grade crossings	Total	Federal-aid grade crossings	Works program grade crossings	Other[2]
Total	412	339	39	34	96	83	13	741	690	45	6
Alabama	9	6	2	1				5	5		
Arizona	6	4	2								
Arkansas	10	10			1	1		16	13	3	
California	12	5	5	2	1	1		12	10	2	
Colorado	2	1	1					3	1	2	
Connecticut	8	7		1	1	1					
Delaware	3	1		2				17	17		
District of Columbia	1	1									
Florida	4	4						11	11		
Georgia	19	15	4		7	6	1	18	17	1	
Idaho	6	5		1				29	29		
Illinois	18	11		7	5	2	3	108	103		5
Indiana	6	5	1		2	2		77	77		
Iowa	6	6						94	94		
Kansas	12	12			2	2		14	14		
Kentucky	14	13	1					11	11		
Louisiana	20	14	5	1				15		14	1
Maine	2	2			4	2	2	6	6		
Maryland	3	3			3	2	1	2	2		
Massachusetts	4	1	1	2							
Michigan	10	9		1	5	5		24	24		
Minnesota	17	16	1		6	6		13	13		
Mississippi	7	7			1	1		2	1	1	
Missouri	11	9	1	1	5	5		1	1		
Montana	7	5	2					4	4		
Nebraska	7	6		1	3	2	1	10	10		
Nevada	1	1						25	25		
New Hampshire	4	4									
New Jersey	9	5		4							
New Mexico	2	2						6	6		
New York	12	12			19	17	2	8	8		
North Carolina	13	13			4	3	1	32	24	8	
North Dakota	8	7	1					19	19		
Ohio	15	14		1	3	3		13	13		
Oklahoma	17	13	3	1	1	1		45	45		
Oregon	3	3									
Pennsylvania	22	19	1	2	2	2					
Rhode Island					1	1					
South Carolina	5	5			4	3	1	23	23		
South Dakota	5	5			1	1		11	4	7	
Tennessee	2	2			3	3		2		2	
Texas	27	20	7		1	1		10	10		
Utah								13	13		
Vermont					2	2		5	5		
Virginia	6	4	1	1	2	2		8	8		
Washington	4	4			2	2		7	7		
West Virginia	2	1		1				2	2		
Wisconsin	13	9		4	4	4		18	13	5	
Wyoming	5	5			1		1				
Hawaii	2	2						2	2		
Puerto Rico	11	11									

[1] For estimated total cost of and PRA participation in these projects and those shown in PRA table 16, see PRA table 12.
[2] Financed from highway funds.

TABLE 19. PUBLIC ROADS ADMINISTRATION.—*Mileage of projects completed during fiscal year ending June 30, 1940, by type of construction and by State*

State or Territory	Total	Graded and drained	Sand-clay		Gravel		Macadam		Low-cost bituminous mix	Bituminous macadam	Bituminous concrete	Portland cement concrete	Block	Bridges and approaches	Grade separations	
			Untreated	Treated	Untreated	Treated	Untreated	Treated							Railroad and highways	Between highways
Total	*Miles* 11,397.4	*Miles* 1,907.6	*Miles* 335.1	*Miles* 730.0	*Miles* 2,237.1	*Miles* 1,669.8	*Miles* 9.7	*Miles* 373.5	*Miles* 1,718.1	*Miles* 116.3	*Miles* 292.9	*Miles* 1,910.4	*Miles* 19.6	*Miles* 61.9	*Miles* 14.8	*Miles* 0.6
Alabama	360.9	.1	13.2	131.3	21.9	184.6		1.5			.2	2.2		4.4	1.5	
Arizona	203.8	7.1			15.5	10.1			157.8		.2	12.1		1.0		
Arkansas	339.8	20.1		13.4	74.8	5.5			208.5			14.8		2.4	.3	
California	155.8	.4			.8	38.0			87.7	12.2	1.7	12.6		1.4	1.0	
Colorado	150.2				145.2							.7		4.1	.2	
Connecticut	18.9							6.9		5.2		6.8				
Delaware	54.1				22.6							31.4		.1		
District of Columbia	7.6										3.2	4.3			.1	
Florida	73.5	12.1				9.6		.5	31.9			18.1		1.1	.2	
Georgia	369.0	33.6	34.9	66.8	36.1	94.0	2.1	29.4	12.9		24.4	31.9		2.4	.5	
Idaho	212.1	.2		3.6	78.7				125.7			3.3		.6		
Illinois	347.8	109.9			51.0		4.1	2.4	47.7		2.5	126.3		2.3	1.6	
Indiana	177.3	25.5			26.0	4.5		8.1	42.3		3.5	66.6		.8		
Iowa	461.0	111.5			197.6	48.8						100.6		1.5	1.0	
Kansas	304.2	65.5	36.9	37.7	60.9	50.5			25.5			25.5		1.5	.2	
Kentucky	233.3				112.1				25.4		52.5	41.5		1.4	.4	
Louisiana	151.6	49.9			80.1							20.4		.9	.3	
Maine	90.3						1.1	37.7	22.7	10.6	10.6	7.2		.4		
Maryland	71.5	2.0			15.6		1.8		4.2	3.6	.5	43.3		.2	.2	.1
Massachusetts	36.0								4.7	14.9	13.3	2.7		.3	.1	
Michigan	257.3	56.5			31.3	29.4			32.9		1.4	105.0		.7	.1	
Minnesota	515.3	147.3	4.8		76.3	105.4			141.4			39.2		.6	.3	
Mississippi	348.0	114.9			16.9	20.1			13.2		.2	180.2		2.2	.3	
Missouri	352.8	50.7			181.9	14.9		27.5		5.9	1.8	68.3		1.4	.4	
Montana	341.8	82.4			130.6				126.6			.4		1.7	.1	

Nebraska	697.5	162.2	217.2	169.0					106.1		.2	40.8		1.7	.3	
Nevada	90.8				14.8				75.8					.1	.1	
New Hampshire	35.4							12.2	12.0		1.9	9.2		.1		
New Jersey	30.3				4.1	.5					5.6	19.5		.1	.5	
New Mexico	254.9	36.9			110.4	98.8			7.2					1.6		
New York	295.7	31.8			28.1	57.9	.2	24.6			11.2	140.3		1.2	.4	
North Carolina	479.8	51.0	3.6	160.3	3.5	130.6		1.4	46.6		.4	81.3		.8	.3	
North Dakota	88.0	23.8	8.4		7.3	25.7			21.6			1.0		.1	.1	
Ohio	143.9	1.4			9.4	10.1	.4	34.0			6.7	61.7	19.5	.3	.2	.2
Oklahoma	208.0	11.7			57.4	42.0			.9		32.6	60.9		2.4	.1	
Oregon	206.6	10.4			42.9	95.0		29.2		7.9	8.7	12.0		.4	.1	
Pennsylvania	248.1				36.4			50.3		49.5	9.8	100.9	.1	.8	.3	
Rhode Island	11.1									5.7	.5	4.8		.1		
South Carolina	160.8	21.0	16.0	103.9							14.4	3.4		1.6	.5	
South Dakota	393.0	153.9			9.8	83.2			119.6			25.6		.8	.1	
Tennessee	149.9	22.1			55.6			1.5			.9	66.8		2.9	.1	
Texas	1,227.6	327.3		8.8	195.1	428.2		14.8	24.5		66.9	151.4		9.2	1.1	.3
Utah	177.0	4.7			66.4				85.0		2.9	17.8		.2		
Vermont	24.9				1.1	1.6			21.4	.1		.6		.1		
Virginia	163.6	5.2	.1	35.2	3.9	31.6		34.0			10.9	41.5		.8	.4	
Washington	96.2	7.2			51.8	17.2			5.8			13.4		.7	.1	
West Virginia	78.2	6.9			14.7			14.8	16.9		2.5	21.4		.1	.9	
Wisconsin	230.1	64.1			93.9							70.7		1.1	.3	
Wyoming	226.8	75.7			54.6	32.0			63.6					.8	.1	
Hawaii	26.1	.6						23.8		.7	.8			.2		
Puerto Rico	19.2							18.9						.3		

TABLE 20. PUBLIC ROADS ADMINISTRATION.—*Mileage of projects approved but uncomplete as of June 30, 1940, by type of construction and by State*

State or Territory	Total	Graded and drained	Sand-clay		Gravel		Macadam		Low-cost bituminous mix	Bituminous macadam	Bituminous concrete	Portland cement concrete	Block	Bridges and approaches	Grade separations	
			Untreated	Treated	Untreated	Treated	Untreated	Treated							Railroad and highways	Between highways
Total	*Miles* 13,883.5	*Miles* 2,338.4	*Miles* 308.5	*Miles* 1,363.8	*Miles* 1,791.5	*Miles* 2,179.2	*Miles* 17.3	*Miles* 510.0	*Miles* 2,229.1	*Miles* 244.8	*Miles* 396.7	*Miles* 2,403.3	*Miles* 15.9	*Miles* 66.9	*Miles* 17.1	*Miles* 1.0
Alabama	291.0			191.5	31.5	55.6						7.8		4.3	.3	
Arizona	77.3				6.4	1.7			66.2			2.6		.4		
Arkansas	192.8	11.0		3.4	14.3				133.6			28.8		1.2	.5	
California	227.2	3.2			7.2	23.6			158.7	.4	17.1	13.2		3.3		.5
Colorado	95.1				60.3	14.5			19.0			.2		.6	.5	
Connecticut	28.8							9.6		6.2		12.6		.1	.3	
Delaware	48.3	.1			7.5	7.7					11.1	21.3		.3	.3	
District of Columbia	6.1										1.7	4.4				
Florida	134.9	34.1						54.2	5.9			39.8		.8	.1	
Georgia	578.7	41.5	28.8	145.5	27.6	176.5		52.1	1.0		13.4	86.3		5.2	.8	
Idaho	171.9				54.5	24.7			91.9			.6		.1	.1	
Illinois	317.8	96.7			20.3		13.4		48.6		1.5	133.0		3.7	.6	
Indiana	214.2	17.2			12.1	6.0			20.1		26.0	132.0		.6	.2	
Iowa	704.5	193.6			325.2							182.4		2.8	.5	
Kansas	652.2	109.9	12.8	122.0	125.2	48.7		57.8	135.2			35.0		2.9	2.7	
Kentucky	236.6	17.2			100.6				21.3		43.0	52.4		1.9	.2	
Louisiana	151.3	31.1			27.4	2.1						88.1		2.0	.6	
Maine	61.3							14.5	29.0	8.5	9.1			.1	.1	
Maryland	66.2	10.0			6.9			3.3	5.0	3.8		36.2		.9	.1	
Massachusetts	49.7				2.0			.1	3.2	33.0	8.7	2.4		.1	.1	.1
Michigan	460.9	86.6			70.3	26.1			94.8		7.8	172.7	1.8	.5	.3	
Minnesota	702.3	222.3	8.7		123.0	229.7			68.6		1.5	47.2	.1	.5	.7	
Mississippi	418.9	73.9		119.0	14.4	24.5			49.3			135.1		2.3	.4	
Missouri	430.1	59.4			106.4	44.0		8.5	28.9	62.7		117.1		2.1	1.0	
Montana	396.6	67.3			113.5	25.7			188.4					1.6	.1	

Nebraska	1,045.1	327.7	120.9	435.9	3.1	3.7			137.6		.3	13.0		2.4	.5	
Nevada	138.4								138.2					.2		
New Hampshire	49.1							28.1	12.7	1.2	2.3	4.5		.1	.2	
New Jersey	64.2	2.5			9.3	2.9	.9	.3		1.3	.2	46.2		.3	.3	
New Mexico	170.9	73.6			20.6	61.5					13.2	.1		1.7	.2	
New York	366.0	4.1				15.7	.6	48.2	21.2	1.1	46.7	225.9	.1	1.9	.5	
North Carolina	414.3	56.2	12.1	148.7	.3	106.6			44.0			44.1		1.9	.4	
North Dakota	580.1	108.2	2.4		4.2	253.8			209.3			1.7		.5		
Ohio	266.3	5.0			20.9	35.4		36.3		4.6	15.3	132.8	13.9	1.5	.6	
Oklahoma	274.5	3.1	13.7		117.0	11.0			38.3		29.7	58.0		2.8	.9	
Oregon	228.3	12.9			11.2	84.2		19.1	.6	80.5	7.4	11.7		.6	.1	
Pennsylvania	240.4	1.7						32.5		32.7	30.5	141.9		.6	.5	
Rhode Island	21.5									7.5	3.3	10.6		.1		
South Carolina	378.3	64.7	95.5	147.6	21.0	23.8					1.4	22.5		1.4	.4	
South Dakota	824.0	339.4			2.0	257.3			212.5			11.7		1.0	.1	
Tennessee	147.3				42.2	54.6		15.9			1.9	31.6		1.1		
Texas	772.7	78.9	2.9	31.7	111.2	420.4			31.8		6.7	84.8		4.1	.2	
Utah	106.1	16.0			23.0				64.7		1.9	.3		.2		
Vermont	70.2					23.7		3.5	37.3			5.4		.2	.1	
Virginia	128.7	16.5		18.5		10.6	2.4	43.1			20.6	15.8		.9	.3	
Washington	124.6	6.9			78.3	19.0			8.3		5.7	4.0		2.0	.2	.2
West Virginia	152.8	8.9			20.4			24.4	2.1		66.7	29.9		.3	.1	
Wisconsin	278.1	49.6	10.7		36.8	23.7					.2	155.3		1.2	.4	.2
Wyoming	259.1	82.5			13.4	60.2			101.8			.3		.9		
Hawaii	24.1	4.9						15.9		1.3	1.8			.2		
Puerto Rico	43.7							42.6						.5	.6	

TABLE 21. PUBLIC ROADS ADMINISTRATION.—*Estimated total cost, public lands fund allotments, and mileage of public lands projects completed during fiscal year ending June 30, 1940, and mileage completed as of June 30, 1940, by State*

State	Completed during fiscal year			Total completed as of June 30, 1940
	Estimated total cost	Public lands fund allotments	Miles	
				Miles
Total	$2,526,677	$2,472,304	282.0	1,836.3
Arizona	487,602	472,679	48.0	205.1
California	454,823	434,051	29.2	125.0
Colorado	36,355	30,170	3.7	33.4
Idaho	61,932	61,932	11.0	90.8
Montana	137,003	136,177	8.4	78.1
Nevada	382,305	376,386	92.4	602.4
New Mexico				77.3
North Dakota	99,667	97,703	5.2	30.6
Oklahoma	39,825	39,825	1.2	11.2
Oregon	211,941	210,268	32.7	176.8
South Dakota				19.6
Utah	387,833	387,396	15.9	196.9
Washington	36,753	36,626	1.5	25.0
Wyoming	190,638	189,091	32.8	164.1

TABLE 22. PUBLIC ROADS ADMINISTRATION.—*Estimated total cost, public lands fund allotments, and mileage of public lands projects approved but uncomplete and unobligated public lands fund balances as of June 30, 1940, by State*

State	Estimated total cost	Public lands fund allotments	Miles	Unobligated balance
Total	$1,578,867	$1,418,719	171.2	$1,781,723
Arizona	112,969	91,731	6.7	310,903
California	246,951	229,779	7.0	98,762
Colorado	128,487	116,500	2.6	50,479
Idaho	169,930	105,530	11.4	72,870
Montana	70,214	69,234	4.7	101,049
Nevada	120,219	120,219	45.8	407,002
New Mexico	323,055	319,361	26.3	127,018
North Dakota				19,296
Oklahoma				19,302
Oregon	35,290	17,670	1.4	129,201
South Dakota	136,800	136,800	22.4	39,834
Utah	62,515	62,515	17.3	201,212
Washington	16,915	16,393	1.9	38,805
Wyoming	155,522	132,987	23.7	165,990

TABLE 23. PUBLIC ROADS ADMINISTRATION.—*Status of flood-relief funds provided under special flood-relief acts as of June 30, 1940*

Status and State	Estimated total cost	Flood-relief funds	Miles
Completed during the fiscal year:			
Total	$444,897	$210,051	15.4
Arkansas	146,857	73,051	7.6
Kentucky	281,838	128,899	6.7
Missouri	16,202	8,101	1.1
Allotted to projects approved but uncomplete:			
Total	1,113,886	415,419	49.1
Arkansas	173,632	86,816	20.8
Kentucky	108,722	45,409	2.2
Mississippi	589,400	282,733	22.2
Missouri	242,132	461	3.9

TABLE 24. PUBLIC ROADS ADMINISTRATION.—*Status of flood-relief funds provided under section 3 of the Hayden-Cartwright Act as of June 30, 1940*

Status and State	Estimated total cost	Emergency relief funds	Miles
Completed during the fiscal year:			
Total	$3,673,867	$1,959,655	50.2
California	1,796,791	1,028,143	37.4
Kentucky	83,609	41,804	.8
Maryland	171,602	83,589	.7
Missouri	56,912	28,456	3.7
Ohio	985,548	489,124	6.8
Texas	528,376	264,114	.5
Vermont	51,029	24,425	.3
Allotted to projects approved but uncomplete:			
Total	2,794,895	1,374,013	25.4
California	46,216	26,985	.1
Kentucky	1,468	734	
Missouri	527,446	237,624	10.5
Ohio	1,683,265	840,420	13.3
Texas	399,000	199,500	.3
Vermont	137,500	68,750	1.2

TABLE 25. PUBLIC ROADS ADMINISTRATION.—*Status of National recovery work-relief projects as of June 30, 1940*

Status and State	Estimated total cost	Federal funds	Miles
Completed during the fiscal year:			
Total	$2,573,234	$444,063	89.8
Minnesota	2,033,019	325,526	4.6
Oklahoma	125,000	37,500	23.6
Texas	415,215	81,037	61.6
Allotted to projects approved but uncomplete:			
Total	4,297,346	810,897	315.8
Minnesota	2,830,346	400,797	6.7
Oklahoma	1,467,000	410,100	309.1

TABLE 26. PUBLIC ROADS ADMINISTRATION.—*Status on June 30, 1940, of loan-and-grant Public Works projects transferred by the Public Works Administration to the Public Roads Administration for supervision and audit, by State*

ALLOTMENTS FROM NATIONAL INDUSTRIAL RECOVERY ACT

State	Funds allotted by Public Works Administration			Mileage, estimated cost, and funds assigned to specific projects approved under Public Works Administration allotments				
	Tentative allotment by special board for Public Works	Allotment by contracts executed		Miles	Estimated total cost	Funds assigned		
		Grant	Loan			Grant	Loan	Other
Total	$29,383,492	$18,973,392	$10,410,100	5,218.4	$68,314,859	$18,786,535	$10,410,100	$39,118,224
Alabama	70,248	20,617	49,631	6.7	70,248	20,617	49,631	
California	1,310,864	1,310,864		16.4	6,063,238	1,310,864		4,752,374
Connecticut	1,207,596	1,207,596		68.7	4,825,941	1,207,596		3,618,345
Illinois	2,400,618	2,400,618		97.6	8,256,422	2,400,618		5,855,804
Indiana	200,662	200,662		34.5	765,294	200,662		564,632
Iowa	307,587	307,587		823.6	1,061,690	307,587		754,103
Kansas	5,119,130	1,524,130	3,595,000	410.0	5,686,101	1,524,130	3,595,000	566,971
Louisiana	269,258	88,258	181,000	47.4	300,515	88,258	181,000	31,257
Maryland	4,220,000	1,590,000	2,630,000	73.9	5,331,317	1,470,902	2,630,000	1,230,415
Massachusetts	1,702,395	1,702,395		105.1	5,508,720	1,634,636		3,874,084
Michigan	10,000	10,000		29.0	39,818	10,000		29,818
Minnesota	1,337,211	952,211	385,000	472.9	3,261,752	952,211	385,000	1,924,541
Mississippi	559,135	161,149	397,986	85.2	559,135	161,149	397,986	
Missouri	1,026,000	1,026,000		50.6	3,473,587	1,026,000		2,447,587
Montana	1,829,000	579,000	1,250,000	697.8	1,955,463	579,000	1,250,000	126,463
Nebraska	11,500	11,500		59.5	40,120	11,500		28,620
New York	736,814	375,033	361,781	30.9	1,282,140	375,034	361,781	545,325
Ohio	793,180	139,878	653,302	27.2	995,848	139,878	653,302	202,668
South Carolina	76,083	21,283	54,800	28.0	76,083	21,283	54,800	
Texas	1,471,021	931,421	539,600	238.2	3,254,907	931,421	539,600	1,783,886
Washington	2,270,890	2,270,890		1,275.2	8,209,058	2,270,889		5,938,169
West Virginia	2,000,000	2,000,000		453.6	6,771,285	2,000,000		4,771,285
Wisconsin	454,300	142,300	312,000	86.4	526,177	142,300	312,000	71,877

Total	$26,875,087	$25,763,691	$1,111,396	4,239.7	$58,621,880	$25,524,382	$1,111,396	$31,986,102
California	57,821	57,821		.4	128,842	57,821		71,021
Colorado	3,000,000	3,000,000		266.6	7,267,500	3,000,000		4,267,500
Florida	71,514	71,514		.6	158,921	71,514		87,407
Illinois	586,673	586,673		114.1	1,396,151	586,673		809,478
Iowa	393,319	393,319		862.1	903,659	393,319		510,340
Kansas	14,463	14,463		.6	33,364	14,463		18,901
Maryland	1,000,000	1,000,000		25.4	1,852,497	833,624		1,018,873
Michigan	119,435	119,435		16.5	290,093	119,435		170,658
Minnesota	152,389	152,389		69.2	345,351	152,389		192,962
Mississippi	15,325,683	15,325,683		1,393.2	34,398,139	15,321,163		19,076,976
Missouri	396,700	396,700		364.5	881,690	396,699		484,991
Nebraska	6,612	6,612		18.0	14,915	6,612		8,303
New Jersey	29,863	29,863		3.0	66,362	29,863		36,499
New York	212,872	212,872		28.7	518,538	212,872		305,666
Ohio	744,519	356,123	388,396	229.5	805,399	356,123	388,396	60,880
Pennsylvania	349,969	349,969		1.7	625,682	281,557		344,125
South Carolina	707,069	474,069	233,000	249.7	1,071,831	474,069	233,000	364,762
Texas	2,930,193	2,440,193	490,000	382.0	5,857,571	2,440,193	490,000	2,927,378
Utah	45,900	45,900		29.1	116,353	45,900		70,453
Washington	730,093	730,093		184.8	1,889,022	730,093		1,158,929

TABLE 26. PUBLIC ROADS ADMINISTRATION.—*Status on June 30, 1940, of loan-and-grant Public Works projects transferred by the Public Works Administration to the Public Roads Administration for supervision and audit, by State*—**Continued**

ALLOTMENTS FROM PUBLIC WORKS ADMINISTRATION APPROPRIATION ACT OF 1938

State	Funds allotted by Public Works Administration			Mileage, estimated cost, and funds assigned to specific projects approved under Public Works Administration allotments				
	Tentative allotment by special board for Public Works	Allotment by contracts executed		Miles	Estimated total cost	Funds assigned		
		Grant	Loan			Grant	Loan	Other
Total	$23,176,361	$23,176,361		8,221.5	$51,204,391	$22,364,181		$28,840,210
Alabama	84,965	84,965		12.0	188,811	84,965		103,846
California	196,680	196,680		22.7	388,020	174,542		213,478
Colorado	454,950	454,950		51.3	1,078,720	454,950		623,770
Connecticut	2,016,484	2,016,484		33.7	4,276,759	1,921,343		2,355,416
Florida	769,223	769,223		83.2	1,812,306	747,752		1,064,554
Georgia	508,500	508,500		84.9	1,128,000	507,600		620,400
Idaho	49,854	49,854		74.9	112,251	49,854		62,397
Illinois	2,311,615	2,311,615		240.9	4,610,606	1,925,327		2,685,279
Iowa	1,077,379	1,077,379		1,187.2	2,418,924	1,070,748		1,348,176
Kansas	285,386	285,386		34.7	638,968	285,386		353,582
Kentucky	100,945	100,945		25.1	224,572	100,945		123,627
Massachusetts	49,050	49,050		.4	84,017	37,807		46,210
Michigan	1,937,790	1,937,790		342.3	4,489,279	1,937,790		2,551,489
Minnesota	1,466,539	1,466,539		1,513.3	3,257,390	1,434,210		1,823,180
Mississippi	3,074,295	3,074,295		387.2	7,106,313	3,058,389		4,047,924
Missouri	753,073	753,073		705.6	1,683,364	747,863		935,501
Nebraska	24,750	24,750		.5	60,936	24,750		36,186
New Jersey	33,454	33,454		.4	83,926	33,454		50,472
New York	67,669	67,669		.2	150,578	67,669		82,909
North Dakota	564,250	564,250		255.1	1,256,433	564,250		692,183
Ohio	735,464	735,464		1,287.7	1,622,061	717,020		905,041
Oklahoma	105,297	105,297		80.1	235,906	105,297		130,609
Oregon	415,163	415,163		400.7	946,956	415,163		531,793
Pennsylvania	172,102	172,102		4.6	359,446	161,751		197,695
South Carolina	671,182	671,182		389.7	1,387,392	621,862		765,530
Texas	2,295,554	2,295,554		591.0	4,990,263	2,245,095		2,745,168
Vermont	231,482	231,482		3.8	451,247	198,637		252,610
Washington	1,419,292	1,419,292		265.8	3,085,915	1,365,788		1,720,127
West Virginia	1,156,050	1,156,050		129.4	2,665,430	1,156,050		1,509,380
Wisconsin	147,924	147,924		13.1	409,602	147,924		261,678

TABLE 27. PUBLIC ROADS ADMINISTRATION.—*Mileage of the forest highway system, by forest road class and by State, as of June 30, 1940*

Region and State or Territory	Total	Class 1[1]	Class 2[2]	Class 3[3]
	Miles	*Miles*	*Miles*	*Miles*
Grand total	21,934.1	8,939.5	8,386.7	4,607.9
Western:				
Total	12,770.6	5,282.8	4,770.6	2,717.2
Alaska	352.8			352.8
Arizona	1,058.5	397.4	213.4	447.7
California	2,436.8	670.7	1,237.3	528.8
Colorado	1,743.0	601.0	1,097.0	45.0
Idaho	1,078.0	721.3	165.2	191.5
Montana	1,206.8	671.2	304.6	231.0
Nevada	418.7	157.2	230.5	31.0
New Mexico	683.0	160.0	523.0	
Oregon	1,382.3	719.3	352.6	310.4
South Dakota	306.0	220.0		86.0
Utah	716.5	191.4	490.9	34.2
Washington	761.2	391.3	123.1	246.8
Wyoming	627.0	382.0	33.0	212.0
Eastern:				
Total	9,163.5	3,656.7	3,616.1	1,890.7
Alabama	55.0	4.0	20.0	31.0
Arkansas	629.5	274.6	310.3	44.6
Florida	246.3	27.3	219.0	
Georgia	205.3	110.3	69.7	25.3
Illinois	285.6	223.1	27.5	35.0
Kentucky	293.4	132.8	132.1	28.5
Louisiana	457.4	66.1	369.4	21.9
Maine	11.0			11.0
Michigan	1,024.9	466.7	283.8	274.4
Minnesota	584.0	179.4	217.7	186.9
Mississippi	539.0	204.0	264.0	71.0
Missouri	832.5	426.2	160.1	246.2
Nebraska	28.8	10.4		18.4
New Hampshire	174.7	40.9	92.1	41.7
North Carolina	824.9	483.6	283.0	58.3
Oklahoma	62.0	31.5	17.0	13.5
Pennsylvania	371.4	123.8	228.7	18.9
Puerto Rico	21.0			21.0
South Carolina	348.0	237.8	99.2	11.0
Tennessee	346.8	165.1	134.6	47.1
Texas	403.1	123.5	168.4	111.2
Vermont	134.5	32.7	43.2	58.6
Virginia	456.1	79.0	135.4	241.7
West Virginia	379.5	131.0	168.2	80.3
Wisconsin	448.8	82.9	172.7	193.2

[1] Class 1.—Forest roads forming sections of the Federal-aid highway system, either wholly within or, when so designated by the Chief of the Forest Service and the Commissioner of Public Roads, partly without and adjacent to the national forests.

[2] Class 2.—Forest roads, not of class 1, which are parts of approved State highway systems, when so designated by the Chief of the Forest Service and the Commissioner of Public Roads.

[3] Class 3.—All other forest roads of primary importance to counties or communities.

TABLE 28. PUBLIC ROADS ADMINISTRATION.—*Mileage of forest highway projects, by construction status and by State, as of June 30, 1940*

Region and State or Territory	Total completed as of June 30, 1940	Completed during fiscal year ending June 30, 1940			Under construction as of June 30, 1940
		Total	Initial improvement	Stage construction	
	Miles	*Miles*	*Miles*	*Miles*	*Miles*
Grand total	7,046.7	548.1	219.6	328.5	355.2
Western:					
Total	6,296.7	451.2	122.7	328.5	291.4
Alaska	249.7	18.3	3.4	14.9	9.0
Arizona	580.5	12.5	4.7	7.8	44.8
California	836.8	43.8	11.1	32.7	61.0
Colorado	553.6	64.9	9.3	55.6	31.5
Idaho	736.2	109.8	36.6	73.2	10.7
Montana	635.7	48.2	9.7	38.5	37.8
Nevada	199.7	13.9	13.9		
New Mexico	320.0	51.2	4.1	47.1	
Oregon	1,039.4	42.4	7.2	35.2	65.5
South Dakota	68.0	15.5	7.2	8.3	
Utah	366.6	7.2	5.6	1.6	9.5
Washington	350.6	11.9	9.8	2.1	14.0
Wyoming	359.9	11.6	.1	11.5	7.6
Eastern:					
Total	750.0	96.9	96.9		63.8
Alabama	5.1				
Arkansas	137.6	5.9	5.9		13.3
Florida	61.6				11.7
Georgia	21.3				
Illinois	4.7				3.8
Kentucky	.1				.1
Louisiana	.8	.3	.3		
Maine	3.2	3.2	3.2		
Michigan	66.5	9.7	9.7		7.0
Minnesota	140.5	20.4	20.4		8.1
Mississippi	.1				.1
Missouri	31.1	16.9	16.9		
Nebraska	8.7				
New Hampshire	36.7	7.6	7.6		
North Carolina	62.9	17.9	17.9		2.0
Oklahoma	16.1				
Pennsylvania	11.9	1.3	1.3		
South Carolina	16.9				
Tennessee	43.2				
Texas	11.7	6.6	6.6		
Vermont					.4
Virginia	29.5				
West Virginia	10.3				13.1
Wisconsin	29.5	7.1	7.1		4.2

TABLE 29. PUBLIC ROADS ADMINISTRATION.—*Mileage of highways in or leading to national parks and monuments, by construction status and by area, as of June 30, 1940*

Park, monument or parkway	Total completed [1] as of June 30, 1940	Completed during fiscal year ending June 30, 1940			Under construction as of June 30, 1940
		Total	Initial improvement	Stage construction	
Total	*Miles* 1,690.5	*Miles* 329.5	*Miles* 123.3	*Miles* 206.2	*Miles* 428.3
Acadia	18.8	3.4	3.4		4.5
Blue Ridge	198.8	151.5	64.9	86.6	118.7
Boulder Dam	15.5	6.1	6.1		
Bryce	21.7				
Carlsbad Caverns	8.4				
Chalmette	.5				
Chickamauga-Chattanooga	26.7	9.1	9.1		
Colonial	12.9				.5
Crater Lake	65.9	5.4	5.4		8.2
Devils Tower	.3				
Fort Donelson	2.7				
Fort Matanzas	.5				
Fort Pulaski	.3				
Fredericksburg-Spotsylvania	23.1				
George Washington Birthplace	2.6				
Gettysburg	9.5				
Glacier	73.8	15.8		15.8	22.1
Grand Canyon	193.0				34.5
Great Smoky Mountains	29.1				21.8
Guilford Court House	2.6				
Hawaii	35.6				
Hot Springs	3.4				
Kill Devil Hill	1.6				
Kings Canyon (formerly General Grant)	15.0	4.7		4.7	4.6
Lassen Volcanic	35.1				
Meriwether Lewis	1.8				
Mesa Verde	32.0				
Morristown	2.7				
Mount Rainier	86.4	1.6	1.5	.1	17.2
Natchez Trace	46.8	10.7	10.7		77.5
National Capital Parks	6.1	.1	.1		.9
Petersburg	8.0				
Petrified Forest	31.1				
Rocky Mountain	51.4	8.1		8.1	
Scotts Bluff	1.6				
Sequoia	45.9	19.8		19.8	
Shenandoah	96.8	13.9		13.9	
Shiloh	10.6				
Vicksburg	9.7	1.2	1.2		.8
Wind Cave	15.9				
Yellowstone	312.1	46.4	9.7	36.7	70.7
Yosemite	108.7	24.9	4.4	20.5	41.7
Zion	25.5	6.8	6.8		4.6
Low standard access roads (not included above)	66.4	44.3	40.3	4.0	

[1] Changes in mileage due to corrections resulting from final surveys are reflected in this table.

TABLE 30. PUBLIC ROADS ADMINISTRATION.—*Mileage of approach roads to national parks and monuments, by construction status and by location, as of June 30, 1940*

Road	Park	Designated	Under construction	Completed
Total		*Miles* 309.7	*Miles* 9.2	*Miles* 255.5
Fresno-Kings Canyon	Kings Canyon	12.9	4.6	8.6
Cameron-Desert View	Grand Canyon	28.1		28.1
South Approach	do	52.3		52.3
Jacobs Lake-North Rim	do	31.2	[1] 30.9	30.9
Mineral-Lassen Volcanic	Lassen Volcanic	8.8		4.7 [2] 4.1
Sequoia-Kings Canyon	Sequoia-Kings Canyon	13.5		13.5
Custer-Wind Cave	Wind Cave	8.6		8.6
Southwest Approach	Yellowstone	13.9		13.9
Moran-Yellowstone	do	24.0		5.8
Red Lodge-Cooke City	do	59.7		59.7
East Approach	do	23.0	[1] 9.2	22.6
Zion-Bryce Canyon	Zion-Bryce Canyon	31.3	4.6	6.8
Cedar Breaks	Cedar Breaks	2.4		

[1] Stage construction, bituminous surfacing. Figures not included in total.
[2] Graded as a forest-road project. Figure not included in total.

Selected List of Publications of the Public Roads Administration

PUBLIC ROADS—A Monthly Journal:

The research of the Public Roads Administration relating to all phases of highway construction, economics, and transport is published in the monthly magazine Public Roads. Subscription to the magazine is through the Superintendent of Documents, Washington, D. C., at $1 per year.

ANNUAL REPORTS

Report of the Chief of the Bureau of Public Roads, 1931, 1934, 1936–39, 10 cents; 1933, 1935, 5 cents.

HOUSE DOCUMENT No. 462, 75th Congress, 3d Session (1938):

Part 1.—Nonuniformity of State Motor-Vehicle Traffic Laws. 15 cents.

Part 2.—Skilled Investigation at the Scene of the Accident Needed to Develop Causes. 10 cents.

Part 3.—Inadequacy of State Motor-Vehicle Accident Reporting. 10 cents.

Part 4.—Official Inspection of Vehicles. 10 cents.

Part 5.—Case Histories of Fatal Highway Accidents. 10 cents.

Part 6.—The Accident-Prone Driver. 10 cents.

MISCELLANEOUS PUBLICATIONS:

Construction of Private Driveways. (No. 272MP.) 10 cents.

Guides to Traffic Safety. 10 cents.

Highways of History. 25 cents.

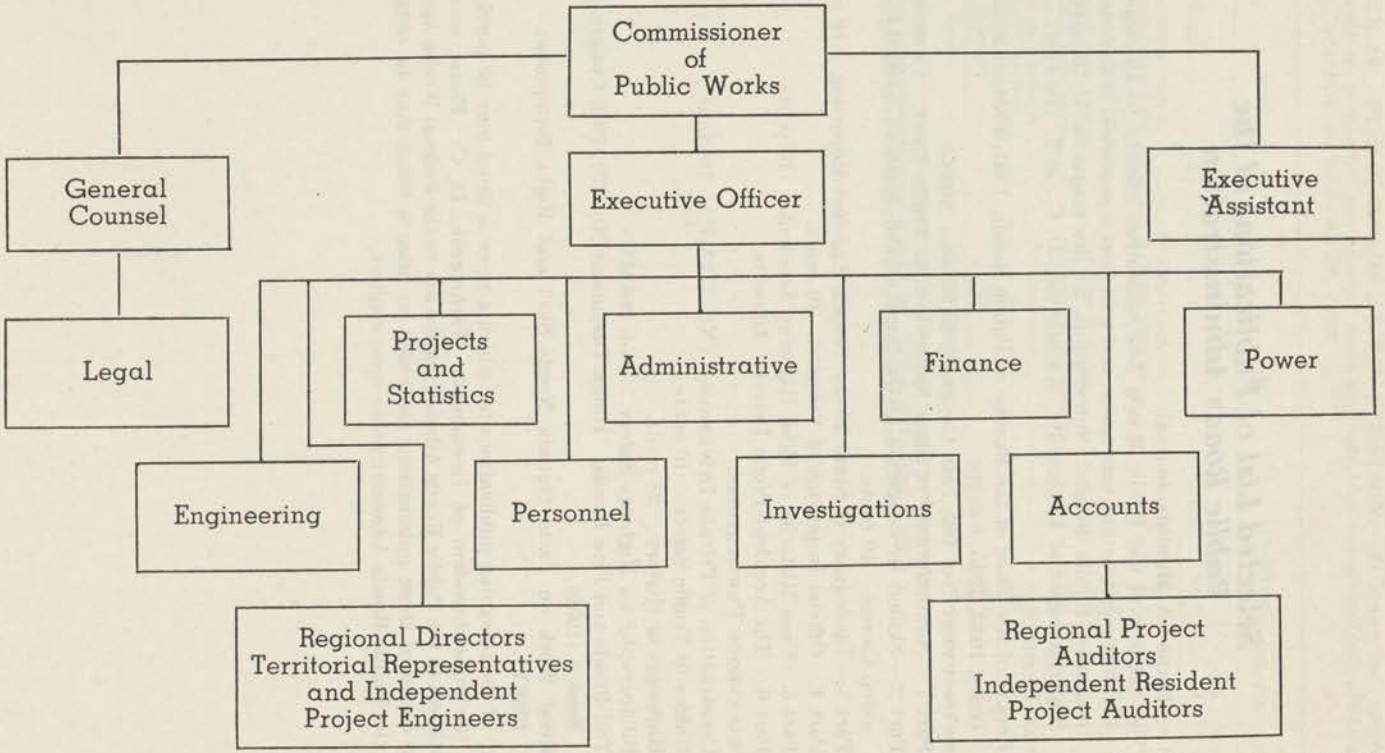
Bibliography on Highway Safety. (No. 296MP.)

Toll Roads and Free Roads. House Document No. 272, 76th Congress, 1st Session (1939).

Road Work on Farm Outlets Needs Skil and Right Equipment. (No. 1036Y).

Any of the foregoing publications for which a price is listed may be purchased from the Superintendent of Documents, Washington, D. C. Please send no remittances to the Public Roads Administration nor to the Federal Works Agency. Single copies of those publications for which no price is listed may be obtained from the Public Roads Administration upon request.

FEDERAL WORKS AGENCY — PUBLIC WORKS ADMINISTRATION — ORGANIZATION CHART



As of November 1, 1940

Appendix D

PUBLIC WORKS ADMINISTRATION

TABLE 1. PUBLIC WORKS ADMINISTRATION.—*Average number*[1] *of persons employed at construction sites of Federal and non-Federal PWA projects, United States and Territories, by month, 1933–1940*

Year and month	Total	Federal projects	Non-Federal projects
1933			
July	224	107	117
August	9,269	8,590	679
September	80,184	77,780	2,404
October	194,183	187,480	6,703
November	287,501	274,639	12,862
December	308,652	284,049	24,603
1934			
January	284,356	260,215	24,141
February	289,871	258,150	31,721
March	318,221	274,443	43,778
April	398,630	331,256	67,374
May	533,756	437,605	96,151
June	631,647	505,782	125,865
July	650,653	501,645	149,008
August	633,340	471,536	161,804
September	547,483	392,540	154,943
October	499,829	342,298	157,531
November	437,069	286,664	150,405
December	332,933	210,374	122,559
1935			
January	271,032	165,228	105,804
February	241,426	146,347	95,079
March	261,405	153,401	108,104
April	295,655	171,594	124,061
May	319,857	183,050	136,807
June	311,589	175,627	135,962
July	284,183	147,158	137,025
August	270,583	138,573	132,010
September	259,545	123,300	136,245
October	243,087	118,968	124,119
November	204,053	105,024	99,029
December	193,112	92,677	100,435
1936			
January	173,510	85,623	87,887
February	159,654	80,235	79,419
March	238,513	86,534	151,979
April	271,103	89,614	181,489
May	323,655	95,533	228,122
June	335,368	91,717	243,651
July	313,745	82,057	231,688
August	337,229	82,090	255,139
September	281,110	74,688	206,422
October	258,862	73,992	184,870
November	255,971	66,076	189,895
December	202,525	59,428	143,097
1937			
January	176,209	51,679	124,530
February	156,504	48,808	107,696
March	172,942	47,325	125,617
April	177,214	50,938	126,276
May	202,546	50,783	151,763
June	178,702	48,739	129,963
July	160,896	45,709	115,187
August	166,954	41,065	125,889
September	136,242	37,783	98,459
October	125,986	32,642	93,344
November	84,308	15,198	69,110
December	76,839	12,477	64,362
1938			
January	79,379	9,685	69,694
February	72,014	7,904	64,110
March	84,695	8,510	76,185
April	89,747	8,610	81,137
May	97,075	8,519	88,556
June	96,570	7,615	88,955
July	93,234	8,712	84,522
August	103,887	20,606	83,281
September	104,748	28,630	76,118
October	155,822	40,174	115,648
November	173,122	41,622	131,500
December	190,446	41,330	149,116
1939			
January	210,268	38,813	171,455
February	213,173	39,588	173,585
March	239,397	43,738	195,659
April	264,215	43,199	221,016
May	287,347	45,301	242,046
June	303,217	41,387	261,830
July	260,729	38,351	222,378
August	298,231	34,461	263,770
September	229,589	31,337	198,252
October	214,685	26,540	188,145
November	178,919	27,542	151,377
December	129,763	17,711	112,052
1940			
January	79,236	13,572	65,664
February	81,865	12,769	69,096
March	88,634	11,124	77,510
April	88,270	10,065	78,205
May	90,676	10,297	80,379
June	81,920	10,537	71,383

[1] Average number of persons employed is computed as the mean of the weekly pay-roll counts made during the calendar month. Excludes supervisory and administrative employees of the project sponsors; Includes employment on PWA housing projects up to Nov. 1, 1937, when these projects were transferred to the U. S. Housing Authority.

TABLE 2. PUBLIC WORKS ADMINISTRATION.—*Average number*[1] *of persons employed at construction sites of all PWA projects, by State and by month, for fiscal year ending June 30, 1940*

State or Territory	1939					
	July	August	September	October	November	December
Total	260,729	298,231	229,589	214,685	177,919	129,763
Alabama	4,129	6,096	3,731	3,707	2,833	2,441
Arizona	1,472	1,246	566	420	367	317
Arkansas	1,433	2,095	1,236	1,568	1,439	1,058
California	9,486	9,953	7,225	6,677	4,125	3,990
Colorado	4,543	4,334	3,429	3,443	2,892	2,183
Connecticut	5,496	5,308	5,130	5,021	4,428	3,474
Delaware	902	1,264	1,026	451	207	69
District of Columbia	2,895	3,365	959	802	2,103	2,153
Florida	1,652	3,068	1,896	1,710	1,286	852
Georgia	4,819	4,488	2,743	3,233	3,100	2,933
Idaho	1,445	757	508	248	43	8
Illinois	11,407	16,382	12,831	12,732	8,988	8,837
Indiana	7,122	10,226	6,989	7,290	6,111	4,848
Iowa	2,928	5,974	4,119	3,189	2,461	1,653
Kansas	2,750	2,301	2,633	2,291	1,767	1,391
Kentucky	5,123	5,499	4,223	4,071	3,058	2,335
Louisiana	4,732	5,724	3,797	3,888	3,444	3,002
Maine	963	1,083	792	606	488	368
Maryland	5,191	6,543	5,148	5,042	14,324	3,662
Massachusetts	7,716	8,862	7,165	6,060	2,565	3,460
Michigan	27,522	11,615	8,916	8,240	6,265	3,972
Minnesota	9,040	9,491	6,716	5,331	4,106	2,756
Mississippi	5,845	7,250	6,724	6,206	4,753	1,587
Missouri	5,717	6,106	4,192	3,890	2,788	2,403
Montana	1,562	2,240	1,959	2,601	1,349	959
Nebraska	3,197	4,205	1,652	1,235	2,576	668
Nevada	207	279	193	144	87	141
New Hampshire	1,090	1,414	1,029	989	766	444
New Jersey	6,067	7,409	6,026	6,216	5,077	4,114
New Mexico	1,031	1,139	787	598	314	278
New York	20,219	24,161	25,099	23,930	19,057	16,487
North Carolina	5,995	6,784	5,336	4,620	3,531	3,174
North Dakota	1,691	1,603	944	418	289	187
Ohio	12,628	16,195	10,870	10,582	8,174	7,304
Oklahoma	5,120	5,424	4,427	3,637	3,199	2,811
Oregon	1,594	1,859	1,395	1,171	833	661
Pennsylvania	18,244	25,485	21,610	20,983	16,528	9,965
Rhode Island	1,248	2,087	1,596	1,587	1,468	1,234
South Carolina	4,432	6,429	4,103	3,849	2,441	1,719
South Dakota	499	598	365	371	240	218
Tennessee	3,000	3,442	2,416	2,151	1,391	1,129
Texas	8,550	11,899	7,928	6,118	4,780	3,697
Utah	1,151	1,106	906	725	858	505
Vermont	1,137	1,411	588	511	214	78
Virginia	7,870	8,959	6,364	5,773	5,124	3,937
Washington	5,505	5,371	4,612	4,376	7,591	3,034
West Virginia	3,323	6,052	4,699	3,167	2,381	1,510
Wisconsin	6,353	8,076	6,788	6,591	3,793	2,597
Wyoming	893	920	1,428	587	511	291
Alaska	114	68	----------	41	22	3
Hawaii	738	723	426	338	227	29
Puerto Rico	2,241	3,453	2,923	4,891	1,674	2,353
Virgin Islands	295	275	305	321	212	176
Various	407	135	121	48	271	308

[1] Average number of persons employed is computed as the mean of the weekly pay-roll counts made during the calendar month. Excludes supervisory and administrative employees of the project sponsors.

TABLE 2. PUBLIC WORKS ADMINISTRATION.—*Average number*[1] *of persons employed at construction sites of all PWA projects, by State and by month, for fiscal year ending June 30, 1940*—Continued

State or Territory	1940					
	January	February	March	April	May	June
Total	79,236	81,865	88,634	88,270	90,676	81,920
Alabama	1,674	1,507	1,675	1,087	448	708
Arizona	227	185	155	70	78	88
Arkansas	600	448	342	154	51	6
California	2,421	3,053	4,631	4,470	4,620	3,241
Colorado	1,691	1,616	1,419	1,376	1,164	1,171
Connecticut	2,469	1,662	1,752	1,967	1,827	1,812
Delaware	43	47	55	20	80	28
District of Columbia	2,230	1,999	1,023	800	925	1,139
Florida	831	762	784	520	419	440
Georgia	2,150	2,116	1,950	1,655	1,139	301
Idaho	19	9	21	7	19	19
Illinois	2,652	5,627	5,963	6,630	7,773	6,926
Indiana	3,434	2,720	2,703	2,560	2,708	2,239
Iowa	211	895	686	281	243	111
Kansas	751	947	1,067	822	663	321
Kentucky	618	1,086	1,591	1,448	1,343	1,128
Louisiana	14	2,001	1,870	1,133	683	159
Maine	33	239	227	217	204	234
Maryland	1,226	2,347	2,527	2,268	2,490	2,293
Massachusetts	328	2,448	2,234	2,436	2,602	2,399
Michigan	417	1,538	871	753	588	411
Minnesota	1,960	1,354	1,070	1,158	1,190	720
Mississippi	1,358	1,132	1,415	1,645	1,931	1,873
Missouri	1,411	1,388	1,555	1,279	819	753
Montana	709	685	555	643	530	442
Nebraska	404	720	727	1,485	1,591	1,535
Nevada	76	49	24	19	18	22
New Hampshire	289	265	149	138	223	253
New Jersey	2,737	2,810	2,919	3,221	2,820	2,395
New Mexico	236	177	359	237	425	562
New York	13,317	8,676	11,352	11,880	11,655	9,732
North Carolina	2,151	1,633	1,237	856	612	238
North Dakota	142	79	52	87	119	57
Ohio	4,778	4,301	4,029	4,720	4,963	4,809
Oklahoma	2,191	2,631	2,377	1,999	1,583	1,402
Oregon	523	309	363	314	335	348
Pennsylvania	7,257	6,830	8,507	11,190	16,816	17,178
Rhode Island	950	734	933	1,169	1,255	1,198
South Carolina	1,090	2,369	2,907	2,673	2,961	2,952
South Dakota	79	47	73	64	127	80
Tennessee	801	945	1,197	1,141	1,008	1,061
Texas	1,450	2,060	2,142	1,373	1,050	881
Utah	379	303	314	342	364	363
Vermont	30	36	2	5	12	13
Virginia	2,489	2,670	2,001	1,951	1,942	1,915
Washington	2,931	1,559	3,017	2,633	1,737	1,669
West Virginia	766	706	574	545	553	401
Wisconsin	1,496	671	762	844	706	374
Wyoming	167	124	164	117	109	118
Alaska			2	10	33	53
Hawaii	202					
Puerto Rico	2,257	2,815	3,641	3,477	2,729	2,920
Virgin Islands	322	406	360	266	280	237
Various	249	129	309	115	113	192

For footnote, see p. 308.

TABLE 3. PUBLIC WORKS ADMINISTRATION.—*Average number*[1] *of persons employed at construction sites of all PWA projects, by major type of project and by State, June 1939*

State or Territory	Total	Buildings	Sewer and water systems	Electric power (excluding water power)	Streets and highways	Heavy engineering structures	Flood control, water power, and reclamation	Aviation	Vessels	Miscellaneous
Total	303,217	171,152	36,602	6,930	48,007	12,608	9,215	2,563	1,071	15,069
Alabama	6,724	4,718	77	346	1,074	251	-------	-------	-------	258
Arizona	1,837	957	156	-------	267	-------	364	-------	-------	93
Arkansas	1,739	1,322	137	-------	21	-------	200	-------	-------	59
California	11,560	7,402	883	120	1,008	396	568	115	162	906
Colorado	4,927	3,325	329	28	288	90	666	46	-------	155
Connecticut	5,500	3,818	446	-------	885	174	93	-------	-------	84
Delaware	1,094	746	-------	-------	-------	13	-------	-------	232	103
District of Columbia	913	125	6	-------	-------	-------	-------	570	30	182
Florida	2,704	1,033	216	53	817	122	-------	334	-------	129
Georgia	4,535	2,980	417	-------	1,058	40	-------	-------	-------	40
Idaho	1,124	791	31	-------	189	-------	19	-------	-------	94
Illinois	25,537	17,454	2,800	7	2,744	1,686	-------	136	-------	710
Indiana	19,317	16,459	2,085	114	-------	85	-------	-------	-------	574
Iowa	5,836	3,090	596	214	1,517	167	-------	-------	65	187
Kansas	2,923	2,253	166	116	271	61	13	-------	-------	43
Kentucky	5,425	3,949	562	3	150	396	-------	-------	-------	365
Louisiana	5,354	4,443	485	63	140	-------	-------	-------	-------	223
Maine	1,426	703	244	-------	32	339	-------	-------	-------	108
Maryland	5,892	4,268	177	36	71	320	-------	-------	-------	1,020
Massachusetts	8,366	2,834	4,428	36	319	184	272	-------	59	234
Michigan	11,640	6,534	1,992	161	2,619	95	-------	81	-------	158
Minnesota	8,301	3,227	895	61	3,524	91	18	-------	-------	485
Mississippi	4,858	894	131	118	3,108	464	-------	-------	-------	143
Missouri	6,031	3,671	556	114	1,005	252	-------	108	-------	325
Montana	2,130	1,260	18	-------	10	-------	519	89	-------	234
Nebraska	3,221	920	151	128	159	54	1,697	-------	-------	112
Nevada	309	114	-------	-------	-------	-------	119	-------	-------	76
New Hampshire	998	485	169	-------	29	250	-------	-------	-------	65
New Jersey	7,318	3,344	753	528	1,051	1,311	29	-------	-------	302
New Mexico	1,838	812	222	-------	-------	-------	736	-------	-------	68
New York	24,357	11,982	3,187	-------	6,156	2,390	-------	-------	7	635
North Carolina	6,938	4,842	1,070	218	62	-------	75	5	-------	666
North Dakota	1,644	498	293	30	728	-------	7	-------	-------	88
Ohio	13,963	8,583	1,798	222	1,161	1,267	165	146	-------	621
Oklahoma	5,278	2,061	53	2,879	179	-------	20	-------	-------	86
Oregon	2,119	872	237	-------	552	40	12	-------	24	382
Pennsylvania	18,093	7,394	2,974	36	6,879	332	-------	-------	28	450
Rhode Island	1,565	606	483	-------	132	256	-------	13	-------	75
South Carolina	5,580	2,393	817	778	938	131	280	-------	5	238
South Dakota	743	453	85	19	112	-------	36	-------	-------	38
Tennessee	4,232	2,861	648	313	317	-------	-------	-------	-------	93
Texas	13,446	5,345	1,461	145	3,159	256	2,558	32	126	364
Utah	1,184	846	198	-------	-------	-------	107	-------	-------	33
Vermont	1,537	478	-------	-------	831	169	-------	-------	-------	59
Virginia	8,856	6,270	285	-------	443	55	-------	765	5	1,033
Washington	5,070	2,073	196	-------	947	517	554	115	155	513
West Virginia	5,667	3,325	335	11	1,917	60	-------	-------	-------	19
Wisconsin	7,635	3,702	2,587	29	581	168	-------	-------	173	395
Wyoming	886	424	195	3	10	-------	88	8	-------	158
Alaska	117	-------	16	1	100	-------	-------	-------	-------	-------
Hawaii	1,014	671	244	-------	-------	23	-------	-------	-------	76
Puerto Rico	3,245	1,490	312	-------	447	103	-------	-------	-------	893
Virgin Islands	271	52	-------	-------	-------	-------	-------	-------	-------	219
Various	400	-------	-------	-------	-------	-------	-------	-------	-------	400

For footnote, see PWA table 2.

TABLE 4. PUBLIC WORKS ADMINISTRATION.—*Average number*[1] *of persons employed at construction sites of all PWA projects, by major type of project and by State, June 1940*

State or Territory	Total	Buildings	Sewer and water systems	Electric power (excluding water power)	Streets and highways	Heavy engineering structures	Flood control, water power, and reclamation	Aviation	Vessels	Miscellaneous
Total	81,920	13,966	12,350	3,763	27,144	10,528	7,346	1,667	25	5,131
Alabama	708	348	5		5	338				12
Arizona	88		10		2		71			5
Arkansas	6									6
California	3,241	815	87		2,139		12			188
Colorado	1,171	286	5		422		446	5		7
Connecticut	1,814	619	155	18	826	152	44			
Delaware	28				3				25	
District of Columbia	1,139	536	2					522		79
Florida	438	10	5	110	20	126		98		69
Georgia	301	121			170					10
Idaho	89						16			73
Illinois	6,856	705	1,882	6	530	3,609				124
Indiana	2,239	257	1,513	5	454					10
Iowa	111	17	24	66	3					1
Kansas	321	33	208	8	65					7
Kentucky	1,128	136	26	16	607	164				179
Louisiana	159	155								4
Maine	234	175	42		6					11
Maryland	2,264	147	269		546	827				475
Massachusetts	2,428	141	2,109		127		2			49
Michigan	411	13	166	90	113					29
Minnesota	720	360	306		20		31			3
Mississippi	1,873	92	113		761	904				3
Missouri	753	496	176		9					72
Montana	442		45		55		336			6
Nebraska	1,535	98		22	3		1,402			10
Nevada	22		6				13			3
New Hampshire	253					253				
New Jersey	2,395	1,080	345	239	233	465				33
New Mexico	562	10	4				532			16
New York	9,732	4,125	553	31	3,499	1,367				157
North Carolina	238	142	47		26					23
North Dakota	57	17	15		8					17
Ohio	4,809	645	1,795	230	949	350	33	425		382
Oklahoma	1,402			1,302	70		11			19
Oregon	348		55		51					242
Pennsylvania	17,178	994	1,199		14,437	289				259
Rhode Island	1,198	102	526		25	513				32
South Carolina	2,952	59	129	506	68		2,179			11
South Dakota	80				44		23			13
Tennessee	1,061	1		1,058	2					
Texas	881	2	1	56	112		660			50
Utah	363	99	1		3		259			1
Vermont	1					1				
Virginia	1,869	512	48		257			617		435
Washington	1,225		44		94	1,000				87
West Virginia	903	37			364					502
Wisconsin	358	273	71							14
Wyoming	134	116	2		16					
Alaska	53									53
Puerto Rico	2,920	75	361			170	1,276			1,038
Virgin Islands	237	117								120
Various	192									192

For footnote, see PWA table 2.

TABLE 5. PUBLIC WORKS ADMINISTRATION.—*Hours worked, earnings of workers, and average hourly earnings at construction sites[1] for Federal and non-Federal PWA projects, by State, for fiscal year ending June 30, 1940*

State or Territory	Total			Federal projects			Non-Federal projects		
	Hours worked	Earnings	Average hourly earnings	Hours worked	Earnings	Average hourly earnings	Hours worked	Earnings	Average hourly earnings
Total	225,424,320	$206,234,491	$0.91	27,235,700	$25,232,650	$0.93	198,188,620	$181,001,841	$0.91
Alabama	3,431,508	2,472,783	.72	50,731	39,570	.78	3,380,777	2,433,213	.72
Arizona	552,278	454,861	.82	278,291	205,935	.74	273,987	248,926	.91
Arkansas	1,341,631	910,068	.68	32,010	24,008	.75	1,309,621	886,060	.68
California	6,763,933	6,779,269	1.00	1,387,271	1,317,907	.95	5,376,662	5,461,362	1.02
Colorado	3,176,134	3,150,430	.99	1,425,081	1,396,579	.98	1,751,053	1,753,851	1.00
Connecticut	5,199,298	5,104,449	.98	579,211	567,627	.98	4,620,087	4,536,822	.98
Delaware	429,648	390,254	.91	126,813	103,987	.82	302,835	286,267	.95
District of Columbia	2,402,464	2,171,804	.90	1,177,885	812,741	.69	1,224,579	1,359,063	1.11
Florida	1,709,239	1,094,184	.64	480,145	393,719	.82	1,229,094	700,465	.57
Georgia	3,660,350	2,352,622	.64	206,112	113,362	.55	3,454,238	2,239,260	.65
Idaho	305,364	276,016	.90	62,601	55,088	.88	242,763	220,928	.91
Illinois	13,758,523	16,681,794	1.21	1,465,491	1,656,005	1.13	12,293,032	15,025,789	1.22
Indiana	7,263,739	7,894,418	1.09	570,016	615,617	1.08	6,693,723	7,278,801	1.09
Iowa	2,742,535	2,297,028	.84	204,794	169,979	.83	2,537,741	2,127,049	.84
Kansas	2,212,609	1,969,993	.89	292,598	239,930	.82	1,920,011	1,730,063	.90
Kentucky	3,696,639	3,105,618	.84	754,392	731,760	.97	2,942,247	2,373,858	.81
Louisiana	3,524,799	2,745,666	.78	15,802	11,535	.73	3,508,997	2,734,131	.78
Maine	643,599	477,362	.74	97,824	68,477	.70	545,775	408,885	.75
Maryland	4,889,558	5,088,850	1.04	1,909,299	2,023,857	1.06	2,980,259	3,064,993	1.03
Massachusetts	6,494,475	6,085,240	.94	598,141	538,327	.90	5,896,334	5,546,913	.94
Michigan	8,820,364	6,160,671	.70	346,790	291,304	.84	8,473,574	5,869,367	.69
Minnesota	5,349,622	4,840,226	.90	86,372	74,280	.86	5,263,250	4,765,946	.91
Mississippi	5,217,118	2,928,162	.56	31,046	22,664	.73	5,186,072	2,905,498	.56
Missouri	3,635,064	3,337,273	.92	125,073	103,811	.83	3,509,991	3,233,462	.92
Montana	1,784,071	1,695,074	.95	608,714	511,320	.84	1,175,357	1,183,754	1.01
Nebraska	2,786,417	1,904,510	.68	49,815	36,863	.74	2,736,602	1,867,647	.68
Nevada	139,742	126,336	.90	94,973	79,777	.84	44,769	46,559	1.04
New Hampshire	935,380	963,471	1.03				935,380	963,471	1.03
New Jersey	6,473,215	7,942,628	1.23	455,954	551,704	1.21	6,017,261	7,390,924	1.23
New Mexico	716,810	501,236	.70	415,059	244,885	.59	301,751	256,351	.85

New York	24,191,449	29,785,411	1.23	1,234,911	1,580,686	1.28	22,956,538	28,204,725	1.23
North Carolina	4,483,621	2,761,007	.62	157,749	94,649	.60	4,325,872	2,666,358	.62
North Dakota	637,303	473,168	.74	66,868	45,470	.68	570,435	427,698	.75
Ohio	11,175,734	11,485,877	1.03	1,079,675	1,166,049	1.08	10,096,059	10,319,828	1.02
Oklahoma	5,177,016	4,181,867	.81	310,425	254,549	.82	4,866,591	3,927,318	.81
Oregon	1,249,567	1,180,626	.94	571,872	537,560	.94	677,695	643,066	.95
Pennsylvania	25,287,946	21,843,359	.86	575,091	575,091	1.00	24,712,855	21,268,268	.86
Rhode Island	2,073,824	1,891,134	.91	58,898	57,131	.97	2,014,926	1,834,003	.91
South Carolina	4,979,944	2,943,385	.59	387,167	301,990	.78	4,592,777	2,641,395	.58
South Dakota	336,522	229,774	.68	95,343	52,439	.55	241,179	177,335	.74
Tennessee	2,528,967	1,869,633	.74	286,399	211,935	.74	2,242,568	1,657,698	.74
Texas	6,832,810	4,598,884	.67	1,784,789	1,463,527	.82	5,048,021	3,135,357	.62
Utah	946,548	860,915	.91	491,723	442,551	.90	454,825	418,364	.92
Vermont	523,123	370,037	.70	34,196	22,227	.65	488,927	347,810	.71
Virginia	5,831,363	4,537,443	.78	2,615,965	2,223,570	.85	3,215,398	2,313,873	.72
Washington	5,185,247	5,943,647	1.15	2,737,348	2,819,468	1.03	2,447,899	3,124,179	1.28
West Virginia	2,976,739	2,327,405	.78	27,615	20,159	.73	2,949,124	2,307,246	.78
Wisconsin	4,757,460	4,712,391	.99	93,867	76,032	.81	4,663,593	4,636,359	.99
Wyoming	581,642	522,844	.90	135,101	98,624	.73	446,541	424,220	.95
Territories	5,337,331	1,681,850	.32	288,356	54,787	.19	5,048,975	1,627,063	.32
Various	274,038	131,538	.48	274,038	131,538	.48			

[1] The supervisory and administrative employees of the project sponsors are not included in the above figures.

TABLE 6. PUBLIC WORKS ADMINISTRATION.—*Hours worked, earnings of workers, and average hourly earnings at construction sites [1] for Federal and non-Federal PWA projects, United States and Territories, by major type of project, for fiscal year ending June 30, 1940*

Major type	Total			Federal projects			Non-Federal projects		
	Hours worked	Earnings	Average hourly earnings	Hours worked	Earnings	Average hourly earnings	Hours worked	Earnings	Average hourly earnings
Total	225,424,320	$206,234,491	$0.91	27,235,700	$25,232,650	$0.93	198,188,620	$181,001,841	$0.91
Buildings	98,963,844	99,394,369	1.00	15,043,517	15,493,952	1.03	83,920,327	83,900,417	1.00
Sewer and water systems	31,644,212	26,753,785	.85	237,662	116,454	.49	31,406,550	26,637,331	.85
Electric power (excluding water power)	8,473,883	6,289,096	.74				8,473,883	6,289,096	.74
Streets and highways	40,552,719	31,089,628	.77	146,534	101,108	.69	40,406,185	30,988,520	.77
Heavy engineering structures	20,596,031	24,113,857	1.17				20,596,031	24,113,857	1.17
Flood control, water power and reclamation	11,170,601	7,447,671	.67	3,567,890	2,925,670	.82	7,602,711	4,522,001	.59
Aviation	2,648,971	1,671,824	.63	2,567,876	1,592,083	.62	81,095	79,741	.98
Vessels	356,614	320,953	.90	356,614	320,953	.90			
Miscellaneous	11,017,445	9,153,308	.83	5,315,607	4,682,430	.88	5,701,838	4,470,878	.78

[1] The supervisory and administrative employees of the project sponsors are not included in the above figures.

TABLE 7. PUBLIC WORKS ADMINISTRATION.—*Value of material orders placed on all PWA projects, United States and Territories, by type of material, cumulative July 1933 through June 1940 and for fiscal year ending June 30, 1940*

Type of material	Cumulative, July 1933–June 1940	For the fiscal year ending June 30, 1940
Total	$2,678,592,930	$341,849,505
Textiles and their products	6,657,657	1,578,979
Awnings, tents canvas, etc	362,116	16,010
Carpets and rugs	424,939	192,752
Cordage and twine	459,847	41,541
Cotton products	210,024	12,468
Felt products	304,492	22,481
Jute products	164,031	17,482
Linoleum and asphalted-felt-base floor covering	3,558,861	901,716
Sacks and bags, other than paper	62,623	3,599
Upholstering, filling, batting, padding, and wadding	143,201	1,622
Waste and related products	43,464	2,732
Textiles and their products, n. e. c.[1]	924,059	366,576
Forest products	237,864,776	48,065,706
Cork products	1,034,072	289,191
Furniture and related products	60,170,797	29,660,303
Lumber and timber products, n. e. c	128,615,956	9,488,596
Planing-mill products	46,483,314	8,308,513
Window and door screens and weatherstrip	975,200	302,569
Forest products, n. e. c	585,437	16,534
Chemicals and allied products	26,239,023	5,281,165
Ammunition and related products	1,227,403	300
Compressed and liquefied gases	743,590	115,367
Explosives	10,050,273	1,350,228
Paints, pigments and varnishes	11,882,220	2,126,482
Chemicals and allied products, n. e. c	2,335,537	1,688,788
Stone, clay, and glass products	764,290,500	88,725,213
Asbestos products, n. e. c	1,127,913	180,772
Brick, hollow tile and other clay products, n. e. c	102,711,202	13,703,499
Cement	239,187,127	18,575,135
Concrete products	108,073,496	18,376,113
Crushed stone	64,016,097	4,873,814
Glass	8,067,175	1,682,292
Lime	1,114,853	135,629
Marble, granite, slate, and other stone, cut and shaped	60,662,042	10,589,998
Minerals and earths, ground or otherwise treated	375,990	20,586
Sand and gravel	129,649,679	10,342,637
Steam and other packing, pipe and boiler covering and gaskets	5,274,007	1,197,209
Tiling, floor and wall, and terrazzo	15,805,637	3,550,942
Wall plaster, wallboard, and building insulation	22,565,949	4,088,690
Stone, clay and glass products, n. e. c	5,659,333	1,407,897

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TABLE 7. PUBLIC WORKS ADMINISTRATION.—*Value of material orders placed on all PWA projects, United States and Territories, by type of material, cumulative July 1933 through June 1940 and for fiscal year ending June 30, 1940*—Continued

Type of material	Cumulative, July 1933–June 1940	For the fiscal year ending June 30, 1940
Iron and steel and their products, not including machinery	$820, 584, 013	$107, 501, 360
Bolts, nuts, washers, and rivets	8, 066, 506	714, 442
Doors, shutters, window sash and frames, molding and trim, metal	37, 278, 127	5, 417, 545
Firearms	808, 221	
Forgings, iron and steel	10, 603, 251	1, 052, 185
Hardware, miscellaneous	29, 503, 213	4, 597, 278
Heating and ventilating equipment, except pipe	90, 252, 875	15, 345, 802
Nails and spikes	4, 054, 121	437, 179
Pipe and fittings, cast-iron	80, 219, 159	7, 291, 536
Pipe and fittings, wrought-iron and steel	26, 918, 978	7, 939, 978
Plumbing fixtures and supplies, except pipe	56, 891, 602	7, 029, 578
Rail fastenings, except spikes	6, 661, 504	10, 379
Rails, steel	24, 148, 676	179, 730
Springs, steel	633, 014	2, 751
Steel, reinforcing	90, 560, 752	11, 244, 274
Steel, structural	204, 642, 820	36, 664, 456
Stoves and ranges, other than electric	1, 027, 958	136, 815
Switches, railway	1, 247, 887	1, 465
Tools, other than machine tools	7, 933, 495	920, 758
Wire and wireworks products	14, 737, 795	1, 434, 204
Iron and steel and their products, n. e. c	124, 394, 059	7, 081, 005
Nonferrous metals and their products	28, 812, 951	6, 084, 089
Aluminum products	1, 592, 341	385, 165
Copper products	4, 769, 937	1, 378, 412
Lead products	1, 100, 873	93, 883
Sheet-metal products	17, 623, 978	3, 868, 096
Zinc products	79, 640	2, 038
Nonferrous metals and their products, n. e. c	3, 646, 182	356, 495
Machinery, not including transportation equipment	496, 488, 392	60, 619, 508
Electrical machinery, apparatus and supplies	115, 465, 113	15, 731, 959
Electrical wiring and fixtures	77, 209, 961	15, 205, 161
Elevators and elevator equipment	16, 170, 824	3, 631, 503
Engines, turbines, tractors, and water wheels	41, 452, 958	5, 687, 826
Machine tools	10, 253, 258	1, 102, 728
Meters, (gas, water, etc.) and gas generators	2, 474, 375	321, 782
Pumps and pumping equipment	30, 618, 288	3, 199, 824
Radio apparatus and supplies	1, 256, 947	132, 775
Refrigerators and refrigerating and ice-making apparatus	4, 875, 234	685, 848
Machinery, n. e. c	196, 711, 434	14, 920, 102

TABLE 7. PUBLIC WORKS ADMINISTRATION.—*Value of material orders placed on all PWA projects, United States and territories, by type of material, cumulative July 1933 through June 1940 and for fiscal year ending June 30, 1940*—Continued

Type of material	Cumulative, July 1933–June 1940	For the fiscal year ending June 30, 1940
Transportation equipment, air, land, and water	$93,896,142	$746,709
Aircraft	6,036,370	----
Aircraft parts	5,086,400	----
Boats, steel and wooden	1,671,729	13,822
Carriages and wagons	84,843	19,139
Locomotives, other than steam	11,931,427	----
Locomotives, steam	6,942,922	64,316
Motorcycles and parts	274,395	----
Motor vehicles, passenger	567,537	29,218
Motor vehicles, trucks	11,309,809	522,038
Railway cars, freight	38,820,468	----
Railway cars, mail and express	429,443	----
Railway cars, passengers	8,893,300	----
Transportation equipment, n. e. c.	1,847,499	98,176
Miscellaneous	203,759,476	23,246,776
Belting, miscellaneous	102,541	1,407
Coal and coke	3,174,464	509,817
Creosote	554,802	608
Instruments, professional and scientific	3,323,891	785,468
Mattresses and bedsprings	389,449	189,630
Models and patterns	72,421	5,990
Paper products	297,055	34,337
Paving materials, asphalt, tar, crushed slag, and mixtures	35,095,234	4,154,070
Petroleum products	60,721,458	5,184,228
Photographic apparatus and supplies	928,428	500,885
Roofing: built-up, and roll, asphalt shingles and roof coatings, except paint	16,604,883	1,737,642
Rubber products	2,220,549	643,968
Theatrical scenery and stage equipment	1,169,777	369,931
Window shades and fixtures	1,208,337	207,558
Other materials	77,896,187	8,921,237

[1] N. e. c. signifies "not elsewhere classified."

Source: Bureau of Labor Statistics, Dept. of Labor.

TABLE 8A. PUBLIC WORKS ADMINISTRATION.—*Allotments, estimated total cost, construction expenditures, and disbursements for all PWA projects, by State, as of June 30, 1940*

State or Territory	Number of projects	Allotments			Estimated total cost	Construction expenditures [1]	Disbursements		
		Total	Loan	Grant			Total	Loan	Grant [2]
Total	[3] 34,512	$4,243,445,664	$819,005,472	$3,424,440,192	$6,140,073,445	$5,765,560,616	$3,949,042,770	$778,240,408	$3,170,802,362
Alabama	631	50,802,146	15,614,633	35,187,513	66,510,157	64,141,020	48,196,659	15,341,607	32,855,052
Arizona	537	57,701,527	5,324,650	52,376,877	63,576,463	61,570,283	56,474,982	5,319,940	51,155,042
Arkansas	507	45,140,980	11,856,589	33,284,391	52,341,468	51,720,248	44,600,624	11,747,136	32,853,488
California	1,621	195,436,554	24,837,108	170,599,446	317,836,107	310,914,074	189,640,536	24,653,542	164,986,994
Colorado	513	45,603,587	2,767,543	42,836,044	72,112,904	69,046,054	42,962,153	2,598,429	40,363,724
Connecticut	370	47,254,347	60,867	47,193,480	89,951,508	84,832,647	42,103,646	60,867	42,042,779
Delaware	124	10,090,174	2,332,687	7,757,487	15,150,325	14,915,275	9,934,605	2,340,507	7,594,098
District of Columbia	393	124,993,493	20,364,718	104,628,775	125,126,924	115,967,638	115,042,665	17,370,941	97,671,724
Florida	518	59,900,492	17,531,951	42,368,541	68,369,737	65,457,469	58,634,339	17,520,251	41,114,088
Georgia	918	48,194,895	3,044,916	45,149,979	68,112,955	66,370,232	46,269,573	2,992,533	43,277,040
Idaho	337	20,506,890	1,086,326	19,420,564	25,424,230	24,921,349	20,060,656	1,075,191	118,985,465
Illinois	1,280	258,800,235	68,698,725	190,101,510	404,315,470	362,636,192	231,244,217	69,550,193	61,694,024
Indiana	738	86,760,459	24,411,730	62,348,729	137,226,115	131,579,595	81,903,417	24,462,580	57,440,837
Iowa	902	48,891,016	1,876,058	47,014,958	79,052,867	77,404,262	47,712,737	1,938,628	45,774,109
Kansas	790	46,973,626	5,399,750	41,573,876	74,658,124	73,716,629	45,851,078	5,378,246	40,472,832
Kentucky	600	49,853,339	6,582,365	43,270,974	75,818,946	70,848,375	46,210,251	6,352,938	39,857,313
Louisiana	456	51,144,800	4,662,203	46,482,597	79,439,250	78,054,082	50,312,289	4,672,887	45,639,402
Maine	387	28,148,151	357,531	27,790,620	34,245,476	[4] 32,488,526	27,351,319	357,531	26,993,779
Maryland	606	85,318,838	21,124,045	64,194,793	125,413,099	117,953,259	81,356,482	21,093,145	60,263,337
Massachusetts	637	114,522,195	7,470,874	107,051,321	193,241,694	181,439,356	107,963,232	7,470,494	100,492,738
Michigan	851	91,461,038	9,786,319	81,674,719	147,244,521	137,733,291	82,334,292	9,783,955	72,550,337
Minnesota	985	65,348,582	3,190,842	62,157,740	116,518,124	110,256,984	60,540,616	3,207,097	57,333,519
Mississippi	540	56,971,264	6,677,728	50,293,536	90,296,820	87,065,155	53,678,912	6,636,259	47,042,653
Missouri	920	89,105,687	8,867,448	80,238,239	160,358,138	155,337,776	85,945,176	8,738,005	77,207,171
Montana	561	91,690,545	9,884,642	81,805,903	99,475,512	98,666,820	90,552,306	9,682,256	80,870,050

Nebraska	554	96,400,883	40,960,180	56,440,703	109,656,565	102,683,626	89,925,118	40,874,300	49,050,818
Nevada	189	32,047,860	1,081,253	30,966,607	33,774,389	33,055,992	31,444,519	1,069,453	30,375,066
New Hampshire	190	10,966,808	1,917,535	9,049,273	20,451,848	19,265,707	10,186,563	1,910,900	8,275,663
New Jersey	591	143,558,943	24,353,624	119,205,319	192,674,381	178,803,312	133,431,719	23,996,170	109,435,549
New Mexico	413	28,835,281	2,738,172	26,097,109	33,017,120	30,260,260	26,348,385	2,750,581	23,597,804
New York	1,441	481,791,078	170,672,004	311,119,074	743,014,866	692,414,547	438,209,859	161,165,543	277,044,316
North Carolina	903	62,434,805	12,666,625	49,768,180	86,137,289	77,519,748	55,639,320	9,041,576	46,597,744
North Dakota	625	15,115,696	1,642,027	13,473,669	21,728,875	20,955,623	14,970,116	1,635,953	13,334,163
Ohio	1,580	188,191,741	25,452,273	162,739,468	294,832,810	262,333,901	170,685,234	24,756,592	145,928,642
Oklahoma	704	65,174,908	18,319,302	46,855,606	78,728,593	71,477,572	60,941,009	17,179,768	43,761,241
Oregon	617	68,559,469	4,929,688	62,629,781	81,067,963	78,310,048	65,866,803	4,933,921	60,932,882
Pennsylvania	1,592	284,266,045	89,224,210	195,041,835	472,801,356	447,071,521	256,059,274	87,552,365	168,506,909
Rhode Island	172	25,082,474	1,318,835	23,763,639	45,828,226	43,132,732	22,919,326	1,315,852	21,603,474
South Carolina	533	89,406,109	33,307,253	56,098,856	102,451,256	69,376,540	59,283,143	16,128,657	43,154,486
South Dakota	524	17,683,544	3,146,171	14,537,373	22,289,556	21,145,409	17,465,961	2,994,534	14,471,427
Tennessee	555	60,017,471	8,729,834	51,287,637	89,435,426	81,154,234	54,289,403	8,756,657	45,532,746
Texas	1,750	177,955,903	53,602,423	124,353,480	232,147,548	218,012,076	169,767,134	51,876,374	117,890,760
Utah	420	27,171,052	2,539,429	24,631,623	35,761,236	34,535,006	26,292,107	2,536,293	23,755,814
Vermont	212	7,202,006	190,897	7,011,109	12,034,601	11,471,394	7,100,618	190,592	6,910,026
Virginia	1,089	118,275,921	9,606,876	108,669,045	145,712,399	140,359,931	114,849,311	9,584,941	105,264,370
Washington	920	112,853,990	2,618,184	110,235,806	161,078,835	158,918,148	108,626,367	2,526,072	106,100,295
West Virginia	329	53,661,988	9,976,399	43,685,589	72,999,252	72,258,430	52,223,086	9,977,039	42,246,047
Wisconsin	796	68,985,084	3,507,317	65,477,767	118,861,612	113,462,921	66,136,944	3,504,217	62,632,727
Wyoming	373	25,170,276	1,440,300	23,729,976	28,733,188	27,881,738	24,746,678	1,396,900	23,349,778
Alaska	255	5,974,424	547,200	5,427,224	7,090,727	7,002,589	5,842,835	547,500	5,295,335
Hawaii	162	21,669,163	429,800	21,239,363	28,299,339	27,597,564	21,511,954	423,000	21,088,954
Puerto Rico	84	19,118,026	8,275,413	10,842,613	22,319,024	18,192,272	15,600,746	7,269,500	8,331,246
Virgin Islands	43	4,699,882		4,699,882	4,768,257	4,181,399	4,112,700		4,112,700
Canal Zone	52	7,845,247		7,845,247	7,845,247	7,841,012	7,841,012		7,841,012
Philippine Islands	4	78,841		78,841	78,841	78,737	78,737		78,737
Various	86	52,635,886	2,000,000	50,635,886	52,635,886	49,770,036	49,770,036	2,000,000	47,770,036

[1] Construction expenditures represent the cost of materials placed (including the cost of labor performed) and miscellaneous costs for that portion of the work completed. Figures subject to revision pending adjustment to final audited projects costs.

[2] Includes construction expenditures on Federal PWA projects. Actual disbursements of Federal funds for Federal PWA projects are not available. Expenditures (which represent the cost of materials in place, including the cost of labor performed, and miscellaneous costs for that portion of the work completed), as reported by the Government agencies under whose supervision the projects were constructed, are used in lieu of disbursements.

[3] Includes 32 railroad projects which are not distributed by State. However, the dollar amounts for these projects are distributed.

TABLE 8B. PUBLIC WORKS ADMINISTRATION.—*Allotments, estimated total cost, construction expenditures, and disbursements for non-Federal PWA projects, by State, as of June 30, 1940*

State or Territory	Number of projects	Allotments			Estimated total cost[1]	Construction expenditures[1]	Disbursements		
		Total	Loan	Grant			Total	Loan	Grant
Total	[2] 16,640	$2,328,735,933	$819,005,472	$1,509,730,461	$4,225,363,714	$3,909,423,160	$2,092,905,314	$778,240,408	$1,314,664,906
Alabama	330	33,484,976	15,614,633	17,870,343	49,192,987	47,277,966	31,333,605	15,341,607	15,991,998
Arizona	122	11,985,038	5,324,650	6,660,388	17,859,974	16,818,493	11,723,192	5,319,940	6,403,252
Arkansas	235	22,665,941	11,856,589	10,809,352	29,866,429	29,278,109	22,158,485	11,747,136	10,411,349
California	807	106,457,449	24,837,108	81,620,341	228,857,002	222,750,616	101,477,078	24,653,542	76,823,536
Colorado	205	22,263,834	2,767,543	19,496,291	48,773,151	47,165,998	21,082,097	2,598,429	18,483,668
Connecticut	261	27,489,061	60,867	27,428,194	70,186,222	65,341,866	22,612,865	60,867	22,551,998
Delaware	43	5,209,861	2,332,687	2,877,174	10,270,012	10,053,847	5,073,177	2,340,507	2,732,670
District of Columbia	6	30,541,033	20,364,718	10,176,315	30,674,464	26,014,070	25,089,097	17,370,941	7,718,156
Florida	231	31,778,896	17,531,951	14,246,945	40,248,141	37,710,237	30,887,107	17,520,251	13,366,856
Georgia	516	19,803,541	3,044,916	16,758,625	39,721,601	38,544,114	18,443,455	2,992,533	15,450,922
Idaho	154	5,373,184	1,086,326	4,286,858	10,290,524	10,128,311	5,267,618	1,075,191	4,192,427
Illinois	809	187,420,695	68,698,725	118,721,970	332,935,930	295,594,656	164,202,681	69,550,193	94,652,488
Indiana	477	62,626,258	24,411,730	38,214,528	113,091,914	108,922,736	59,246,558	24,462,580	34,783,978
Iowa	598	23,568,282	1,876,058	21,692,224	53,730,133	52,093,917	22,402,392	1,938,628	20,463,764
Kansas	450	26,453,518	5,399,750	21,053,768	54,138,016	53,292,223	25,426,672	5,378,246	20,048,426
Kentucky	294	26,240,444	6,582,365	19,658,079	52,206,051	48,231,860	23,593,736	6,352,938	17,240,798
Louisiana	228	24,375,210	4,662,203	19,713,007	52,669,660	51,137,054	23,395,261	4,672,887	18,722,374
Maine	84	4,757,159	357,531	4,399,628	10,854,484	9,111,446	3,974,230	357,531	3,616,699
Maryland	142	49,497,457	21,124,045	28,373,412	89,591,718	83,026,671	46,429,894	21,093,145	25,336,749
Massachusetts	392	56,597,932	7,470,874	49,127,058	135,317,431	125,401,929	51,925,805	7,470,494	44,455,311
Michigan	461	56,794,593	9,786,319	47,008,274	112,578,076	109,053,697	53,654,698	9,783,955	43,870,743
Minnesota	563	36,257,602	3,190,842	33,066,760	87,427,144	83,622,004	33,905,636	3,207,097	30,698,539
Mississippi	231	36,320,091	6,677,728	29,642,363	69,645,647	66,463,638	33,077,395	6,636,259	26,441,136
Missouri	559	48,899,906	8,867,448	40,032,458	120,152,357	115,169,619	45,777,019	8,738,005	37,039,014
Montana	161	20,530,078	9,884,642	10,645,436	28,315,045	27,661,553	19,547,039	9,682,256	9,864,783

Nebraska	304	74,277,005	40,960,180	33,316,825	86,532,687	80,340,991	67,582,483	40,874,300	26,708,183
Nevada	42	2,476,725	1,081,253	1,395,472	4,203,254	4,067,500	2,456,027	1,069,453	1,386,574
New Hampshire	112	8,306,116	1,917,535	6,388,581	17,791,156	16,605,714	7,526,570	1,910,900	5,615,670
New Jersey	317	68,204,287	24,353,624	43,850,663	117,319,725	105,105,283	59,733,690	23,996,170	35,737,520
New Mexico	96	7,457,351	2,738,172	4,719,179	11,639,190	11,256,341	7,344,466	2,750,581	4,593,885
New York	762	367,098,794	170,672,004	196,426,790	628,322,582	582,595,424	328,390,736	161,165,543	167,225,193
North Carolina	352	38,332,976	12,666,625	25,666,351	62,035,460	53,672,841	31,792,413	9,041,576	22,750,837
North Dakota	193	6,819,674	1,642,027	5,177,647	13,432,853	12,691,396	6,705,889	1,635,953	5,069,936
Ohio	1,058	105,105,352	25,452,273	79,653,079	211,746,421	184,842,004	93,193,337	24,756,592	68,436,745
Oklahoma	302	41,216,945	18,319,302	22,897,643	54,770,630	47,847,203	37,310,640	17,179,768	20,130,872
Oregon	290	16,939,428	4,929,688	12,009,740	30,447,922	29,091,813	16,648,568	4,933,921	11,714,647
Pennsylvania	784	206,945,358	89,224,210	117,721,148	395,480,669	369,870,124	178,857,877	87,552,365	91,305,512
Rhode Island	87	15,707,564	1,318,835	14,388,729	36,453,316	33,834,947	13,621,541	1,315,852	12,305,689
South Carolina	243	66,169,323	33,307,253	32,862,070	79,214,470	46,514,665	36,421,268	16,128,657	20,292,611
South Dakota	167	7,463,697	3,146,171	4,317,526	12,069,709	10,993,453	7,314,005	2,994,534	4,319,471
Tennessee	277	33,607,979	8,729,834	24,878,145	63,025,934	58,008,911	31,144,080	8,756,657	22,387,423
Texas	910	113,748,313	53,602,423	60,145,890	167,939,958	154,492,789	106,247,847	51,876,374	54,371,473
Utah	182	9,399,497	2,539,429	6,860,068	17,989,681	17,380,124	9,137,225	2,536,293	6,600,932
Vermont	104	3,445,236	190,897	3,254,339	8,277,831	7,732,223	3,361,447	190,592	3,170,855
Virginia	350	32,796,966	9,606,876	23,190,090	60,233,444	56,866,019	31,355,399	9,584,941	21,770,458
Washington	496	34,494,522	2,618,184	31,876,338	82,719,367	81,628,973	31,337,192	2,526,072	28,811,120
West Virginia	149	25,571,784	9,976,399	15,595,385	44,909,048	44,170,752	24,135,408	9,977,039	14,158,369
Wisconsin	462	37,061,392	3,507,317	33,554,075	86,937,920	81,904,097	34,578,120	3,504,217	31,073,903
Wyoming	58	4,631,469	1,440,300	3,191,169	8,194,381	7,486,690	4,351,630	1,396,900	2,954,730
Alaska	33	1,632,033	547,200	1,084,833	2,748,336	2,730,721	1,570,967	547,500	1,023,467
Hawaii	57	4,908,250	429,800	4,478,450	11,538,426	10,879,305	4,793,695	423,000	4,370,695
Puerto Rico	59	15,377,975	8,275,413	7,102,562	18,578,973	14,737,633	12,146,107	7,269,500	4,876,607
Virgin Islands	3	147,883		147,883	216,258	208,594	139,895		139,895
Various		2,000,000	2,000,000		2,000,000	2,000,000	2,000,000	2,000,000	

[1] Construction expenditures represent the cost of materials placed (including the cost of labor performed) and miscellaneous costs for that portion of the work completed. Estimated total cost and construction expenditures have not been adjusted to final audited project costs. The amount of this adjustment to date is approximately $96,000,000.

[2] Includes 32 railroad projects which are not distributed by State. However, dollar amounts for these projects are distributed.

TABLE 8C. PUBLIC WORKS ADMINISTRATION.—*Allotments and construction expenditures for Federal PWA projects, by State, as of June 30, 1940*

State or Territory	Number of projects	Allotments	Construction expenditures [1]
Total	17,872	$1,914,709,731	$1,856,137,456
Alabama	301	17,317,170	16,863,054
Arizona	415	45,716,489	44,751,790
Arkansas	272	22,475,039	22,442,139
California	814	88,979,105	88,163,458
Colorado	308	23,339,753	21,880,056
Connecticut	109	19,765,286	19,490,781
Delaware	81	4,880,313	4,861,428
District of Columbia	387	94,452,460	89,953,568
Florida	287	28,121,596	27,747,232
Georgia	402	28,391,354	27,826,118
Idaho	183	15,133,706	14,793,038
Illinois	471	71,379,540	67,041,536
Indiana	261	24,134,201	22,656,859
Iowa	304	25,322,734	25,310,345
Kansas	340	20,520,108	20,424,406
Kentucky	306	23,612,895	22,616,515
Louisiana	228	26,769,590	26,917,028
Maine	303	23,390,992	23,377,080
Maryland	464	35,821,381	34,926,588
Massachusetts	245	57,924,263	56,037,427
Michigan	390	34,666,445	28,679,594
Minnesota	422	29,090,980	26,634,980
Mississippi	309	20,651,173	20,601,517
Missouri	361	40,205,781	40,168,157
Montana	400	71,160,467	71,005,267
Nebraska	250	23,123,878	22,342,635
Nevada	147	29,571,135	28,988,492
New Hampshire	78	2,660,692	2,659,993
New Jersey	274	75,354,656	73,698,029
New Mexico	317	21,377,930	19,003,919
New York	679	114,692,284	109,819,123
North Carolina	551	24,101,829	23,846,907
North Dakota	432	8,296,022	8,264,227
Ohio	522	83,086,389	77,491,897
Oklahoma	402	23,957,963	23,630,369
Oregon	327	50,620,041	49,218,235
Pennsylvania	808	77,320,687	77,201,397
Rhode Island	85	9,374,910	9,297,785
South Carolina	290	23,236,786	22,861,875
South Dakota	357	10,219,847	10,151,956
Tennessee	278	26,409,492	23,145,323
Texas	840	64,207,590	63,519,287
Utah	238	17,771,555	17,154,882
Vermont	108	3,756,770	3,739,171
Virginia	739	85,478,955	83,493,912
Washington	424	78,359,468	77,289,175
West Virginia	180	28,090,204	28,087,678
Wisconsin	334	31,923,692	31,558,824
Wyoming	315	20,538,807	20,395,048
Alaska	222	4,342,391	4,271,868
Hawaii	105	16,760,913	16,718,259
Puerto Rico	25	3,740,051	3,454,639
Virgin Island	40	4,551,999	3,972,805
Canal Zone	52	7,845,247	7,841,012
Philippine Islands	4	78,841	78,737
Various	86	50,635,886	47,770,036

[1] Construction expenditures represent the cost of materials placed (including the cost of labor performed) and miscellaneous costs for that portion of the work completed.

TABLE 9. PUBLIC WORKS ADMINISTRATION.—*Allotments, estimated total cost, and construction expenditures for Federal and non-Federal PWA projects, by major type of project, as of June 30, 1940, and construction expenditures for fiscal year ending June 30, 1940*

Major type of project	Number of projects	Allotments			Estimated [1] total cost	Construction expenditures [1] [2]	
		Total	Loan	Grant		As of June 30, 1940	For the fiscal year ending June 30, 1940
Total, all projects	34,512	$4,243,445,664	$819,005,472	$3,424,440,192	$6,140,073,445	$5,765,560,616	$889,771,016
Buildings [3]	12,657	1,309,213,482	143,824,502	1,165,388,980	2,261,641,397	2,159,982,381	392,009,960
Sewer and water systems	4,421	464,379,809	162,796,103	301,583,706	807,674,931	744,461,657	124,915,611
Electric power (excluding water power)	280	78,689,583	31,930,700	46,758,883	113,956,095	83,951,335	37,363,835
Streets and highways	11,420	658,349,418	17,215,989	641,133,429	918,903,576	859,718,089	135,291,351
Heavy engineering structures	472	268,778,275	135,719,407	133,058,868	469,698,074	419,130,776	105,697,422
Flood control, water power and reclamation	467	431,505,573	99,800,961	331,704,612	448,465,739	397,424,501	39,746,811
Aviation	368	49,149,940		49,149,940	51,138,077	47,635,224	7,853,918
Vessels	261	270,048,276		270,048,276	270,048,276	268,569,553	1,585,330
Railroads	32	200,974,500	200,974,500		200,974,500	200,974,500	
Miscellaneous	4,134	512,356,808	26,743,310	485,613,498	597,572,780	583,712,600	45,306,778
Total, Federal projects	17,872	1,914,709,731		1,914,709,731	1,914,709,731	1,856,137,456	83,539,539
Buildings [3]	3,230	441,382,119		441,382,119	441,382,119	401,112,272	44,397,573
Sewer and water systems	290	7,377,402		7,377,402	7,377,402	7,214,615	678,612
Streets and highways	9,924	462,798,757		462,798,757	462,798,757	462,895,191	333,697
Flood control, water power and reclamation	339	262,459,570		262,459,570	262,459,570	257,256,503	7,155,023
Aviation	343	47,962,296		47,962,296	47,962,296	44,619,467	7,478,161
Vessels	261	270,048,276		270,048,276	270,048,276	268,569,553	1,585,330
Miscellaneous	3,485	422,681,311		422,681,311	422,681,311	414,469,855	21,911,143
Total, non-Federal projects	16,640	2,328,735,933	819,005,472	1,509,730,461	4,225,363,714	3,909,423,160	806,231,477
Buildings	9,427	867,831,363	143,824,502	724,006,861	1,820,259,278	1,758,870,109	347,612,387
Sewer and water systems	4,131	457,002,407	162,796,103	294,206,304	800,297,529	737,247,042	124,236,999
Electric power (excluding water power)	280	78,689,583	31,930,700	46,758,883	113,956,095	83,951,335	37,363,835
Streets and highways	1,496	195,550,661	17,215,989	178,334,672	456,104,819	396,822,898	134,957,654
Heavy engineering structures	472	268,778,275	135,719,407	133,058,868	469,698,074	419,130,776	105,697,422
Flood control, water power and reclamation	128	169,046,003	99,800,961	69,245,042	186,006,169	140,167,998	32,591,788
Aviation	25	1,187,644		1,187,644	3,175,781	3,015,757	375,757
Railroads	32	200,974,500	200,974,500		200,974,500	200,974,500	
Miscellaneous	649	89,675,497	26,743,310	62,932,187	174,891,469	169,242,745	23,395,635

[1] Estimated total cost and construction expenditures have not been adjusted to final audited project costs. The amount of this adjustment to date is approximately $96,000,000.

[2] Construction expenditures represent the cost of materials placed (including the cost of labor performed) and miscellaneous costs for that portion of the work completed.

[3] Includes data on low-cost housing projects as of November 1, 1937, at which time such projects were transferred to the United States Housing Authority.

TABLE 10. PUBLIC WORKS ADMINISTRATION.—*Total expenditures for Federal and non-Federal PWA projects, by object of expenditure and by major type of project, cumulative July 1933–June 1940 and for fiscal year ending June 30, 1940*

Major type of project	Cumulative to June 30, 1940			For fiscal year ending June 30, 1940		
	Total [1] construction expenditures	Labor costs	Nonlabor costs	Total [1] construction expenditures	Labor costs	Nonlabor costs
Total, all projects	$5,765,560,616	$1,553,710,199	$4,211,850,417	$889,771,016	$206,234,491	$683,536,525
Buildings [2]	2,159,982,381	619,869,538	1,540,112,843	392,009,960	99,394,369	292,615,591
Sewer and water systems	744,461,657	191,075,434	553,386,223	124,915,611	26,753,785	98,161,826
Electric power (excluding water power)	83,951,335	12,684,532	71,266,803	37,363,835	6,289,096	31,074,739
Streets and highways	859,718,089	217,813,972	641,904,117	135,291,351	31,089,628	104,201,723
Heavy engineering structures	419,130,776	92,688,168	326,442,608	105,697,422	24,113,857	81,583,565
Flood control, water power, and reclamation	397,424,501	105,129,511	292,294,990	39,746,811	7,447,671	32,299,140
Aviation	47,635,224	10,696,167	36,939,057	7,853,918	1,671,824	6,182,094
Vessels	268,569,553	106,729,788	161,839,765	1,585,330	320,953	1,264,377
Railroads	200,974,500	48,233,880	152,740,620			
Miscellaneous	583,712,600	148,789,209	434,923,391	45,306,778	9,153,308	36,153,470
Total, Federal projects	1,856,137,456	530,326,233	1,325,811,223	83,539,539	25,232,650	58,306,889
Buildings [2]	401,112,272	101,898,547	299,213,725	44,397,573	15,493,952	28,903,621
Sewer and water systems	7,214,615	2,344,534	4,870,081	678,612	116,454	562,158
Streets and highways	462,895,191	124,286,637	338,608,554	333,697	101,108	232,589
Flood control, water power, and reclamation	257,256,503	77,771,197	179,485,306	7,155,023	2,925,670	4,229,353
Aviation	44,619,467	10,012,719	34,606,748	7,478,161	1,592,083	5,886,078
Vessels	268,569,553	106,729,788	161,839,765	1,585,330	320,953	1,264,377
Miscellaneous	414,469,855	107,282,811	307,187,044	21,911,143	4,682,430	17,228,713
Total, non-Federal projects	3,909,423,160	1,023,383,966	2,886,039,194	806,231,477	181,001,841	625,229,636
Buildings	1,758,870,109	517,970,991	1,240,899,118	347,612,387	83,900,417	263,711,970
Sewer and water systems	737,247,042	188,730,900	548,516,142	124,236,999	26,637,331	97,599,668
Electric power (excluding water power)	83,951,335	12,684,532	71,266,803	37,363,835	6,289,096	31,074,739
Streets and highways	396,822,898	93,527,335	303,295,563	134,957,654	30,988,520	103,969,134
Heavy engineering structures	419,130,776	92,688,168	326,442,608	105,697,422	24,113,857	81,583,565
Flood control, water power, and reclamation	140,167,998	27,358,314	112,809,684	32,591,788	4,522,001	28,069,787
Aviation	3,015,757	683,448	2,332,309	375,757	79,741	296,016
Railroads	200,974,500	48,233,880	152,740,620			
Miscellaneous	169,242,745	41,506,398	127,736,347	23,395,635	4,470,878	18,924,757

[1] Construction expenditures represent the cost of materials in place (including the cost of labor performed) and miscellaneous costs for that portion of the work completed. Figures subject to revision pending adjustment to final audited project costs.

[2] Includes data on low-cost housing projects as of November 1, 1937, at which time such projects were transferred to the United States Housing Authority.

TABLE 11. PUBLIC WORKS ADMINISTRATION.—*Number and estimated cost of Federal and non-Federal PWA projects, by type of project, as of June 30, 1940*

FEDERAL PROJECTS

Type of project	Number of projects	Estimated total cost
Total Federal projects	17,872	$1,914,709,731
Streets and highways	9,924	462,798.757
Roads and highways	9,824	458,331,076
Streets	8	272,448
Miscellaneous	92	4,195,233
Sewers, waterworks, power, other facilities	771	35,111,857
Sewer systems	99	3,429,666
Sewage disposal plants	21	706,266
Sanitary sewers	73	2,458,018
Storm sewers	5	265,382
Sewer and water	29	601,733
Water systems	162	3,346,003
Water mains	38	373,619
Filtration plants	1	339,504
Reservoirs	20	498,072
Complete waterworks	103	2,134,808
Garbage and rubbish disposal	20	132,480
Gas plants	1	48,990
Electric power excluding water power	93	15,687,010
Electric distribution systems	39	11,169,909
Power construction	54	4,517,101
Miscellaneous	367	11,865,975
Buildings	3,230	441,382,119
Educational buildings	204	20,712,250
Secondary schools	147	7,894,131
Colleges and universities	36	5,907,014
Other educational institutions	21	6,911,105
Municipal auditoriums and armories	1	148,000
Courthouses	29	1,009,260
Post offices	406	43,406,751
Hospitals and institutions	153	37,070,932
Penal institutions	75	14,938,544
Social, recreational buildings	28	1,756,362
Residential	550	73,838,863
Office and administrative	218	41,066,715
Warehouses, laboratories, shops	677	37,158,800
Buildings—Continued.		
Housing projects [1]	125	$145,552,532
Miscellaneous	764	24,723,110
Flood control, water power, reclamation	339	262,459,570
Dams and canals	153	78,618,985
Channel rectification, levees, etc	18	3,275,674
Storage reservoirs	17	8,890,188
Water-power development	11	81,705,774
Soil erosion	93	14,459,504
Flood control	27	45,596,085
Miscellaneous	20	29,913,360
Water navigation aids	695	256,926,765
Dams and canals	81	121,207,598
Channel rectification, levees, etc	110	70,715,237
Locks	35	30,958,785
Lighthouses	212	3,916,848
Other navigation aids	257	30,128,297
Vessels	261	270,048,276
Naval	60	238,572,527
Coast Guard	101	26,093,792
Nonmilitary	100	5,381,957
Engineering structures	179	23,041,280
Bridges and viaducts	9	1,351,800
Wharves, piers, docks	63	9,142,688
Other	107	12,546,792
Aviation	343	47,962,296
Aircraft	46	16,168,246
Improvement to landing fields	195	25,541,453
Other aids	102	6,252,597
Recreational	88	5,210,869
Miscellaneous	2,042	109,767,942
Surveying and mapping	610	20,711,309
Miscellaneous improvements to Federal land	295	25,546,700
Ordnance	50	7,108,124
Machine tools for navy yards	81	4,123.746
Game and fish protection	203	2,726,201
Plant pest and disease control	146	5,733,749
Other	657	43,818,113

[1] Includes low-cost housing projects as of December 1, 1937, at which time such projects were transferred to the United States Housing Authority.

TABLE 11. PUBLIC WORKS ADMINISTRATION.—*Number and estimated cost of Federal and non-Federal PWA projects, by type of project, as of June 30, 1940*—Continued

NON-FEDERAL PROJECTS

Type of project	Number of projects	Estimated total cost
Total non-Federal projects	16,640	$4,225,363,714
Streets and highways	1,496	456,104,819
Roads and highways	605	298,187,519
Streets	779	123,797,974
Grade-crossing elimination	29	27,270,402
Miscellaneous	83	6,848,924
Sewers, waterworks, power, other facilities	4,625	954,721,215
Sewer systems	1,524	465,606,414
Sewage disposal plants	871	325,797,944
Sanitary sewers	462	87,329,721
Storm sewers	116	20,040,158
Combined sewers	75	32,438,591
Sewer and water	196	23,996,878
Water systems	2,411	310,694,237
Water mains	251	29,584,443
Filtration plants	118	18,322,914
Reservoirs	182	26,809,884
Complete waterworks	1,860	235,976,996
Garbage and rubbish disposal	41	10,830,472
Gas plants	25	1,753,490
Electric power excluding water power	280	113,956,095
Electric distribution systems	52	8,695,887
Power construction	228	105,260,208
Miscellaneous	148	27,883,629
Buildings	9,427	1,820,259,278
Educational buildings	7,283	1,176,539,738
Secondary schools	6,450	943,069,570
Colleges and universities	663	202,901,696
Other educational buildings	65	18,606,538
Public libraries	105	11,961,934
Buildings—Continued.		
Municipal auditoriums and armories	102	$30,955,998
Courthouses and city halls	627	144,595,635
Hospitals and institutions	668	304,096,510
Penal institutions	177	36,768,331
Social, recreational buildings	131	16,586,646
Residential buildings	6	727,250
Office and administrative	130	35,837,899
Warehouses, laboratories, shops, etc	83	11,938,467
Housing (limited dividend) [1]	7	11,620,433
Miscellaneous	213	50,592,371
Flood control, water power, and reclamation	128	186,006,169
Dams and canals	32	18,366,027
Channel rectification, levees, etc	3	484,634
Storage reservoirs	8	3,003,885
Water-power development	14	107,965,348
Soil erosion	3	827,211
Flood control	24	49,739,143
Miscellaneous	44	5,719,921
Water navigation aids	45	19,718,055
Dams and canals	2	516,046
Channel rectification, levees, etc	6	4,033,268
Other navigation aids	37	15,168,741
Engineering structures	472	469,698,074
Bridges and viaducts	378	220,661,581
Wharves, piers and docks	53	28,588,648
Subways and tunnels	14	213,966,749
Other	27	6,481,096
Aviation	25	3,175,781
Recreational	136	23,751,901
Miscellaneous	254	90,953,922
Railroads	32	200,974,500

TABLE 12. PUBLIC WORKS ADMINISTRATION.—*Construction expenditures[1] for Federal and non-Federal PWA projects, by State, for fiscal year ending June 30, 1940*

State or Territory	Total	Federal projects	Non-Federal projects
Total	$889,771,016	$83,539,539	$806,231,477
Alabama	11,554,860	637,480	10,917,380
Arizona	2,350,286	663,034	1,687,252
Arkansas	3,859,046	40,488	3,818,558
California	31,500,863	5,732,735	25,768,128
Colorado	11,338,590	3,774,360	7,564,230
Connecticut	21,357,613	2,506,337	18,851,276
Delaware	1,461,773	314,334	1,147,439
District of Columbia	14,574,163	3,541,042	11,033,121
Florida	5,687,760	1,202,656	4,485,104
Georgia	9,638,260	566,347	9,071,913
Idaho	1,296,960	211,508	1,085,452
Illinois	62,524,197	4,711,354	57,812,843
Indiana	29,579,908	2,033,317	27,546,591
Iowa	11,506,280	364,586	11,141,694
Kansas	10,322,173	690,931	9,631,242
Kentucky	12,902,137	2,105,066	10,797,071
Louisiana	12,145,458	24,174	12,121,284
Maine	2,182,370	231,844	1,950,526
Maryland	20,377,722	5,937,186	14,440,536
Massachusetts	28,796,654	2,479,946	26,316,708
Michigan	29,264,335	796,689	28,467,646
Minnesota	19,256,086	215,691	19,040,395
Mississippi	14,228,274	76,858	14,151,416
Missouri	14,585,924	479,464	14,106,460
Montana	6,035,536	1,524,124	4,511,412
Nebraska	17,287,969	112,692	17,175,277
Nevada	406,656	200,536	206,120
New Hampshire	3,906,168	2,723	3,903,445
New Jersey	29,322,434	1,348,650	27,973,784
New Mexico	2,154,280	980,554	1,173,726
New York	123,640,014	4,259,556	119,380,458
North Carolina	12,335,812	335,535	12,000,277
North Dakota	2,609,402	123,089	2,486,313
Ohio	52,956,780	3,362,694	49,594,086
Oklahoma	14,870,029	810,570	14,059,459
Oregon	4,769,266	1,991,320	2,777,946
Pennsylvania	82,863,365	1,447,887	81,415,478
Rhode Island	10,002,209	357,145	9,645,064
South Carolina	18,081,237	1,069,195	17,012,042
South Dakota	1,056,930	180,574	876,356
Tennessee	8,924,260	412,431	8,511,829
Texas	20,990,784	3,437,455	17,553,329
Utah	3,548,903	1,168,454	2,380,449
Vermont	1,639,247	44,576	1,594,671
Virginia	17,297,610	6,769,582	10,528,028
Washington	31,266,005	12,442,396	18,823,609
West Virginia	10,823,789	36,928	10,786,861
Wisconsin	19,527,271	202,123	19,325,148
Wyoming	1,952,334	239,721	1,712,613
Alaska	518,912	31,657	487,255
Hawaii	1,253,631	----------	1,253,631
Puerto Rico	6,461,465	376,175	6,085,290
Virgin Islands	374,253	330,997	43,256
Various	602,773	602,773	----------

[1] Construction expenditures represent the cost of materials placed (including the cost of labor performed) and miscellaneous costs for that portion of the work completed.

TABLE 13. PUBLIC WORKS ADMINISTRATION.—*Federal disbursements for Federal and non-Federal PWA projects, by State, for fiscal year ending June 30, 1940*

State or Territory	Total			Federal projects[1]	Non-Federal projects		
	Total	Loan	Grant[2]	Total	Total	Loan	Grant
Total	$412,098,733	$58,709,253	$353,389,480	$83,539,539	$328,559,194	$58,709,253	$269,849,941
Alabama	6,495,894	2,416,400	4,079,494	637,480	5,858,414	2,416,400	3,442,014
Arizona	2,167,146	112,500	2,054,646	663,034	1,504,112	112,500	1,391,612
Arkansas	1,678,769	245,000	1,433,769	40,488	1,638,281	245,000	1,393,281
California	16,050,408	573,000	15,477,408	5,732,735	10,317,673	573,000	9,744,673
Colorado	8,493,449	166,000	8,327,449	3,774,360	4,719,089	166,000	4,553,089
Connecticut	6,054,077		6,054,077	2,506,337	3,547,740		3,547,740
Delaware	709,544		709,544	314,334	395,210		395,210
District of Columbia	11,036,612	4,122,563	6,914,049	3,541,042	7,495,570	4,122,563	3,373,007
Florida	4,498,443	885,983	3,612,460	1,202,656	3,295,787	885,983	2,409,804
Georgia	4,308,545	Cr. 306,710	4,615,255	566,347	3,742,198	Cr. 306,710	4,048,908
Idaho	964,867	56,700	908,167	211,508	753,359	56,700	696,659
Illinois	20,327,618	Cr. 18,000	20,345,618	4,711,354	15,616,264	Cr. 18,000	15,634,264
Indiana	10,658,743		10,658,743	2,033,317	8,625,426		8,625,426
Iowa	5,522,494		5,522,494	364,586	5,157,908		5,157,908
Kansas	5,123,678	Cr. 42,000	5,165,678	690,931	4,432,747	Cr. 42,000	4,474,747
Kentucky	5,436,816	69,517	5,367,299	2,105,066	3,331,750	69,517	3,262,233
Louisiana	4,560,603	31,000	4,529,603	24,174	4,536,429	31,000	4,505,429
Maine	949,434		949,434	231,844	717,590		717,590
Maryland	12,067,432		12,067,432	5,937,186	6,130,246		6,130,246
Massachusetts	11,163,515		11,163,515	2,479,946	8,683,569		8,683,569
Michigan	12,760,627	182,600	12,578,027	796,689	11,963,938	182,600	11,781,338
Minnesota	8,548,610		8,548,610	215,691	8,332,919		8,332,919
Mississippi	3,997,805	23,000	3,974,805	76,858	3,920,947	23,000	3,897,947
Missouri	5,971,237	52,000	5,919,237	479,464	5,491,773	52,000	5,439,773
Montana	4,507,556	1,097,700	3,409,856	1,524,124	2,983,432	1,097,700	1,885,732

Nebraska	14,081,000	7,323,000	6,758,000	112,692	13,968,308	7,323,000	6,645,308
Nevada	334,767		334,767	200,536	134,231		134,231
New Hampshire	1,200,180		1,200,180	2,723	1,197,457		1,197,457
New Jersey	12,837,193	1,961,000	10,876,193	1,348,650	11,488,543	1,961,000	9,527,543
New Mexico	1,719,172		1,719,172	980,554	738,618		738,618
New York	39,544,145	15,042,000	24,502,145	4,259,556	35,284,589	15,042,000	20,242,589
North Carolina	4,197,406	Cr. 762,500	4,959,906	335,535	3,861,871	Cr. 762,500	4,624,371
North Dakota	1,187,873		1,187,873	123,089	1,064,784		1,064,784
Ohio	19,808,631		19,808,631	3,362,694	16,445,937		16,445,937
Oklahoma	15,893,339	9,608,000	6,285,339	810,570	15,082,769	9,608,000	5,474,769
Oregon	3,503,155	36,000	3,467,155	1,991,320	1,511,835	36,000	1,475,835
Pennsylvania	28,299,175		28,299,175	1,447,887	26,851,288		26,851,288
Rhode Island	2,910,198		2,910,198	357,145	2,553,053		2,553,053
South Carolina	12,910,418	6,846,000	6,064,418	1,069,195	11,841,223	6,846,000	4,995,223
South Dakota	683,974	43,000	640,974	180,574	503,400	43,000	460,400
Tennessee	4,916,372		4,916,372	412,431	4,503,941		4,503,941
Texas	16,436,115	3,395,500	13,040,615	3,437,455	12,998,660	3,395,500	9,603,160
Utah	2,711,869	127,500	2,584,369	1,168,454	1,543,415	127,500	1,415,915
Vermont	715,893		715,893	44,576	671,317		671,317
Virginia	11,294,023		11,294,023	6,769,582	4,524,441		4,524,441
Washington	17,043,798		17,043,798	12,442,396	4,601,402		4,601,402
West Virginia	6,010,610		6,010,610	36,928	5,973,682		5,973,682
Wisconsin	9,263,500		9,263,500	202,123	9,061,377		9,061,377
Wyoming	1,376,320	443,000	933,320	239,721	1,136,599	443,000	693,599
Alaska	272,122	46,000	226,122	31,657	240,465	46,000	194,465
Hawaii	882,209		882,209		882,209		882,209
Puerto Rico	7,066,446	4,933,500	2,132,946	376,175	6,690,271	4,933,500	1,756,771
Virgin Islands	342,135		342,135	330,997	11,138		11,138
Various	602,773		602,773	602,773			

[1] Actual disbursements of Federal funds for Federal PWA projects are not available. Expenditures (which represent the cost of materials in place, including the cost of labor performed, and miscellaneous costs for that portion of the work completed) as reported by the agencies under whose supervision the projects were constructed are used in lieu of disbursements.

[2] Includes construction expenditures on Federal projects.

NOTE.—"Cr." denotes bond cancellation in lieu of grant payment.

TABLE 14A. PUBLIC WORKS ADMINISTRATION.—*Number and estimated total cost of all PWA projects remaining uncomplete on July 1, 1939, and on June 30, 1940, and completions during the fiscal year ending June 30, 1940, by State*

State or Territory	Completed during fiscal year ending June 30, 1940		Uncomplete on July 1, 1939		Uncomplete on June 30, 1940	
	Number of projects	Estimated total cost	Number of projects	Estimated total cost	Number of projects	Estimated total cost
Total	4,549	$1,278,854,449	5,440	$2,405,729,868	891	$1,126,875,419
Alabama	93	17,001,229	106	24,286,282	13	7,285,053
Arizona	45	5,307,746	59	8,024,162	14	2,716,416
Arkansas	39	5,665,529	47	8,258,507	8	2,592,978
California	212	47,305,629	248	75,500,804	36	28,195,175
Colorado	65	16,857,443	83	27,075,397	18	10,217,954
Connecticut	38	15,767,622	56	41,217,745	18	25,450,123
Delaware	17	3,004,623	20	3,414,923	3	410,300
District of Columbia	13	4,697,665	36	62,083,182	23	57,385,517
Florida	79	9,966,575	97	15,676,730	18	5,710,155
Georgia	103	10,273,951	131	28,263,783	28	17,989,832
Idaho	50	6,265,322	53	6,676,096	3	410,774
Illinois	149	108,892,864	173	192,206,131	24	83,313,267
Indiana	138	29,786,534	151	52,003,816	13	22,217,282
Iowa	148	26,147,168	155	28,613,692	7	2,466,524
Kansas	55	13,483,372	63	18,757,376	8	5,274,004
Kentucky	91	16,783,719	107	33,359,934	16	16,576,215
Louisiana	74	35,627,548	77	35,705,378	3	77,830
Maine	44	6,559,391	48	7,376,295	4	816,904
Maryland	90	16,467,667	134	65,171,822	44	48,704,155
Massachusetts	129	27,520,952	150	60,993,038	21	33,472,086
Michigan	173	69,503,824	190	79,552,343	17	10,048,519
Minnesota	208	28,328,196	225	44,447,214	17	16,119,018
Mississippi	51	5,557,687	61	28,416,949	10	22,859,262
Missouri	172	51,804,562	190	61,653,660	18	9,849,098
Montana	47	9,213,070	71	15,190,730	24	5,977,915
Nebraska	58	16,859,194	70	59,850,733	12	42,991,539
Nevada	14	862,976	20	3,251,690	6	2,388,714
New Hampshire	21	4,846,907	22	8,002,552	1	3,155,645
New Jersey	99	28,851,254	125	58,458,056	26	29,606,802
New Mexico	41	3,719,220	53	13,159,985	12	9,440,765
New York	206	199,764,409	273	345,764,315	67	145,999,906
North Carolina	120	23,806,718	131	34,072,541	11	10,265,823
North Dakota	52	4,743,416	58	4,912,133	6	168,717
Ohio	355	57,604,756	390	140,525,963	35	82,921,207
Oklahoma	49	6,647,302	59	31,029,648	10	24,382,346
Oregon	85	10,786,161	102	14,637,754	17	3,851,593
Pennsylvania	231	95,376,278	268	218,367,188	37	122,990,910
Rhode Island	17	4,881,653	32	15,798,434	15	10,916,781
South Carolina	57	10,267,359	74	61,253,858	17	50,986,499
South Dakota	31	8,260,085	35	8,445,283	4	185,198
Tennessee	56	15,233,561	70	32,315,076	14	17,081,515
Texas	169	43,958,972	211	83,805,681	42	39,846,709
Utah	55	5,902,306	63	9,334,680	8	3,432,374
Vermont	22	3,711,270	24	3,921,020	2	209,750
Virginia	129	29,581,129	166	48,535,577	37	18,954,448
Washington	85	53,709,138	108	67,813,220	23	14,104,082
West Virginia	34	13,970,228	43	22,004,848	9	8,034,620
Wisconsin	175	35,907,153	192	40,296,112	17	4,388,959
Wyoming	23	3,103,123	35	13,047,255	12	9,944,132
Alaska	9	1,024,552	12	1,106,552	3	82,000
Hawaii	12	4,756,769	12	4,756,769		
Puerto Rico	21	2,928,672	36	12,926,907	15	9,998,235
Virgin Islands			6	3,244,989	6	3,244,989
Various			19	21,164,805	19	21,164,805

TABLE 14B. PUBLIC WORKS ADMINISTRATION.—*Number and estimated total cost of Federal PWA projects remaining uncomplete on July 1, 1939, and on June 30, 1940, and completions during fiscal year ending June 30, 1940, by State*

State or Territory	Completed during fiscal year ending June 30, 1940		Uncomplete on July 1, 1939		Uncomplete on June 30, 1940	
	Number of projects	Estimated total cost	Number of projects	Estimated total cost	Number of projects	Estimated total cost
Total	856	$165,887,880	1,408	$443,698,937	552	$277,811,057
Alabama	8	113,487	18	1,032,268	10	918,781
Arizona	31	1,042,737	43	3,437,551	12	2,394,814
Arkansas	5	147,464	11	592,054	6	444,590
California	89	10,288,201	118	17,523,926	29	7,235,725
Colorado	19	3,441,352	32	10,734,119	13	7,292,767
Connecticut	15	1,822,977	18	3,924,727	3	2,101,750
Delaware	6	493,837	9	904,137	3	410,300
District of Columbia	13	4,697,665	34	43,483,182	21	38,785,517
Florida	31	1,147,886	45	2,748,455	14	1,600,569
Georgia	9	1,141,748	21	11,634,330	12	10,492,582
Idaho	11	2,503,642	14	2,914,416	3	410,774
Illinois	28	5,248,096	42	11,181,821	14	5,933,725
Indiana	6	601,052	11	3,978,852	5	3,377,800
Iowa	9	4,882,340	11	5,435,340	2	553,000
Kansas	2	107,500	8	1,411,050	6	1,303,550
Kentucky	11	1,847,022	20	5,209,830	9	3,362,808
Louisiana	6	54,594	9	132,424	3	77,830
Maine	18	482,715	21	874,619	3	391,904
Maryland	54	4,549,478	92	12,129,158	38	7,579,680
Massachusetts	28	2,139,270	42	11,446,890	14	9,307,620
Michigan	20	656,963	32	2,022,988	12	1,366,025
Minnesota	10	446,045	18	11,338,981	8	10,892,936
Mississippi	3	66,944	8	7,183,711	5	7,116,767
Missouri	6	25,036,739	11	26,008,739	5	972,000
Montana	19	2,491,350	36	3,887,920	17	1,396,570
Nebraska	2	11,884,100	6	12,024,243	4	140,143
Nevada	10	243,965	16	2,632,679	6	2,388,714
New Hampshire	2	15,006	2	15,000		
New Jersey	26	1,703,160	38	3,465,268	12	1,762,108
New Mexico	26	565,115	37	9,705,880	11	9,140,765
New York	33	24,192,171	56	31,574,410	23	7,382,239
North Carolina	23	1,004,553	30	1,525,528	7	520,975
North Dakota	10	557,173	16	725,890	6	168,717
Ohio	14	495,732	22	32,904,691	8	32,408,959
Oklahoma	14	638,244	23	2,270,590	9	1,632,346
Oregon	23	595,619	39	4,389,847	16	3,794,228
Pennsylvania	11	882,488	29	23,397,864	18	22,515,376
Rhode Island	5	103,132	13	736,389	8	633,257
South Carolina	22	781,505	31	3,369,508	9	2,588,003
South Dakota	10	6,480,347	14	6,665,545	4	185,198
Tennessee	4	96,907	12	866,975	8	770,068
Texas	23	4,588,076	49	10,231,688	26	5,643,612
Utah	19	1,559,090	24	3,548,879	5	1,989,789
Vermont	5	349,299	7	559,049	2	209,750
Virginia	36	11,741,717	68	23,892,985	32	12,151,268
Washington	52	20,485,233	73	31,890,061	21	11,404,828
West Virginia	4	808,966	6	1,057,966	2	249,000
Wisconsin	15	367,779	23	617,509	8	249,730
Wyoming	10	297,405	20	9,392,086	10	9,094,681
Alaska			3	82,000	3	82,000
Puerto Rico			3	655,000	3	655,000
Virgin Islands			5	3,165,114	5	3,165,114
Various			19	21,164,805	19	21,164,805

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TABLE 14C. PUBLIC WORKS ADMINISTRATION.—*Number and estimated total cost of non-Federal PWA projects remaining uncomplete on July 1, 1939, and on June 30, 1940, and completions during the fiscal year ending June 30, 1940, by State*

State or Territory	Completed during fiscal year ending June 30, 1940		Uncomplete on July 1, 1939		Uncomplete on June 30, 1940	
	Number of projects	Estimated total cost	Number of projects	Estimated total cost	Number of projects	Estimated total cost
Total	3,693	$1,112,966,569	4,032	$1,962,030,931	339	$849,064,362
Alabama	85	16,887,742	88	23,254,014	3	6,366,272
Arizona	14	4,265,009	16	4,586,611	2	321,602
Arkansas	34	5,518,065	36	7,666,453	2	2,148,388
California	123	37,017,428	130	57,976,878	7	20,959,450
Colorado	46	13,416,091	51	16,341,278	5	2,925,187
Connecticut	23	13,944,645	38	37,293,018	15	23,348,373
Delaware	11	2,510,786	11	2,510,786		
District of Columbia			2	18,600,000	2	18,600,000
Florida	48	8,818,689	52	12,928,275	4	4,100,586
Georgia	94	9,132,203	110	16,629,453	16	7,497,250
Idaho	39	3,761,680	39	3,761,680		
Illinois	121	103,644,768	131	181,024,310	10	77,379,542
Indiana	132	29,185,482	140	48,024,964	8	18,839,482
Iowa	139	21,264,828	144	23,178,352	5	1,913,524
Kansas	53	13,375,872	55	17,346,326	2	3,970,454
Kentucky	80	14,936,697	87	28,150,104	7	13,213,407
Louisiana	68	35,572,954	68	35,572,954		
Maine	26	6,076,676	27	6,501,676	1	425,000
Maryland	36	11,918,189	42	53,042,664	6	41,124,475
Massachusetts	101	25,381,682	108	49,546,148	7	24,164,466
Michigan	153	68,846,861	158	77,529,355	5	8,682,494
Minnesota	198	27,882,151	207	33,108,233	9	5,226,082
Mississippi	48	5,490,743	53	21,233,238	5	15,742,495
Missouri	166	26,767,823	179	35,644,921	13	8,877,098
Montana	28	6,721,720	35	11,303,065	7	4,581,345
Nebraska	56	4,975,094	64	47,826,490	8	42,851,396
Nevada	4	619,011	4	619,011		
New Hampshire	19	4,831,907	20	7,987,552	1	3,155,645
New Jersey	73	27,148,094	87	54,992,788	14	27,844,694
New Mexico	15	3,154,105	16	3,454,105	1	300,000
New York	173	175,572,238	217	314,189,905	44	138,617,667
North Carolina	97	22,802,165	101	32,547,013	4	9,744,848
North Dakota	42	4,186,243	42	4,186,243		
Ohio	341	57,109,024	368	107,621,272	27	50,512,248
Oklahoma	35	6,009,058	36	28,759,058	1	22,750,000
Oregon	62	10,190,542	63	10,247,907	1	57,365
Pennsylvania	220	94,493,790	239	194,969,324	19	100,475,534
Rhode Island	12	4,778,521	19	15,062,045	7	10,283,524
South Carolina	35	9,485,854	43	57,884,350	8	48,398,496
South Dakota	21	1,779,738	21	1,779,738		
Tennessee	52	15,136,654	58	31,448,101	6	16,311,447
Texas	146	39,370,896	162	73,573,993	16	34,203,097
Utah	36	4,343,216	39	5,785,801	3	1,442,585
Vermont	17	3,361,971	17	3,361,971		
Virginia	93	17,839,412	98	24,642,592	5	6,803,180
Washington	33	33,223,905	35	35,923,159	2	2,699,254
West Virginia	30	13,161,262	37	20,946,882	7	7,785,620
Wisconsin	160	35,539,374	169	39,678,603	9	4,139,229
Wyoming	13	2,805,718	15	3,655,169	2	849,451
Alaska	9	1,024,552	9	1,024,552		
Hawaii	12	4,756,769	12	4,756,769		
Puerto Rico	21	2,928,672	33	12,271,907	12	9,243,235
Virgin Islands			1	79,875	1	79,875
Various						

TABLE 15. PUBLIC WORKS ADMINISTRATION.—***Number and estimated total cost of Federal and non-Federal PWA projects remaining uncomplete on July 1, 1939, and on June 30, 1940, and completions during fiscal year ending June 30, 1940, by major type of project***

Major type of project	Completed during fiscal year ending June 30, 1940		Uncomplete on July 1, 1939		Uncomplete on June 30, 1940	
	Number of projects	Estimated total cost	Number of projects	Estimated total cost	Number of projects	Estimated total cost
Total, all projects	4,549	$1,278,854,449	5,440	$2,405,729,868	891	$1,126,875,419
Buildings	2,658	616,103,522	3,028	889,872,924	370	273,769,402
Sewer and water systems	713	256,059,010	794	356,288,029	81	100,229,019
Electric power (excluding water power)	97	16,922,781	136	68,983,082	39	52,060,301
Streets and highways	334	154,474,744	369	360,588,280	35	206,113,536
Heavy engineering structures	97	105,418,546	124	271,238,079	27	165,819,533
Flood control, water power and reclamation	52	41,390,008	98	232,337,740	46	190,947,732
Aviation	40	6,355,269	51	20,930,564	11	14,575,295
Vessels	26	4,381,961	34	41,904,353	8	37,522,392
Miscellaneous	532	77,748,608	806	163,586,817	274	85,838,209
Total, Federal projects	856	165,887,880	1,408	443,698,937	552	277,811,057
Buildings	303	38,707,520	519	109,619,805	216	70,912,285
Sewer and water systems	54	809,263	69	1,433,294	15	624,031
Streets and highways	13	48,280,067	26	113,654,349	13	65,374,282
Flood control, water power and reclamation	33	25,137,246	62	74,002,320	29	48,865,074
Aviation	35	5,059,375	45	19,370,125	10	14,310,750
Vessels	26	4,381,961	34	41,904,353	8	37,522,392
Miscellaneous	392	43,512,448	653	83,714,691	261	40,202,243
Total, non-Federal projects	3,693	1,112,966,569	4,032	1,962,030,931	339	849,064,362
Buildings	2,355	577,396,002	2,509	780,253,119	154	202,857,117
Sewer and water systems	659	255,249,747	725	354,854,735	66	99,604,988
Electric power (excluding water power)	97	16,922,781	136	68,983,082	39	52,060,301
Streets and highways	321	106,194,677	343	246,933,931	22	140,739,254
Heavy engineering structures	97	105,418,546	124	271,238,079	27	165,819,533
Flood control, water power and reclamation	19	16,252,762	36	158,335,420	17	142,082,658
Aviation	5	1,295,894	6	1,560,439	1	264,545
Miscellaneous	140	34,236,160	153	79,872,126	13	45,635,966

TABLE 16. PUBLIC WORKS ADMINISTRATION.—*Number of projects and amount of allotments for Federal PWA projects, by bureau, as of June 30, 1940*

Department and bureau	Number of projects	Allotment
Total, Federal Projects	17,872	$1,914,709,731
Agriculture:		
Total, Agriculture	1,277	82,559,051
Agricultural Engineering		
Chemistry and Soils	121	496,238
Animal Industry	86	2,275,183
Dairy Industry	41	287,962
Entomology and Plant Quarantine	111	5,018,316
Experiment Stations	5	4,948
Farm Security Administration (Subsistence Homesteads)	74	8,882,773
Food and Drug Administration	5	68,491
Forest Service	154	40,667,047
Home Economics	3	9,799
National Agricultural Research Center	63	3,492,671
Plant Industry	254	3,265,408
Secretary's Office	10	236,783
Soil Conservation	253	17,669,723
Weather Bureau	97	183,709
Commerce:		
Total, Commerce	552	23,403,963
Civil Aeronautics Administration	121	11,803,325
Coast and Geodetic Survey	343	10,328,211
Navigation and Steamboat Inspection	9	92,039
Secretary's Office	57	1,010,790
Standards	22	169,598
Interior:		
Total, Interior	2,798	240,674,792
Bonneville Power Administration	4	10,750,000
Fish and Wildlife Service	285	3,146,313
General Land Office	34	1,962,354
Geological Survey	456	9,692,723
Indian Affairs	712	35,614,300
Mines	19	1,441,603
National Park Service	1,078	46,193,024
Office of the Chief Clerk	1	2,154
National Power Policy Committee	1	22,904
Reclamation	79	124,280,074
Secretary's Office	4	11,617
Territories and Island Possessions:		
Alaska Railroad	17	947,008
Alaska Road Commission	49	1,593,239
Virgin Islands	17	2,880,386
Territory of Alaska	23	175,500
Other	19	1,961,593
Independent Offices:		
Total, Independent Offices	10,122	$659,468,900
Architect of the Capitol	1	2,800,000
Federal Power Commission	2	1,177,238
Federal Security Administration:		
Columbia Institute for the Deaf	2	10,000
Freedmen's Hospital	11	784,974
Howard University	31	3,502,678
Public Health Service	101	5,712,724
St. Elizabeths Hospital	17	1,080,599
U. S. Employment Service	101	4,155,336
Federal Works Agency:		
Public Buildings Administration	493	78,639,864
Public Roads Administration	9,254	406,462,964
U. S. Housing Authority	51	136,669,759
National Advisory Committee for Aeronautics	9	721,291
National Park and Planning Commission	1	5,500
National Resources Planning Board	5	1,484,681
Veterans' Administration	43	16,261,292
Justice:		
Total, Justice	69	14,888,353
Bureau of Prisons	63	14,864,348
Administrative Division	5	12,005
Office of Attorney General	1	12,000
Navy:		
Total, Navy	675	314,110,620
Aeronautics	36	7,496,922
Engineering	11	711,741
Navy vessels	57	237,722,837
Ordnance	2	327,167
Secretary's Office	45	2,824,839
Supplies and Accounts	16	205,241
Yards and Docks	508	64,821,873
Labor:		
Total, Labor	57	1,770,482
Immigration	51	1,419,280
Labor Statistics	4	325,573
Secretary's Office	2	25,629
Treasury:		
Total, Treasury	951	60,670,773
Coast Guard	570	37,549,738
Lighthouses	378	9,328,000
Secretary's Office	3	13,793,035

TABLE 16. PUBLIC WORKS ADMINISTRATION.—*Number of projects and amount of allotments for Federal PWA projects, by bureau, as of June 30, 1940*—Continued

Department and bureau	Number of projects	Allotment
Post Office, State, and District of Columbia:		
Total, Post Office, State, and District of Columbia	16	$6,072,838
Post Office (departmental)	1	6,198
International Boundary Commission (Alaska)	3	22,818
International Boundary Commission (United States and Mexico)	6	4,534,322
District of Columbia Board of Commissioners	6	1,509,500
War:		
Total, War	1,355	$511,089,959
Air Corps	2	7,497,612
Corps of Engineers:		
Flood Control	36	75,798,085
Rivers and Harbors	234	277,903,506
Seacoast defenses	3	6,984,348
National Guard	58	2,227,156
Ordnance	48	8,768,448
Panama Canal	6	999,851
Quartermaster Corps	939	130,560,635
Signal Corps	28	173,222
Secretary's Office	1	177,096

TABLE 17. PUBLIC WORKS ADMINISTRATION.—*Statement of financial condition as of June 30, 1940*

	National Industrial Recovery Appropriation, Emergency Appropriation Act, additional loan fund [1]	Emergency Relief Appropriation Act, 1935 [2]	First Deficiency Appropriation Act, 1936 [3]	Public Works Administration Appropriation Act of 1938 [4]	Additional Loan Fund Act of 1938 [5]	Grand total
ASSETS						
Cash:						
Unpaid balances, loan allotments	$14,141,356.21			$8,201,328.99	$5,726,000.00	$28,068,685.20
Unpaid balances, grant allotments	5,741,231.23	$9,054,492.08	$34,427,780.42	151,378,653.36		200,602,157.09
Unexpended balances, administrative expenses	32,163.82		79,265.45	2,879,188.61		2,990,617.88
Administrative expenses, reserve for fiscal year 1941				3,585,000.00		3,585,000.00
Pending allotments, Federal projects	1,396,000.00					1,396,000.00
Available for allotments	4,609,220.36	218,422.82		3,208,715.72	3,826,283.92	11,862,642.82
Bonds held	64,342,837.51			20,216,666.12	2,440,000.00	86,999,503.63
Advances to District of Columbia and Georgia State prison	1,083,207.00			6,988,722.84		8,071,929.84
Due from R. F. C. on sales of bonds:						
Discount retained on unsold bonds	25,152,050.82			247,333.33		25,399,384.15
Discount retained on bonds sold	11,924,448.15					11,924,448.15
Profit on sales	6,845,411.73					6,845,411.73
Due for accrued interest purchased	211,188.79			11,765.55	2,000.00	224,954.34
Total assets	135,479,115.62	9,272,914.90	34,507,045.87	196,717,374.52	11,994,283.92	387,970,734.83
LIABILITIES						
Unexpended balance of allotments:						
Administrative expenses	32,163.82		79,265.45	2,879,188.61		2,990,617.88
Administrative expenses, reserved for fiscal year 1941				3,585,000.00		3,585,000.00
Grant allotments	5,741,231.23	9,054,492.08	34,427,780.42	151,378,653.36		200,602,157.09
Federal allotments, pending	1,396,000.00					1,396,000.00
Total liabilities	7,169,395.05	9,054,492.08	34,507,045.87	157,842,841.97		208,573,774.97

NET ASSETS						
Cash, unpaid balances, loan allotments	14, 141, 356. 21			8, 201, 328. 99	5, 726, 000. 00	28, 068, 685. 20
Bonds, held, cost	64, 342, 837. 51			20, 216, 666. 12	2, 440, 000. 00	86, 999, 503. 63
Advances to District of Columbia and Georgia State prison	1, 083, 207. 00			6, 988, 722. 84		8, 071, 929. 84
Due for accrued interest purchased	211, 188. 79			11, 765. 55	2, 000. 00	224, 954. 34
Due from R. F. C. on sales of bonds:						
Discount retained on unsold bonds	25, 152, 050. 82			247, 333. 33		25, 399, 384. 15
Discount retained on bonds sold	11, 924, 448. 15					11, 924, 448. 15
Profit on sales	6, 845, 411. 73					6, 845, 411. 73
Unallotted funds	4, 609, 220. 36	218, 422. 82		3, 208, 715. 72	3, 826, 283. 92	11, 862, 642. 82
Total net assets	128, 309, 720. 57	218, 422. 82		38, 874, 532. 55	11, 994, 283. 92	179, 396, 959. 86

[1] 48 Stat. 195, 274, and 1021.
[2] 49 Stat. 115.
[3] 49 Stat. 1597 and 50 Stat. 352.
[4] 52 Stat. 809.
[5] 52 Stat. 809.

TABLE 18. PUBLIC WORKS ADMINISTRATION.—*Transactions in securities purchased by PWA and the profit realized, as of June 30, 1940*

1. Par value sales by PWA direct to the public	$1,543,361.64	
2. Par value sales by PWA to RFC, of which $525,378,730.62 has been sold by RFC to the public or matured	661,007,248.90	
3. Par value retirements	7,982,991.76	
4. Par value securities canceled in payment of grant	10,957,904.16	
5. Par value securities transferred to U. S. Housing Authority	10,142,402.37	
6. Par value securities presently held	97,379,894.37	
7. Total par value of securities purchased		$789,013,803.20
8. Profits on sales by PWA direct to the public	13,779.98	
9. Profit on sales made to and through RFC (including $7,260,801 held by RFC, *which does not reflect* a deduction of $461,841.64 covering bond service expense and $5,517,840.66 covering advances for care and preservation of securities)	[1] 13,206,569.88	
10. Total gross profit realized by PWA and RFC		13,220,349.86
11. Outstanding discount (33⅓ percent of par value) on sales to RFC, Oct. 5, 1937, and supplemental agreements, of which the RFC has collected and is holding for account of PWA, $12,455,295.29		37,485,897.78
12. Interest collections, actual receipts:		
Restored to appropriations	$5,028,542.06	
Canceled	368,474.53	
Held in suspense	8,670.79	
Refunded to borrower	364,607.93	
Transferred to U. S. Housing Authority	203,009.77	
Forwarded to U. S. Treasury	20,077,319.99	
Total		26,050,625.07
13. Total returned to U. S. Treasury excluding funds restored to appropriations:		
Principal collections	$8,599,489.04	
Interest collections	20,077,319.99	
Total		28,676,809.03

[1] Deferred credits held by RFC $7,260,801.00
Transferred to PWA from RFC deferred credit account 5,650,000.00
Net profits directly realized by PWA on sales by RFC 295,768.88
13,206,569.88

Selected List of Publications of the Public Works Administration

ORGANIZATIONS, FUNCTIONS AND PROCEDURE. 1934, 26 pp. Summary of the establishment and method of procedure and organization, outlining functions.

ACCOMPLISHMENTS OF THE PUBLIC WORKS ADMINISTRATION. 1936, 45 pp. Extract from hearings before the Subcommittee of the Committee on Appropriations of the U. S. Senate on H. R. 12624, a bill making appropriations for deficiencies for the fiscal year ending June 30, 1936.

PWA IN PICTURES. 1936, 28 pp. A photographic record of the building activities in which is shown typical projects.

AMERICA'S FIRST PUBLIC WORKS PROGRAM. 1936, 9 pp. A résumé of achievements in overcoming the effects of the depression.

THE FIRST THREE YEARS. 1936, 44 pp. The story of the first 3 years told in text and photographs.

THE THREE YEAR RECORD. 1936, 8 pp. Report of the Administrator covering the period between June 16, 1933, and June 15, 1936.

A FOUR-YEAR RECORD OF CONSTRUCTION OF PERMANENT AND USEFUL PUBLIC WORKS. 1937, 32 pp. Pictorial and text account covering 4 years during which four-fifths of all public construction in the United States was made possible by the PWA.

THE FOUR-YEAR RECORD OF PWA. 1937, 5 pp. Statement made by the Administrator covering the period.

PWA PROVIDES MODERN HOSPITALS. 1937, 48 pp. A comprehensive record of hospital and medical-center construction.

AIDS TO EDUCATION. 1937, 43 pp. Description of education building program, text, maps, graphs, and tables.

PWA AND INDUSTRY. 1938, 28 pp. (Compiled by the U. S. Department of Labor, Bureau of Labor Statistics.) A 4-year study of regenerative employment.

THE PWA PROGRAM IS ON SCHEDULE. 1939, 7 pp. A report to President Roosevelt from the Administrator showing progress during the first 6 months of the 1938 program.

THE STORY OF PWA—BUILDING FOR RECOVERY. 1939, 16 pp. How the United States, city, county, and State governments operated in partnership in the greatest construction program ever undertaken.

AMERICA BUILDS. 1939, 298 pp. A comprehensive survey of the Public Works Administration activities in all construction fields since its inception.

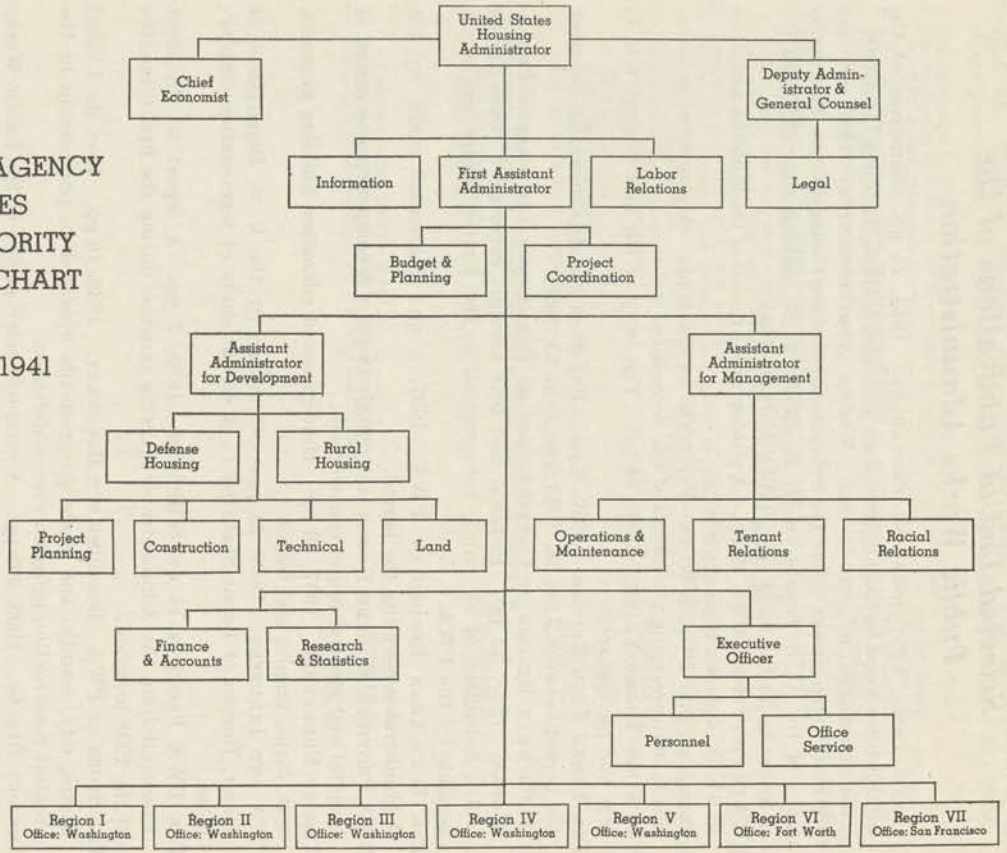
PUBLIC BUILDINGS. Architecture Under the Public Works Administration. 1939, 697 pp. Detailed study from an architectural viewpoint covering 6 years of building activities. (For sale by the Superintendent of Documents, Washington, D. C., price $2.50.)

A BILLION IN WAGES. 1939, 4 pp. A report of the Administrator to President Roosevelt showing how wages earned on PWA projects were spent.

SEVEN YEARS OF BUILDING. 1940. Map and brief text covering the building activities up to the end of the fiscal year 1939.

FEDERAL WORKS AGENCY
UNITED STATES
HOUSING AUTHORITY
ORGANIZATION CHART

As of January 1, 1941



Appendix E

UNITED STATES HOUSING AUTHORITY

States and Localities Having Housing Authorities, as of June 30, 1940

Alabama (14)	Andalusia, Anniston, Birmingham, Colbert County, Dothan, Fairfield, Florence, Gadsden, Mobile, Montgomery, Phenix City, Red Level, Selma, Tarrant.
Arizona	Phoenix.
Arkansas (33)	Ashley County, Benton County, Bradley County, Chicot County, Clark County, Cleveland County, Conway, Conway County, Crittenden County, Cross County, Drew County, Fayetteville, Fort Smith, Independence County, Izard County, Jefferson County, Johnson County, Lafayette County, Lawrence County, Logan County, Lonoke County, Madison County, Mississippi County, Monroe County, Nevada County, North Little Rock, Pine Bluff, Pope County, Randolph County, Scott County, Sharp County, Washington County, White County.
California (9)	El Centro, Fresno, Kern County, Los Angeles City, Los Angeles County, Oakland, Sacramento, San Francisco City and County, Santa Monica.
Colorado (2)	Denver, Pueblo.
Connecticut (9)	Bridgeport, Enfield, Hartford, Middletown, New Britain, New Haven, Norwalk, Stamford, Waterbury.
Delaware	Wilmington.
District of Columbia	Washington (The Alley Dwelling Authority).
Florida (14)	Daytona Beach, Fort Lauderdale, Jacksonville, Key West, Lakeland, Miami, Miami Beach, Orlando, Pensacola, St. Augustine, St. Petersburg, Sarasota, Tampa, West Palm Beach.
Georgia (112)	Appling County, Athens, Atkinson County, Atlanta, Augusta, Bacon County, Baker County, Banks County, Barrow County, Bartow County, Ben Hill County, Berrien County, Bleckley County, Brantley County, Brooks County, Brunswick, Butts County, Calhoun County, Candler County, Catoosa County, Charlton County, Chattahoochee County, Clarke County, Clinch County, Coffee County, Colquitt County, Columbia County, Columbus, Cook County,

Georgia—Continued	Crawford County, Crisp County, Decatur, Decatur County, Dodge County, Dooly County, Dougherty County, Douglas County, Echols County, Elbert County, Fannin County, Fayette County, Franklin County, Grady County, Greene County, Gwinnett County, Habersham County, Hancock County, Harris County, Hart County, Heard County, Houston County, Irwin County, Jasper County, Jefferson County, Jeff Davis County, Jenkins County, Johnson County, Jones County, Laurens County, Lee County, Liberty County, Lincoln County, Lowndes County, Lumpkin County, Macon, Marietta, Marion County, McDuffie County, Meriwether County, Milledgeville, Mitchell County, Monroe County, Montgomery County, Morgan County, Murray County, Muscogee County, Newton County, Oconee County, Oglethorpe County, Pulaski County, Rockdale County, Rome, Savannah, Schley County, Screven County, Spalding County, Stephens County, Stewart County, Sumter County, Tattnall County, Taylor County, Telfair County, Terrell County, Thomas County, Thomasville, Toombs County, Treutlen County, Troup County, Turner County, Twiggs County, Union County, Upson County, Walton County, Ware County, Warren County, Washington County, Webster County, Wheeler County, Wilcox County, Wilkes County, Wilkinson County, Worth County.
Hawaii	Hawaii.
Idaho (4)	Buhl, Kimberly, Nampa, Twin Falls.
Illinois (20)	Alexander County, Champaign County, Chicago, Coles County, Danville, Decatur, Galesburg, Gallatin County, Granite City, Henry County, La Salle County, Madison County, Montgomery County, Peoria, Quincy, Rock Island, Rock Island County, St. Clair County, Springfield, Tazewell County.
Indiana (23)	Anderson, Bluffton, Brazil, Decatur, Delaware County, Dunkirk, East Chicago, Fort Wayne, Gary, Greenfield, Hammond, Huntington, Jeffersonville, Kokomo, Lawrenceburg, Marion, Muncie, New Albany, New Castle, Richmond, Terre Haute, Vigo County, Vincennes.
Kentucky (12)	Covington, Dayton, Frankfort, Lexington, Louisville, Madisonville, Newport, Owensboro, Paducah, Richmond, Shelbyville, Somerset.
Louisiana (5)	Baton Rouge, Lake Charles, Monroe, New Orleans, Shreveport.
Maryland (5)	Annapolis, Baltimore, Frederick, Montgomery County, Salisbury.
Massachusetts (11)	Boston, Cambridge, Chicopee, Fall River, Hinsdale, Holyoke, Lawrence, Lowell, New Bedford, Somerville, Worcester.

Michigan (5)	Dearborn, Detroit, Flint, Hamtramck, Lincoln Park.
Mississippi (39)	Alcorn County, Amite County, Biloxi, Claiborne County, Coahoma County, Copiah County, Covington County, Forrest County, Franklin County, Greenwood, Hattiesburg, Hinds County, Jefferson County, Jones County, Kemper County, Lauderdale County, Laurel, Lamar County, Lee County, Lincoln County, McComb, Madison County, Meridian, Montgomery County, Neshoba County, Newton County, Oktibbeha County, Oxford, Panola County, Perry County, Pontotoc County, Prentiss County, Scott County, Simpson County, Smith County, Tishomingo County, Tupelo, Union County, Yalobusha County.
Missouri	St. Louis.
Montana (5)	Anaconda, Billings, Butte, Great Falls, Helena.
Nebraska	Omaha.
New Jersey (25)	Asbury Park, Atlantic City, Bayonne, Beverly, Bridgeton, Burlington, Camden, Clementon, Elizabeth, Hackensack, Harrison, Jersey City, Kenilworth, Long Branch, Montclair, Morristown, Newark, New Brunswick, North Bergen, Ocean City, Orange, Passaic County, Perth Amboy, Princeton, Trenton.
New Mexico (4)	Albuquerque, Clovis, Gallup, Roswell.
New York (11)	Buffalo, Lackawanna, New York City, Peekskill, Port Jervis, Schenectady, Syracuse, Tarrytown, Tuckahoe, Utica, Yonkers.
North Carolina (7)	Asheville, Charlotte, High Point, Kinston, New Bern, Raleigh, Wilmington.
Ohio (15)	Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Hamilton, Lorain, Mansfield, Portsmouth, Steubenville, Toledo, Warren, Youngstown, Zanesville.
Oregon	Clackamas County.
Pennsylvania (19)	Allegheny County, Allentown, Beaver County, Bethlehem, Chester, Crawford County, Delaware County, Erie, Fayette County, Harrisburg, McKean County, McKeesport, Mifflin County, Montgomery County, Philadelphia, Pittsburgh, Reading, Schuylkill County, Scranton.
Puerto Rico (5)	Arecibo, Mayaguez, Ponce, Puerto Rico, San Juan.
Rhode Island (5)	Central Falls, Newport, Pawtucket, Providence, Woonsocket.
South Carolina (7)	Aiken, Charleston, Columbia, Darlington County, Greenville, Laurens County, Spartanburg.
Tennessee (7)	Chattanooga, Jackson, Johnson City, Kingsport, Knoxville, Memphis, Nashville.
Texas (22)	Alice, Austin, Big Spring, Brownsville, Corpus Christi, Dallas, Del Rio, Eagle Pass, El Paso, Fort Worth, Galveston, Harlingen, Houston, Laredo, Lubbock, McAllen, Marshall, Pelly, San Antonio, Texarkana, Waco, Waxahachie.

Vermont	Burlington.
Virginia (8)	Alexandria, Bristol, Hopewell, Martinsville, Newport News, Portsmouth, South Boston, Warren County.
Washington (4)	Elma, Everett, King County, Seattle.
West Virginia (9)	Charleston, Fairmont, Huntington, Martinsburg, Morgantown, Mount Hope, Parkersburg, Wheeling, Williamson.
Wisconsin (2)	Madison, Superior.

Total number of local housing authorities as of June 30, 1940—480.

TABLE 1. UNITED STATES HOUSING AUTHORITY.—*Average number*[1] *of persons employed at the construction sites*[2] *of USHA-aided projects, United States and Territories, by month, November 1937–June 1940*

Year and month	Total	Transferred PWA Housing Division projects	USHA-aided projects
1937			
November	9,692	9,692	.....
December	6,443	6,443	.....
1938			
January	4,385	4,385	.....
February	3,918	3,918	.....
March	4,183	4,183	.....
April	4,298	4,298	.....
May	4,273	4,273	.....
June	2,515	2,448	67
July	2,584	2,458	126
August	2,398	2,059	339
September	2,100	1,441	659
October	1,503	410	1,093
November	1,765	.....	1,765
December	2,233	.....	2,233
1939			
January	2,633	.....	2,633
February	3,466	.....	3,466
March	4,923	.....	4,923
April	6,508	.....	6,508
May	8,340	.....	8,340
June	11,556	.....	11,556
July	15,111	.....	15,111
August	18,158	.....	18,158
September	21,905	.....	21,905
October	25,927	.....	25,927
November	28,713	.....	28,713
December	30,507	.....	30,507
1940			
January	25,282	.....	25,282
February	27,273	.....	27,273
March	33,426	.....	33,426
April	39,604	.....	39,604
May	44,297	.....	44,297
June	47,293	.....	47,293

[1] Average number of persons employed is computed as the mean of the weekly pay-roll counts made during the calendar month.
[2] Including demolition of slum buildings on project sites.

TABLE 2. UNITED STATES HOUSING AUTHORITY. — *Hours worked, earnings of workers, and average hourly earnings on USHA-aided construction projects, by State, for fiscal year ending June 30, 1940*

State or Territory	Hours worked	Earnings	Average hourly earnings
Total	45,962,945	$44,477,352	$0.97
Alabama	1,574,368	1,278,528	.81
California	939,135	979,175	1.04
Colorado	12,191	10,734	.88
Connecticut	396,628	446,105	1.12
Dis. of Columbia	299,719	372,686	1.24
Florida	2,864,418	2,238,445	.78
Georgia	3,974,070	2,659,892	.67
Illinois	1,403,394	1,828,526	1.30
Indiana	363,454	348,316	.96
Kentucky	1,881,492	1,760,820	.94
Louisiana	2,373,425	2,059,285	.87
Maryland	723,365	673,765	.93
Massachusetts	1,706,455	1,939,612	1.14
Michigan	278,780	315,817	1.13
Mississippi	472,577	283,873	.60
Montana	56,769	$66,658	$1.17
Nebraska	735,340	656,874	.89
New Jersey	2,274,965	3,043,092	1.34
New York	5,979,189	8,009,657	1.34
North Carolina	1,329,618	910,679	.68
Ohio	3,120,757	3,515,425	1.13
Pennsylvania	3,935,216	4,450,512	1.13
South Carolina	822,703	531,315	.65
Tennessee	3,608,075	2,770,932	.77
Texas	2,448,302	1,802,110	.74
Virginia	68,570	35,201	.51
West Virginia	1,190,034	1,061,656	.89
Hawaii	309,284	204,814	.66
Puerto Rico	820,652	222,848	.27

TABLE 3. UNITED STATES HOUSING AUTHORITY.—*Average number* [1] *of persons employed at the construction sites* [2] *of USHA-aided projects, by month and by State, for fiscal year ending June 30, 1940*

State or Territory	1939					
	July	August	September	October	November	December
Total	15,111	18,158	21,905	25,927	28,713	30,507
Alabama	209	185	171	431	859	1,090
California	32	108	234	404	471	423
Colorado						
Connecticut						
District of Columbia	6	8	8	30	96	129
Florida	1,204	1,413	1,393	1,699	2,017	2,233
Georgia	681	760	1,185	1,529	1,947	2,390
Illinois	24	95	112	90	407	789
Indiana	50	70	117	207	260	319
Kentucky	805	965	1,088	1,232	1,275	1,177
Louisiana	298	545	794	1,078	1,413	1,610
Maryland	130	75	112	227	322	380
Massachusetts	22	133	245	496	658	997
Michigan	239	257	173	203	145	104
Mississippi						
Montana						
Nebraska	364	552	645	720	819	619
New Jersey	367	611	924	1,484	1,827	1,913
New York	6,181	6,163	6,004	5,678	4,721	4,059
North Carolina	11	26	83	271	684	901
Ohio	1,905	2,350	3,015	3,038	2,630	2,145
Pennsylvania	868	1,129	1,531	2,191	2,652	3,284
South Carolina	253	232	228	195	176	305
Tennessee	715	1,438	2,138	2,610	2,856	2,790
Texas	535	681	1,010	1,246	1,360	1,483
Virginia						
West Virginia	212	293	477	628	905	1,093
Hawaii		69	218	240	213	250
Puerto Rico						24

For footnote, see USHA table 1.

TABLE 3. UNITED STATES HOUSING AUTHORITY.—*Average number of persons employed at the construction sites of USHA projects, by month and by State, for fiscal year ending June 30, 1940*—Continued

State or Territory	1940					
	January	February	March	April	May	June
Total	25,282	27,273	33,426	39,604	44,297	47,293
Alabama	1,048	983	1,536	1,710	1,943	1,933
California	403	521	720	1,046	1,296	1,574
Colorado						121
Connecticut	40	191	228	565	932	1,351
District of Columbia	91	62	252	490	674	708
Florida	2,268	2,259	2,061	1,911	1,653	1,456
Georgia	2,342	2,941	3,691	4,317	4,694	4,528
Illinois	772	821	1,302	1,825	2,147	2,316
Indiana	157	146	205	291	444	631
Kentucky	518	782	1,209	1,450	1,715	2,024
Louisiana	1,565	1,627	1,829	2,071	2,086	2,294
Maryland	323	401	618	784	1,090	1,283
Massachusetts	1,026	1,110	1,346	2,414	2,968	3,299
Michigan	35	7	118	196	269	422
Mississippi	78	176	531	797	1,023	1,312
Montana				25	157	320
Nebraska	359	258	189	89	164	340
New Jersey	1,216	1,280	1,524	2,066	2,348	2,799
New York	2,996	2,411	2,366	2,360	2,443	2,414
North Carolina	905	1,048	1,316	1,410	1,597	1,736
Ohio	1,239	1,059	1,061	1,108	1,478	1,679
Pennsylvania	2,750	2,596	2,879	3,278	3,819	3,751
South Carolina	360	564	868	998	1,011	880
Tennessee	1,955	2,121	2,716	3,063	3,098	2,859
Texas	1,366	1,978	2,447	2,537	2,549	2,655
Virginia			6	144	232	300
West Virginia	980	1,140	1,243	1,246	1,139	931
Hawaii	312	305	240	192	133	118
Puerto Rico	178	486	925	1,221	1,195	1,259

For footnote, see USHA table 1.

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TABLE 4. UNITED STATES HOUSING AUTHORITY.—*Loan and annual contribution contracts and earmarkings outstanding for USHA-aided projects as of June 30, 1940*

State and locality	Projects under contract			Loan earmarkings outstanding	Total loan contract amounts, plus loan earmarkings
	Number of projects	Maximum annual contributions based on estimated development cost [1]	Loan contract amounts based on 90 percent of estimated development cost		
Total	413	$25,195,574	$638,213,000	$50,511,517	$688,724,517
ALABAMA	11	621,123	15,569,000	900,000	16,469,000
Anniston	1	22,950	550,000		550,000
Birmingham	3	393,807	9,705,000		9,705,000
Dothan				900,000	900,000
Mobile	2	64,190	1,649,000		1,649,000
Montgomery	3	81,901	2,267,000		2,267,000
Phenix City	2	58,275	1,398,000		1,398,000
ARIZONA: Phoenix	3	67,276	1,613,000		1,613,000
ARKANSAS	2	39,325	1,088,000	630,000	1,718,000
Fort Smith				630,000	630,000
Lonoke County	1	20,410	565,000		565,000
North Little Rock	1	18,915	523,000		523,000
CALIFORNIA	18	1,052,564	27,692,000	13,146,000	40,838,000
Fresno				738,000	738,000
Los Angeles City	5	344,706	9,159,000	7,841,000	17,000,000
Los Angeles County	3	205,271	5,682,000		5,682,000
Oakland	3	130,863	3,423,000	370,000	3,793,000
Sacramento				1,125,000	1,125,000
San Francisco	7	371,724	9,428,000	3,072,000	12,500,000
COLORADO: Denver	3	130,576	3,132,000		3,132,000
CONNECTICUT	10	699,233	17,618,000	4,309,000	21,927,000
Bridgeport	2	321,295	8,015,000		8,015,000
Enfield				468,000	468,000
Hartford	2	61,238	1,469,000	3,031,000	4,500,000
Middletown				810,000	810,000
New Britain	1	50,668	1,403,000		1,403,000
New Haven	3	203,439	5,088,000		5,088,000
Norwalk	1	24,113	578,000		578,000
Stamford	1	38,480	1,065,000		1,065,000
DISTRICT OF COLUMBIA: Washington	9	532,264	13,572,000	286,000	13,858,000
FLORIDA	22	753,078	18,431,000	1,069,000	19,500,000
Daytona Beach	1	19,088	458,000	194,000	652,000
Fort Lauderdale	1	18,300	439,000	400,000	839,000
Jacksonville	3	188,851	4,532,000		4,532,000
Key West	2	23,530	650,000		650,000
Lakeland				475,000	475,000
Miami	3	136,764	3,281,000		3,281,000
Orlando	1	21,315	548,000		548,000
Pensacola	3	64,293	1,698,000		1,698,000
St. Petersburg	2	62,948	1,596,000		1,596,000
Sarasota	1	7,650	183,000		183,000
Tampa	3	163,201	3,916,000		3,916,000
West Palm Beach	2	47,138	1,130,000		1,130,000
GEORGIA	28	1,179,736	29,948,000	1,342,000	31,290,000
Athens	3	37,735	947,000		947,000
Atlanta	6	593,143	15,011,000		15,011,000
Augusta	3	85,118	2,356,000		2,356,000
Brunswick	2	40,088	961,000		961,000
Columbus	3	108,040	2,688,000	442,000	3,130,000

For footnote, see p. 352.

TABLE 4. UNITED STATES HOUSING AUTHORITY.—*Loan and annual contribution contracts and earmarkings outstanding for USHA-aided projects as of June 30, 1940*—Continued

State and locality	Projects under contract			Loan earmarkings outstanding	Total loan contract amounts, plus loan earmarkings
	Number of projects	Maximum annual contributions based on estimated development cost [1]	Loan contract amounts based on 90 percent of estimated development cost		
GEORGIA—Continued.					
Decatur	1	$24,440	$676,000		$676,000
Macon	2	68,438	1,642,000	$900,000	2,542,000
Marietta	2	24,961	690,000		690,000
Rome	2	34,575	829,000		829,000
Savannah	3	150,295	3,791,000		3,791,000
Thomas County	1	12,903	357,000		357,000
HAWAII: Honolulu	3	134,625	3,366,000		3,366,000
IDAHO: Twin Falls				342,000	342,000
ILLINOIS	13	1,146,172	28,732,000	738,761	29,470,761
Alexander County	3	74,101	2,051,000		2,051,000
Chicago	2	658,968	16,393,000	738,761	17,131,761
Danville	2	32,565	901,000		901,000
Granite City	1	28,650	687,000		687,000
Peoria	2	176,175	4,227,000		4,227,000
St. Clair County	2	69,550	1,926,000		1,926,000
Springfield	1	106,163	2,547,000		2,547,000
INDIANA	11	320,127	7,933,000	293,000	8,226,000
Delaware County	1	16,625	427,000		427,000
Fort Wayne	1	11,115	307,000	293,000	600,000
Gary	3	117,788	2,825,000		2,825,000
Hammond	1	61,276	1,470,000		1,470,000
Kokomo	1	24,675	634,000		634,000
Muncie	1	44,380	1,141,000		1,141,000
New Albany	1	19,238	461,000		461,000
Vigo County	1	12,675	351,000		351,000
Vincennes	1	12,355	317,000		317,000
KENTUCKY	12	683,681	17,526,000	753,000	18,279,000
Covington	2	75,775	1,947,000	753,000	2,700,000
Frankfort	2	17,510	457,000		457,000
Lexington	2	47,175	1,191,000		1,191,000
Louisville	4	505,458	13,025,000		13,025,000
Paducah	2	37,763	906,000		906,000
LOUISIANA	6	984,400	25,311,000	1,600,000	26,911,000
Baton Rouge				450,000	450,000
Lake Charles				250,000	250,000
New Orleans	6	984,400	25,311,000		25,311,000
Shreveport				900,000	900,000
MARYLAND	11	889,779	22,869,000	2,209,000	25,078,000
Annapolis	2	31,328	829,000		829,000
Baltimore	7	839,700	21,591,000	1,409,000	23,000,000
Frederick	2	18,751	449,000		449,000
Montgomery County				800,000	800,000
MASSACHUSETTS	17	1,578,517	39,492,000	1,077,000	40,569,000
Boston	9	1,138,395	28,445,000		28,445,000
Cambridge	1	65,553	1,815,000		1,815,000
Fall River	2	97,575	2,341,000		2,341,000
Hinsdale				105,000	105,000
Holyoke	1	32,235	828,000	972,000	1,800,000
Lawrence	1	51,708	1,431,000		1,431,000
Lowell	1	109,163	2,619,000		2,619,000
New Bedford	2	83,888	2,013,000		2,013,000

For footnote, see p. 352.

TABLE 4. UNITED STATES HOUSING AUTHORITY.—*Loan and annual contribution contracts and earmarkings outstanding for USHA-aided projects as of June 30, 1940*—Continued

State and locality	Projects under contract			Loan earmarkings outstanding	Total loan contract amounts, plus loan earmarkings
	Number of projects	Maximum annual contributions based on estimated development cost [1]	Loan contract amounts based on 90 percent of estimated development cost		
MICHIGAN	9	$1,148,435	$30,349,000	$914,000	$31,263,000
Detroit	8	1,102,805	29,086,000	914,000	30,000,000
Hamtramck	1	45,630	1,263,000		1,263,000
MISSISSIPPI	14	202,896	4,940,000		4,940,000
Biloxi	3	40,539	972,000		972,000
Hattiesburg	2	31,013	744,000		744,000
Laurel	2	36,188	868,000		868,000
Lee County	1	20,605	570,000		570,000
McComb City	2	23,288	558,000		558,000
Meridian	4	51,263	1,228,000		1,228,000
MISSOURI: St. Louis	2	291,038	6,984,000		6,984,000
MONTANA	5	109,322	2,673,000	480,000	3,153,000
Anaconda	1	13,845	383,000	480,000	863,000
Billings	1	16,763	402,000		402,000
Butte	1	40,088	962,000		962,000
Great Falls	1	26,363	632,000		632,000
Helena	1	12,263	294,000		294,000
NEBRASKA: Omaha	2	143,063	3,433,000		3,433,000
NEW JERSEY	23	1,395,425	35,026,000		35,026,000
Asbury Park	1	26,250	675,000		675,000
Atlantic City	1	77,325	1,855,000		1,855,000
Beverly	1	13,125	315,000		315,000
Camden	2	104,295	2,690,000		2,690,000
Elizabeth	2	165,015	4,094,000		4,094,000
Harrison	1	41,400	993,000		993,000
Jersey City	4	299,026	7,586,000		7,586,000
Long Branch	1	22,763	546,000		546,000
Newark	6	470,458	11,835,000		11,835,000
North Bergen	1	33,565	863,000		863,000
Perth Amboy	1	47,738	1,145,000		1,145,000
Trenton	2	94,465	2,429,000		2,429,000
NEW MEXICO: Albuquerque				600,000	600,000
NEW YORK	13	2,568,911	65,570,000	6,257,522	71,827,522
Buffalo	3	327,658	8,424,000		8,424,000
New York City	7	1,937,673	49,340,000	5,807,522	55,147,522
Peekskill				450,000	450,000
Syracuse	1	152,835	3,930,000		3,930,000
Utica	1	35,000	900,000		900,000
Yonkers	1	115,745	2,976,000		2,976,000
NORTH CAROLINA	11	327,049	8,227,000	1,500,000	9,727,000
Charlotte	3	96,863	2,323,000		2,323,000
High Point				1,500,000	1,500,000
Kinston	2	35,133	972,000		972,000
New Bern	2	52,000	1,439,000		1,439,000
Raleigh	2	73,238	1,756,000		1,756,000
Wilmington	2	69,815	1,737,000		1,737,000
OHIO	33	2,264,351	58,103,000	1,258,000	59,361,000
Akron	4	132,303	3,486,000		3,486,000
Cincinnati	4	525,495	13,800,000		13,800,000
Cleveland	7	731,503	19,000,000		19,000,000

For footnote, see p. 352.

TABLE 4. UNITED STATES HOUSING AUTHORITY.—*Loan and annual contribution contracts and earmarkings outstanding for USHA-aided projects as of June 30, 1940*—Continued

State and locality	Projects under contract			Loan earmarkings outstanding	Total loan contract amounts, plus loan earmarkings
	Number of projects	Maximum annual contributions based on estimated development cost [1]	Loan contract amounts based on 90 percent of estimated development cost		
OHIO—Continued.					
Columbus	4	$219,883	$5,402,000		$5,402,000
Dayton	4	170,680	4,247,000	$663,000	4,910,000
Portsmouth	1	41,625	999,000		999,000
Toledo	5	176,512	4,433,000	595,000	5,028,000
Warren	1	38,535	990,000		990,000
Youngstown	2	175,350	4,397,000		4,397,000
Zanesville	1	52,465	1,349,000		1,349,000
OREGON: Clackamas County				720,000	720,000
PENNSYLVANIA	22	2,495,954	62,918,000	1,919,234	64,837,234
Allegheny County	5	131,711	3,441,000		3,441,000
Allentown	1	56,245	1,446,000		1,446,000
Chester	2	129,140	3,425,000		3,425,000
Erie				560,000	560,000
Harrisburg	2	76,838	1,843,000		1,843,000
McKeesport	1	40,838	980,000		980,000
Montgomery County				600,000	600,000
Philadelphia	6	1,305,327	32,271,000		32,271,000
Pittsburgh	3	646,485	16,623,000	759,234	17,382,234
Reading	1	70,175	1,804,000		1,804,000
Scranton	1	39,195	1,085,000		1,085,000
PUERTO RICO	20	313,061	8,107,000	3,893,000	12,000,000
Mayaguez	1	32,888	789,000	211,000	1,000,000
Ponce	5	69,976	1,677,000		1,677,000
Puerto Rico Housing Authority	10	115,044	3,128,000	3,195,000	6,323,000
San Juan	4	95,153	2,513,000	487,000	3,000,000
RHODE ISLAND	3	194,676	5,390,000		5,390,000
Pawtucket	1	34,743	962,000		962,000
Providence	2	159,933	4,428,000		4,428,000
SOUTH CAROLINA	10	243,327	6,198,000		6,198,000
Charleston	5	129,599	3,194,000		3,194,000
Columbia	2	72,030	1,851,000		1,851,000
Darlington County	1	13,130	363,000		363,000
Spartanburg	2	28,568	790,000		790,000
TENNESSEE	14	753,226	18,680,000		18,680,000
Chattanooga	2	158,115	3,945,000		3,945,000
Jackson	2	23,563	652,000		652,000
Kingsport	2	22,575	541,000		541,000
Knoxville	3	135,780	3,259,000		3,259,000
Memphis	3	308,305	7,767,000		7,767,000
Nashville	2	104,888	2,516,000		2,516,000

For footnote, see p. 352.

TABLE 4. UNITED STATES HOUSING AUTHORITY.—*Loan and annual contribution contracts and earmarkings outstanding for USHA-aided projects as of June 30, 1940*—Continued

State and locality	Projects under contract			Loan earmarkings outstanding	Total loan contract amounts, plus loan earmarkings
	Number of projects	Maximum annual contributions based on estimated development cost [1]	Loan contract amounts based on 90 percent of estimated development cost		
TEXAS	34	$1,440,935	$35,227,000	$990,000	$36,217,000
Austin	5	48,319	1,158,000		1,158,000
Brownsville	1	20,790	534,000	180,000	714,000
Corpus Christi	3	61,095	1,521,000		1,521,000
Dallas	2	238,876	5,732,000		5,732,000
Del Rio				450,000	450,000
El Paso	2	96,988	2,407,000		2,407,000
Fort Worth	2	84,498	2,028,000		2,028,000
Houston	7	403,748	9,888,000		9,888,000
Laredo	1	37,425	898,000		898,000
Pelly	2	7,573	209,000		209,000
San Antonio	5	374,685	9,125,000		9,125,000
Texarkana	2	33,150	917,000		917,000
Waco	2	33,788	810,000		810,000
Waxahachie				360,000	360,000
VIRGINIA	6	102,776	2,743,000	425,000	3,168,000
Alexandria	2	32,500	899,000		899,000
Bristol	2	26,888	644,000		644,000
Hopewell	1	10,823	299,000	201,000	500,000
Newport News	1	32,565	901,000	224,000	1,125,000
WASHINGTON	1	112,500	2,700,000	2,598,000	5,298,000
Everett				756,000	756,000
King County				342,000	342,000
Seattle	1	112,500	2,700,000	1,500,000	4,200,000
WEST VIRGINIA	11	251,648	6,375,000	262,000	6,637,000
Charleston	2	90,619	2,175,000		2,175,000
Huntington	3	81,760	2,101,000		2,101,000
Martinsburg	2	14,363	344,000		344,000
Mount Hope	1	10,988	263,000		263,000
Wheeling	1	39,293	1,088,000	262,000	1,350,000
Williamson	2	14,625	404,000		404,000
WISCONSIN: Superior	1	24,505	678,000		678,000

[1] These figures are based on the maximum rate authorized by law. Under operating budgets now being approved, however, and without sacrificing the desired low rents, the amounts actually paid will be substantially less than the maximum, due to economies in operation and management.

TABLE 5. UNITED STATES HOUSING AUTHORITY.—*Outstanding funds advanced by the USHA to local authorities and short-term borrowings by local authorities from other sources for USHA-aided projects, by State and local authority, as of June 30, 1940*

State and local authority	Outstanding funds advanced by USHA under loan contracts	Outstanding short-term borrowings by local authorities from other sources [1]	Total outstanding USHA advances and local authorities' short-term borrowings from other sources [2]
Total	$78,204,518.22	$240,466,000.	$318,670,518.22
ALABAMA	3,166,000.00	6,200,000	9,366,000.00
Anniston		400,000	400,000.00
Birmingham	2,845,000.00	3,500,000	6,345,000.00
Mobile		1,500,000	1,500,000.00
Montgomery	298,000.00		298,000.00
Phenix City	23,000.00	800,000	823,000.00
ARIZONA: Phoenix	309,000.00		309,000.00
ARKANSAS: North Little Rock	14,000.00		14,000.00
CALIFORNIA	5,393,000.00		5,393,000.00
Los Angeles City	986,000.00		986,000.00
Los Angeles County	1,945,000.00		1,945,000.00
Oakland	849,000.00		849,000.00
San Francisco	1,613,000.00		1,613,000.00
COLORADO: Denver		1,050,000	1,050,000.00
CONNECTICUT	728,000.00	6,200,000	6,928,000.00
Bridgeport	407,000.00	3,200,000	3,607,000.00
Hartford		1,100,000	1,100,000.00
New Britain	80,000.00		80,000.00
New Haven	175,000.00	1,400,000	1,575,000.00
Norwalk		500,000	500,000.00
Stamford	66,000.00		66,000.00
DISTRICT OF COLUMBIA: Washington	934,000.00	3,980,000	4,914,000.00
FLORIDA	6,853,500.00	4,500,000	11,353,500.00
Daytona Beach	423,000.00		423,000.00
Fort Lauderdale	427,000.00		427,000.00
Jacksonville	1,816,000.00		1,816,000.00
Key West	37,000.00		37,000.00
Miami	2,818,000.00		2,818,000.00
Orlando	515,500.00		515,500.00
Pensacola		900,000	900,000.00
St. Petersburg	817,000.00		817,000.00
Tampa		2,600,000	2,600,000.00
West Palm Beach		1,000,000	1,000,000.00
GEORGIA	4,409,500.00	16,598,000	21,007,500.00
Athens	615,500.00		615,500.00
Atlanta		11,000,000	11,000,000.00
Augusta		1,932,000	1,932,000.00
Brunswick	176,500.00		176,500.00
Columbus	1,264,000.00	1,100,000	2,364,000.00
Macon	1,510,000.00		1,510,000.00
Marietta	91,000.00		91,000.00
Rome	750,000.00		750,000.00
Savannah		2,566,000	2,566,000.00
Thomas County	2,500.00		2,500.00
HAWAII: Honolulu	1,611,000.00		1,611,000.00

For footnotes, see p. 356.

TABLE 5. UNITED STATES HOUSING AUTHORITY.—*Outstanding funds advanced by the USHA to local authorities and short-term borrowings by local authorities from other sources for USHA-aided projects, by State and local authority, as of June 30, 1940*—Continued

State and local authority	Outstanding funds advanced by USHA under loan contracts	Outstanding short-term borrowings by local authorities from other sources [1]	Total outstanding USHA advances and local authorities' short-term borrowings from other sources [2]
ILLINOIS	$677,000.00	$11,100,000	$11,777,000.00
Alexander County	76,000.00		76,000.00
Chicago	63,000.00	7,500,000	7,563,000.00
Danville	71,000.00		71,000.00
Granite City	77,000.00		77,000.00
Peoria		3,600,000	3,600,000.00
St. Clair County	30,000.00		30,000.00
Springfield	360,000.00		360,000.00
INDIANA	982,000.00	2,075,000	3,057,000.00
Delaware County		425,000	425,000.00
Fort Wayne	14,000.00		14,000.00
Gary	100,000.00	750,000	850,000.00
Hammond	44,000.00		44,000.00
Kokomo	558,000.00		558,000.00
Muncie		900,000	900,000.00
Vincennes	266,000.00		266,000.00
KENTUCKY	2,208,000.00	8,700,000	10,908,000.00
Covington	1,315,000.00		1,315,000.00
Frankfort	204,000.00		204,000.00
Lexington		670,000	670,000.00
Louisville		8,030,000	8,030,000.00
Paducah	689,000.00		689,000.00
LOUISIANA: New Orleans		20,000,000	20,000,000.00
MARYLAND	400,000.00	14,180,000	14,580,000.00
Annapolis	400,000.00		400,000.00
Baltimore		13,950,000	13,950,000.00
Frederick		230,000	230,000.00
MASSACHUSETTS	179,000.00	14,351,000	14,530,000.00
Boston	146,000.00	10,175,000	10,321,000.00
Fall River		980,000	980,000.00
Holyoke		620,000	620,000.00
Lawrence	33,000.00		33,000.00
Lowell		1,776,000	1,776,000.00
New Bedford		800,000	800,000.00
MICHIGAN	490,000.00	6,700,000	7,190,000.00
Detroit	351,000.00	6,700,000	7,051,000.00
Hamtramck	139,000.00		139,000.00
MISSISSIPPI	188,500.00	2,390,000	2,578,500.00
Biloxi	59,500.00		59,500.00
Hattiesburg		350,000	350,000.00
Laurel		765,000	765,000.00
McComb City	129,000.00	250,000	379,000.00
Meridian		1,025,000	1,025,000.00
MISSOURI: St. Louis	697,000.00		697,000.00
MONTANA		1,135,000	1,135,000.00
Butte		530,000	530,000.00
Great Falls		425,000	425,000.00
Helena		180,000	180,000.00
NEBRASKA: Omaha		3,300,000	3,300,000.00

For footnotes, see p. 356.

TABLE 5. UNITED STATES HOUSING AUTHORITY.—*Outstanding funds advanced by the USHA to local authorities and short-term borrowings by local authorities from other sources for USHA-aided projects, by State and local authority, as of June 30, 1940*—Continued

State and local authority	Outstanding funds advanced by USHA under loan contracts	Outstanding short-term borrowings by local authorities from other sources [1]	Total outstanding USHA advances and local authorities' short-term borrowings from other sources [2]
NEW JERSEY	$5,797,000.00	$13,050,000	$18,847,000.00
Asbury Park		600,000	600,000.00
Atlantic City		1,650,000	1,650,000.00
Beverly	53,000.00		53,000.00
Camden	370,000.00		370,000.00
Elizabeth	2,377,000.00		2,377,000.00
Harrison	338,000.00		338,000.00
Jersey City	613,000.00		613,000.00
Long Branch	440,000.00		440,000.00
Newark	834,000.00	7,500,000	8,334,000.00
North Bergen	772,000.00		772,000.00
Perth Amboy		1,050,000	1,050,000.00
Trenton		2,250,000	2,250,000.00
NEW YORK	13,765,000.00	41,000,000	54,765,000.00
Buffalo	6,754,000.00		6,754,000.00
New York City		41,000,000	41,000,000.00
Syracuse	3,467,000.00		3,467,000.00
Utica	698,000.00		698,000.00
Yonkers	2,846,000.00		2,846,000.00
NORTH CAROLINA	1,004,018.22	4,033,000	5,037,018.22
Charlotte		1,783,000	1,783,000.00
Kinston	70,000.00		70,000.00
New Bern	100,000.00		100,000.00
Raleigh		1,500,000	1,500,000.00
Wilmington	834,018.22	750,000	1,584,018.22
OHIO	6,157,000.00	13,900,000	20,057,000.00
Akron	151,000.00	1,000,000	1,151,000.00
Cincinnati	30,000.00	2,100,000	2,130,000.00
Cleveland	836,000.00	6,250,000	7,086,000.00
Columbus	2,194,000.00		2,194,000.00
Dayton		1,600,000	1,600,000.00
Portsmouth	132,000.00		132,000.00
Toledo	125,000.00	2,200,000	2,325,000.00
Warren	78,000.00		78,000.00
Youngstown	2,611,000.00		2,611,000.00
Zanesville		750,000	750,000.00
PENNSYLVANIA	1,921,000.00	28,109,000	30,030,000.00
Allegheny County	311,000.00		311,000.00
Allentown	1,201,000.00		1,201,000.00
Chester	409,000.00		409,000.00
Harrisburg		1,587,000	1,587,000.00
McKeesport		807,000	807,000.00
Philadelphia		11,000,000	11,000,000.00
Pittsburgh		13,300,000	13,300,000.00
Reading		1,415,000	1,415,000.00
PUERTO RICO	840,000.00	450,000	1,290,000.00
Mayaguez	73,000.00		73,000.00
Ponce	100,000.00	450,000	550,000.00
Puerto Rico Housing Authority	214,000.00		214,000.00
San Juan	453,000.00		453,000.00
RHODE ISLAND	278,000.00		278,000.00
Pawtucket	100,000.00		100,000.00
Providence	178,000.00		178,000.00

For footnotes, see p. 356.

TABLE 5. UNITED STATES HOUSING AUTHORITY.—*Outstanding funds advanced by the USHA to local authorities and short-term borrowings by local authorities from other sources for USHA-aided projects, by State and local authority, as of June 30, 1940*—Continued

State and local authority	Outstanding funds advanced by USHA under loan contracts	Outstanding short-term borrowings by local authorities from other sources [1]	Total outstanding USHA advances and local authorities' short-term borrowings from other sources [2]
SOUTH CAROLINA	$1,204,000.00	$2,540,000	$3,744,000.00
Charleston	1,132,500.00	900,000	2,032,500.00
Columbia		1,640,000	1,640,000.00
Darlington County	3,000.00		3,000.00
Spartanburg	68,500.00		68,500.00
TENNESSEE	1,160,000.00	12,825,000	13,985,000.00
Chattanooga	125,000.00	3,300,000	3,425,000.00
Kingsport	30,000.00	325,000	355,000.00
Knoxville		3,100,000	3,100,000.00
Memphis	655,000.00	5,000,000	5,655,000.00
Nashville	350,000.00	1,100,000	1,450,000.00
TEXAS	13,302,000.00		13,302,000.00
Austin	947,000.00		947,000.00
Brownsville	531,000.00		531,000.00
Corpus Christi	1,200,000.00		1,200,000.00
Dallas	746,000.00		746,000.00
El Paso	1,902,000.00		1,902,000.00
Fort Worth	2,026,000.00		2,026,000.00
Houston	2,038,000.00		2,038,000.00
Laredo	328,000.00		328,000.00
Pelly	24,000.00		24,000.00
San Antonio	3,445,000.00		3,445,000.00
Texarkana	10,000.00		10,000.00
Waco	105,000.00		105,000.00
VIRGINIA	666,000.00		666,000.00
Alexandria	96,000.00		96,000.00
Bristol	431,000.00		431,000.00
Newport News	139,000.00		139,000.00
WASHINGTON: Seattle	411,000.00		411,000.00
WEST VIRGINIA	2,449,000.00	2,100,000	4,549,000.00
Charleston		2,100,000	2,100,000.00
Huntington	2,055,000.00		2,055,000.00
Martinsburg	26,000.00		26,000.00
Mount Hope	219,000.00		219,000.00
Wheeling	93,000.00		93,000.00
Williamson	56,000.00		56,000.00
WISCONSIN: Superior	11,000.00		11,000.00

[1] At the time these short-term loans are made, the USHA issues a commitment to provide funds for their redemption at maturity, which usually does not exceed a period of 6 months.

[2] These figures represent the total outstanding of USHA advances and USHA commitments on *short-term* borrowings.

TABLE 6. UNITED STATES HOUSING AUTHORITY.—*Analysis by 6-month periods of costs per dwelling unit for USHA-aided projects with main construction contracts authorized for award, September 1938–June 1940*

Period	Number of projects	Number of dwelling units	Average cost per dwelling unit	Reduction in costs per dwelling unit			
				Amount		Percentage	
				From previous period	From first period	From previous period	From first period
NET CONSTRUCTION COST							
Total	228	84,927	$2,762				
September 1938–December 1938	13	9,634	2,948				
January 1939–June 1939	42	14,966	2,945	$3	$3	0.1	0.1
July 1939–December 1939	109	39,975	2,746	199	202	6.8	6.9
January 1940–June 1940	64	20,352	2,572	174	376	6.3	12.8
DWELLING FACILITIES COST							
Total	228	84,927	3,390				
September 1938–December 1938	13	9,634	3,570				
January 1939–June 1939	42	14,966	3,613	[1] $43	[1] $43	[1] 1.2	[1] 1.2
July 1939–December 1939	109	39,975	3,359	254	211	7.0	5.9
January 1940–June 1940	64	20,352	3,202	157	368	4.7	10.3
OVER-ALL COST OF NEW HOUSING							
Total	228	84,927	4,414				
September 1938–December 1938	13	9,634	4,765				
January 1939–June 1939	42	14,966	4,703	$62	$62	1.3	1.3
July 1939–December 1939	109	39,975	4,335	368	430	7.8	9.0
January 1940–June 1940	64	20,352	4,191	144	574	3.3	12.0

[1] Increase.

TABLE 7. UNITED STATES HOUSING AUTHORITY.—*Summary of USHA-aided projects for which awards of main construction contracts have been approved as of June 30, 1940*

Project location and name	Project No.	Number of dwelling units [1]	Slum or vacant site	Estimated over-all cost of new housing per dwelling unit						Estimated cost of entire project				Structures
				Total [2]	Land for present development [3]	Nondwelling facilities [4]	Dwelling facilities			Total [5]	Over-all cost of new housing [2]	Slum buildings to be torn down [9]	Land for future development [10]	
							Total [5]	Net construction cost [6]	Equipment, architects' fees and overhead [7]					
Total	228 projects	84,927		$4,414	$366	$658	$3,390	$2,762	$628	$407,891,084	$374,900,554	$31,670,713	$1,319,817	
ALABAMA:														
Anniston: Glen Addie	Ala-4-1	164	Slum	3,449	147	412	2,890	2,245	645	599,374	565,718	33,656	0	2-story row houses, 2-story row houses and flats.
Birmingham:														
Elyton Village	Ala-1-1	860	Vacant	4,659	399	587	3,673	3,019	654	4,007,068	4,007,068	0	0	3-story apartments, 1- and 2-story row houses.
Central City	Ala-1-3R	913	Slum	4,114	904	297	2,913	2,375	538	4,138,107	3,755,642	382,465	0	2-story flats, 3-story apts.
South Town	Ala-1-4R	480	do	3,977	733	458	2,786	2,237	549	2,059,628	1,909,132	150,496	0	2-story row houses and flats.
Mobile:														
Oak Lawn Homes	Ala-2-1	100	Vacant	4,288	80	598	3,610	2,861	749	432,209	428,776	0	3,433	1- and 2-story row houses.
Orange Grove Homes	Ala-2-2	298	Slum	4,090	224	544	3,322	2,660	662	1,339,560	1,218,895	106,841	13,824	Do.
Phenix City: Riverview Courts Apts.	Ala-5-1R	216	do	3,636	126	545	2,965	2,444	521	830,899	785,273	45,626	0	2-story row houses and flats, 2-story flats.
ARIZONA:														
Phoenix: Mathew Henson.	Ariz-1-3	132	do	2,866	121	519	2,226	1,721	505	425,795	378,294	47,501	0	1-story twin houses, 1-story row houses.
CALIFORNIA:														
Los Angeles City: Ramona Gardens.	Cal-4-1	610	85 percent vacant.	3,332	112	442	*2,778	2,130	648	2,051,376	2,032,282	19,094	0	2-story row houses and 2-story flats.
Los Angeles County:														
Carmelitos	Cal-2-1	607	Vacant	4,013	52	756	3,205	2,581	624	2,462,675	2,435,671	0	27,004	1-story row houses, 2-story row houses and flats.
Harbor Hills	Cal-2-2	300	do	4,171	17	855	3,299	2,574	725	1,261,656	1,251,158	0	10,498	2-story row houses, 1- and 2-story flats and row houses.
Maravilla	Cal-2-4	504	80 percent vacant.	3,477	302	587	2,588	2,055	533	1,925,299	1,752,648	172,651	0	1-story row houses.

Oakland: Campbell Village	Cal-3-2	154	Slum	4,327	677	467	3,183	2,574	609	751,690	666,386	85,304	0	2-story flats, 2-story row houses.
San Francisco:														
Holly Courts	Cal-1-1	118	Vacant	4,651	642	376	*3,633	2,970	663	548,772	548,772	0	0	2-story row houses and flats.
Potrero	Cal-1-2	469	90 percent vacant.	4,043	153	939	*2,951	2,449	502	1,954,446	1,895,978	18,826	39,642	2-story row houses and basement flats, 2-story and basement flats.
Sunnydale	Cal-1-3	772	95 percent vacant.	3,505	121	621	*2,763	2,294	469	2,713,584	2,705,995	7,589	0	2-story flats and row houses, 1-story row houses, 2-story row houses.
COLORADO:														
Denver: Lincoln Park	Colo-1-2	346	Slum	4,317	290	475	3,552	2,831	721	1,606,670	1,493,636	113,034	0	2- and 3-story flats and row houses, 3-story apts.
CONNECTICUT:														
Bridgeport: Yellow Mill Village.	Conn-1-1	1,251	do	4,196	427	426	3,343	2,738	605	6,205,143	5,248,938	956,205	0	3-story apartments, 3- and 4-story apartments.
Hartford:														
Nelton Court	Conn-3-1	146	Vacant	4,494	218	486	3,790	3,067	723	656,151	656,151	0	0	2-story row houses, 3-story apartments.
Dutch Point Colony	Conn-3-2	222	do	4,844	158	881	3,805	3,061	744	1,075,320	1,075,320	0	0	2-story row houses, 2-story flats, 3-story apartments.

[1] Figures in this column are based on main construction contract awards. Since the number of dwelling units may vary at different stages of project development, minor variations may be noted between this column and those in USHA tables 8, 9, and 12.

[2] "Over-all cost of new housing" consists of all costs of a project except cost of slum buildings to be torn down, cost of land for future development, and the local housing authority's administrative, carrying and contingent expenses applicable to these excepted items. In stating the "over-all cost of new housing," the following items involved in some projects are not included since they are not properly chargeable to the cost of new housing: (a) The cost of slum buildings to be torn down on the project site, which represents an expenditure not for new housing for slum dwellers, but for slum clearance; and (b) The cost of land for future development, which represents an expenditure not for land for present new housing, but for land which will later be used for and charged to additional housing. The exclusion of these two items for statistical purposes makes possible fair comparisons between costs of housing in USHA-aided projects and costs of housing undertaken by private enterprise when land costs are included.

[3] "Land for present development" consists of the cost of land to be purchased and the value of land to be donated which are to be used for present development, and includes also the expenses of acquiring such land and the local housing authority's administrative, carrying and contingent expenses applicable to such land. It does not include the cost or value of existing "slum buildings to be torn down" or the cost of "land for future development."

[4] "Nondwelling facilities" consists of the construction cost of site improvements and nondwelling buildings, nondwelling spaces and equipment, pre-occupancy charges, and the local housing authority's architectural, administrative, carrying and contingent expenses applicable to these nondwelling facility items.

[5] "Dwelling facilities cost" is the total of the construction cost of dwellings (referred to in footnote 6 as "net construction cost"), dwelling equipment (such as ranges, refrigerators, screens, etc.), and the local housing authority's architectural, administrative, carrying and contingent expenses applicable to dwelling construction and dwelling equipment. The amount shown includes allowances for changes and extras. The asterisk (*) indicates that the applicable statutory limitations to dwelling facilities cost (Sec. 15 (5) U. S. Housing Act of 1937, as amended) are $5,000 per dwelling unit and $1,250 per room (projects in cities with over 500,000 population); on all other projects (i. e., in localities with populations of 500,000 or less) the statutory limitations are $4,000 per dwelling unit and $1,000 per room.

[6] "Net construction cost" is the construction cost of dwellings—i. e., structural, plumbing, heating, and electrical costs. The amounts shown do not include any allowances for changes and extras. The items contained in the "net construction cost" most nearly comprise the items contained in residential construction costs as compiled by the Bureau of Labor Statistics on the basis of building permit data.

[7] "Equipment, architects' fees and overhead" consists of the cost of dwelling equipment (such as ranges, refrigerators, screens, etc.) and the local housing authority's architectural, administrative, carrying and contingent expenses applicable to dwelling construction and dwelling equipment.

[8] "Estimated cost of entire project, total" is the entire cost of the project including not only the "over-all cost of new housing," but also the cost of "slum buildings to be torn down," the cost of "land for future development," and the local housing authority's administrative, carrying and contingent expenses applicable to these items.

[9] "Slum buildings to be torn down" consists of the cost of the slum buildings on the site, the expenses of acquiring the slum buildings, demolition and clearing of site, and the local housing authority's administrative, carrying and contingent expenses applicable to these slum elimination items. These costs are not properly chargeable to new housing but to slum clearance.

[10] "Land for future development" consists of the cost or value of land to be purchased or donated for the future development of additional housing, and also includes the expenses of acquiring the land, and the local housing authority's administrative, carrying and contingent expenses applicable to such land.

[11] Slum buildings on site paid for by PWA Housing Division.

TABLE 7. UNITED STATES HOUSING AUTHORITY.—*Summary of USHA-aided projects for which awards of main construction contracts have been approved as of June 30, 1940*—Continued

Project location and name	Project No.	Number of dwelling units [1]	Slum or vacant site	Estimated over-all cost of new housing per dwelling unit						Estimated cost of entire project				Structures
				Total [2]	Land for present development [3]	Nondwelling facilities [4]	Dwelling facilities			Total [8]	Over-all cost of new housing [9]	Slum buildings to be torn down [9]	Land for future development [10]	
							Total [5]	Net construction cost [6]	Equipment, architects' fees and overhead [7]					
CONNECTICUT—Con.														
New Haven: Elm Haven.	Conn-4-1	442	90 percent slum.	$4,439	$466	$514	$3,459	$2,808	651	$2,399,944	$1,962,226	$437,718	0	2-story row houses and flats, 3-story apartments.
Norwalk: Washington Village.	Conn-2-1	136	70 percent slum.	4,281	119	573	3,589	2,805	784	621,228	582,176	39,052	0	2-story row houses and flats, 2-story flats and apartments, 2-story row houses, flats and apartments.
DISTRICT OF COLUMBIA:														
Washington:														
Fort Dupont Dwellings.	DC-1-1	326	Vacant	5,020	87	613	*4,320	3,690	630	1,665,516	1,636,405	0	$29,111	2-story, 2-story and basement apartments; 3-story, 3-story and basement apartments; 2-story row houses.
Ellen Wilson Dwellings.	DC-1-2	218	Slum	4,711	626	586	*3,499	2,909	590	1,226,178	1,026,906	199,272	0	2-story row houses, 2-story apartments, 3-story apartments.
FLORIDA:														
Daytona Beach: Pine Haven.	Fla-7-1	167	Vacant	2,866	33	386	2,447	1,890	557	481,863	478,666	0	3,197	1-story row houses.
Fort Lauderdale: Dixie Court.	Fla-10-1	150	90 percent vacant.	3,170	69	610	2,491	1,964	527	484,213	475,450	8,763	0	1-story row houses, 1-story twin houses.
Jacksonville:														
Brentwood Park	Fla-1-1	230	Vacant	4,272	139	709	3,424	2,667	757	1,009,825	982,467	0	27,358	2-story combination row houses and flats.
Brentwood Park Addition.	Fla-1-1A	368	do	3,363	1	454	2,908	2,318	590	1,237,676	1,237,676	0	0	1-story row houses, 1- and 2-story row houses.
Miami:														
Edison Courts	Fla-5-1	345	do	4,230	165	556	3,509	2,850	659	1,459,412	1,459,412	0	0	1- and 2-story row houses, 1-story 2-family houses.

Liberty Square Add'n	Fla-5-2	352	...do	2,779	11	327	2,441	1,977	464	978,224	978,224	0	0	1- and 2-story row houses.
Do	Fla-5-3	378	...do	2,754	14	347	2,393	1,905	488	1,041,184	1,041,184	0	0	1-story flats, 2-story row houses.
Orlando: Griffin Park	Fla-4-1	174	Slum	3,074	161	386	2,527	1,907	620	608,094	534,855	66,169	7,070	1- and 2-story row houses.
Pensacola:														
Aragon Court	Fla-6-1	120	...do	4,061	186	584	3,291	2,525	766	567,025	487,304	51,355	28,366	1-story row houses, 2-story row houses, 1-story twin houses.
Attucks Court	Fla-6-2	120	75 percent vacant.	3,839	130	658	3,051	2,348	703	488,628	460,670	19,081	8,877	1- and 2-story row houses.
St. Petersburg: Jordan Park.	Fla-2-1	242	80 percent vacant.	3,734	87	489	3,158	2,490	668	977,961	903,672	62,768	11,521	1- and 2-story row houses and flats, 2-story row houses.
Tampa:														
North Boulevard Homes.	Fla-3-1R	534	50 percent slum.	3,583	186	455	2,942	2,367	575	2,141,238	1,913,150	228,088	0	1- and 2-story row houses, 2-story row houses and flats.
Ponce de Leon Courts	Fla-3-2	320	85 percent vacant.	3,182	218	360	2,604	2,089	515	1,018,196	1,018,196	0	0	1- and 2-story row houses, 2-story row houses, 1- and 2-story row houses and flats, 2-story row houses and flats.
Riverview Terrace	Fla-3-3	328	90 percent vacant.	3,296	194	364	2,738	2,211	527	1,081,167	1,081,167	0	0	1- and 2-story row houses, 2-story row houses and flats.
West Palm Beach:														
Dunbar Village	Fla-9-1	246	Vacant	3,343	90	585	2,668	2,125	543	822,394	822,394	0	0	1- and 2-story row houses, 1-story twin houses.
Southridge	Fla-9-2	122	...do	3,754	140	612	3,002	2,396	606	458,020	458,020	0	0	1-story row houses.
GEORGIA:														
Athens:														
Parkview Homes	Ga-3-1	54	Slum	3,985	127	778	3,080	2,454	626	226,863	215,206	11,657	0	2-story row houses, 2-story flats.
Broad Acres	Ga-3-2	126	...do	3,501	105	496	2,900	2,290	610	469,489	441,128	27,136	1,225	1-story row houses, 2-story row houses and flats.
Atlanta:														
Clark Howell Homes	Ga-6-1	630	...do	4,756	452	624	3,680	3,023	657	3,383,763	2,996,254	387,509	0	2-story row houses, 2-story flats, 3-story row houses and flats.
John Hope Homes	Ga-6-2	606	...do	4,203	434	536	3,233	2,576	657	2,844,357	2,547,231	297,126	0	1-story row houses, 2-story row houses, 2-story flats.
Capitol Homes	Ga-6-3	616	...do	4,454	385	750	3,319	2,649	670	3,046,091	2,743,816	302,275	0	2-story row houses, 2-story row houses and flats.
Henry Grady Homes	Ga-6-4	616	...do	3,779	472	565	2,742	2,164	578	2,691,042	2,327,738	363,304	0	2-story row houses and flats.
John J. Eagan Homes	Ga-6-5R1	548	60 percent slum.	3,499	121	420	2,958	2,477	481	2,039,703	1,917,423	122,280	0	2-story row houses, 2-story row houses and flats, 3-story row houses and flats.
Augusta:														
Olmsted Homes	Ga-1-1	167	Vacant	4,046	73	696	3,277	2,548	729	682,792	675,696	0	7,096	1- and 2-story row houses.
Sunset Homes	Ga-1-2	168	...do	4,167	99	655	3,413	2,688	725	703,968	699,991	0	3,977	Do.
Gilbert Manor	Ga-1-3R	278	Slum	3,310	108	399	2,803	2,207	596	1,021,200	920,306	100,894	0	1-story row houses, 2-story row houses and flats.

For footnotes, see p. 359.

TABLE 7. UNITED STATES HOUSING AUTHORITY.—*Summary of USHA-aided projects for which awards of main construction contracts have been approved as of June 30, 1940*—Continued

Project location and name	Project No.	Number of dwelling units [1]	Slum or vacant site	Estimated over-all cost of new housing per dwelling unit						Estimated cost of entire project				Structures
				Total [2]	Land for present development [3]	Nondwelling facilities [4]	Dwelling facilities			Total [5]	Over-all cost of new housing [2]	Slum buildings to be torn down [9]	Land for future development [10]	
							Total [5]	Net construction cost [6]	Equipment, architects' fees and overhead [7]					
GEORGIA—Continued.														
Brunswick:														
Glynville	Ga-9-1	128	90 percent slum.	$3,527	$149	$538	$2,840	$2,237	$603	$516,355	$451,501	$62,564	$2,290	2-story row houses, 2-story row houses and flats.
McIntyre Courts	Ga-9-2	144	80 percent slum.	3,260	105	473	2,682	2,094	588	520,020	469,448	50,572	0	2-story row houses and flats.
Columbus:														
George Foster Peabody Apartments.	Ga-4-1R	360	Slum	3,344	197	422	2,725	2,228	497	1,359,078	1,203,762	155,316	0	Do.
Booker T. Washington Apartments.	Ga-4-2	288	do	3,256	197	306	2,753	2,240	513	1,048,931	937,812	111,119	0	Do.
Booker T. Washington Apartments Addition.	Ga-4-2A	104	do	3,409	145	419	2,845	2,310	535	414,705	354,510	60,195	0	2-story row houses, 2-story row houses and flats.
Macon:														
Oglethorpe Homes	Ga-7-1	188	do	3,656	134	422	3,100	2,480	620	754,648	687,273	67,375	0	1- and 2-story row houses.
Tindall Heights	Ga-7-2	318	55 percent vacant.	3,444	170	483	2,791	2,206	585	1,175,939	1,095,344	74,484	6,111	2-story row houses, 2-story flats.
Rome:														
DeSoto Homes	Ga-5-1	148	Slum	3,745	196	652	2,897	2,352	545	601,913	554,230	47,683	0	1-story row houses and twin houses, 2-story row houses and flats.
Altoview Terrace	Ga-5-2	94	do	3,595	63	469	3,063	2,515	548	356,235	337,892	18,343	0	2-story row houses, 2-story flats.
Savannah:														
Fellwood Homes	Ga-2-1	176	90 percent vacant.	3,835	289	645	2,901	2,316	585	749,711	675,041	28,676	45,994	2-story row houses, 1-story twin houses.
Yamacraw Village	Ga-2-2	480	Slum	3,906	383	595	2,928	2,351	577	2,194,349	1,875,080	319,269	0	2-story row houses and flats.

Garden Homes	Ga-2-3	314	Vacant	3,455	85	504	2,866	2,288	578	1,114,295	1,084,970	0	29,325	1-story row houses, 2-story row houses, 2-story row houses and flats.
HAWAII:														
Honolulu: Kamehameha Homes.	TH-1-1	221	do	4,872	762	827	3,283	2,673	610	1,076,655	1,076,655	0	0	1-story row houses, 2-story row houses, 1- and 2-story row houses.
ILLINOIS:														
Chicago: Ida B. Wells Homes.	Ill-2-1	1,662	Slum	5,223	467	627	*4,129	3,487	642	8,680,920	8,680,920	(11) 0	0	3- and 4-story apartments, 2-story row houses, 3-story combinations.
Peoria:														
Col. John Warner Homes.	Ill-3-1R	487	do	4,220	273	446	3,501	2,841	660	2,375,425	2,055,171	320,254	0	2-story row houses and flats, 3-story apartments.
Harrison Homes	Ill-3-2	606	80 percent vacant.	4,252	117	580	3,555	2,899	656	2,694,413	2,576,886	117,527	0	2-story row houses and flats.
INDIANA:														
Delaware County: Middletown Gardens.	Ind-4-1	112	Vacant	4,385	43	975	3,367	2,753	614	512,797	491,161	0	21,636	1-story twin houses, 1-story single houses.
Gary: Delaney Community.	Ind-11-1	305	do	4,059	82	879	3,098	2,610	488	1,238,000	1,238,000	0	0	1-story twin houses, 1-story row houses.
Kokomo: Gateway Gardens.	Ind-7-1	176	do	4,157	197	468	3,492	2,890	602	731,680	731,680	0	0	2-story row houses, 1- and 2-story row houses and flats.
Muncie: Munsyana Homes.	Ind-5-1	278	Slum	3,779	387	453	2,939	2,421	518	1,174,184	1,050,598	123,586	0	2-story row houses and flats.
Vincennes: Major Bowman Terrace.	Ind-2-1	83	Vacant	3,517	91	544	2,882	2,300	582	295,888	291,935	0	3,953	1-story twin houses.
KENTUCKY:														
Covington:														
Latonia Terrace	Ky-2-1	235	do	5,128	291	1,166	3,671	3,022	649	1,205,166	1,205,166	0	0	2-story row houses and flats, 3-story combination row houses and flats.
Jacob Price Homes	Ky-2-2	163	Slum	5,175	670	872	3,633	2,988	645	998,832	843,573	155,259	0	Do.
Frankfort: Leestown Terrace.	Ky-3-1	91	Vacant	3,715	106	763	2,846	2,270	576	338,076	338,076	0	0	1-story row houses, 1-story twin houses.
Lexington:														
Fowler's Gardens	Ky-4-1	86	do	3,957	73	571	3,313	2,657	656	340,304	340,304	0	0	2-story row houses, 2-story row houses and flats.
Charlotte Courts	Ky-4-2	206	60 percent vacant.	3,995	168	604	3,223	2,517	706	870,211	822,873	47,338	0	1- and 2-story row houses, 2-story row houses, 2-story row houses and flats.
Louisville:														
Clarksdale	Ky-1-1	786	Slum	4,810	570	715	3,525	2,920	605	4,565,635	3,780,435	785,200	0	2- and 3-story combination row houses and flats.
Beecher Terrace	Ky-1-2	808	do	4,773	698	640	3,435	2,784	651	4,518,167	3,856,643	661,524	0	2-story flats, 2- and 3-story row houses and flats.

For footnotes, see p. 359.

TABLE 7. UNITED STATES HOUSING AUTHORITY.—*Summary of USHA-aided projects for which awards of main construction contracts have been approved as of June 30, 1940*—Continued

Project location and name	Project No.	Number of dwelling units [1]	Slum or vacant site	Estimated over-all cost of new housing per dwelling unit						Estimated cost of entire project				Structures
				Total [2]	Land for present development [3]	Nondwelling facilities [4]	Dwelling facilities			Total [8]	Over-all cost of new housing [9]	Slum buildings to be torn down [9]	Land for future development [10]	
							Total [5]	Net construction cost [6]	Equipment, architects' fees and overhead [7]					
KENTUCKY—Continued.														
Paducah:														
Thomas Jefferson Place.	Ky-6-1	125	Slum	$3,760	$219	$486	$3,055	$2,374	$681	$521,810	$469,949	$51,861	0	2-story row houses and flats.
Abraham Lincoln Court.	Ky-6-2	74	do	4,306	346	649	3,311	2,581	730	353,616	318,673	34,943	0	1-story row houses, 2-story row houses and flats.
LOUISIANA:														
New Orleans:														
St. Thomas St	La-1-1	970	do	5,179	480	738	3,961	3,222	739	5,825,711	5,024,032	801,679	0	2-story flats, 2- and 3-story row houses and flats.
Magnolia St	La-1-2	723	do	4,884	529	697	3,658	2,932	726	4,212,999	3,531,326	681,673	0	Do.
Iberville	La-1-3	858	do	5,340	942	598	3,800	3,000	800	5,047,491	4,581,674	465,817	0	2-story flats, 3-story row houses and flats.
Lafitte	La-1-5	896	do	4,887	515	705	3,667	2,943	724	5,005,564	4,378,641	626,923	0	2-story row houses and flats, 2-story flats, 2- and 3-story row houses and flats, 3-story row houses and flats.
Calliope St	La-1-7	690	97 percent vacant.	5,142	321	840	3,981	3,228	753	3,567,175	3,548,320	18,855	0	2- and 3-story flats, 2-story row houses.
St. Bernard	La-1-8	744	65 percent slum.	4,881	217	997	3,667	2,839	828	3,754,412	3,631,366	123,046	0	2-story row houses, 2- and 3-story flats and row houses, 3-story flats and row houses.
MARYLAND:														
Annapolis: College Creek Terrace.	Md-1-1	108	75 percent vacant.	4,115	68	566	3,481	2,810	671	488,991	444,390	40,543	$4,058	2-story row houses, 2-story flats.
Baltimore:														
Latrobe Homes	Md-2-1	701	Slum	4,677	744	685	*3,248	2,767	481	3,943,261	3,278,361	664,900	0	2- and 3-story flats and row houses, 3-story flats, 3-story flats and row houses.

McCulloh Homes	Md-2-2	434	...do	4,568	689	722	*3,157	2,586	571	2,549,456	1,982,621	366,835	0	2- and 3-story flats and row houses, 3-story flats and row houses.
Edgar Allen Poe Homes.	Md-2-4	298	...do	5,242	720	682	*3,840	3,231	609	1,826,415	1,562,231	264,184	0	3-story combination flats and apartments, 2-story flats and row houses.
Frederick Douglass Homes.	Md-2-5	393	...do	5,014	924	698	*3,392	2,801	591	2,354,022	1,970,654	383,368	0	2-story flats, 3-story row houses and flats.
Armistead Gardens	Md-2-7	700	Vacant	3,215	59	623	*2,533	2,137	396	2,366,106	2,250,522	0	115,584	1-story row houses, 2-story row houses, 2-story row houses and flats.
Frederick: Lincoln Apartments.	Md-3-2	50	...do	4,111	449	597	3,065	2,385	680	205,558	205,558	0	0	2-story flats.
MASSACHUSETTS:														
Boston:														
Charlestown	Mass-2-1	1,089	Slum	4,622	514	463	*3,645	2,992	653	5,842,050	5,033,206	808,844	0	3-story apartments.
South Boston	Mass-2-2	873	...do	4,794	458	631	*3,705	3,024	681	5,021,755	4,185,217	836,538	0	Do.
Mission Hill	Mass-2-3	1,023	...do	4,570	600	506	*3,464	2,830	634	5,643,114	4,674,604	968,510	0	Do.
Lenox St	Mass-2-4	306	...do	5,035	733	659	*3,643	2,916	727	1,690,924	1,540,595	150,329	0	Do.
Fall River: Sunset Hills.	Mass-6-1	356	80 percent vacant.	4,715	156	636	3,923	3,193	730	1,715,167	1,678,462	36,705	0	1-story apartments, 2-story row houses and flats.
Holyoke: Lyman Terrace.	Mass-5-1	167	Slum	4,977	369	746	3,862	3,018	844	925,277	831,190	94,087	0	2-story row houses, 2-story row houses and flats.
Lowell: North Common Village.	Mass-1-1	536	...do	4,914	479	488	3,947	3,202	745	3,061,918	2,633,736	428,182	0	2-story row houses, 3-story apartments.
New Bedford: Presidential Heights.	Mass-7-1	200	...do	4,802	414	587	3,801	3,005	796	1,166,684	960,454	206,230	0	1- and 2-story row houses, 1- and 2-story row houses and flats, 2-story row houses and flats.
MICHIGAN:														
Detroit:														
Brewster Addition	Mich-1-1	240	...do	5,985	754	562	*4,669	3,813	856	1,436,457	1,436,457	(11) 0	0	2-story row houses, 3-story apartments.
Parkside Addition	Mich-1-2	440	Vacant	5,900	257	1,118	*4,525	3,644	881	2,094,446	2,094,446	0	0	2-story row houses and flats, 3-story row houses and flats, 2-story flats.
Charles Avenue	Mich-1-5	355	...do	5,330	295	946	*4,089	3,279	810	2,345,274	2,345,274	0	0	2-story row houses and flats, 2-story flats, 2- and 3-story row houses and flats.
MISSISSIPPI:														
Hattiesburg: Robertson Place.	Miss-1-2	120	90 percent vacant.	3,367	59	463	2,845	2,199	646	405,350	404,063	1,287	0	2-story row houses, 2-story row houses and flats.
Laurel: Beacon Homes	Miss-2-1	150	Vacant	3,749	149	495	3,105	2,583	522	562,396	562,396	0	0	2-story row houses, 1-story twin houses.
Triangle Homes	Miss-2-2	125	...do	3,556	129	452	2,975	2,391	584	444,495	444,495	0	0	1-story row houses, 2-story row houses.
McComb City:														
Burgland Heights	Miss-3-1	76	Slum	3,972	40	493	3,439	2,747	692	313,772	301,869	11,903	0	2-story row houses.
White Acres	Miss-3-2	84	90 percent vacant.	3,534	48	522	2,964	2,347	617	312,594	296,873	15,721	0	1- and 2-story row houses, 2-story row houses.
Meridian	Miss-4-1	89	85 percent slum.	3,458	183	332	2,943	2,378	565	318,450	307,737	10,713	0	2-story row houses, 2-story row houses and flats.

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							Total [5]	Net construction cost [6]	Equipment, architects' fees and overhead [7]					
MISSISSIPPI—Continued.														
Meridian	Miss-4-2	113	Slum	$2,974	$116	$374	$2,484	$1,967	$517	$365,562	$336,036	$29,526	0	Do.
Do	Miss-4-3	80	80 percent slum.	3,619	86	591	2,942	2,378	564	303,351	289,547	13,804	0	Do.
Do	Miss-4-4	97	Slum	3,389	97	534	2,758	2,252	506	344,016	328,735	15,281	0	Do.
MONTANA:														
Butte: Silver Bow Homes.	Mont-3-1	225	70 percent slum.	4,461	170	539	3,752	3,028	724	1,108,431	1,003,805	104,626	0	2-story row houses and flats.
Great Falls: Parkdale	Mont-2-1	156	Vacant	4,721	78	828	3,815	2,922	893	739,438	736,404	0	$3,034	1-story row houses, 2-story row houses, 1- and 2-story row houses.
Helena: Samuel V. Stewart Homes.	Mont-4-1	72	95 percent vacant.	4,530	88	863	3,579	2,707	872	334,772	326,127	0	8,645	1-story twin houses, 2-story row houses.
NEBRASKA:														
Omaha:														
South Side Terrace Homes.	Nebr-1-1	522	75 percent slum.	4,567	105	773	3,689	3,021	668	2,642,241	2,383,962	258,279	0	2-story flats, 2-story row houses.
Logan Fontenelle Addition.	Nebr-1-2	272	65 percent slum.	4,420	227	534	3,659	2,894	765	1,297,560	1,202,187	95,373	0	2-story row houses, 2-story row houses and flats.
NEW JERSEY:														
Asbury Park: Asbury Park Village.	NJ-7-1	126	Slum	4,983	336	712	3,935	2,994	941	753,592	627,823	118,058	7,711	2-story row houses and flats.
Atlantic City: Jonathan Pitney Village.	NJ-14-1	333	66 percent slum.	5,236	562	738	3,936	3,181	755	1,981,377	1,743,667	237,710	0	Do.
Camden: C. T. Branch Village.	NJ-10-1	279	50 percent slum.	4,457	201	536	3,720	2,956	764	1,393,034	1,243,569	149,465	0	2-story row houses, 2-story flats.
Elizabeth:														
Mravlag Manor	NJ-3-1	423	80 percent vacant.	4,777	165	1,018	3,594	2,897	697	2,119,429	2,020,724	69,676	29,029	3-story apartments.

Pioneer Homes	NJ-3-2	405	Slum	4,416	318	359	3,739	2,992	747	2,213,767	1,788,341	425,426	0	Do.
Harrison: Harrison Gardens.	NJ-16-1	214	95 percent vacant.	4,970	517	514	3,939	3,223	716	1,063,564	1,063,564	0	0	3-story apartments, 4-story apartments, 3-story flats, row houses, and apartments, 3-story flats and row houses.
Jersey City	NJ-9-1	490	75 percent vacant.	4,808	385	813	3,610	2,954	656	2,441,369	2,355,872	85,497	0	3-story apartments.
Long Branch: Garfield Court	NJ-8-1	127	60 percent vacant.	4,653	167	647	3,839	3,098	741	633,882	590,938	42,944	0	2-story flats, 2-story row houses.
Newark:														
Seth Boyden Court	NJ-2-1	530	Vacant	5,036	572	798	3,666	3,101	565	2,746,124	2,669,340	0	76,784	3-story apartments.
Pennington Court	NJ-2-2	236	80 percent vacant.	5,022	514	908	3,600	2,999	601	1,260,972	1,185,096	75,876	0	Do.
Jas. M. Baxter Terrace.	NJ-2-5	614	Slum	5,073	537	621	3,915	3,232	683	3,833,988	3,114,909	719,079	0	Do.
Stephen Crane Village.	NJ-2-6	354	Vacant	4,612	400	779	3,433	2,845	588	1,632,588	1,632,588	0	0	2-story row houses and flats.
North Bergen: Meadow View Village.	NJ-4-1	172	Slum	5,295	506	930	3,859	3,129	730	1,001,145	910,724	90,421	0	3-story apartments, 2-story row houses.
Perth Amboy: William Dunlap Homes.	NJ-6-1	258	Vacant	4,831	281	708	3,842	3,177	665	1,246,419	1,246,419	0	0	2-story row houses and flats.
Trenton:														
Lincoln Homes	NJ-5-1	118	Slum	4,865	345	796	3,724	2,998	726	634,806	574,085	60,721	0	2-story row houses and flats, 3-story apartments.
Mayor Donnelly Homes.	NJ-5-2	376	50 percent slum.	4,639	283	670	3,686	2,997	689	2,010,646	1,744,341	266,305	0	Do.
New York:														
Buffalo:														
Lakeview	NY-2-1	668	75 percent vacant.	5,244	473	704	*4,067	3,323	744	3,868,986	3,502,682	366,304	0	2-story row houses, 3-story apartments.
Willert Park	NY-2-2	173	Slum	4,678	332	436	*3,910	3,224	686	919,909	809,232	110,677	0	2-story flats, 3-story apartments and combinations.
Commodore Perry	NY-2-3	772	do	5,134	470	722	*3,942	3,332	610	4,413,919	3,963,138	450,781	0	2-story row houses, 3-story apartments.
New York:														
Red Hook Houses	NY-5-1	2,583	53 percent slum.	4,688	412	504	*3,772	3,155	617	13,096,843	12,107,841	989,002	0	6-story apartments.
Queensbridge Houses	NY-5-2	3,161	8 percent slum.	4,685	655	686	*3,344	2,766	578	15,393,000	14,809,564	279,448	303,988	Do.
Vladeck Houses	NY-5-3	1,531	Slum	4,779	974	331	*3,474	2,913	561	8,610,801	7,315,951	1,294,850	0	Do.
South Jamaica Houses	NY-5-4	448	70 percent slum.	4,460	269	527	*3,664	2,977	687	2,351,335	1,998,275	353,060	0	3- and 4-story apartments.
East River Houses	NY-5-5	1,170	Slum	4,568	910	487	*3,171	2,597	574	5,830,617	5,344,931	485,686	0	6-story apartments, 6- and 10-story apartments, 10-story apartments, 11-story apartments.
Syracuse: Pioneer Homes.	NY-1-1	678	do	5,287	859	817	3,611	2,960	651	4,549,656	3,584,839	964,817	0	2-story row houses, 2-story flats, 3-story apartments.
Utica: Adrean Terrace	NY-6-1	213	Vacant	4,535	150	693	3,692	2,976	716	966,000	966,000	0	0	Do.

For footnotes, see p. 359.

TABLE 7. UNITED STATES HOUSING AUTHORITY.—*Summary of USHA-aided projects for which awards of main construction contracts have been approved as of June 30, 1940*—Continued

Project location and name	Project No.	Number of dwelling units [1]	Slum or vacant site	Estimated over-all cost of new housing per dwelling unit						Estimated cost of entire project				Structures
				Total [2]	Land for present development [3]	Nondwelling facilities [4]	Dwelling facilities			Total [2]	Over-all cost of new housing [2]	Slum buildings to be torn down [9]	Land for future development [10]	
							Total [5]	Net construction cost [6]	Equipment, architects' fees and overhead [7]					
NEW YORK—Continued.														
Yonkers: Mulford Gardens.	NY-3-1	552	Slum	$5,223	$322	$1,051	$3,850	$3,163	$687	$3,481,274	$2,883,091	$598,183	0	3-story and basement apartments.
NORTH CAROLINA:														
Charlotte:														
Piedmont Courts	NC-3-1	256	75 percent vacant.	3,137	70	231	2,836	2,345	491	852,018	802,963	29,067	$19,988	2-story row houses and flats.
Piedmont Courts Addition.	NC-3-1A	108	do	3,248	0	516	2,732	2,265	467	350,789	350,789	0	0	2-story row houses.
Fairview Homes	NC-3-2	452	95 percent vacant.	2,839	46	248	2,545	2,074	471	1,302,115	1,283,204	6,466	12,445	2-story row houses, 2-story flats.
Raleigh:														
Chavis Heights	NC-2-1	231	55 percent vacant.	3,721	55	541	3,125	2,493	632	986,277	859,539	103,800	22,938	2-story row houses.
Halifax Court	NC-2-2	231	95 percent vacant.	4,300	185	720	3,395	2,731	664	1,021,681	993,225	23,512	4,944	Do.
Wilmington:														
Charles T. Nesbit Courts.	NC-1-1R	216	70 percent vacant.	4,032	144	547	3,341	2,701	640	901,354	870,863	30,491	0	2-story row houses and flats.
New Brooklyn Homes	NC-1-2R	246	70 percent slum.	3,878	129	529	3,220	2,570	650	1,057,837	953,994	75,380	28,463	2-story row houses, 2-story flats.
OHIO:														
Akron: Elizabeth Park	Ohio-7-1	276	80 percent slum.	4,315	277	853	3,185	2,507	678	1,383,676	1,191,036	192,640	0	2-story row houses, 2-story row houses and flats.
Cincinnati:														
Winton Terrace	Ohio-4-1	75	0 Vacant	4,297	46	990	3,261	2,655	606	3,323,089	3,222,834	0	100,255	2-story row houses and flats, 1-story row houses, 2-story row houses.
Laurel Homes Addition.	Ohio-4-3	264	Slum	4,438	636	329	3,473	2,793	680	1,171,733	1,171,733	(11)	0	3- and 4-story apartments.
Cleveland:														
Valleyview Homes	Ohio-3-1	58	75 percent slum.	5,464	508	789	*4,167	3,441	726	3,554,643	3,180,173	374,470	0	2-story row houses, 2-story row houses and flats.

Woodhill Homes	Ohio-3-4	568	Vacant	5,270	290	949	*4,031	3,272	759	2,993,584	2,993,584	0	0	3-story apartments, 2-story row houses, 2-story row houses and flats.
Columbus: Poindexter Village.	Ohio-1-1	426	Slum	4,241	247	710	3,284	2,712	572	2,158,781	1,806,698	352,083	0	2-story row houses, 2-story row houses and flats.
Dayton:														
Parkside Homes	Ohio-5-1R	604	Vacant	3,689	62	669	2,958	2,314	644	2,268,645	2,228,178	0	40,467	Do.
DeSoto Bass Courts	Ohio-5-2	200	do	4,706	112	956	3,638	2,917	721	955,315	941,164	0	14,151	2-story row houses and flats.
Portsmouth: Wayne Hills.	Ohio-10-1	260	do	4,293	95	682	3,516	2,718	798	1,137,681	1,116,105	0	21,576	Do.
Toledo:														
Charles F. Weiler Homes.	Ohio-6-1	384	do	5,050	310	1,064	3,676	2,996	680	1,939,055	1,939,055	0	0	2-story row houses, 2-story flats and combinations.
Brand Whitlock Homes Addition.	Ohio-6-2	112	Slum	4,223	365	312	3,546	2,892	654	473,017	473,017	(11) 0	0	2-story row houses, 2-story flats and row houses.
Warren: Trumbull Homes.	Ohio-8-1	226	Vacant	4,558	71	841	3,646	2,891	755	1,036,197	1,030,192	0	6,005	2-story row houses, 2-story flats.
Youngstown; Westlake Terrace.	Ohio-2-1	618	33 percent slum.	4,863	295	1,034	3,534	2,926	608	3,170,618	3,005,433	165,185	0	2-story row houses, 2-story flats and combinations.
Zanesville: Coopermill Manor.	Ohio-9-1	324	70 percent vacant.	4,882	57	1,113	3,712	3,002	710	1,648,000	1,581,812	56,451	9,737	2-story row houses, 2-story twin houses, 2-story flats.
PENNSYLVANIA:														
Allegheny County: McKees Rocks.	Pa-6-2	288	Vacant	4,611	242	746	3,623	2,887	736	1,327,928	1,327,928	0	0	2-story row houses, 2-story row houses and flats.
Allentown: Hanover Acres.	Pa-4-1	322	do	4,955	167	884	3,904	3,179	725	1,595,582	1,595,582	0	0	1- and 2-story row houses.
Chester: Lamokin Village.	Pa-7-1	350	50 percent slum.	4,088	259	561	3,268	2,629	639	1,652,066	1,430,822	221,244	0	2-story row houses and flats, 2-story flats, 2- and 3-story row houses and flats.
Harrisburg:														
Wm. Howard Day Homes.	Pa-8-1	200	90 percent vacant.	4,417	183	760	3,474	2,677	797	920,874	883,474	31,444	5,956	2-story row houses and flats.
Geo. A. Hoverter Homes.	Pa-8-2	236	Vacant	4,381	161	648	3,572	2,808	764	1,033,960	1,033,960	0	0	2-story row houses, 2-story row houses and flats, 2-story flats.
McKeesport: E. R. Crawford Village.	Pa-5-1	206	do	5,342	237	1,201	3,904	3,159	745	1,135,498	1,100,359	0	35,139	2-story row houses and flats.
Philadelphia:														
James W. Johnson Homes.	Pa-2-1	535	90 percent vacant.	5,927	571	1,017	*4,339	3,587	752	3,268,355	3,170,962	97,393	0	2-story row houses, 3-story flats.
Tasker Street	Pa-2-2	1,000	Vacant	5,349	264	1,124	*3,961	3,250	711	5,348,572	5,348,572	0	0	2- and 3-story row houses and flats.
Pittsburgh:														
Terrace Village I	Pa-1-1	804	70 percent vacant.	5,838	321	1,582	*3,935	3,389	546	4,911,471	4,693,648	217,823	0	3-story apartments.
Bedford Dwellings	Pa-1-2	420	60 percent vacant.	5,752	421	1,330	*4,001	3,334	667	2,557,990	2,415,725	142,265	0	3-story apartments, 2-story flats, 2-story row houses.
Terrace Village II	Pa-1-3	1,851	Slum	5,047	305	1,344	*3,398	2,780	618	10,159,572	9,342,204	817,368	0	3-story apartments.
Reading: Glenside	Pa-9-1	400	Vacant	4,865	150	823	3,892	3,122	770	1,946,073	1,946,073	0	0	2-story row houses and flats.

For footnotes, see p. 359.

TABLE 7. UNITED STATES HOUSING AUTHORITY.—*Summary of USHA-aided projects for which awards of main construction contracts have been approved as of June 30, 1940*—Continued

Project location and name	Project No.	Number of dwelling units [1]	Slum or vacant site	Estimated over-all cost of new housing per dwelling unit						Estimated cost of entire project				Structures
				Total [2]	Land for present development [3]	Nondwelling facilities [4]	Dwelling facilities			Total [5]	Over-all cost of new housing [2]	Slum buildings to be torn down [9]	Land for future development [10]	
							Total [5]	Net construction cost [6]	Equipment, architects' fees and overhead [7]					
PUERTO RICO:														
Ponce:														
Ponce De Leon	PR-1-1	300	Vacant	$1,749	$197	$259	$1,293	$1,091	$202	$524,690	$524,690	0	0	2-story flats and apartments.
Portugues River Homes.	PR-1-4	152	do	1,819	312	241	1,266	1,079	187	276,466	276,466	0	0	Do.
P. R. Hsg. Auth. (Fajardo), Dr. Santiago Veve Calzada.	PR-3-1	210	do	2,000	315	347	1,338	1,183	155	419,956	419,956	0	0	1-story detached houses.
San Juan: Las Casas	PR-2-1	420	do	1,908	153	198	1,557	1,329	228	801,501	801,501	0	0	2-story flats and apartments.
SOUTH CAROLINA:														
Charleston:														
Robert Mills Manor	SC-1-1	140	Slum	4,876	509	791	3,576	2,939	637	780,413	682,600	$97,813	0	2-story row houses, 2-story flats.
Anson Borough Homes.	SC-1-3	162	do	3,662	361	569	2,732	2,268	464	701,664	593,205	108,459	0	1-story row houses.
Wragg Borough Homes.	SC-1-4	128	do	3,756	480	487	2,789	2,305	484	641,948	480,785	161,163	0	1-story row houses, 1-story twin houses.
Robert Mills Manor Extension.	SC-1-6	129	90 percent slum.	4,267	812	444	3,011	2,512	499	620,218	550,497	69,721	0	2-story row houses, 3-story row houses and flats.
Columbia:														
Gonzales Gardens	SC-2-1	236	Slum	3,874	293	484	3,097	2,487	610	995,507	914,186	81,321	0	2-story row houses and flats.
Allen-Benedict Court	SC-2-2	244	do	3,619	137	564	2,918	2,277	641	984,251	882,993	91,117	$10,141	1-story row houses, 2-story row houses and flats.
TENNESSEE:														
Chattanooga:														
College Hill Courts	Tenn-4-1	497	do	4,426	285	577	3,564	2,911	653	2,438,758	2,199,687	239,071	0	2- and 3-story row houses and flats, 2-story flats, 2-story row houses.

East Lake Courts	Tenn-4-2R	437	Vacant	4,267	72	651	3,544	2,866	678	1,864,801	1,864,801	0	0	2-story row houses, 1- and 2-story row houses.
Kingsport:														
Robert E. Lee Homes	Tenn-6-1	128	85 percent vacant.	3,508	91	396	3,021	2,503	518	452,142	448,961	3,181	0	2-story row houses, 2-story row houses and flats.
Riverview	Tenn-6-2	48	Vacant	3,289	48	279	2,962	2,441	521	157,875	157,875	0	0	Do.
Knoxville:														
Western Heights	Tenn-3-1	244	do	5,117	85	1,319	3,713	2,955	758	1,248,511	1,248,511	0	0	1-story row houses, 2-story row houses, 2-story flats.
College Homes	Tenn-3-2	320	Slum	4,481	161	756	3,564	2,844	720	1,547,036	1,434,008	113,028	0	2-story row houses, 2-story row houses and flats.
Austin Homes	Tenn-3-3	200	75 percent slum.	4,093	159	646	3,288	2,599	689	867,702	818,540	49,162	0	Do.
Memphis:														
Lamar Terrace	Tenn-1-1	478	Slum	4,617	381	716	3,520	2,878	642	2,516,952	2,206,977	309,975	0	Do.
Wm. H. Foote Homes	Tenn-1-2R	900	do	4,306	399	536	3,371	2,733	638	4,461,710	3,874,969	586,741	0	2-story row houses and flats.
Nashville:														
Boscobel Heights	Tenn-5-1	350	60 percent slum.	3,785	122	504	3,159	2,468	691	1,391,591	1,324,598	66,993	0	2-story row houses, 2-story row houses and flats.
J. C. Napier Homes	Tenn-5-2	332	Slum	3,724	170	465	3,089	2,405	684	1,346,635	1,236,321	110,314	0	Do.
TEXAS:														
Austin:														
Chalmers St. and Addition.	Tex-1-(1 & 1A).	162	do	3,965	242	509	3,214	2,659	555	663,927	642,300	21,627	0	1-story row houses, 2-story row houses, 1- and 2-story row houses and flats.
Rosewood and Addition.	Tex-1-(2 & 2A).	130	Vacant	3,946	120	856	2,970	2,468	502	512,967	512,967	0	0	1-story row houses, 2-story row houses, 2-story row houses and flats.
Santa Rita	Tex-1-3	40	do	3,591	205	712	2,674	2,145	529	146,264	143,626	0	2,638	1-story row houses.
Brownsville: Buena Vida.	Tex-7-1	150	Slum	3,627	274	645	2,708	2,250	458	587,933	544,022	30,240	13,671	1-story row houses, 2-story row houses.
Corpus Christi:														
Kinney Place and Addition.	Tex-8-(1R & 1RA).	158	33 percent slum.	3,541	193	562	2,786	2,257	529	593,960	559,518	34,442	0	2-story row houses, 2-story row houses and flats.
Navarro Place	Tex-8-2R	210	Slum	3,320	265	452	2,603	2,077	526	749,482	697,285	52,197	0	1-story row houses, 2-story row houses, 2-story row houses and flats.
D. N. Leathers Center.	Tex-8-3R	98	Vacant	3,802	486	511	2,805	2,200	605	372,555	372,555	0	0	Do.
El Paso:														
Alamito	Tex-3-1	314	Slum	3,216	294	363	2,559	2,131	428	1,174,014	1,009,787	140,711	23,516	Do.
Tays Place	Tex-3-2	311	do	3,585	255	474	2,856	2,366	490	1,264,642	1,115,000	149,642	0	Do.

For footnotes, see p. 359.

TABLE 7. UNITED STATES HOUSING AUTHORITY.—*Summary of USHA-aided projects for which awards of main construction contracts have been approved as of June 30, 1940*—Continued

Project location and name	Project No.	Number of dwelling units [1]	Slum or vacant site	Estimated over-all cost of new housing per dwelling unit						Estimated cost of entire project				Structures
				Total [2]	Land for present development [3]	Nondwelling facilities [4]	Dwelling facilities			Total [8]	Over-all cost of new housing [9]	Slum buildings to be torn down [9]	Land for future development [10]	
							Total [4]	Net construction cost [5]	Equipment, architects' fees and overhead [7]					
TEXAS—Continued.														
Fort Worth:														
Ripley Arnold Place	Tex-4-1	252	Slum	$4,286	$434	$700	$3,152	$2,537	$615	$1,203,514	$1,080,151	$123,363	0	1- and 2-story row houses, 2-story row houses and flats.
Butler Place	Tex-4-2	250	do	3,800	197	690	2,913	2,399	514	1,053,568	949,993	103,575	0	Do.
Houston:														
Cuney Homes	Tex-5-1	360	80 percent vacant.	4,037	109	599	3,329	2,740	589	1,498,143	1,453,249	26,591	$18,303	2-story row houses.
Lyons-Nance	Tex-5-2	333	Slum	4,054	381	486	3,187	2,524	663	1,615,367	1,349,895	228,160	37,312	2-story row houses, 2-story row houses and flats.
Laredo: Guadalupe	Tex-11-1	272	do	3,130	183	607	2,340	1,927	413	908,258	851,428	56,830	0	1-story row houses, 2-story row houses, 2-story row houses and flats.
San Antonio:														
Alazan Courts	Tex-6-1	932	do	3,729	531	586	2,612	2,247	365	3,959,530	3,475,010	484,520	0	1-story row houses, 2-story row houses.
Wheatley Courts	Tex-6-4	236	50 percent slum.	3,073	106	440	2,527	1,987	540	766,845	725,354	41,491	0	2-story flats.
VIRGINIA:														
Bristol:														
Wm. L. Rice Terrace	Va-2-1	136	Slum	3,631	244	443	2,944	2,393	551	543,895	493,843	41,415	8,637	2-story row houses, 2-story row houses and flats.
Johnson Court	Va-2-2	68	50 percent slum.	3,500	161	416	2,923	2,362	561	243,960	237,988	5,972	0	Do.

WEST VIRGINIA:														
Charleston:														
Washington Manor	W Va–1–1	304	Slum	4,472	352	622	3,498	2,824	674	1,495,510	1,359,385	136,125	0	3-story apartments, 3-story combination flats and row houses.
Littlepage Terrace	W Va–1–2	170	Vacant	5,128	534	819	3,775	3,095	680	871,828	871,828	0	0	2-story row houses, 3-story apartments, 3-story flats and row houses.
Huntington:														
Washington Square	W Va–4–1	80	Slum	4,745	499	586	3,660	2,967	693	425,258	379,591	45,667	0	2-story row houses, 2-story row houses and flats.
Northcott Court	W Va–4–2	136	do	4,512	490	561	3,461	2,798	663	622,083	613,649	8,434	0	Do.
Marcum Terrace	W Va–4–3	284	Vacant	4,537	143	744	3,650	2,940	710	1,288,398	1,288,398	0	0	Do.
Martinsburg:														
Adam Stephen Homes	W Va–6–1	48	do	3,827	61	435	3,331	2,684	647	183,739	183,739	0	0	Do.
Horatio Gates Village	W Va–6–2	52	do	3,821	110	484	3,227	2,594	633	198,678	198,678	0	0	Do.
Mount Hope: Stadium Terrace-Dubois Homes	W Va–7–1	70	do	4,384	126	823	3,435	2,838	597	310,062	306,868	0	3,194	2-story twin houses.

For footnotes, see p. 359.

TABLE 8. UNITED STATES HOUSING AUTHORITY.—*Average family size, rent, and income in USHA-aided projects for which management resolutions have been approved*

[Reports received as of June 30, 1940]

Project location and name	Project No.	Number of dwelling units [1]	Average family size [2]	Average monthly shelter rent per dwelling unit [3]	Average annual family income [2]
Total	64 projects	22,807	3.90	$12.92	$787
CALIFORNIA:					
San Francisco: Holly Courts	CAL-1-1	118	3.70	13.78	830
CONNECTICUT:					
Bridgeport: Yellow Mill Village	CONN-1-1	1,251	4.40	12.90	1,000
FLORIDA:					
Daytona Beach: Pine Haven	FLA-7-1	167	3.19	7.36	470
Fort Lauderdale: Dixie Court	FLA-10-1	150	4.00	7.80	555
Jacksonville: Brentwood Park	FLA-1-1	230	*3.61	10.64	*699
Miami:					
Edison Courts	FLA-5-1	345	*3.42	11.90	*707
Liberty Square Addition	FLA-5-2	352	3.30	8.05	541
Liberty Square Addition	FLA-5-3	378	4.00	6.32	442
Pensacola: Attucks Court	FLA-6-2	120	3.39	8.22	482
St. Petersburg: Jordan Park	FLA-2-1	242	4.00	8.85	525
Tampa: North Boulevard Homes	FLA-3-1R	534	4.20	8.55	583
GEORGIA:					
Augusta:					
Olmsted Homes	GA-1-1	167	4.20	10.35	665
Sunset Homes	GA-1-2	168	4.40	8.52	498
INDIANA:					
Vincennes: Major Bowman Terrace	IND-2-1	83	*4.16	8.85	*612
KENTUCKY:					
Frankfort: Leestown Terrace	KY-3-1	91	3.08	9.86	750
Louisville:					
Clarksdale	KY-1-1	786	3.96	13.00	750
Beecher Terrace	KY-1-2	808	3.50	10.22	627
MARYLAND:					
Annapolis: College Creek Terrace	MD-1-1	107	3.34	11.09	802
NEBRASKA:					
Omaha: South Side Terrace Homes	NEBR-1-1	522	4.10	13.35	851
NEW JERSEY:					
Elizabeth: Mravlag Manor	NJ-3-1	423	4.05	14.74	868
Long Branch: Garfield Court	NJ-8-1	127	3.70	12.92	925
Newark:					
Seth Boyden Court	NJ-2-1	530	4.05	17.86	1,000
Pennington Court	NJ-2-2	236	*3.74	13.79	*913
Stephen Crane Village	NJ-2-6	354	4.00	17.72	1,000
North Bergen: Meadow View Village	NJ-4-1	172	4.05	13.73	925
Perth Amboy: William Dunlap Homes	NJ-6-1	258	4.00	12.48	869
Trenton:					
Lincoln Homes	NJ-5-1	118	3.70	11.06	817
Mayor Donnelly Homes	NJ-5-2	376	3.74	15.47	927
NEW YORK:					
Buffalo:					
Lakeview	NY-2-1	668	*3.86	13.35	*976
Willert Park	NY-2-2	173	*3.02	12.91	*891
Commodore Perry	NY-2-3	772	4.01	13.22	825
Syracuse: Pioneer Homes	NY-1-1	678	3.97	13.72	834
Utica: Adrean Terrace	NY-6-1	213	4.88	12.71	800
Yonkers: Mulford Gardens	NY-3-1	552	3.70	16.65	1,110
OHIO:					
Cleveland:					
Valleyview Homes	OHIO-3-1	582	4.10	13.49	817
Woodhill Homes	OHIO-3-4	568	3.70	15.38	790
Dayton: De Soto Bass Courts	OHIO-5-2	200	3.80	12.72	797
Toledo: Charles F. Weiler Homes	OHIO-6-1	384	4.00	14.00	839
Youngstown: Westlake Terrace	OHIO-2-1	618	3.60	12.43	1,020

TABLE 8. UNITED STATES HOUSING AUTHORITY.—*Average family size, rent, and income in USHA-aided projects for which management resolutions have been approved*—Continued

[Reports received as of June 30, 1940]

Project location and name	Project No.	Number of dwelling units [1]	Average family size [2]	Average monthly shelter rent per dwelling unit [3]	Average annual family income [3]
PENNSYLVANIA:					
Allentown: Hanover Acres	PA-4-1	322	4.65	$13.99	$878
Philadelphia: Jas. W. Johnson Homes	PA-2-1	535	4.00	12.70	915
Pittsburgh:					
Terrace Village I	PA-1-1	3,073	4.01	16.33	778
Bedford Dwellings	PA-1-2				
Terrace Village II	PA-1-3				
SOUTH CAROLINA:					
Charleston:					
Robert Mills Manor	SC-1-1	266	*3.71	12.26	(SC-1-1) *779
Robert Mills Manor Extension	SC-1-6				
Anson Borough Homes	SC-1-3	290	*3.93	7.50	(SC-1-3) *438
Wragg Borough Homes	SC-1-4				
TENNESSEE:					
Chattanooga:					
College Hill Courts	TENN-4-1	497	3.61	9.06	625
East Lake Courts	TENN-4-2R	437	3.67	10.30	680
Knoxville:					
Western Heights	TENN-3-1	244	3.90	11.16	659
College Homes	TENN-3-2	320	4.10	10.01	631
Memphis: Lamar Terrace	TENN-1-1	478	3.80	14.46	636
TEXAS:					
Austin:					
Chalmers St	TEX-1-1	86	*3.36	8.62	*661
Rosewood	TEX-1-2	60	*3.34	6.97	*511
Santa Rita	TEX-1-3	40	*4.06	6.59	*576
Corpus Christi: Kinney Place	TEX-8-1R	134	4.20	9.59	751
Houston: Cuney Homes	TEX-5-1	360	3.50	13.03	618
WEST VIRGINIA:					
Charleston:					
Washington Manor	W VA-1-1	304	3.66	10.50	680
Littlepage Terrace	W VA-1-2	170	3.65	15.00	1,000
Huntington:					
Washington Square	W VA-4-1	80	3.59	10.16	640
Northcott Court	W VA-4-2	136	3.45	10.75	640
Marcum Terrace	W VA-4-3	284	3.85	14.98	790
Mount Hope: Stadium Terrace—Dubois Homes	W VA-7-1	70	4.40	11.88	759

[1] Figures in this column are based on management resolutions at the time of their final approval. Since the number of dwelling units may vary at different stages of project development, minor variations may be noted between this column and those in USHA tables 7, 9, and I2.

[2] The asterisk (*) indicates actual averages for projects shown in this table which were at least 95 percent occupied on June 30, 1940; other averages are estimated or anticipated.

[3] Shelter rent means the charge for the use of a dwelling excluding all utilities (such as water, heat, heating of water, light, cooking fuel, and refrigeration energy).

TABLE 9. UNITED STATES HOUSING AUTHORITY.—*Number of dwelling units opened for occupancy in USHA-aided projects, and number and percentage occupied, as of June 30, 1940*

Project location and name	Project No.	Dwelling units			
		Total in project	Opened for occupancy	Occupied	
				Number	Percentage of units opened for occupancy [1]
Total	35 projects	14,437	13,566	11,963	88.2
CALIFORNIA:					
San Francisco: Holly Courts	Cal-1-1	118	118	48	40.7
FLORIDA:					
Daytona Beach: Pine Haven	Fla-7-1	167	167	96	57.5
Jacksonville: Brentwood Park	Fla-1-1	[2] 230	229	229	100.0
Miami: Edison Courts	Fla-5-1	345	344	331	96.2
St. Petersburg: Jordan Park	Fla-2-1	242	242	126	52.1
West Palm Beach: Dunbar Village	Fla-9-1	246	246	44	17.9
GEORGIA:					
Augusta:					
Olmsted Homes	Ga-1-1	167	167	146	87.4
Sunset Homes	Ga-1-2	168	168	152	90.5
Columbus: Booker T. Washington Apartments	Ga-4-2	288	287	203	70.7
INDIANA:					
Vincennes: Major Bowman Terrace	Ind-2-1	83	83	83	100.0
MICHIGAN:					
Detroit: Brewster Addition	Mich-1-1	240	148	148	100.0
NEBRASKA:					
Omaha: South Side Terrace Homes	Nebr-1-1	522	522	438	83.9
NEW JERSEY:					
Elizabeth: Mravlag Manor	NJ-3-1	423	297	225	75.8
Newark: Pennington Court	NJ-2-2	236	236	236	100.0
NEW YORK:					
Buffalo:					
Lakeview	NY-2-1	[3] 668	665	658	98.9
Willert Park	NY-2-2	173	173	171	98.8
New York:					
Red Hook	NY-5-1	[4] 2,545	2,544	2,543	99.9
Queensbridge	NY-5-2	3,149	3,149	3,148	99.9
Syracuse: Pioneer Homes	NY-1-1	678	678	538	79.4
Utica: Adrean Terrace	NY-6-1	213	213	59	27.7
NORTH CAROLINA:					
Wilmington: New Brooklyn Homes	NC-1-2R	246	18	5	27.8
OHIO:					
Columbus: Poindexter Village	Ohio-1-1	426	370	257	69.5
Dayton: DeSoto Bass Courts	Ohio-5-2	200	200	175	87.5
Toledo: Charles F. Weiler Homes	Ohio-6-1	384	384	344	89.6
Youngstown: Westlake Terrace	Ohio-2-1	618	498	436	87.6
PENNSYLVANIA:					
Allentown: Hanover Acres	Pa-4-1	322	322	267	82.9
SOUTH CAROLINA:					
Charleston:					
Robert Mills Manor	SC-1-1	140	140	140	100.0
Anson Borough Homes	SC-1-3	162	162	162	100.0
TENNESSEE:					
Memphis: Lamar Terrace	Tenn-1-1	478	236	236	100.0
TEXAS:					
Austin: Chalmers St	Tex-1-1	86	86	85	98.8
Rosewood	Tex-1-2	60	60	60	100.0
Santa Rita	Tex-1-3	40	40	40	100.0
Corpus Christi: Kinney Place (part I)	Tex-8-1R	134	134	59	44.0
WEST VIRGINIA:					
Charleston: Littlepage Terrace	W Va-1-2	170	170	53	31.2
Mount Hope: Stadium Terrace-Dubois Homes	W Va-7-1	70	70	22	31.4

[1] It should be pointed out that for certain projects the number of units shown as available for occupancy became available only shortly before June 30, 1940, which accounts for the relatively low percentage of occupancy for those projects.
[2] 1 dwelling unit is being used as a nursery school.
[3] 3 dwelling units over boiler room not yet rentable.
[4] 1 dwelling unit is being used as a model.

TABLE 10. UNITED STATES HOUSING AUTHORITY.—*Rural housing projects assisted by the United States Housing Authority with the cooperation of the Department of Agriculture, as of June 30, 1940*

Project location	Project No.	Number of dwelling units	Average estimated costs per dwelling unit [1]			Total estimated development cost	Loan contract amounts based on 90 percent of estimated development cost	Estimated annual shelter rent per dwelling unit [2]					
								4-room house			5-room house		
			Net construction cost	Dwelling facilities cost	Over-all cost of new housing			Total	Tenant allowance for maintenance	Cash	Total	Tenant allowance for maintenance	Cash
Total	6 projects	1,300	$1,581	$1,924	$2,158	$2,805,000		[4] $63.60	[4] $9.50	[4] $54.10	[4] $72.24	[4] $10.50	[4] $61.74
Lonoke County, Ark	Ark-1-1	300	1,550	1,844	2,093	628,000	$565,000	64.29	9.50	54.79	73.41	10.50	62.91
Thomas County, Ga	Ga-12-1	200	1,405	1,742	1,985	397,000	357,000	61.93	9.50	52.43	69.76	10.50	59.26
Alexander County, Ill	Ill-7-3	150	1,545	2,063	2,347	352,000	316,000	[3]	[3]	[3]	[3]	[3]	[3]
Vigo County, Ind	Ind-14-1	150	1,978	2,349	2,600	390,000	351,000	69.33	9.50	59.83	77.36	10.50	66.86
Lee County, Miss	Miss-6-1	300	1,570	1,899	2,114	634,000	570,000	62.39	9.50	52.89	71.32	10.50	60.82
Darlington County, S. C	SC-5-1	200	1,550	1,841	2,020	404,000	363,000	61.78	9.50	52.28	70.50	10.50	60.00

[1] For definitions of these costs see p. 182.
[2] Shelter rent means the charge for the use of a dwelling excluding all utilities (such as heat, light, cooking fuel and refrigeration energy), except that water is available from private, sealed wells.
[3] Not available.
[4] Averages based on 5 projects.

TABLE 11. UNITED STATES HOUSING AUTHORITY.—*Defense housing projects assisted by USHA, as of Oct. 31, 1940*

PROJECTS TO BE BUILT AND OPERATED BY LOCAL HOUSING AUTHORITIES UNDER USHA LOAN CONTRACTS

Project location	Project No.	Date construction contract awarded	Number of dwelling units	Average estimated costs per dwelling unit [1]			Estimated total development cost	Loan contract amounts
				Over-all cost of new housing	Dwelling facilities cost	Net construction cost		
Grand total	25 projects		8,133					$31,369,000
Total	21 projects		6,408	$3,745	$3,019	$2,433	$24,144,000	$24,144,000
ALABAMA:								
Montgomery	Ala-6-4	7-27-40	424	3,350	2,819	2,321	1,450,000	1,450,000
Selma	Ala-8-1		112	3,625	2,782	2,251	406,000	406,000
Do	Ala-8-2		96	3,885	2,877	2,357	373,000	373,000
CONNECTICUT:								
Hartford	Conn-3-4		1,000	4,263	3,393	2,790	4,307,000	4,307,000
FLORIDA:								
Pensacola	Fla-6-3	7-27-40	200	3,575	2,965	2,415	715,000	715,000
GEORGIA:								
Columbus	Ga-4-3	8-30-40	614	3,296	2,584	2,111	2,024,000	2,024,000
ILLINOIS:								
Champaign County (Rantoul)	Ill-6-3	10-16-40	100	4,475	3,385	2,556	465,000	465,000
Moline	Ill-20-1		200	4,430	3,517	2,730	886,000	886,000
Rock Island	Ill-18-1	10-12-40	300	4,200	3,412	2,785	1,260,000	1,260,000
Rock Island County (East Moline)	Ill-10-1	9-12-40	100	4,150	3,521	2,775	415,000	415,000
RHODE ISLAND:								
Newport	RI-5-1		262	4,218	3,378	2,680	1,105,000	1,105,000
SOUTH CAROLINA:								
Charleston	SC-1-7	9-18-40	400	3,524	2,966	2,442	1,416,000	1,416,000
TEXAS:								
Corpus Christi	Tex-8-4	8-21-40	250	3,882	3,167	2,158	989,000	989,000
VIRGINIA:								
Newport News	Va-3-2	9-18-40	350	3,643	3,082	2,515	1,275,000	1,275,000
Do	Va-3-3		150	3,540	2,988	2,515	531,000	531,000
Norfolk	Va-6-1	10-11-40	500	3,600	2,865	2,342	1,800,000	1,800,000
Portsmouth	Va-1-1	8-20-40	400	3,513	2,955	2,379	1,418,000	1,418,000
Do	Va-1-2	10-31-40	200	3,710	2,935	2,379	742,000	742,000
WASHINGTON:								
Bremerton	Wash-3-1		450	3,300	2,627	2,100	1,485,000	1,485,000
Do	Wash-3-2		150	3,453	2,642	2,100	518,000	518,000
Seattle (Sand Point)	Wash-1-4		150	3,666	2,665	2,080	564,000	564,000

PROJECTS TO BE BUILT BY ARMY OR NAVY WITH FUNDS ALLOCATED BY USHA AND TO BE OPERATED BY ARMY OR NAVY UNDER LEASE FROM USHA

Total	4 projects		1,725					[2] $7,225,000
ALASKA:								
Anchorage	War-1		325					1,625,000
CALIFORNIA:								
Mare Island	Navy-2	10-4-40	600					2,400,000
CANAL ZONE	Navy-1		400					1,600,000
NEW HAMPSHIRE:								
Portsmouth	Navy-3	10-29-40	400					1,600,000

[1] For definitions of these costs see p. 182.
[2] Amount allocated.

TABLE 12. UNITED STATES HOUSING AUTHORITY.—*Equivalent elimination of unsafe or insanitary dwellings according to local authorities' reports received and reviewed as of June 30, 1940*

Project location and name	Project No.	Closing date of last report	Number of new dwelling units in project [1]	Number of units eliminated			Percentage of elimination completed
				Total units eliminated	Total on project site	Total off project site [2]	
Total	118 projects		48,362	31,237	13,881	17,356	63.9
ALABAMA:							
Birmingham: Elyton Village	Ala-1-1	5- 1-40	860	478	18	460	55.6
Mobile:							
Oak Lawn Homes	Ala-2-1	6- 1-40	100	68	35	33	68.0
Orange Grove Homes	Ala-2-2	6 -1 40	298	201	136	65	67.4
COLORADO:							
Denver: Lincoln Park	Colo-1-2	12-31-39	346	80		80	23.1
FLORIDA:							
Daytona Beach: Pine Haven	Fla-7-1	3-31-40	167	6	2	4	3.6
Fort Lauderdale: Dixie Court	Fla-10-1	11- 4-39	150	12	12		8.0
St. Petersburg: Jordan Park	Fla-2-1	7-31-39	242	55	34	21	22.7
Tampa:							
North Boulevard Homes	Fla-3-1R	12-31-39	534	425	279	146	79.6
Riverview Terrace	Fla-3-3	2-29-40	328	36		36	11.0
GEORGIA:							
Augusta:							
Olmsted Homes	Ga-1-1	5-31-40	167	242	180	62	39.5
Sunset Homes	Ga-1-2		168				
Gilbert Manor	Ga-1-3R		278				
Columbus:							
Geo. Foster Peabody Apartments.	Ga-4-1R	1-13-40	360	187	187		51.9
Booker T. Washington Apartments.	Ga-4-2	7-24-39	288	132	132		45.8
Do	Ga-4-2A	2-16-40	104	26	26		25.0
Macon:							
Oglethorpe Homes	Ga-7-1	5-14-40	188	67	63	4	35.6
Tindall Heights	Ga-7-2	5-14-40	318	138	115	23	43.4
Marietta: Clay Homes	Ga-10-1	5-28-40	108	18		18	16.7
Rome:							
De Soto Homes	Ga-5-1	12-31-39	242	197	79	118	81.4
Altoview Terrace	Ga-5-2						
ILLINOIS:							
Chicago: Ida B. Wells Homes	Ill-2-1	[3]	1,662	1,710			100.0
Peoria:							
Col. John Warner Homes	Ill-3-1R	1-31-40	487	214	212	2	43.9
Harrison Homes	Ill-3-2	1-31-40	606	129	20	109	21.3
INDIANA:							
Muncie: Munsyana Homes	Ind-5-1	12-31-39	278	83	82	1	29.9
Vincennes: Maj. Bowman Terrace.	Ind-2-1	3-18-40	83	52	1	51	62.7
KENTUCKY:							
Covington:							
Latonia Terrace	Ky-2-1	2- 1-40	235	178	39	139	75.7
Jacob Price Homes	Ky-2-2	2- 1-40	163	163	163		100.0
Frankfort: Leestown Terrace	Ky-3-1	3-31-40	91	2	1	1	2.2
Lexington: Charlotte Courts	Ky-4-2	2-29-40	206	137	39	98	66.5
Louisville:							
Clarksdale	Ky-1-1	9-15-39	786	786	786		100.0
Beecher Terrace	Ky-1-2	9-15-39	808	833	824	9	100.0
Paducah:							
Thomas Jefferson Place	Ky-6-1	3-15-40	125	49	49		39.2
Abraham Lincoln Court	Ky-6-2	3-15-40	74	34	34		45.9
MARYLAND:							
Annapolis: College Creek Terrace.	Md-1-1	9-20-39	108	53	18	35	49.1
Baltimore: Edgar Allen Poe Homes.	Md-2-4	8- 1-39	298	298	298		100.0
Frederick:							
North Bentz Street project	Md-3-1	6- 1-40	79	56	6	50	70.9
Lincoln Apartments	Md-3-2	6 -1-40	50	50	8	42	100.0

For footnotes, see p. 381.

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TABLE 12. UNITED STATES HOUSING AUTHORITY.—*Equivalent elimination of unsafe or insanitary dwellings according to local authorities' reports received and reviewed as of June 30, 1940*—Continued

Project location and name	Project No.	Closing date of last report	Number of new dwelling units in project [1]	Number of units eliminated			Percentage of elimination completed
				Total units eliminated	Total on project site	Total off project site [2]	
MASSACHUSETTS:							
New Bedford: Presidential Heights.	Mass-7-2	11-27-39	198	46		46	23.2
MICHIGAN:							
Detroit:							
Brewster Addition	Mich-1-1	(3)	240				
Parkside Addition	Mich-1-2	(3)	355	615	236	379	22.4
J. Herman Gardens	Mich-1-4	(3)	2,150				
MONTANA:							
Butte: Silver Bow Homes	Mont-3-1	11-30-39	225	115		115	51.1
NEW JERSEY:							
Asbury Park: Asbury Park Village.	NJ-7-1	5-15-40	126	126	115	11	100.0
Atlantic City: Jonathan Pitney Village.	NJ-14-1	10-31-39	333	128		128	38.4
Camden: C.T. Branch Village	NJ-10-1	3-1-40	279	116		116	41.6
Elizabeth: Mravlag Manor	NJ-3-1	3-4-40	423	85		85	20.1
Jersey City	NJ-9-1	10-31-38	490	38		38	7.8
Long Branch: Garfield Court	NJ-8-1	5-31-40	127	130	15	115	100.0
Newark:							
Pennington Court	NJ-2-2	12-1-39	236	22	22		9.3
Jas. M. Baxter Terrace	NJ-2-5	3-1-40	614	236	236		38.4
North Bergen: Meadow View Village.	NJ-4-1	10-31-39	172	79	71	8	45.9
Perth Amboy: William Dunlap Homes.	NJ-6-1	3-1-40	258	24		24	9.3
Trenton:							
Lincoln Homes	NJ-5-1	10-25-19	118	35	27	8	29.7
Mayor Donnelly Homes	NJ-5-2	11-1-39	376	85	68	17	22.6
NEW YORK:							
Buffalo:							
Lakeview	NY-2-1	6-1-40	668	395	45	350	59.1
Willert Park	NY-2-2	6-1-40	173	174	105	69	100.0
New York:							
Red Hook Houses	NY-5-1	3-23-39	2,545	2,157	262	1,895	84.8
Queensbridge Houses	NY-5-2	9-12-38	3,149	3,059	89	2,970	97.1
Vladeck Houses	NY-5-3	8-17-39	1,531	1,531	1,531		100.0
South Jamaica Houses	NY-5-4	9-26-39	448	448	117	331	100.0
East River Houses	NY-5-5	2-16-39	1,170	1,151		1,151	98.4
Kingsboro Houses	NY-5-6	8-15-38	1,356	1,166		1,166	86.0
Clason Point Houses	NY-5-7	9-12-38	412	399		399	96.8
Syracuse: Pioneer Homes	NY-1-1	8-30-39	678	706	556	150	100.0
Utica: Adrean Terrace	NY-6-1	11-30-39	213	144		144	67.6
Yonkers: Mulford Gardens	NY-3-1	8-15-39	552	560	324	236	100.0
NORTH CAROLINA:							
Charlotte:							
Piedmont Courts	NC-3-1	2-29-40	256	48	34	14	18.8
Fairview Homes	NC-3-2	2-29-40	452	76	2	74	16.8
Wilmington:							
Charles T. Nesbit Courts	NC-1-1R	12-31-39	216	18	18		8.3
New Brooklyn Homes	NC-1-2R	12-31-39	246	93	93		37.8
OHIO:							
Akron: Elizabeth Park	Ohio-7-1	11-30-39	276	137		137	49.6
Cincinnati: Laurel Homes Addition.	Ohio-4-3	3-1-38	264	264		264	100.0
Cleveland:							
Valleyview Homes	Ohio-3-1		582				
Goodrich site	Ohio-3-2	11-31-39	627	1,777	58	1,719	100.0
Woodhill Homes	Ohio-3-4		568				
Outhwaite Addition	Ohio-3-3	3-31-40	491	468	124	344	95.3

For footnotes, see p. 381.

TABLE 12. UNITED STATES HOUSING AUTHORITY.—*Equivalent elimination of unsafe or insanitary dwellings according to local authorities' reports received and reviewed as of June 30, 1940*—Continued

Project location and name	Project No.	Closing date of last report	Number of new dwelling units in project [1]	Number of units eliminated			Percentage of elimination completed
				Total units eliminated	Total on project site	Total off project site [2]	
OHIO—Continued.							
Columbus:							
Poindexter Village	Ohio-1-1	8-25-39	426	426	324	102	100.0
Lincoln Park	Ohio-1-2						
West Rich Street	Ohio-1-3	10-1-39	945	183		183	19.4
Mount Calvary	Ohio-1-4						
Dayton:							
McCook Field	Ohio-5-1R	1-31-40	604	202		202	33.4
De Soto Bass Courts	Ohio-5-2	7-12-39	200	200	3	197	100.0
Youngstown: Westlake Terrace.	Ohio-2-1	10-1-39	618	220	93	127	35.6
Zanesville: Coopermill Manor	Ohio-9-1	4-10-39	324	18		18	5.6
PENNSYLVANIA:							
Allentown: Hanover Acres	Pa-4-1	11-30-39	322	22		22	6.8
McKeesport: E. R. Crawford Village.	Pa-5-1	8-28-29	206	287		287	100.0
Pittsburgh: Terrace Village II	Pa-1-3	12-31-39	1,851	646	452	194	34.9
Reading: Glenside	Pa-9-1	12-31-39	400	63		63	15.8
SOUTH CAROLINA:							
Columbia:							
Gonzales Gardens	SC-2-1	1-8-40	236	69	69		29.2
Allen-Benedict Court	SC-2-2	[3]	244	101	101		41.4
Spartanburg:							
Hartwell Courts	SC-3-1	3-31-40	150	15		15	10.0
Hub City Courts	SC-3-2	3-31-40	120	10		10	8.3
TENNESSEE:							
Chattanooga:							
College Hill Courts	Tenn-4-1	5-31-39	497	497	430	67	100.0
East Lake Courts	Tenn-4-2R	5-31-40	437	139		139	31.8
Knoxville:							
Western Heights	Tenn-3-1	8-15-39	244	129		129	52.9
College Homes	Tenn-3-2	8-15-39	320	236	169	67	73.8
Memphis:							
Lamar Terrace	Tenn-1-1	5-20-39	478	478	288	190	100.0
Wm. H. Foote Homes	Tenn-1-2R	10-1-29	900	900	719	181	100.0
Nashville:							
Boscobel Heights	Tenn-5-1	4-30-40	350	119	79	40	34.0
J. C. Napier Homes	Tenn-5-2	4-30-40	332	162	125	37	48.8
TEXAS:							
Austin:							
Chalmers Street and Addition	Tex-1-(1&1A)	9-30-39	162	113		113	34.0
Rosewood and Addition	Tex-1-(2&2A)		130				
Santa Rita	Tex-1-3		40				
Corpus Christi:							
Kinney Place and Addition	Tex-8-(1R&1RA).	4-1-40	158	151	99	52	95.6
Navarro Place	Tex-8-2R	4-1-40	210	210	210		100.0
San Antonio: Alazan Courts	Tex-6-1	12-31-39	932	1,073	929	144	100.0
VIRGINIA:							
Bristol:							
Wm. L. Rice Terrace	Va-2-1	4-30-40	136	74	67	7	54.4
Johnson Court	Va-2-2	4-30-40	68	15	12	3	22.1
WEST VIRGINIA:							
Charleston:							
Washington Manor	W Va-1-1	11-24-39	304	199	152	47	65.5
Littlepage Terrace	W Va-1-2	11-5-39	170	171		171	100.0
Huntington:							
Washington Square	W Va-4-1	12-31-39	80	80	44	36	100.0
Northcott Court	W Va-4-2	12-31-39	136	21	7	14	15.4
Marcum Terrace	W Va-4-3	12-31-39	284	45		45	15.8
Mount Hope: Stadium Terrace—Dubois Homes.	W Va-7-1	12-31-39	70	42		42	60.0
Wheeling: Vineyard Hill	W Va-3-2	9-30-39	300	75		75	25.0

[1] The number of dwelling units may vary at different stages of project development. The figures in this column are based on loan contract estimates, construction contract estimates, or actual dwellings in final projects, depending upon the development stages of the projects on June 30, 1940. Hence minor variations may be noted between this column and those in USHA tables 7, 8, and 9.

[2] Includes demolition on land owned by municipality; compulsory demolition, closing, repair, or improvement; and demolition and closing by private owners

[3] Not reported.

TABLE 13. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement of USHA-aided projects in which any units were occupied by June 30, 1940*

Project No. Location	Cal–1–1 San Francisco, Calif.	Fla–7–1 Daytona Beach, Fla.	Fla–1–1 Jacksonville, Fla.	Fla–5–1 Miami, Fla.	Fla–2–1 St. Petersburg, Fla.	Fla–9–1 West Palm Beach, Fla.	Ga–1–1, 2 Augusta, Ga.	Ga–4–2 Columbus, Ga.	Ind–2–1 Vincennes, Ind.	Mich–1–1 Detroit, Mich.
Income:										
Dwelling rent	$760.05	$1,502.50	$25,757.62	$23,186.96	$2,060.39	$352.41	$11,365.61	$2,199.65	$3,045.28	$18,819.90
Nondwelling rent										
Total net rentals	760.05	1,502.50	25,757.62	23,186.96	2,060.39	352.41	11,365.61	2,199.65	3,045.28	18,819.90
Other Income				264.99	81.06	9.05	43.80		3.50	591.75
Total income	760.05	1,502.50	25,757.62	23,451.95	2,141.45	361.46	11,409.41	2,199.65	3,048.78	19,411.65
Expense: [2]										
Management	1,750.06	999.88	4,020.65	8,824.34	3,128.89	707.11	5,653.55	1,348.06	1,495.97	4,013.95
Operating services	257.42	269.60	557.22	390.48	850.42		614.69		56.37	1,302.82
Dwelling utilities	75.71	531.95	6,393.30	5,552.78	363.88	58.30	2,657.79	193.54	682.15	7,214.83
Repairs, maintenance, and replacements	108.64	154.22	1,406.95	1,632.72	106.45		1,173.97		71.77	1,103.02
Community activities				3.40			23.24			
Vacations and sick leaves			5.90	17.04						68.28
Collection losses										
Insurance		27.18	1,278.73	1,300.78	237.97		289.64	34.50	15.25	91.54
Payments in lieu of taxes			428.00				499.89			623.21
Other expense										
Total expense before reserves	2,191.83	1,982.83	14,090.75	17,721.54	4,687.61	765.41	10,912.77	1,576.10	2,321.51	14,417.65
Reserved for repairs, maintenance and replacements	397.28	804.00	7,400.89	3,577.90	384.55	10.57	1,908.13	495.84	804.74	6,712.66
Reserved for vacancy and collection losses			367.87						32.92	773.41
Total expense	2,589.11	2,786.83	21,859.51	21,299.44	5,072.16	775.98	12,820.90	2,071.94	3,159.17	21,903.72
Net income or deficit for period	[1] 1,829.06	[1] 1,284.33	3,898.11	2,152.51	[1] 2,930.71	[1] 414.52	[1] 1,411.49	127.71	[1] 110.39	[1] 2,492.07
Number of months operated	1	2	12	7	3	2	6	2	4	7

Project No. Location	Nebr-1-1 Omaha, Nebr.	NJ-3-1 Elizabeth, N. J.	NJ-2-2 Newark, N. J.	NY-2-1, 2 Buffalo, N. Y.	NY-5-1, 2 New York, N. Y.	NY-1-1 Syracuse, N. Y.	NY-6-1 Utica, N. Y.	NC-1-2 Wilmington, N. C.	Ohio-1-1 Columbus, Ohio	Ohio-5-2 Dayton, Ohio
Income:										
Dwelling rent	$19,362.79	$7,221.15	$16,361.40	$109,898.76	$887,173.47	$35,065.81	$1,043.51	$7.50	$5,813.91	$10,302.08
Nondwelling rent			104.10		14,754.45					
Total net rentals	19,362.79	7,221.15	16,465.50	109,898.76	901,927.92	35,065.81	1,043.51	7.50	5,813.91	10,302.08
Other income	132.09			327.33	24,068.26	31.57	240.00		663.55	383.77
Total income	19,494.88	7,221.15	16,465.50	110,226.09	925,996.18	35,097.38	1,283.51	7.50	6,477.46	10,685.85
Expense: [2]										
Management	8,784.23	4,556.45	6,939.77	35,310.29	213,601.57	12,113.83	1,804.52	610.65	4,045.68	2,584.50
Operating services	3,000.31	1,472.42	1,484.10	10,998.17	77,815.28	736.90	373.50	92.05	1,705.90	1,346.70
Dwelling utilities	6,876.25	1,409.84	3,946.06	58,195.86	194,287.98	17,641.28	339.50		1,452.49	4,285.72
Repairs, maintenance and replacements	2,260.25	638.88	1,263.33	7,999.06	30,969.47	3,217.53	56.00		31.45	911.80
Community activities	13.51	50.00		99.31	1,781.11					40.13
Vacations and sick leaves	9.00			117.11	1,737.62					
Collection losses										
Insurance	438.90	167.27	578.79	1,991.69	24,743.03	1,974.23	34.67		237.74	462.25
Payments in lieu of taxes	627.00	561.24		2,112.22	22,390.78					
Other expense					483.06		175.00			
Total expense before reserves	22,009.45	8,856.10	14,212.05	116,823.71	567,809.90	35,683.77	2,783.19	702.70	7,473.26	9,631.10
Reserved for repairs, maintenance, and replacements	5,884.51		4,513.31	34,369.97	242,249.88	5,077.51	156.60		2,067.30	1,632.85
Reserved for vacancy and collection losses					16,140.51					
Total expense	27,893.96	8,856.10	18,725.36	151,193.68	826,200.29	40,761.28	2,939.79	702.70	9,540.56	11,263.95
Net income or deficit for period	[1] 8,399.08	[1] 1,634.95	[1] 2,259.86	[1] 40,967.59	99,795.89	[1] 5,663.90	[1] 1,656.28	[1] 695.20	3,063.10	[1] 578.10
Number of months operated	3	2	4	12	12	6	1	1	2	5

[1] Deficit.

[2] Preoccupancy expenses prior to first of month in which initial occupancy occurred are not included as operating expenses. No annual contributions were paid in the period covered by this report, and interest during the development period is capitalized.

TABLE 13. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement of USHA-aided projects in which any units were occupied by June 30, 1940*—Continued

Project No. Location	Ohio-6-1 Toledo, Ohio	Ohio-2-1 Youngstown, Ohio	Pa-4-1 Allentown, Pa.	SC-1-1, 3 Charleston, S. C.	Tenn-1-1 Memphis, Tenn.	Tex-1-1, 2, 3 Austin, Tex.	Tex-8-1R Corpus Christi, Tex.	W. Va-1-2 Charleston, W. Va.	W. Va-7-1 Mount Hope, W. Va.	Total
Income:										
Dwelling rent	$33,895.09	$21,134.00	$15,375.92	$18,737.65	$4,393.45	$17,280.25	$396.65	$275.93	$193.44	$1,292,983.13
Nondwelling rent										14,858.55
Total net rentals	33,895.09	21,134.00	15,375.92	18,737.65	4,393.45	17,280.25	396.65	275.93	193.44	1,307,841.68
Other income	383.91	466.59	37.26	240.37	7.78	205.80		1.25		28,183.68
Total income	34,279.00	21,600.59	15,413.18	18,978.02	4,401.23	17,486.05	396.65	277.18	193.44	1,336,025.36
Expense: [2]										
Management	10,677.40	5,964.95	5,935.62	8,959.44	2,811.50	2,939.96	75.28	1,095.10	291.23	361,044.43
Operating services	2,033.28	937.10	284.46	1,279.12	311.04	3.00	39.17	26.57	25.00	108,263.09
Dwelling utilities	12,057.92	8,398.99	7,564.86	2,104.44	597.22	5,491.49			39.67	348,413.80
Repairs, maintenance, and replacements	2,536.13	3,638.15	2,374.53	715.75	472.81	223.23	205.72	79.17		63,351.00
Community activities	256.82		55.52	64.54	8.25					2,395.83
Vacations and sick leaves	357.22					167.99				2,480.16
Collection losses	5.10									5.10
Insurance	785.94	337.21	352.02	960.46	61.39	414.84		3.88		36,819.90
Payments in lieu of taxes				977.34	109.84	238.69				28,568.21
Other expense										658.05
Total expense before reserves	28,709.81	19,276.40	16,567.01	15,061.09	4,372.05	9,479.20	320.17	1,204.72	355.90	951,999.58
Reserved for repairs, maintenance, and replacements	6,114.52	3,005.51	3,281.30	2,014.97	676.28	4,285.90				337,826.97
Reserved for vacancy and collection losses				172.06		709.75				18,196.52
Total expense	34,824.33	22,281.91	19,848.31	17,248.12	5,048.33	14,474.85	320.17	1,204.72	355.90	1,308,023.07
Net income or deficit for period	[1] 545.33	[1] 681.32	[1] 4,435.13	1,729.90	[1] 647.10	3,011.20	76.48	[1] 927.54	[1] 162.46	28,002.29
Number of months operated	8	5	6	9	2	12	2	1	1	

For footnotes, see p. 383.

TABLE 14. UNITED STATES HOUSING AUTHORITY.—*Obligations and stocks of limited-dividend corporations transferred to USHA from PWA, as of June 30, 1940*

Location	Corporate name	Project No.	Type of obligation	Principal balance June 30, 1940	Accrued interest June 30, 1940	Total principal and interest June 30, 1940	Stock purchased as transferred from PWA
Total				$9,098,726.39	$36,655.21	$9,135,381.60	$220.00
Altavista, Va	Altavista Housing Corporation	H-278	First-mortgage sinking fund bonds	79,500.00	530.00	80,030.00	100.00
Bronx Borough, N. Y	Hillside Housing Corporation	HJ (R-262)	First-mortgage note	4,348,992.94	0	4,348,992.94	0
Euclid, Ohio	Euclid Housing Corporation	HL (R-610)	Debentures secured by deed of trust	310,000.00	2,066.66	312,066.66	0
Philadelphia, Pa	Juniata Park Housing Corporation	H-1	First-mortgage note and tax advance	[1] 1,044,746.32	20,894.94	1,065,641.26	10.00
Queens Borough, N. Y	Boulevard Gardens Housing Corporation.	HF (R-266)	First-mortgage note	2,536,944.92	0	2,536,944.92	0
Raleigh, N. C	Boylan Housing Corporation	H-29	Installment note secured by deed of trust.	180,542.21	1,203.62	181,745.83	10.00
St. Louis, Mo	Neighborhood Gardens, Inc	H-37	First-mortgage note	[2] 598,000.00	11,959.99	609,959.99	100.00

[1] Including $17,781.34, which was in default at June 30, 1940.
[2] Including $7,856.28, which was in default at June 30, 1940.

TABLE 15. UNITED STATES HOUSING AUTHORITY.—*Average family size, rent, and income in PWA Housing Division projects, as of June 30, 1940*

[Built directly by the former PWA Housing Division. The direct construction of such projects was discontinued with the inauguration of the decentralized USHA program]

Project location and name	Project No.	Number of dwelling units	Act under which rents fixed	Project leased or operated by USHA	Average family size	Average monthly shelter rent per dwelling unit [1]	Average annual family income
Total	49 projects.	21,441			[2]3.32	[2]$15.66	[2]$1,175
ALABAMA:							
Birmingham: Smitfihield Court.	H-2902	540	U. S. Housing	Leased	2.64	8.64	929
Montgomery:							
Riverside Heights	H-2201	100	do	do	2.66	10.60	1,145
Wm. B. Paterson Courts	H-2202	156	do	do	2.93	8.51	780
CONNECTICUT:							
Stamford: Fairfield Court	H-9601	146	George-Healey	USHA	3.99	19.66	1,516
DISTRICT OF COLUMBIA:							
Washington: Langston	H-1706-A	274	U. S. Housing	Leased	3.15	16.94	1,181
FLORIDA:							
Jacksonville: Durkeeville	H-4702	215	do	do	2.87	9.62	789
Miami: Liberty Square	H-4602	243	do	do	3.38	11.90	902
GEORGIA:							
Atlanta:							
Techwood Homes	H-1101	604	do	do	3.03	16.12	1,172
University Homes	H-1102	675	do	do	2.99	11.26	949
ILLINOIS:							
Chicago:							
Jane Addams Houses	H-1401-5	1,027	do	do	3.61	15.21	1,239
Julia C. Lathrop Homes	H-1406	925	do	do	3.74	14.88	1,197
Trumbull Park Homes	H-1408	462	do	do	4.11	16.80	1,338
INDIANA:							
Evansville: Lincoln Gardens	H-3801	191	do	USHA	2.75	12.82	907
Indianapolis: Lockefield Garden Apartments.	H-1601	748	do	do	2.83	11.54	916
KENTUCKY:							
Lexington:							
Blue Grass Park	H-5103	286	do	Leased	2.95	15.86	1,058
Appendale							
Louisville:							
LaSalle Place	H-2502	210	do	do	3.44	14.06	1,260
College Court	H-2503	125	do	do	2.90	11.46	1,151
MASSACHUSETTS:							
Boston: Old Harbor Village	H-3302	1,016	do	do	3.63	17.01	1,313
Cambridge: New Towne Court.	H-8501	294	do	do	3.98	18.75	1,276
MICHIGAN:							
Detroit:							
Brewster	H-1201	701	do	do	3.04	15.93	1,107
Parkside	H-1205	775	do	do	3.58	20.72	1,165
MINNESOTA:							
Minneapolis: Sumner Field Homes.	H-4201	464	do	USHA	3.73	16.72	994
NEBRASKA:							
Omaha: Logan Fontenelle Homes.	H-2001	284	do	Leased	3.22	13.83	1,097
NEW JERSEY:							
Atlantic City: Stanley S. Holmes Village.	H-5001	277	do	do	2.87	16.27	1,195
Camden: Westfield Acres	H-6002	514	do	do	3.07	15.36	1,274
NEW YORK:							
Buffalo: Kenfield	H-6703	658	do	do	3.85	21.70	1,433
Lackawanna: Baker Homes	H-6202	271	do	do	4.08	17.71	1,264
New York:							
Williamsburg Houses	H-1301	1,622	George-Healey	do	3.65	22.10	1,461
Harlem River Houses	H-1302	576	do	do	3.36	20.18	1,340
Schenectady: Schonowee Village.	H-5801	219	U. S. Housing	do	2.75	16.69	1,143

TABLE 15. UNITED STATES HOUSING AUTHORITY.—*Average family size, rent, and income in PWA Housing Division projects, as of June 30, 1940*—Continued

[Built directly by the former PWA Housing Division. The direct construction of such projects was discontinued with the inauguration of the decentralized USHA program]

Project location and name	Project No.	Number of dwelling units	Act under which rents fixed	Project leased or operated by USHA	Average family size	Average monthly shelter rent per dwelling unit [1]	Average annual family income
OHIO:							
Cincinnati: Laurel Homes	H-1801	1,038	U. S. Housing	Leased	3.14	$15.89	$1,075
Cleveland:							
Cedar-Central Apartments	H-1001	650	do	do	3.05	15.31	1,283
Outhwaite Homes	H-1002	579	do	do	3.39	15.29	1,278
Lakeview Terrace	H-1003	620	do	do	3.29	15.36	1,396
Toledo: Brand Whitlock Homes.	H-2601	264	do	do	3.08	16.63	1,215
OKLAHOMA:							
Enid: Cherokee Terrace	H-5401	80	do	USHA	3.19	12.44	860
Oklahoma City: Will Rogers Courts.	H-8101	354	do	do	3.30	10.81	840
PENNSYLVANIA:							
Philadelphia: Hill Creek	H-3001-C	258	do	Leased	3.59	19.21	1,281
Wayne: Highland Homes	H-9001	50	do	USHA	2.96	12.46	1,295
SOUTH CAROLINA:							
Charleston:							
Meeting Street Manor	H-8901-B	212	do	Leased	3.21	14.96	1,033
Cooper River Court							
Columbia: University Terrace	H-5201	122	do	do	3.11	14.09	939
TENNESSEE:							
Memphis:							
Dixie Homes	H-3401	633	do	do	2.93	10.32	931
Lauderdale Courts	H-3403	449	do	do	3.13	15.67	1,127
Nashville:							
Cheatham Place	H-2101	314	do	do	3.00	13.69	1,104
Andrew Jackson Courts	H-2102	398	do	do	2.80	9.81	892
TEXAS:							
Dallas: Cedar Springs Place	H-7901-B	181	do	do	3.02	13.56	913
VIRGIN ISLANDS:							
Three sites	H-4900	123	George-Healey	USHA	4.11	4.25	326
WISCONSIN:							
Milwaukee: Parklawn	H-1502	518	do	do	3.76	13.27	1,322

RECAPITULATION

Number of projects leased to local housing authorities	40
Number of projects operated by USHA	9
Number of projects with rents fixed under U. S. Housing Act	44
Average shelter rent per dwelling unit per month	$14.99
Number of projects with rents fixed under George-Healey Act	5
Average shelter rent per dwelling unit per month (excluding Virgin Islands project [2])	$19.99

[1] Shelter rent means the charge for the use of a dwelling, excluding all utilities (such as water, heat, heating of water, light, cooking fuel, and refrigeration energy).

[2] The Virgin Islands project is excluded from these averages, since the type of project and the economic conditions of its tenants are not comparable with projects and economic conditions in the United States.

TABLE 16A. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement, PWA Housing Division projects under lease to local authorities from July 1, 1939, or effective date of lease to local authority, to June 30, 1940*

Project No. Location	H–1101 Atlanta, Ga.	H–1101-Do Atlanta, Ga.	H–1102 Atlanta, Ga.	H–5001 Atlantic City, N. J.	H–2902 Birmingham, Ala.	H–3302 Boston, Mass.	H–6703 Buffalo, N. Y.	H–8501 Cambridge, Mass.	H–6002 Camden, N. J.
Income:									
Dwelling rent schedule	$53,714.00	$26,448.00	$47,156.80	$79,314.00	$69,302.40	$313,140.60	$231,735.00	$94,894.80	$159,183.30
Less dwelling vacancy	3,009.64	3,736.65	227.36	0	67.83	2,881.02	1,107.18	206.05	0
Net dwelling rentals	50,704.36	22,711.35	46,929.44	79,314.00	69,234.57	310,259.58	230,627.82	94,688.75	159,183.30
Nondwelling rent schedule	5,000.00	0	1,844.00	2.50	0	0	0	66.00	0
Less nondwelling vacancy	1,683.80	0	1.00	0	0	0	0	0	0
Net nondwelling rentals	3,316.20	0	1,843.00	2.50	0	0	0	66.00	0
Total net rentals	54,020.56	22,711.35	48,772.44	79,316.50	69,234.57	310,259.58	230,627.82	94,754.75	159,183.30
Other income	8,289.76	966.14	5,702.01	995.68	978.49	1,437.30	958.97	425.11	702.76
Total income	62,310.32	23,677.49	54,474.45	80,312.18	70,213.06	311,696.88	231,586.79	95,179.86	159,886.06
Expense:									
Management	5,110.06	3,462.03	5,224.85	7,897.99	10,739.38	34,583.88	16,685.59	8,322.79	13,426.12
Operating service	2,391.21	3,603.09	1,640.22	1,704.93	1,843.07	15,271.19	6,413.73	5,065.11	7,857.86
Dwelling utilities	13,601.92	4,053.79	14,415.91	24,325.62	10,631.90	86,351.53	62,118.64	24,901.94	49,422.39
Repairs, maintenance, and replacements	6,943.56	909.22	7,226.11	9,287.75	15,626.12	29,610.87	28,520.76	16,844.42	17,869.47
Community activities	1.99	0	0	47.78	135.86	2,160.62	171.88	652.19	187.85
Collection losses	0	0	0	35.19	268.49	163.45	0	32.03	45.70
Vacations and sick leave	513.84	0	126.52	0	0	614.25	48.08	0	195.76
Insurance	620.96	167.38	659.31	1,660.87	2,823.25	7,771.43	4,817.45	1,960.64	2,370.67
Other expense	0	0	0	0	0	560.00	1,319.62	0	0
Payments in lieu of taxes	2,450.00	0	1,883.32	1,000.00	2,784.29	15,000.00	8,156.35	4,999.98	4,699.95
Total expense before rent and reserves	31,633.54	12,195.51	31,176.24	45,960.13	44,852.36	192,087.22	128,252.10	62,779.10	96,075.77
Fixed rent to USHA	20,505.00	1,000.00	12,005.00	22,400.00	15,010.00	43,428.00	51,600.00	10,023.00	20,670.22
Reserved for repairs, maintenance, and replacements	4,692.83	4,025.78	2,776.75	4,659.65	3,177.88	43,440.13	24,277.20	4,114.58	14,056.28
Reserved for vacancy and collection losses	0	0	1,360.64	3,930.52	3,128.80	12,612.53	3,875.76	4,506.69	7,911.30
Reserved for contingencies	0	0	0	0	0	0	18,606.21	0	0
Total reserves	25,197.83	5,025.78	16,142.39	30,990.17	21,316.68	99,480.66	98,359.17	18,644.27	42,637.80
Total expense	56,831.37	17,221.29	47,318.63	76,950.30	66,169.04	291,567.88	226,611.27	81,423.37	138,713.57

Additional rent to USHA (or deficit from operations) for period	5,478.95	6,456.20	7,155.82	3,361.88	4,044.02	20,129.00	4,975.52	13,756.49	21,172.49
Additional rent to USHA (or deficit from operations) to June 30, 1939	0	0	0	906.06	11,471.74	14,822.11	[1] 672.29	19,524.19	19,328.29
Adjustment	0	33,771.42	0	[1] 151.10	0	0	0	0	0
Total additional rent to USHA (or deficit from operations)	5,478.95	40,227.62	7,155.82	4,116.84	15,515.76	34,951.11	4,303.23	33,280.68	40,500.78
Number of months operated under lease	4	57.5	4	20	28.5	26	21	29	21

[1] Deficit.

TABLE 16A. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement, PWA Housing Division projects under lease to local authorities from July 1, 1939, or effective date of lease to local authority, to June 30, 1940*—Continued

Project No. Location	H-8901-B Charleston, S. C.	H-1401-5 Chicago, Ill.	H-1406 Chicago, Ill.	H-1408 Chicago, Ill.	H-1801 Cincinnati, Ohio	H-1001 Cleveland, Ohio	H-1002 Cleveland, Ohio	H-1003 Cleveland, Ohio	H-5201 Columbia, S. C.
Income:									
Dwelling rent schedule	$45,564.00	$288,577.20	$261,491.40	$145,685.70	$262,211.40	$95,493.62	$81,756.92	$94,777.71	$27,376.60
Less dwelling vacancy	248.68	754.37	390.39	1,233.71	3,485.29	9,249.80	4,309.59	5,968.15	2.64
Net dwelling rentals	45,315.32	287,822.83	261,101.01	144,451.99	258,726.11	86,243.82	77,447.33	88,809.56	27,373.96
Nondwelling rent schedule	0	0	0	0	10,020.00	2,219.00	3,341.21	5,988.40	0
Less nondwelling vacancy	0	0	0	0	1,443.23	224.04	159.06	910.25	0
Net nondwelling rentals	0	0	0	0	8,576.77	1,994.96	3,182.15	5,078.15	0
Total net rentals	45,315.32	287,822.83	261,101.01	144,451.99	267,302.88	88,238.78	80,629.48	93,887.71	27,373.96
Other income	1,402.21	2,686.17	2,083.14	1,140.89	5,768.36	1,784.48	1,977.76	2,233.49	424.19
Total income	46,717.53	290,509.00	263,184.15	145,592.88	273,071.24	90,023.26	82,607.24	96,121.20	27,798.15
Expense:									
Management	6,557.11	28,251.46	26,072.05	16,355.91	32,828.04	12,101.07	11,480.43	12,664.79	4,965.88
Operating service	502.41	25,991.39	22,392.38	11,959.43	20,507.56	4,582.56	5,134.78	6,247.92	1,136.33
Dwelling utilities	5,104.01	77,266.84	69,088.47	50,250.85	53,014.66	24,328.24	21,709.68	20,506.13	5,559.98
Repairs, maintenance, and replacements	4,817.94	80,102.69	52,148.91	35,227.87	42,168.88	11,561.89	9,828.30	14,225.69	2,501.31
Community activities	14.90	775.19	551.91	6.92	1,810.38	47.25	46.96	130.00	108.34
Collection losses	0	987.39	981.39	320.73	1,829.36	0	0	0	0
Vacations and sick leave	0	856.00	626.55	1,055.39	933.59	484.83	489.44	597.77	0
Insurance	2,165.53	2,743.00	2,470.53	1,442.93	4,126.66	2,306.57	2,413.52	2,721.28	311.39
Other expense	0	5.62	5.61	15,817.02	5,162.97	0	0	0	0
Payments in lieu of taxes	1,193.09	8,221.68	7,020.36	4,352.50	13,000.04	3,681.54	820.02	3,511.98	500.00
Total expense before rent and reserves	20,354.99	225,201.26	181,358.16	136,789.55	175,382.14	59,093.95	51,923.13	60,605.56	15,083.23
Fixed rent to USHA	10,042.00	51,579.78	3,840.66	13,503.54	40,219.08	13,803.34	13,803.33	16,203.33	4,251.00
Reserved for repairs, maintenance, and replacements	6,270.06	[1] 31,400.47	46,045.43	13,043.59	15,481.04	4,969.61	5,519.22	4,108.81	380.71
Reserved for vacancy and collection losses	3,042.92	6,915.56	6,472.96	2,816.13	9,358.68	0	0	0	824.08
Reserved for contingencies	0	0	0	0	0	0	0	0	2,700.00
Total reserves	19,354.98	27,094.87	56,359.05	29,363.26	65,058.80	18,772.95	19,322.55	20,312.14	8,155.79
Total expense	39,709.97	252,296.13	237,717.21	166,152.81	240,440.94	77,866.90	71,245.68	80,917.70	23,239.02

Additional rent to USHA (or deficit from operations) for period	7,007.56	38,212.87	25,466.94	[1] 20,559.93	32,630.30	12,156.36	11,361.56	15,203.50	4,559.13
Additional rent to USHA (or deficit from operations) to June 30, 1939	4,550.67	22,907.90	13,457.15	[1] 11,135.53	11,265.94	0	0	0	4,710.95
Adjustment	14.59	27,087.01	18,312.15	[1] 1,331.69	0	0	0	0	4,183.13
Total additional rent to USHA (or deficit from operations)	11,572.82	88,207.78	57,236.24	[1] 33,027.15	43,896.24	12,156.36	11,361.56	15,203.50	13,453.21
Number of months operated under lease	20	29.52	29.52	29.52	22.32	6	6	6	27

[1] Deficit.

TABLE 16A. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement, PWA Housing Division projects under lease to local authorities from July 1, 1939, or effective date of lease to local authority, to June 30, 1940*—Continued

Project No. Location	H-7901-B Dallas, Tex.	H-1201 Detroit, Mich.	H-1205 Detroit, Mich.	H-4702 Jackson-ville, Fla.	H-6202 Lacka-wanna, N. Y.	H-5103 Lexington, Ky.	H-2502 Louisville, Ky.	H-2503 Louisville, Ky.	H-3401 Memphis, Tenn.
Income:									
Dwelling rent schedule	$40,773.00	$179,751.30	$255,125.44	$28,347.00	$68,163.00	$77,273.40	$56,511.30	$27,951.00	$124,175.28
Less dwelling vacancy	639.91	571.98	698.91	97.45	37.07	2.06	308.69	0	75.59
Net dwelling rentals	40,133.09	179,179.32	254,426.53	28,249.55	68,125.93	77,271.34	56,202.61	27,951.00	124,099.69
Nondwelling rent schedule	0	14,868.00	4,555.00	0	0	0	0	0	0
Less nondwelling vacancy	0	3,207.00	150.00	0	0	0	0	0	0
Net nondwelling rentals	0	11,661.00	4,405.00	0	0	0	0	0	0
Total net rentals	40,133.09	190,840.32	258,831.53	28,249.55	68,125.93	77,271.34	56,202.61	27,951.00	124,099.69
Other income	204.15	6,991.84	3,465.51	889.15	781.68	405.09	1,249.77	560.26	2,521.74
Total income	40,337.24	197,832.16	262,297.04	29,138.70	68,907.61	77,676.43	57,452.38	28,511.26	126,621.43
Expense:									
Management	5,291.44	18,320.68	22,436.14	4,705.97	9,412.43	9,943.69	7,439.32	3,996.05	14,498.05
Operating service	1,514.79	11,827.40	9,385.27	469.24	2,276.84	1,288.04	1,615.91	1,305.71	4,875.02
Dwelling utilities	10,780.11	60,692.39	59,601.30	3,710.45	9,850.42	20,729.22	16,568.46	8,005.44	33,786.80
Repairs, maintenance, and replacements	12,984.91	13,438.93	16,384.46	4,329.76	8,344.78	9,461.94	10,755.29	5,266.52	25,671.30
Community activities	82.62	368.00	16.25	0	92.36	120.63	170.59	5.60	233.04
Collection losses	0	0	13.00	0	16.75	82.41	78.10	14.77	148.34
Vacations and sick leave	0	293.30	431.94	206.87	0	0	46.81	3.05	495.03
Insurance	1,178.31	2,430.70	6,219.32	2,205.00	4,159.83	2,033.28	1,555.33	869.34	2,323.37
Other expense	18.00	126.67	88.60	0	90.01	0	3,902.80	3,466.01	5,738.61
Payments in lieu of taxes	0	6,760.00	9,070.00	496.62	2,059.00	2,319.96	1,165.56	600.42	3,249.36
Total expense before rent and reserves	31,850.18	114,258.07	123,646.28	16,123.91	36,302.42	45,979.17	43,298.17	23,532.91	91,018.92
Fixed rent to USHA	8,820.00	25,473.96	32,232.00	4,810.00	11,397.96	16,800.00	10,106.06	4,982.20	24,540.00
Reserved for repairs, maintenance, and replacements	0	9,847.62	8,146.61	6,015.24	11,011.64	6,803.06	2,329.65	989.28	8,288.95
Reserved for vacancy and collection losses	1,103.09	4,716.06	7,570.86	1,319.90	1,986.13	3,779.20	2,438.78	1,382.78	5,440.57
Reserved for contingencies	0	16,926.00	25,274.00	0	6,800.00	0	0	0	0
Total reserves	9,923.09	56,963.64	73,223.47	12,145.14	19,172.45	27,382.26	14,874.49	7,354.26	38,269.52
Total expense	41,773.27	171,221.71	196,869.75	28,269.05	55,474.87	73,361.43	58,172.66	30,887.17	129,288.44

Additional rent to USHA (or deficit from operations) for period	[1] 1,436.03	26,610.45	65,427.29	869.65	13,432.74	4,315.00	[1] 720.28	[1] 2,375.91	[1] 2,667.01
Additional rent to USHA (or deficit from operations) to June 30, 1939	0	6,422.85	14,153.96	0	3,578.83	8,022.77	11,919.63	4,983.82	1,623.95
Adjustment	0	6,969.80	10,152.47	0	6,757.03	[1] 459.03	86.49	204.98	3.20
Total additional rent to USHA (or deficit from operations)	[1] 1,436.03	40,003.10	89,733.72	869.65	23,768.60	11,878.74	11,285.84	2,812.89	[1] 1,039.86
Number of months operated under lease	12	20.5	20.5	12	24	28.5	28	28	27

[1] Deficit.

TABLE 16A. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement, PWA Housing Division projects under lease to local authorities from July 1, 1939, or effective date of lease to local authority, to June 30, 1940*—Continued

Project No. Location	H-3403 Memphis, Tenn.	H-4602 Miami, Fla.	H-2201 Montgomery, Ala.	H-2202 Montgomery, Ala.	H-2101 Nashville, Tenn.	H-2102 Nashville, Tenn.	H-1301 New York, N. Y.	H-1302 New York, N. Y.	H-2001 Omaha, Nebr.
Income:									
Dwelling rent schedule	$117,200.70	$36,794.40	$5,955.00	$7,097.00	$67,919.50	$67,606.00	$577,506.17	$198,084.43	$75,492.00
Less dwelling vacancy	53.31	348.93	73.27	6.75	1,000.08	1,445.95	148.64	306.38	563.54
Net dwelling rentals	117,147.39	36,445.47	5,881.73	7,090.25	66,919.42	66,160.05	577,357.53	197,778.05	74,928.46
Nondwelling rent schedule	0	556.45	0	0	0	34.50	29,367.99	9,727.00	0
Less nondwelling vacancy	0	0	0	0	0	0	15,173.68	1,306.51	0
Net nondwelling rentals	0	556.45	0	0	0	34.50	14,194.31	8,420.49	0
Total net rentals	117,147.39	37,001.92	5,881.73	7,090.25	66,919.42	66,194.55	591,551.84	206,198.54	74,928.46
Other income	1,696.76	700.59	1,532.29	1,584.40	3,947.80	3,301.06	1,997.97	765.10	295.36
Total income	118,844.15	37,702.51	7,414.02	8,674.65	70,867.22	69,495.61	593,549.81	206,963.64	75,223.82
Expense:									
Management	14,303.36	5,398.15	1,298.54	1,908.73	7,418.73	7,781.24	59,056.11	28,757.99	9,379.92
Operating service	4,520.47	1,840.20	299.90	184.03	540.06	1,027.27	37,813.62	13,388.40	2,602.40
Dwelling utilities	26,721.37	1,516.79	575.82	438.42	20,176.40	21,980.72	110,528.12	39,591.12	24,955.35
Repairs, maintenance, and replacements	20,351.77	4,925.91	1,430.89	1,533.38	9,133.52	10,238.05	53,860.89	37,339.83	11,986.50
Community activities	301.23	0	0	0	45.46	153.04	10.00	0	77.20
Collection losses	168.03	0	0	0	0	0	120.27	14.76	276.97
Vacations and sick leave	114.04	0	0	0	129.02	61.77	1,208.52	432.71	146.61
Insurance	2,825.62	2,823.51	417.00	354.00	1,939.63	4,128.00	24,854.58	8,822.93	1,540.69
Other expense	0	252.13	0	0	0	0	5,827.56	2,242.40	0
Payments in lieu of taxes	2,999.64	0	115.00	135.00	928.07	842.59	0	0	2,283.00
Total expense before rent and reserves	72,305.53	16,756.69	4,137.15	4,553.56	40,310.89	46,212.68	293,279.67	130,590.14	53,248.64
Fixed rent to USHA	17,460.00	7,200.00	1,105.00	1,555.00	15,705.00	17,205.00	154,629.12	33,254.88	18,010.00
Reserved for repairs, maintenance, and replacements	8,126.23	[1]5,495.36	452.03	522.87	6,073.31	2,693.28	31,614.39	[1]5,952.39	0
Reserved for vacancy and collection losses	5,087.41	0	224.48	348.10	2,395.90	1,934.35	10,128.95	4,597.14	2,934.49
Reserved for contingencies	0	4,500.00	0	0	0	0	0	0	0
Total reserves	30,673.64	6,204.64	1,781.51	2,425.97	24,174.21	21,832.63	196,372.46	31,899.63	20,944.49
Total expense	102,979.17	22,961.33	5,918.66	6,979.53	64,485.10	68,045.31	489,652.13	162,489.77	74,193.13

Additional rent to USHA (or deficit from operations) for period	15,864.98	14,741.18	1,495.36	1,695.12	6,382.12	1,450.30	103,897.68	44,473.87	1,030.69
Additional rent to USHA (or deficit from operations) to June 30, 1939	21,846.01	3,197.15	0	0	0	0	122,213.47	52,198.99	13,848.39
Adjustment	0	3,319.70	0	0	0	0	[1] 2,061.42	[1] 9.19	0
Total additional rent to USHA (or deficit from operations)	37,710.99	21,258.03	1,495.36	1,695.12	6,382.12	1,450.30	224,049.73	96,663.67	14,879.08
Number of months operated under lease	27	16	5	5	11	11	32.9	33.9	28

[1] Deficit.

TABLE 16A. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement, PWA Housing Division projects under lease to local authorities from July 1, 1939, or effective date of lease to local authority, to June 30, 1940*—Continued

Project No. Location	H–3001–C Philadelphia, Pa.	H–5801 Schenectady, N. Y.	H–2801 Toledo, Ohio	H–1706–A Washington, D. C.	Total
Income:					
Dwelling rent schedule	$87,042.00	$63,867.60	$77,685.00	$20,182.05	$4,638,326.02
Less dwelling vacancy	543.53	14.91	728.66	201.02	44,744.98
Net dwelling rentals	86,498.47	63,852.69	76,956.34	19,981.03	4,593,581.04
Nondwelling rent schedule	2,757.87	0	2,287.00	0	92,634.92
Less nondwelling vacancy	398.55	0	340.25	0	24,997.37
Net nondwelling rentals	2,359.32	0	1,946.75	0	67,637.55
Total net rentals	88,857.79	63,852.69	78,903.09	19,981.03	4,661,218.59
Other income	893.83	243.67	1,441.16	333.37	75,759.46
Total income	89,751.62	64,096.36	80,344.25	20,314.40	4,736,978.05
Expense:					
Management	10,162.25	8,239.00	13,184.57	2,531.88	522,193.67
Operating service	3,220.20	5,263.04	7,073.05	856.50	257,432.53
Dwelling utilities	26,575.47	17,551.61	22,204.23	4,527.98	1,157,720.49
Repairs, maintenance, and replacements	27,571.84	7,316.72	15,026.23	3,478.43	696,253.61
Community activities	79.24	1,479.08	293.24	0	10,377.60
Collection losses	551.43	56.30	554.70	0	6,759.56
Vacations and sick leave	108.24	196.70	173.41	0	10,590.04
Insurance	1,497.40	1,278.53	1,364.77	135.21	118,509.72
Other expense	2,479.15	1,100.00	3,081.93	944.80	52,229.51
Payments in lieu of taxes	3,060.00	2,082.96	0	731.25	122,173.53
Total expense before rent and reserves	75,305.22	44,563.94	62,956.13	13,206.05	2,954,240.26
Fixed rent to USHA	14,280.00	7,332.96	11,250.00	2,100.00	804,136.42
Reserved for repairs, maintenance, and replacements	[1] 13,561.41	[1] 1,163.45	5,977.11	1,462.57	241,797.03
Reserved for vacancy and collection losses	2,729.78	1,834.65	2,758.30	401.98	131,869.47
Reserved for contingencies	8,700.00	6,400.00	0	0	89,906.21
Total reserves	12,148.37	14,404.16	19,985.41	3,964.55	1,267,709.13
Total expense	87,453.59	58,968.10	82,941.54	17,170.60	4,221,949.39

Additional rent to USHA (or deficit from operations) for period	2,298.03	5,128.26	[1] 2,597.29	3,143.80	515,028.66
Additional rent to USHA (or deficit from operations) to June 30, 1939	6,641.91	3,328.64	3,504.71	0	388,622.26
Adjustment	18,174.84	4,282.18	[1] 844.75	0	128,461.81
Total additional rent to USHA (or deficit from operations)	27,114.78	12,739.08	62.67	3,143.80	1,032,112.73
Number of months operated under lease	27	23.5	27.5	3	

[1] Deficit.

TABLE 16B. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement, PWA Housing Division projects during USHA operation from July 1, 1939, to June 30, 1940, or to effective date of lease to local authority. Projects with rents fixed under the George-Healey Act*

Project No Location	H–1101 Atlanta, Ga.	H–1102 Atlanta, Ga.	H–1001 Cleveland, Ohio	H–1002 Cleveland, Ohio	H–1003 Cleveland, Ohio	H–5401 Enid, Okla.	H–1502 Milwaukee, Wis.
Income:							
Dwelling rent schedule	$125,540.00	$105,497.60	$102,460.50	$86,046.00	$102,230.70	$17,199.00	$182,123.40
Less dwelling vacancy	714.69	310.06	1,122.04	582.47	596.94	184.36	971.10
Net dwelling rentals	124,825.31	105,187.54	101,338.46	85,463.53	101,633.76	17,014.64	181,152.30
Nondwelling rent schedule	10,400.00	3,725.90	2,094.00	3,220.59	6,280.80	0	4,215.60
Less nondwelling vacancy	3,787.10	0	5.49	77.90	2,509.80	0	42.97
Net nondwelling rentals	6,612.90	3,725.90	2,088.51	3,142.69	3,771.00	0	4,172.63
Total net rentals	131,438.21	108,913.44	103,426.97	88,606.22	105,404.76	17,014.64	185,324.93
Other income	3,492.61	11,519.30	1,933.31	2,098.91	2,425.44	603.63	378.49
Total income	134,930.82	120,432.74	105,360.28	90,705.13	107,830.20	17,618.27	185,703.42
Expense:							
Management	10,298.02	12,375.82	11,809.74	12,364.26	10,591.98	2,722.30	16,207.00
Operating services	8,816.79	4,346.38	8,239.55	8,571.24	8,087.99	489.63	4,292.74
Dwelling utilities	34,166.01	35,114.91	24,547.70	19,289.23	21,256.38	4,575.35	40,989.06
Repairs, maintenance, and replacements	21,527.84	15,918.41	37,864.64	29,400.79	46,858.23	4,276.62	33,213.52
Community activities	1,013.43	42.79	135.82	449.49	1,386.61	0	0
Collection losses	0	0	1,291.08	3,696.42	1,774.54	0	0
Vacations and sick leave	6,790.28	6,806.67	0	0	0	307.79	861.70
Insurance	1,652.56	1,746.72	1,839.84	1,979.28	2,176.62	352.92	3,281.16
Other expense	7,840.00	0	23,642.77	341.49	1,033.66	0	0
Payments in lieu of taxes	4,902.00	3,764.67	3,919.55	873.04	3,723.10	324.96	6,969.96
Total expense before reserves	97,006.93	80,116.37	113,290.69	76,965.24	96,889.11	13,049.57	105,815.14
Reserved for repairs, maintenance, and replacements	638.83	6,895.59	[1] 17,248.64	[1] 10,416.79	[1] 24,208.23	531.38	1,982.48
Reserved for vacancy and collection losses	2,968.41	3,051.57	2,709.90	23.41	2,740.05	0	4,492.60
Reserved for contingencies	0	0	0	0	0	1,700.00	18,100.00
Total reserves	3,607.24	9,947.16	[1] 14,538.74	[1] 10,393.38	[1] 21,468.18	2,231.38	24,575.08
Total expense	100,614.17	90,063.53	98,751.95	66,571.86	75,420.93	15,280.95	130,390.22

Net profit for the period	34,316.65	30,369.21	6,608.33	24,133.27	32,409.27	2,337.32	55,313.20
Net profit (or loss) to June 30, 1939	136,956.72	43,156.16	56,548.15	29,731.73	63,656.47	5,409.95	92,091.06
Surplus adjustment	49,103.75	74,024.46	47,173.44	39,674.89	28,208.85	7,442.10	42,872.67
Accumulated net profit	220,377.12	147,549.83	110,329.92	93,539.89	124,274.59	15,189.37	190,276.93
Number of months operated	42.5	34.5	28.5	28.5	26.5	33	37
Operated by USHA to	Feb. 29, 1940	Feb. 29, 1940	Dec. 31, 1939	Dec. 31, 1939	Dec. 31, 1939	June 30, 1940	June 30, 1940

[1] Deficit.

TABLE 16B. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement, PWA Housing Division projects during USHA operation from July 1, 1939, to June 30, 1940, or to effective date of lease to local authority. Projects with rents fixed under the George-Healey Act*—Continued

Project No. Location	H-2201 Montgomery, Ala.	H-2202 Montgomery, Ala.	H-8101 Oklahoma City, Okla.	H-9601 Stamford, Conn.	H-4900 Virgin Islands	Total
Income:						
Dwelling rent schedule	$12,635.00	$14,864.71	$70,451.90	$52,572.00	$6,502.66	$878,123.47
Less dwelling vacancy	230.19	47.97	2,697.55	0	354.06	7,811.43
Net dwelling rentals	12,404.81	14,816.74	67,754.35	52,572.00	6,148.60	870,312.04
Nondwelling rent schedule	0	0	0	35.00	93.00	30,064.89
Less nondwelling vacancy	0	0	0	0	0	6,423.26
Net nondwelling rentals	0	0	0	35.00	93.00	23,641.63
Total net rentals	12,404.81	14,816.74	67,754.35	52,607.00	6,241.60	893,953.67
Other income	40.00	44.76	3,131.95	366.36	0	26,034.76
Total income	12,444.81	14,861.50	70,886.30	52,973.36	6,241.60	919,988.43
Expense:						
Management	2,478.52	3,392.79	8,241.98	3,182.55	8.26	93,673.22
Operating services	1,006.93	292.27	2,191.58	1,945.52	236.10	48,516.72
Dwelling utilities	708.88	573.38	14,659.49	14,959.99	0	210,840.38
Repairs, maintenance, and replacements	2,762.38	1,968.92	7,334.09	4,640.27	753.36	206,519.07
Community activities	0	0	123.77	0	0	3,151.91
Collection losses	0	0	0	0	138.90	6,900.94
Vacations and sick leave	0	0	203.92	0	0	14,970.36
Insurance	522.06	366.80	1,386.36	987.36	240.88	16,532.56
Other expense	0	0	0	0	0	32,857.92
Payments in lieu of taxes	161.64	188.44	200.04	1,166.76	0	26,194.16
Total expense before reserves	7,640.41	6,782.60	34,341.23	26,882.45	1,377.50	660,157.24
Reserved for repairs, maintenance, and replacements	63.28	1,266.24	10,315.91	3,519.73	2,358.60	[1] 24,301.62
Reserved for vacancy and collection losses	148.86	397.97	[1] 583.99	1,577.00	0	17,525.78
Reserved for contingencies	0	0	6,500.00	5,300.00	600.00	32,200.00
Total reserves	212.14	1,664.21	16,231.92	10,396.73	2,958.60	25,424.16
Total expense	7,852.55	8,446.81	50,573.15	37,279.18	4,336.10	685,581.40

Net profit for the period	4, 592. 26	6, 414. 69	20, 313. 15	15, 694. 18	1, 905. 50	234, 407. 03
Net profit (or loss) to June 30, 1939	9, 477. 31	11, 523. 50	46, 576. 05	21, 513. 55	2, 770. 31	519, 410. 96
Surplus adjustment	6, 975. 47	11, 031. 50	32, 926. 23	14, 545. 77	[1] 7. 37	353, 971. 76
Accumulated net profit	21, 045. 04	28, 969. 69	99, 815. 43	51, 753. 50	4, 668. 44	1, 107, 789. 75
Number of months operated	32	40. 3	34	34	34	
Operated by USHA to	1-31-40	1-31-40	6-30-40	6-30-40	6-30-40	

[1] Deficit.

TABLE 16C. UNITED STATES HOUSING AUTHORITY.—*Income and expense statement, PWA Housing Division projects during USHA operation from July 1, 1939, to June 30, 1940, or to effective date of lease to local authority. Projects with rents fixed under United States Housing Act of 1937*

Project No. Location	H-3801 Evansville, Ind.	H-1601 Indianapolis, Ind.	H-4201 Minneapolis, Minn.	H-2101 Nashville, Tenn.	H-2102 Nashville, Tenn.	H-1706-A Washington, D. C.	H-9001 Wayne, Pa.	Total
Income:								
Dwelling rent schedule	$38,172.60	$174,268.60	$141,181.20	$7,571.00	$8,108.80	$60,546.15	$14,005.20	$443,853.55
Less dwelling vacancy	69.77	20.97	1,658.24	497.49	1,339.03	45.31	106.84	3,737.65
Net dwelling rentals	38,102.83	174,247.63	139,522.96	7,073.51	6,769.77	60,500.84	13,898.36	440,115.90
Nondwelling rent schedule	0	8,455.69	0	0	0	0	4.25	8,459.94
Less nondwelling vacancy	0	3,215.03	0	0	0	0	0	3,215.03
Net nondwelling rentals	0	5,240.66	0	0	0	0	4.25	5,244.91
Total net rentals	38,102.83	179,488.29	139,522.96	7,073.51	6,769.77	60,500.84	13,902.61	445,360.81
Other income	408.54	2,998.18	1,785.05	15.55	42.17	1,097.21	14.92	6,361.62
Total income	38,511.37	182,486.47	141,308.01	7,089.06	6,811.94	61,598.05	13,917.53	451,722.43
Expense:								
Management	4,640.43	15,896.83	8,493.77	1,255.19	893.67	5,753.04	673.60	37,606.53
Operating services	1,131.51	6,857.86	3,784.40	249.87	432.38	2,742.83	192.16	15,391.01
Dwelling utilities	5,483.43	58,684.30	36,822.34	1,675.13	1,446.99	21,165.70	5,119.05	130,396.94
Repairs, maintenance, and replacements	4,449.06	17,694.44	11,463.82	3,069.74	993.43	7,210.71	2,666.85	47,548.05
Community activities	14.99	158.52	0	0	7.00	283.19	0	463.70
Collection losses	16.84	0	197.67	0	0	0	0	214.51
Vacations and sick leave	43.54	0	555.62	0	0	0	0	599.16
Insurance	2,068.32	2,164.92	5,841.72	143.43	347.05	794.97	207.24	11,567.65
Other expense	8.20	543.15	169.00	0	0	0	0	720.35
Payments in lieu of taxes	0	5,495.35	4,554.00	82.50	88.75	2,193.75	0	12,414.35
Total expense before reserves	17,856.32	107,495.37	71,882.34	6,475.86	4,209.27	40,144.19	8,858.90	256,922.25
Reserved for repairs, maintenance, and replacements	5,738.94	24,497.56	22,844.18	[1]1,155.24	765.40	6,199.29	813.15	59,703.28
Reserved for vacancy and collection losses	1,058.57	5,733.91	2,379.53	[1]270.36	0	1,771.07	313.32	10,986.04
Reserved for contingencies	3,800.00	16,900.00	14,100.00	0	0	0	1,400.00	36,200.00
Total reserves	10,597.51	47,131.47	39,323.71	[1]1,425.60	765.40	7,970.36	2,526.47	106,889.32
Total expense	28,453.83	154,626.84	111,206.05	5,050.26	4,974.67	48,114.55	11,385.37	363,811.57

Net profit for the period	10,057.54	27,859.63	30,101.96	2,038.80	1,837.27	13,483.50	2,532.16	87,910.86
Net profit (or loss) to June 30, 1939	3,220.91	21,703.24	0	6,249.47	[1] 2,847.08	5,328.43	1,175.96	34,830.93
Surplus adjustment	2,806.86	42,533.83	0	10,842.03	2,847.08	11,837.77	1,848.72	72,716.29
Accumulated net profit	16,085.31	92,096.70	30,101.96	19,130.30	1,837.27	30,649.70	5,556.84	195,458.08
Number of months operated	24	28.5	18.5	18	13.5	23	28	
Operated by USHA to	June 30, 1940	June 30, 1940	June 30, 1940	July 31, 1939	July 31, 1939	March 31, 1940	June 30, 1940	

[1] Deficit.

TABLE 17. UNITED STATES HOUSING AUTHORITY.—*Occupancy data on PWA limited-dividend projects as of June 30, 1940*

[Built by private corporations in the first phases of the PWA program. This type of project was discontinued at an early date]

Project location and name [1]	Percentage of project occupied	Number of dwelling units	Average monthly shelter rent per dwelling unit, including water [2]
Altavista, Va.: Altavista	97.5	50	$15.83
New York, N. Y.: Boulevard Gardens	100.0	958	39.55
New York, N. Y.: Hillside	99.9	1,415	38.53
Philadelphia, Pa.: Carl Mackley Homes	94.4	284	31.67
Raleigh, N. C.: Boylan	96.5	54	45.04
St. Louis, Mo.: Neighborhood Gardens	83.1	252	26.73

[1] Statistics covering the Euclid Housing Corporation project in Euclid, Ohio, have been omitted since the dwellings in this project are not being rented, but are being sold to occupants by the Euclid Housing Corporation.

[2] Shelter rent means the charge for the use of a dwelling excluding utilities (such as heat, heating of water, light, cooking fuel, and refrigeration energy), except in these projects, where the cost of water is included.

TABLE 18. UNITED STATES HOUSING AUTHORITY.—*Total administrative and nonadministrative expenses of the Authority for fiscal year ending June 30, 1940*

Classification	Administrative expenses	Nonadministrative expenses [1]
Total	[2] $4,181,946.47	$385,354.62
Personal services	3,433,535.88	332,045.65
Supplies and materials	63,618.73	710.82
Communication service	69,866.20	2,442.29
Travel expense	263,615.70	28,947.95
Transportation of things	5,416.88	
Printing and binding	135,762.00	2,497.78
Rents (including maintenance and guarding)	114,839.66	16,689.88
Repairs and alterations	21,739.05	1,987.70
Special and miscellaneous expense	48,210.65	32.55
Equipment	[2] 25,341.72	

[1] In accordance with the Interior Department Appropriation Act, fiscal year 1940, all necessary expenses in connection with the management and operation of PWA Housing Division projects transferred to the Authority may be considered as nonadministrative expenses.

[2] The amount of $25,341.72 representing the cost of equipment has been capitalized. The total of $4,181,946.47 does not include $32,000 transferred to the Federal Works Agency.

TABLE 19. UNITED STATES HOUSING AUTHORITY.—*Balance sheet, June 30, 1940*

ASSETS

Cash:				
USHA-aided projects:				
Bond fund		$50,452,481.78		
Interest fund		1,872,596.90		
Contribution fund		5,000,000.00		
Administrative		2,030,338.70		
Golden Gate Exposition		526.26		
			$59,355,943.64	
PWA Housing Division projects:				
NIRA construction	$74,506.68			
ERA construction	240,385.96			
		314,892.64		
General fund		1,864,729.32		
Management:				
Operating fund		644,110.79		
Repairs, maintenance, replacements, collections, and other costs, reserve fund		130,729.21		
			2,954,461.96	
				$62,310,405.60
Accounts receivable:				
USHA-aided projects:				
Local authorities		7,827.60		
Governmental agencies		14,887.05		
			22,714.65	
PWA Housing Division projects:				
Tenant rentals		6,928.59		
Local authorities		781,062.72		
Miscellaneous		29,080.67		
			817,071.98	
				839,786.63
Securities:				
USHA-aided projects:				
Obligations of local authorities (cost)		78,204,518.22		
Add: Accrued interest		815,749.10		
			79,020,267.32	
PWA Housing Division Projects:				
Stocks, limited-dividend corporations		220.00		
Obligations of limited-dividend corporations (cost)	$9,098,726.39			
Add: Accrued interest	36,655.21			
		9,135,381.60		
Obligations U. S. Government Notes reserved for repairs, maintenance, replacements, collections, and other costs (cost)	3,908,590.64			
Add: Accrued interest	7,445.32			
		3,916,035.96		
			13,051,637.56	
				92,071,904.88
Development cost, PWA Housing Division projects:				
Development cost		127,525,461.24		
Unliquidated construction contract balances		89,901.04		
			127,615,362.28	
Furniture and fixtures:				
Washington office		498,690.11		
Less: Allowance for depreciation		226,662.49		
			272,027.62	
				127,887,389.90
Deferred charges:				
Prepaid insurance, PWA Housing Division projects			155,042.80	
Materials and supplies			14,258.08	
				169,300.88
Loan allotment contracts (contra)				611,103,481.78
Total				894,382,269.67

TABLE 19. UNITED STATES HOUSING AUTHORITY.—*Balance sheet, June 30, 1940*—Continued

LIABILITIES

Accounts payable:			
USHA-aided projects:			
Administrative	$145,234.40		
Miscellaneous	76,302.80		
Governmental agencies	22,920.50		
		$244,457.70	
PWA Housing Division projects:			
Construction	20,937.83		
Management	84,586.36		
Prepaid rentals	13,853.06		
Nonadministrative	18,131.45		
		137,508.70	
			$381,966.40
Accrued and deferred accounts:			
PWA Housing Division projects:			
Reserve for repairs, maintenance and replacements	2,597,358.06		
Reserve for other project administrative costs	907,870.70		
Reserve for collection and vacancy losses	311,616.91		
Reserve for contingencies	177,355.34		
Reserve for limited dividend corporations (Juniata Park)	52,564.16		
		4,046,765.17	
Unliquidated payments in lieu of taxes		116,280.92	
Unliquidated construction contract balances		89,901.04	
			4,252,947.13
Notes payable:			
USHA-aided projects:			
Series B of Feb. 1, 1939	114,157,000.00		
Add: Accrued interest	654,024.50		
Series D, Treasury loans		114,811,024.50	
		20,000,000.00	
			134,811,024.50
USHA annual contribution allotment			5,000,000.00
USHA loan contracts:			
Commitments under loan contract, definite	[1] 626,795,000.00		
Less: Loan advances	[2] 78,204,518.22		
		548,590,481.78	
Contingent loan commitments		62,513,000.00	
			611,103,481.78
Capital stock			1,000,000.00
Surplus			137,832,849.86
Total			894,382,269.67

[1] Does not include commitments under contract approved by the President but not executed by June 30, 1940, in amount of $11,418,000.

[2] In addition to the amount of $78,204,518.22 advanced by USHA, local authorities have borrowed from private sources $240,466,000 for which there are outstanding irrevocable commitments by USHA, to pay at maturity.

TABLE 20. UNITED STATES HOUSING AUTHORITY—*Reconciliation of surplus, June 30, 1940*

Surplus at July 1, 1939			$141,635,699.61
Current operations:			
Additions:			
USHA-aided projects:			
Interest, local authorities	$2,996,841.67		
Less: Interest USHA obligations	1,603,553.74		
		$1,393,287.93	
PWA Housing Division projects:			
Administration of projects operated by USHA:			
With rents fixed under the George-Healey Act	234,407.03		
With rents fixed under the U. S. Housing Act of 1937	87,910.86		
Interest, limited dividend corporations	370,841.48		
Miscellaneous interest	962.80		
		694,122.17	
		2,087,410.10	
Deductions:			
USHA administrative and nonadministrative expense:			
Administrative expense	4,156,634.75		
Nonadministrative expense	385,354.62		
Depreciation on furniture and fixtures, Washington office	75,569.36		
Funds transferred to Federal Works Agency	32,000.00		
		4,649,528.73	
Less: Recovery for lost material		95.86	
		4,649,432.87	
Net deductions for current operations			$2,562,022.77
Adjustments for prior periods:			
Additions:			
Adjustments in administration of PWA Housing Division projects		526,862.15	
Adjustment of administrative expense, 1938		80,001.38	
Miscellaneous		2,778.46	
		609,641.99	
Deductions:			
Loss sustained through PWA demolition on slum sites and realized at time of sale to other public agencies:			
Chicago, Ill	1,526,807.99		
Minneapolis, Minn	121,416.80		
Toledo, Ohio	61,167.90		
Omaha, Nebr	31,766.83		
		1,741,159.52	
Preliminary planning expense on PWA Housing Division projects abandoned by PWA		29,747.35	
Allowance for depreciation in prior periods on furniture and fixtures, Washington Office		79,562.10	
		1,850,468.97	
Net deductions for prior periods			1,240,826.98
Total net deductions			3,802,849.75
Surplus per balance sheet			137,832,849.86

List of Available Publications of the United States Housing Authority

WHAT DOES THE HOUSING PROGRAM COST? 1940, 32 pp. A simple presentation of facts about the Federal Government's share in slum-clearance and low-rent housing.

QUESTIONS AND ANSWERS. 1940, 28 pp. An illustrated pamphlet containing the answers to questions most frequently asked about the slum-clearance and low-rent housing program.

HOUSING AND WELFARE. 1940, 53 pp. A report on a survey conducted by the USHA in cooperation with the Social Security Board, of the housing of relief and public-assistance recipients.

ANNUAL REPORT OF THE UNITED STATES HOUSING AUTHORITY, 1939. 1940, 59 pp. A detailed factual review of the progress of the USHA program—with especial reference to rents, income groups served, Federal and local loans and contributions, development costs, slum elimination, labor and employment, rural housing, local housing authorities, and state enabling legislation. Special sections deal with the character of USHA organization and the status of PWA Housing Division projects.

THE UNITED STATES HOUSING ACT OF 1937, AS AMENDED. 1939, 69 pp. A pamphlet containing the legislative basis of the USHA program. Provisions of related laws and executive orders appear in the appendix.

WHAT THE HOUSING ACT CAN DO FOR YOUR CITY. 1938, 88 pp. Based upon the first year of the low-rent housing program, this illustrated pamphlet presents a comprehensive and authoritative picture of the character and development of that program. Designed for individuals and groups interested in the establishment of local housing authorities or endeavoring to understand and participate in their local authority's work. For sale by the Superintendent of Documents, Washington, D. C. Price 20 cents.

"PUBLIC HOUSING." Current. An illustrated weekly news review—usually four pages in length—reporting the latest developments and data pertaining to the programs and progress of the Nation's housing authorities. For sale by the Superintendent of Documents, Washington, D. C. Annual subscription rate, $1. Single copies, 5 cents.

CLEARING THE SLUMS. 1940, 8 pp. A discussion of how slum quarters are being eliminated under the public housing program.

LABOR AND HOUSING. 1940, 7 pp. A discussion of labor's part in the slum-clearance and low-rent housing program.

RURAL HOUSING. 1940, 12 pp. A description of the rural housing phase of the Nation-wide rehousing program.

PWA HOUSING DIVISION PROJECTS. 1940, 8 pp. A discussion of the difference between the projects built by the former Housing Division of PWA and those now being built by local housing authorities with USHA assistance.

BRINGING DOWN CONSTRUCTION COSTS. 1940, 12 pp. An analysis of the various factors involved in the low construction costs of USHA-aided projects.

PUBLIC HOUSING AND THE NEGRO. 1940, 7 pp. A statement on what the low-rent housing and slum-clearance program means to the Negro.

PUBLIC HOUSING HERE AND IN GREAT BRITAIN. 1940, 11 pp. A review of how American public housing has been guided by British housing experience.

BETTER HOUSING, BETTER HEALTH. 1940, 12 pp. A discussion of the interrelationship of housing and health.

HOUSING AND JUVENILE DELINQUENCY. 1939, 6 pp. A brief study of the relationship between housing conditions and juvenile delinquency.

HOUSING AND YOUR COMMUNITY. 1939, 8 pp. An explanation of the social and economic effect of slums upon America's cities and what can be done about it.

LOW RENTS FOR LOW INCOMES. 1939, 8 pp. A discussion of how USHA-aided projects provide homes at low rents for families of low income.

THE BUSINESSMAN AND PUBLIC HOUSING. 1939, 6 pp. A review of the benefits accruing to the businessman through public housing.

TAX EXEMPTION OF PUBLIC HOUSING. 1939, 8 pp. A discussion of the cost of tax exemption of public housing to the community.

REHOUSING RELIEF FAMILIES. 1939, 8 pp. An explanation of the rehousing of families in the lowest income group.

HOW THE USHA WORKS. 1939, 6 pp. A description of the slum-clearance and low-rent housing program.

INTRODUCTION TO HOUSING—FACTS AND PRINCIPLES. 1940, 161 pp. By Edith Elmer Wood. Superintendent of Documents, 60 cents. A simple presentation of some of the fundamentals of public housing.

BULLETINS ON POLICY AND PROCEDURE

Intended primarily for use of local housing authorities and others participating in the USHA program

No.

1. Acquisition of Excess Land.
2. Room Count.
3. Equivalent Elimination of Unsafe and Insanitary Dwellings.
4. Development Cost of a Low-Rent Housing Project.
5. Progressive Steps in Initiation of a Low-Rent Housing Project.
6. Local Contributions and Other Local Aids in Achieving Low Rents.
7. Advance Loan.
8. Acquisition of Sites for Low-Rent Housing Projects.
9. Construction Contracts.
10. Rehousing Occupants of Areas To Be Cleared for Housing Projects.
11. Design of Low-Rent Housing Projects: Planning the Site.
12. Dwelling Unit Planning.
13. Preparation of Drawings and Specifications.
14. Site Engineering Design.
15. Steps in the Development of a Low-Rent Housing Project Subsequent to the Execution of the Contracts of Loan and Annual Contributions.
16. Planning for Low Rents.
17. Definition of Terms.
18. Site Selection.
19. Planning Utility Services and Rate Negotiations.
20. Selecting a Method of Heating.
21. Design of Low-Rent Housing Projects: The Structure.
22. Initial Steps in Tenant Selection.

23. Personnel Requirements for Supervision and Inspection of Projects During Construction.
24. Establishing Rent Schedules for USHA-aided Projects.
25. Sub-Surface Soil Investigation.
26. Insurance on USHA-aided Projects.
27. Zoning and Rezoning for USHA-aided Projects.
28. Manual of Management Reports.
29. Budgeting Repair, Maintenance, and Replacement Costs.
30. Estimates of Average Annual Income and Expense and Determination of USHA Annual Contributions for USHA-aided Projects.
31. Suggested Procedures for Initial Tenant Selection and Renting.
32. The Management Program.
33. Budgeting Costs of Operating Services.
34. Certain Overhead Costs for USHA-aided Projects in the Development Period.
35. USHA-aided Defense Housing Projects.
36. Budgeting Dwelling Utility Costs.

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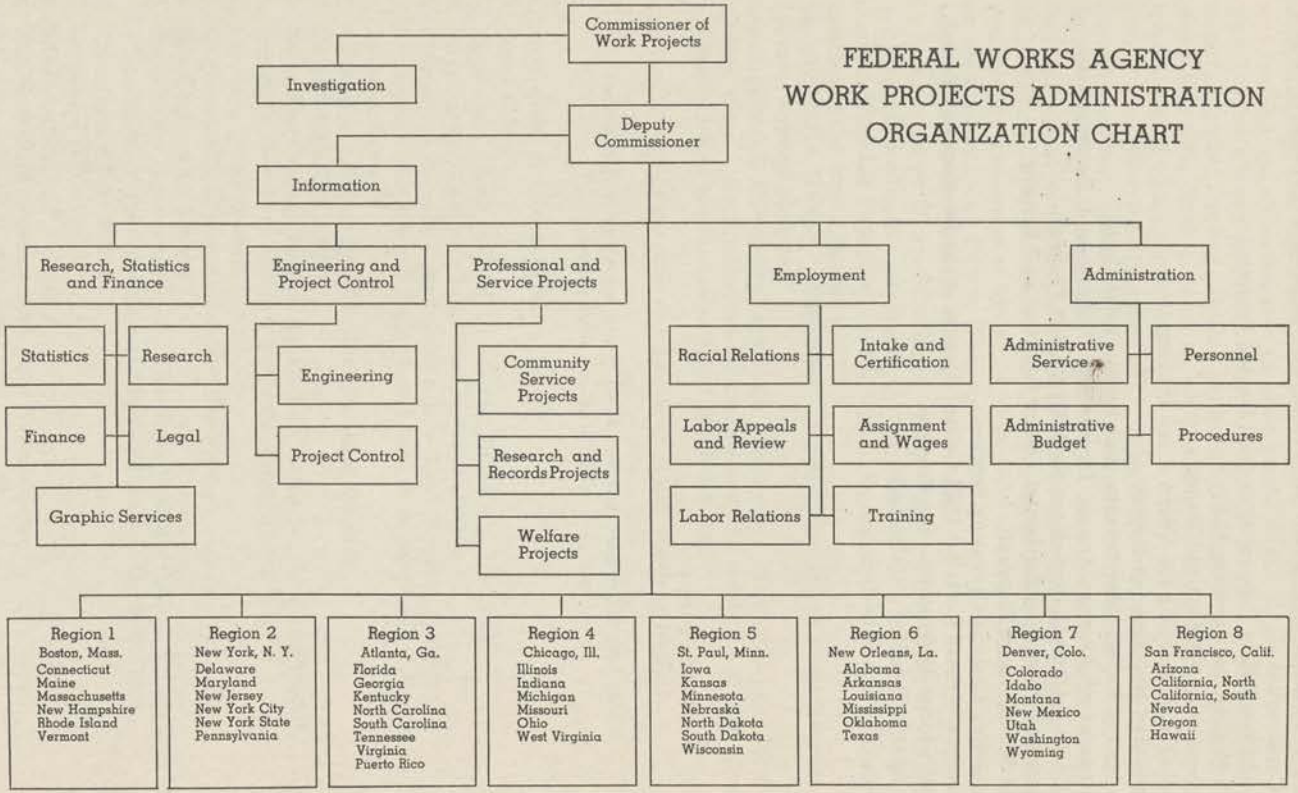
FEDERAL WORKS AGENCY
WORK PROJECTS ADMINISTRATION
ORGANIZATION CHART



NOTE.—The WPA in the District of Columbia operates under the supervision of the central office.

As of December 1, 1940

Appendix F

WORK PROJECTS ADMINISTRATION

TABLE 1. WORK PROJECTS ADMINISTRATION.—*Average number of persons employed on WPA projects, United States and Territories, by program and month,*[1] *August 1935–June 1940*

Year and month	Total	Projects operated by WPA	Projects operated by other Federal agencies [2]
1935			
August	220,163	220,163	----
September	374,316	374,316	----
October	705,169	705,169	----
November	1,814,958	1,814,958	----
December	2,667,190	2,667,190	----
1936			
January	2,879,733	2,879,733	----
February	3,019,098	3,019,098	----
March	2,960,315	2,960,315	----
April	2,626,367	2,626,367	----
May	2,396,719	2,396,719	----
June	2,285,622	2,285,622	----
July	2,245,328	2,245,328	----
August	2,332,380	2,332,380	----
September	2,453,602	2,453,602	----
October	2,552,574	2,552,574	----
November	2,551,042	2,551,042	----
December	2,247,461	2,247,461	----
1937			
January	2,131,079	2,131,079	----
February	2,149,369	2,149,369	----
March	2,129,475	2,129,475	----
April	2,078,221	2,078,221	----
May	2,021,579	2,021,579	----
June	1,878,008	1,878,008	----
July	1,631,204	1,631,204	----
August	1,510,894	1,510,894	----
September	1,455,977	1,455,977	----
October	1,462,605	1,462,605	----
November	1,503,720	1,503,720	----
December	1,596,676	1,596,676	----
1938			
January	1,803,102	1,803,102	----
February	2,003,840	2,003,840	----
March	2,321,541	2,321,541	----
April	2,540,464	2,540,464	----
May	2,640,246	2,640,246	----
June	2,743,025	2,743,025	----
July	2,999,021	2,914,121	84,900
August	3,125,244	3,040,237	85,007
September	3,213,609	3,123,568	90,041
October	3,286,611	3,195,567	91,044
November	3,334,594	3,241,957	92,637
December	3,161,080	3,069,341	91,739
1939			
January	3,021,595	2,931,401	90,194
February	2,996,554	2,907,356	89,198
March	3,009,110	2,920,066	89,044
April	2,792,362	2,679,046	113,316
May	2,645,550	2,509,875	135,675
June	2,578,041	2,438,432	139,609
July	2,282,087	2,236,920	45,167
August	1,970,688	1,909,886	60,802
September	1,720,996	1,656,019	64,977
October	1,877,439	1,804,063	73,376
November	1,960,518	1,882,754	77,764
December	2,123,431	2,045,889	77,542
1940			
January	2,216,314	2,142,588	73,726
February	2,309,218	2,234,595	74,623
March	2,310,541	2,235,361	75,180
April	2,144,040	2,064,452	79,588
May	1,981,661	1,896,642	85,019
June	1,755,526	1,669,572	85,954

[1] Data represent the average of the weekly employment counts made during the calendar month.
[2] Employment on projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939, beginning in July 1938.

TABLE 2. WORK PROJECTS ADMINISTRATION.—*Average number*[1] *of persons employed on WPA projects, United States and Territories, by State and month, for fiscal year ending June 30, 1940*

State or Territory	1939					
	July	August	September	October	November	December
Grand total	2,282,087	1,970,688	1,720,996	1,877,439	1,960,518	2,123,431
Continental United States	2,278,929	1,967,340	1,715,081	1,867,179	1,946,173	2,109,190
Alabama	47,309	40,994	37,947	41,344	39,448	50,900
Arizona	6,845	6,769	5,382	5,763	5,971	6,868
Arkansas	40,717	35,668	32,235	34,584	36,853	42,995
California	96,627	84,408	74,235	78,988	82,234	90,020
Colorado	23,511	18,773	17,990	20,049	21,178	24,019
Connecticut	21,650	17,892	18,141	17,787	18,648	19,026
Delaware	3,154	2,670	2,135	2,311	2,335	2,515
District of Columbia	11,830	9,999	9,211	9,556	9,536	10,821
Florida	39,665	37,941	34,729	39,258	35,139	37,716
Georgia	50,367	45,031	39,567	43,040	44,273	47,707
Idaho	9,532	8,650	7,955	8,460	9,292	10,387
Illinois	172,996	156,883	131,791	145,283	152,183	160,098
Indiana	73,428	62,279	48,654	49,637	56,910	61,166
Iowa	24,838	21,013	18,709	21,099	22,081	23,917
Kansas	28,253	21,913	18,068	22,434	22,026	26,716
Kentucky	51,891	45,140	36,532	40,078	41,565	45,008
Louisiana	40,061	33,175	29,979	31,521	32,402	36,197
Maine	7,407	6,051	5,847	6,304	7,236	7,438
Maryland	14,543	13,641	12,047	13,337	13,562	14,796
Massachusetts	95,221	83,901	72,937	75,051	79,495	86,609
Michigan	118,006	97,779	78,999	81,294	87,350	88,095
Minnesota	48,694	42,481	37,010	44,231	43,990	46,174
Mississippi	37,504	31,458	29,605	33,349	36,988	43,924
Missouri	80,309	69,886	59,442	65,682	72,552	77,618
Montana	13,511	10,960	10,244	11,581	11,646	13,175
Nebraska	23,375	21,015	18,815	22,053	23,452	27,124
Nevada	1,528	1,482	1,265	1,602	1,697	1,799
New Hampshire	7,931	7,313	5,861	6,637	6,823	6,873
New Jersey	77,378	66,869	56,143	63,785	63,665	70,128
New Mexico	10,459	10,151	9,822	10,562	11,134	12,446
New York	186,429	153,484	131,847	143,821	152,138	154,321
North Carolina	40,215	33,742	32,984	35,049	38,194	42,098
North Dakota	11,596	7,355	8,253	10,311	10,718	13,637
Ohio	186,661	146,288	123,717	131,341	135,566	140,163
Oklahoma	50,389	44,067	40,025	41,512	42,669	48,031
Oregon	14,623	13,254	10,571	11,852	12,877	15,176
Pennsylvania	145,992	137,838	124,143	141,645	146,652	147,270
Rhode Island	12,839	12,270	10,285	11,134	11,582	12,252
South Carolina	39,159	34,294	30,761	34,638	35,291	39,627
South Dakota	13,277	11,186	10,731	11,736	12,537	15,159
Tennessee	40,201	35,567	30,079	33,381	34,943	38,846
Texas	87,707	81,159	70,343	75,255	79,080	92,806
Utah	9,971	9,345	8,194	9,256	10,110	11,531
Vermont	4,759	4,095	3,670	3,695	4,028	4,400
Virginia	26,314	22,020	19,874	22,209	23,247	25,434
Washington	30,537	26,142	23,031	24,937	25,009	27,801
West Virginia	38,546	31,604	28,451	27,370	30,085	32,929
Wisconsin	57,727	48,632	44,014	48,330	46,684	51,847
Wyoming	3,447	2,813	2,811	3,047	3,099	3,587
Alaska					27	120
Hawaii	2,128	1,726	1,615	1,711	1,743	1,755
Puerto Rico	1,013	1,592	3,989	7,740	11,387	11,088
Virgin Islands	17	30	311	809	1,188	1,278

[1] Data represent the average of the weekly employment counts made during the calendar month. Includes projects operated by WPA and projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939.

TABLE 2. WORK PROJECTS ADMINISTRATION.—*Average number*[1] *of persons employed on WPA projects, United States and Territories, by State and month, for fiscal year ending June 30, 1940*—Continued

State or Territory	1940					
	January	February	March	April	May	June
Grand total	2,216,314	2,309,218	2,310,541	2,144,040	1,981,661	1,755,526
Continental United States	2,202,606	2,293,466	2,293,807	2,125,449	1,963,138	1,734,497
Alabama	53,873	54,276	51,524	43,716	39,500	34,523
Arizona	8,096	8,498	8,568	7,615	6,921	5,740
Arkansas	46,413	47,338	44,791	36,736	32,170	26,941
California	91,230	94,119	96,614	92,726	88,683	75,571
Colorado	26,083	28,300	29,013	26,365	21,417	17,234
Connecticut	18,925	19,740	20,256	18,292	17,962	16,724
Delaware	2,469	2,495	2,776	2,851	2,812	2,736
District of Columbia	11,351	12,091	12,032	11,172	10,749	10,799
Florida	40,506	43,141	43,757	36,598	33,462	25,379
Georgia	49,730	50,735	49,936	44,277	40,667	35,388
Idaho	11,068	12,353	11,979	10,158	8,877	7,237
Illinois	165,719	177,694	180,965	172,169	158,333	135,737
Indiana	62,344	64,989	64,726	60,011	53,800	47,345
Iowa	25,682	26,849	26,611	25,783	24,825	19,094
Kansas	29,235	29,700	28,486	25,582	24,310	20,374
Kentucky	46,578	48,877	49,683	43,793	39,798	34,463
Louisiana	37,471	36,954	36,024	32,423	30,834	24,783
Maine	8,441	10,000	9,927	8,905	7,581	6,246
Maryland	15,067	15,688	16,099	15,689	15,523	15,220
Massachusetts	98,372	103,274	102,481	89,061	75,925	65,910
Michigan	84,833	87,750	89,150	84,847	78,626	67,155
Minnesota	48,293	50,014	49,752	44,230	39,568	35,674
Mississippi	44,303	41,571	41,014	34,135	30,773	25,758
Missouri	85,100	90,295	88,885	79,999	72,447	64,411
Montana	14,052	14,725	14,894	12,653	10,524	8,736
Nebraska	29,040	31,123	30,139	26,215	23,057	20,196
Nevada	1,942	2,069	2,019	1,877	1,792	1,470
New Hampshire	7,921	8,651	8,905	7,993	7,129	6,234
New Jersey	73,967	76,386	76,756	72,561	63,615	58,511
New Mexico	13,056	14,355	13,988	12,058	10,912	9,024
New York	156,209	161,303	158,602	155,363	149,510	145,146
North Carolina	45,799	50,596	51,796	46,114	41,406	37,460
North Dakota	15,023	15,969	14,409	12,081	10,856	9,598
Ohio	140,312	145,150	148,626	147,273	137,118	118,994
Oklahoma	50,908	53,473	52,948	45,700	40,118	37,843
Oregon	15,728	16,093	15,574	14,803	14,097	12,658
Pennsylvania	145,406	144,138	146,444	159,531	168,219	158,605
Rhode Island	12,937	13,769	13,914	12,077	11,362	10,952
South Carolina	43,435	45,880	46,292	39,079	34,190	28,668
South Dakota	16,184	16,593	15,319	12,336	10,974	9,463
Tennessee	41,598	44,004	44,160	41,229	37,057	33,600
Texas	99,602	106,046	106,056	93,678	84,850	73,246
Utah	12,253	13,321	12,489	10,881	9,623	8,701
Vermont	4,767	5,242	5,525	5,252	4,542	3,833
Virginia	26,220	27,569	28,210	27,541	27,002	26,259
Washington	31,723	32,648	33,018	30,846	28,735	23,557
West Virginia	35,257	37,104	38,571	36,528	33,282	30,012
Wisconsin	54,145	56,219	55,759	50,495	44,257	38,712
Wyoming	3,940	4,299	4,345	4,152	3,348	2,577
Alaska	323	517	460	338	282	241
Hawaii	1,767	1,784	1,776	1,746	1,763	1,672
Puerto Rico	10,476	12,285	13,215	15,102	14,790	17,356
Virgin Islands	1,142	1,166	1,283	1,405	1,688	1,760

For footnote, see p. 414.

TABLE 3. WORK PROJECTS ADMINISTRATION.—*Number of persons employed on WPA projects, by program, type of project, and State, June 26, 1940*

State or Territory	All WPA projects	Projects operated by other Federal agencies[1]	Projects operated by WPA, total	Projects operated by WPA and supervised by the Division of Operations										
				Total	Highways, roads, and streets	Public buildings	Recreational facilities	Publicly owned or operated utilities		Airports and airways	Conservation	Sanitation	Engineering surveys	Other
								Sewage collection and disposal	Other utilities					
Grand total	1,664,620	81,378	1,583,242	1,175,966	673,036	143,952	90,224	99,947	57,974	22,174	39,578	24,067	8,522	16,492
Continental United States	1,644,508	73,592	1,570,916	1,164,283	664,816	142,763	89,915	99,892	57,493	22,174	39,513	23,356	8,522	15,839
Alabama	34,445	914	33,531	25,622	19,553	2,760	543	1,138	230	68	474	645	194	17
Arizona	5,412	408	5,004	3,931	2,659	544	20	-------	416	-------	84	158	16	34
Arkansas	26,001	912	25,089	19,565	15,574	2,307	374	148	129	256	88	252	426	11
California	70,012	5,172	64,840	41,853	12,320	10,412	3,382	2,333	5,222	2,191	3,973	111	356	1,553
Colorado	16,263	2,987	13,276	9,827	4,449	2,438	378	886	363	543	485	166	56	63
Connecticut	16,215	825	15,390	12,020	5,037	2,198	993	2,088	390	186	306	423	282	117
Delaware	2,732	62	2,670	1,895	595	433	97	334	111	-------	170	33	-------	122
District of Columbia	10,465	2,551	7,914	5,519	560	505	125	1,072	193	2,944	-------	70	-------	50
Florida	25,386	1,847	23,539	16,358	7,940	4,500	340	763	144	1,677	411	573	10	-------
Georgia	33,021	2,513	30,508	21,761	16,025	2,050	581	871	389	202	205	954	131	353
Idaho	6,884	1,407	5,477	4,747	1,642	755	118	151	383	-------	1,452	156	7	83
Illinois	119,884	1,390	118,494	81,636	45,111	6,943	12,871	9,697	3,483	405	1,114	926	268	818
Indiana	42,466	726	41,740	33,037	21,591	4,268	1,413	3,574	344	161	982	506	60	138
Iowa	18,478	677	17,801	13,789	8,762	1,425	756	274	868	388	579	31	509	197
Kansas	17,258	1,601	15,657	11,936	6,080	1,408	1,918	294	968	489	261	401	68	49
Kentucky	34,692	1,626	33,066	26,728	19,977	2,875	283	1,578	505	32	30	431	35	982
Louisiana	22,651	921	21,730	15,581	7,988	1,924	1,475	1,971	284	288	804	414	-------	433
Maine	5,962	463	5,499	4,293	3,120	391	132	372	30	141	44	-------	8	55
Maryland	14,896	2,090	12,806	10,432	5,407	884	269	783	97	995	1,043	131	-------	823
Massachusetts	58,678	2,950	55,728	38,123	13,140	6,446	3,218	5,015	2,956	1,489	2,400	14	1,083	2,362
Michigan	62,224	1,158	61,066	46,462	33,860	2,399	2,143	3,126	3,541	375	579	-------	87	352
Minnesota	34,073	1,066	33,007	24,208	10,756	3,279	3,867	2,164	1,915	349	1,500	-------	309	69
Mississippi	25,108	464	24,644	17,215	11,628	1,685	276	182	429	23	627	2,310	55	-------
Missouri	60,367	1,452	58,915	44,947	28,576	4,182	2,264	6,361	764	100	1,958	255	126	361
Montana	7,990	1,609	6,381	4,029	1,918	715	349	198	106	122	404	90	63	64

Nebraska	18,598	1,012	17,586	13,153	9,111	1,656	582	413	566	68	220	207	11	319
Nevada	1,497	112	1,385	842	331	112	222	71	42		22	38	4	
New Hampshire	6,040	796	5,244	3,825	1,124	414	701	861	527		84		7	107
New Jersey	55,459	1,841	53,618	39,553	20,109	4,220	4,668	4,547	1,858	251	1,874	651	773	602
New Mexico	7,892	679	7,213	6,018	2,485	2,097	146	391	230	102	453	6	73	35
New York	142,851	3,495	139,356	101,050	31,831	20,370	16,748	18,179	6,381	1,868	678	1,357	1,634	2,004
North Carolina	35,905	1,934	33,971	24,719	16,084	3,214	1,306	648	1,530	349	310	1,120	52	106
North Dakota	9,026	1,434	7,592	5,628	2,520	1,152	430	76	338	28	778	250		56
Ohio	113,227	2,269	110,958	86,241	62,366	3,399	7,368	8,578	1,745	1,189	438	312	271	575
Oklahoma	36,966	2,056	34,910	25,462	16,784	5,052	365	526	506	64	1,162	898	47	58
Oregon	11,410	953	10,457	7,995	4,683	1,060	402	388	678	60	314	199	56	155
Pennsylvania	153,238	3,216	150,022	117,590	82,690	9,976	8,142	5,592	5,203	424	3,450	1,193	641	279
Rhode Island	10,484	409	10,075	7,382	2,026	367	951	2,958	311		269	290	27	183
South Carolina	28,396	1,582	26,814	19,819	8,811	3,081	359	641	5,120	411	36	812		548
South Dakota	8,863	1,326	7,537	5,290	2,160	901	121	484	110	95	1,054	349	16	
Tennessee	32,649	949	31,700	26,464	19,616	964	583	386	525	262	718	3,278	132	
Texas	70,074	3,854	66,220	43,947	27,803	8,815	1,655	1,852	1,701	165	890	871	46	149
Utah	8,525	1,341	7,184	5,719	2,357	1,548	72	462	347		642	148	94	49
Vermont	3,345	434	2,911	2,038	1,381	113	76	176	173	28	91			
Virginia	25,734	3,383	22,351	14,796	10,106	1,262	395	908	789	169	421	455	10	281
Washington	22,904	1,157	21,747	17,221	5,133	1,292	1,333	1,238	2,846	2,292	2,749	113	179	46
West Virginia	29,380	255	29,125	24,299	19,324	1,193	410	683	78	672	179	1,539		221
Wisconsin	38,062	962	37,100	28,320	10,937	2,576	4,615	4,461	1,481	229	2,648	188	300	885
Wyoming	2,420	352	2,068	1,398	776	203	80		148	24	60	32		75
Alaska	234	234												
Hawaii	1,617		1,617	1,524	674	696	31	55	23					45
Puerto Rico	16,888	6,230	10,658	10,159	7,546	493	278		458		65	711		608
Virgin Islands	1,373	1,322	51											

[1] Projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939.

TABLE 3. WORK PROJECTS ADMINISTRATION.—*Number of persons employed on WPA projects, by program, type of project, and State, June 26, 1940*—Continued

State or Territory	Projects operated by WPA and supervised by the Division of Professional and Service Projects														Supply fund
	Total	Education	Recreation	Library	Art, music, and writing	Research and surveys	Public records	Historical records survey	Public health and hospital work	Sewing	Housekeeping aides	School lunches	Distribution of surplus commodities	Other	
Grand total	390,692	26,890	36,336	21,673	18,111	30,350	28,439	7,332	10,931	110,367	26,727	23,539	21,634	28,363	16,584
Continental United States	390,104	26,878	36,308	21,650	18,111	30,337	28,427	7,315	10,931	110,367	26,727	23,539	21,207	28,307	16,529
Alabama	7,627	708	608	386	15	619	314	80	240	1,729	620	348	459	1,501	282
Arizona	936	119	153	46	107	55	27	77	35	198	17	32	70	-------	137
Arkansas	5,249	237	295	292	47	316	444	164	45	1,610	573	499	552	175	275
California	21,416	1,610	3,294	1,020	1,537	1,487	694	276	496	5,642	1,270	417	1,656	2,017	1,571
Colorado	3,171	211	184	140	96	218	131	60	50	1,152	94	187	314	334	278
Connecticut	3,294	338	119	91	300	161	368	70	66	828	166	4	97	686	76
Delaware	762	15	71	1	86	8	6	26	-------	444	41	-------	30	34	13
District of Columbia	2,355	102	115	68	150	210	696	85	123	258	101	204	131	112	40
Florida	6,874	370	253	466	490	434	190	128	164	2,275	436	139	266	1,263	307
Georgia	8,286	841	507	513	63	627	282	159	185	2,759	602	776	581	391	461
Idaho	642	124	106	19	-------	11	8	21	-------	239	-------	1	65	48	88
Illinois	36,135	2,527	4,162	1,966	2,269	3,896	1,839	372	2,246	5,830	2,924	2,954	1,972	3,178	723
Indiana	8,359	471	1,459	535	298	584	368	200	81	2,433	784	151	446	549	344
Iowa	3,861	177	493	243	151	414	107	165	23	1,177	391	25	209	286	151
Kansas	3,619	282	287	168	79	99	138	104	24	1,489	280	112	282	275	102
Kentucky	6,012	432	459	469	64	704	459	69	119	1,836	464	214	411	312	326
Louisiana	5,626	672	235	712	168	457	201	402	102	1,788	79	87	527	196	523
Maine	1,203	80	-------	-------	99	22	161	53	-------	649	22	7	101	9	3
Maryland	2,083	101	270	201	78	218	202	151	-------	640	-------	-------	132	90	291
Massachusetts	17,388	639	1,428	821	1,098	1,149	2,467	176	197	5,180	923	363	1,602	1,345	217
Michigan	14,050	797	1,900	672	1,366	1,261	717	317	46	4,203	585	494	659	1,033	554
Minnesota	8,001	409	876	828	512	904	623	117	247	2,402	372	286	159	266	798
Mississippi	7,330	487	370	396	233	684	327	122	38	1,816	425	1,660	407	365	99
Missouri	13,092	679	1,162	507	303	1,186	1,240	162	458	3,032	674	1,894	593	1,202	876
Montana	2,050	124	235	86	79	315	77	55	23	778	100	21	129	28	302

Nebraska	4,141	321	639	215	117	318	188	80	23	1,271	289	14	274	392	292
Nevada	497	43	58	30	10	24	11	30		245	19	2	16	9	46
New Hampshire	1,391	61	11	26	109	52	34	59	19	908			112		28
New Jersey	13,646	238	684	970	1,110	999	2,061	656	387	3,453	1,378	431	336	943	419
New Mexico	1,097	132	76	33	82	21	11	30	4	499	18	5	148	38	98
New York	35,339	3,803	3,659	909	2,514	3,504	4,233	404	3,401	6,285	1,754	2,356	1,568	949	2,967
North Carolina	8,962	606	691	1,055	210	202	431	98	32	2,613	543	1,082	489	910	290
North Dakota	1,941	191	260	88	32	96	98	66	10	728	45		176	151	23
Ohio	24,050	1,111	2,381	2,314	982	2,146	1,994	539	710	6,840	2,119	1,105	827	982	667
Oklahoma	9,191	387	401	458	253	300	405			2,479	1,142	2,352	852	162	257
Oregon	2,249	226	217	121	232	202	95	113	5	751	135	35	91	26	213
Pennsylvania	31,651	2,299	2,584	445	1,089	2,757	2,684	318	340	12,467	2,776	21	1,267	2,604	781
Rhode Island	2,475	233	225	92	113	111	182	65	45	1,231	57	12	86	23	218
South Carolina	6,847	348	465	615	47	67	56	54	148	1,932	884	1,494	252	485	148
South Dakota	2,192	171	261	121	42	341	5	29	5	722	96	43	182	174	55
Tennessee	4,958	393	319	148	156	290	187	219		507	623	1,704	341	71	278
Texas	22,156	1,348	1,535	1,606	342	811	873	387	330	9,667	1,848	782	996	1,631	117
Utah	1,432	200	268	10	108	59	48	60		546			77	56	33
Vermont	855	106	77	27	51	44	222	69	2	211	20		26		18
Virginia	7,454	457	378	589	196	432	346	110	334	2,733	307	279	168	1,125	101
Washington	4,348	384	712	239	41	260	266	68	37	1,532	132	70	322	285	178
West Virginia	4,615	790	422	289	167	136	322	70		798	482	753	221	165	211
Wisconsin	8,534	407	867	592	385	1,071	1,581	149	76	1,312	68	124	474	1,428	246
Wyoming	662	71	77	12	35	55	8	31	15	250	49		56	3	8
Alaska															
Hawaii	93	12	28	23		13	12							5	
Puerto Rico	444							17					427		55
Virgin Islands	51													51	

TABLE 4. WORK PROJECTS ADMINISTRATION.—*Number and percentage distribution of persons employed on WPA projects, by wage class and type of project, United States and Territories, June 26, 1940*

Program and type of project	All employees	Project wage employees						Project supervisory employees
		Total	Unskilled		Intermediate	Skilled	Professional and technical	
			Group B	Group A				
All WPA projects	[1] 1,664,620	1,597,887	105,409	934,630	281,155	224,054	52,639	66,419
Projects operated by other Federal agencies [2]	[1] 81,378	78,258	442	46,875	14,390	15,094	1,457	2,806
Projects operated by WPA, total	1,583,242	1,519,629	104,967	887,755	266,765	208,960	51,182	63,613
Division of Operations, total	1,175,966	1,132,957	4,458	808,701	159,988	142,795	17,015	43,009
Highways, roads, and streets, total	673,036	649,077	3,231	501,600	80,091	55,624	8,531	23,959
Primary roads	80,827	78,049	541	64,270	6,226	6,206	806	2,778
Secondary roads and feeders	294,152	283,431	1,596	225,437	31,841	20,815	3,742	10,721
Streets and alleys	171,219	165,364	827	122,666	23,673	15,712	2,486	5,855
Other highways, roads, and streets	126,838	122,233	267	89,227	18,351	12,891	1,497	4,605
Public buildings, total	143,952	138,004	326	68,842	24,174	41,961	2,701	5,948
Educational buildings	49,029	46,880	114	21,576	8,591	15,702	897	2,149
Other buildings	94,923	91,124	212	47,266	15,583	26,259	1,804	3,799
Recreational facilities (excluding buildings)	90,224	87,118	231	61,734	10,690	13,175	1,288	3,106
Publicly owned or operated utilities, total	157,921	152,397	406	108,262	26,792	14,980	1,957	5,524
Sewage collection and disposal	99,947	96,434	296	67,219	18,443	9,302	1,174	3,513
Water purification and supply	33,059	31,965	73	24,426	4,059	2,954	453	1,094
Other utilities	24,915	23,998	37	16,617	4,290	2,724	330	917
Airports and airways	22,174	21,333	32	15,214	2,766	3,031	290	841
Conservation, total	39,578	38,124	60	27,820	5,603	4,185	456	1,454
Land and water conservation	23,245	22,379	47	15,983	3,667	2,407	275	866
Other conservation	16,333	15,745	13	11,837	1,936	1,778	181	588
Sanitation	24,067	23,060	58	13,827	4,517	4,120	538	1,007
Engineering surveys	8,522	7,976	31	1,278	2,853	2,790	1,024	546
Other	16,492	15,868	83	10,124	2,502	2,929	230	624

TABLE 4. WORK PROJECTS ADMINISTRATION.—*Number and percentage distribution of persons employed on WPA projects, by wage class and type of project, United States and Territories, June 26, 1940*—Continued

Program and type of project	All employees	Project wage employees						Project supervisory employees
		Total	Unskilled		Intermediate	Skilled	Professional and technical	
			Group B	Group A				
Division of Professional and Service Projects, total	390,692	375,719	100,454	75,513	103,775	61,967	34,010	14,973
Education	26,890	25,430	1,155	385	4,520	9,908	9,462	1,460
Recreation	36,336	34,518	1,458	1,164	14,916	12,536	4,444	1,818
Library	21,673	20,780	1,492	5,738	9,733	3,022	795	893
Museum	6,281	6,050	805	508	2,310	1,898	529	231
Art	5,499	5,187	261	208	1,020	1,721	1,977	312
Music	9,304	8,821	67	50	275	2,203	6,226	483
Writing	3,308	3,085	20	47	870	1,307	841	223
Research and surveys	30,350	28,701	525	2,650	15,229	7,428	2,869	1,649
Public records	28,826	27,711	238	5,087	15,060	5,882	1,444	1,115
Historical records survey	6,945	6,575	41	436	2,899	2,395	804	370
Public health and hospital work	10,931	10,634	2,613	2,613	3,023	1,146	1,239	297
Sewing	110,367	107,318	70,242	16,474	14,473	4,918	1,211	3,049
Production projects (excluding sewing)	13,555	13,068	5,531	2,173	3,433	1,605	326	487
Housekeeping aides	26,727	25,712	1,203	21,528	1,808	837	336	1,015
Household workers' training	894	813	408	65	146	79	115	81
School lunches	23,539	22,722	8,142	7,903	5,260	1,046	371	817
Distribution of surplus commodities	21,634	21,206	3,183	6,916	7,179	3,140	788	428
Other	7,633	7,388	3,070	1,568	1,621	896	233	245
Supply fund	16,584	10,953	55	3,541	3,002	4,198	157	5,631

[1] Includes 314 persons for whom wage-class data are not available.
[2] Projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of Sec. 3 of the ERA Act of 1938 and Sec. 11 of the ERA Act of 1939.

TABLE 5. WORK PROJECTS ADMINISTRATION.—*Number of persons employed on WPA-operated projects, United States and Territories, by type of project and by sex, June 26, 1940*

Type of project	Number of persons employed		
	Total	Men	Women
All projects operated by WPA	1,583,242	1,339,966	243,276
Division of Operations, total	1,175,966	1,173,004	2,962
Highways, roads, and streets, total	673,036	671,713	1,323
Primary roads	80,827	80,784	43
Secondary roads and feeders	294,152	293,525	627
Streets and alleys	171,219	170,880	339
Other highways, roads, and streets	126,838	126,524	314
Public buildings, total	143,952	143,495	457
Educational buildings	49,029	48,916	113
Other buildings	94,923	94,579	344
Recreational facilities, excluding buildings	90,224	90,014	210
Publicly owned or operated utilities, total	157,921	157,681	240
Water purification and supply	33,059	33,026	33
Sewage collection and disposal	99,947	99,800	147
Other utilities	24,915	24,855	60
Airports and airways	22,174	22,135	39
Conservation, total	39,578	39,503	75
Land and water conservation	23,245	23,222	23
Other conservation	16,333	16,281	52
Sanitation	24,067	23,943	124
Miscellaneous	25,014	24,520	494
Engineering surveys	8,522	8,106	416
Other Operations Division projects	16,492	16,414	78
Division of Professional and Service Projects, total	390,692	151,988	238,704
Education	26,890	10,951	15,939
Recreation	36,336	23,994	12,342
Library	21,673	5,127	16,546
Museum	6,281	3,782	2,499
Art	5,499	4,020	1,479
Music	9,304	7,765	1,539
Writing	3,308	2,049	1,259
Research and surveys	30,350	22,232	8,118
Public records	28,439	18,550	9,889
Historical records survey	7,332	4,435	2,897
Public health and hospital work	10,931	4,259	6,672
Sewing	110,367	6,807	103,560
Production projects (excluding sewing)	13,555	6,886	6,669
Housekeeping aides	26,727	364	26,363
Household workers' training	894	82	812
School lunches	23,539	8,970	14,569
Distribution of surplus commodities	21,634	18,041	3,593
Other professional and service projects	7,633	3,674	3,959
Supply fund	16,584	14,974	1,610

TABLE 6. WORK PROJECTS ADMINISTRATION.—*Number of persons assigned to and separated from employment on WPA projects,[1] continental United States, by month, July 1938–June 1940*

Month	Assignments			Separations					Assignment rate (percent)[2]	Separation rate (percent)[2]	
	Total	Initial assignments	Reassignments	Total	Voluntary[3]	Discharges and layoffs				Total	Voluntary
						Total	18-month provision[4]	Other			
1938											
July	311,568	147,170	164,398	163,062	117,799	45,263	.....	45,263	11.4	5.9	4.3
August	308,952	162,915	146,037	191,195	137,276	53,919	.....	53,919	10.7	6.6	4.7
September	276,846	149,430	127,416	227,822	172,581	55,241	.....	55,241	9.0	7.4	5.8
October	327,085	179,673	147,412	212,827	157,986	54,841	.....	54,841	10.5	6.8	5.1
November	164,774	64,871	99,903	237,812	146,192	91,620	.....	91,620	5.1	7.4	4.5
December	97,056	29,703	67,353	294,146	115,478	178,668	.....	178,668	3.1	9.3	3.7
1939											
January	110,301	36,664	73,637	215,876	103,322	112,554	.....	112,554	3.7	7.3	3.5
February	239,754	119,066	120,688	180,183	94,707	85,476	.....	85,476	8.4	6.3	3.3
March	177,477	70,531	106,946	246,314	133,527	112,787	.....	112,787	6.1	8.5	4.6
April	114,938	29,489	85,449	340,427	123,582	216,845	.....	216,845	4.0	11.9	4.3
May	130,592	31,630	98,962	275,424	115,748	159,676	.....	159,676	5.0	10.5	4.4
June	139,574	31,775	107,799	225,904	103,169	122,735	.....	122,735	5.6	9.1	4.1
July	131,979	25,509	106,470	485,825	148,394	337,431	171,674	166,357	5.4	19.8	6.0
August	292,897	85,577	207,320	784,633	104,205	680,428	611,733	68,695	14.6	39.2	5.2
September	404,188	105,901	298,287	230,946	108,069	122,877	86,364	36,513	23.0	13.1	6.1
October	349,154	54,230	294,924	243,821	113,834	129,987	63,820	66,167	20.5	14.3	6.7
November	329,439	61,498	267,941	197,473	79,284	118,189	55,925	62,264	18.2	10.9	4.4
December	303,348	68,265	235,083	185,945	64,400	121,545	50,726	70,819	15.7	9.6	3.3
1940											
January	331,857	85,155	246,702	213,808	79,078	134,730	49,602	85,128	15.5	10.0	3.7
February	259,789	67,937	191,852	204,837	74,999	129,838	48,220	81,618	11.5	9.1	3.3
March	205,803	49,076	156,727	292,734	94,963	197,771	43,817	153,954	8.9	12.7	4.2
April	166,743	29,939	136,804	338,620	104,358	234,262	39,021	195,241	7.6	15.5	4.8
May	155,010	24,662	130,348	304,292	96,780	207,512	17,169	190,343	7.6	14.9	4.7
June	106,987	12,343	94,644	377,742	81,785	295,957	8,561	287,396	5.6	19.8	4.3

[1] Prior to January 1940, data do not include nonrelief employment. Data for workers employed on WPA projects operated by other Federal agencies are not included prior to September 1938.
[2] Percent of total employment at beginning of month.
[3] Includes separations for such reasons as new sources of income, death, illness, etc.
[4] Separated in accordance with sec. 16 (b) of the ERA Act of 1939 requiring separation after continuous WPA employment of 18 months.

TABLE 7. WORK PROJECTS ADMINISTRATION.—*Hours worked, earnings of workers, and average hourly earnings on WPA projects, United States and Territories, by type of project, for fiscal year ending June 30, 1940*

Type of project	Hours worked	Earnings	Average hourly earnings
WPA financed projects, total	3,019,348,468	$1,334,519,744	$0.442
Projects operated by WPA, total	2,912,005,127	1,286,318,966	.442
Division of Operations, total	2,168,201,545	933,853,578	.431
Highways, roads, and streets	1,239,244,914	497,659,210	.402
Public buildings	234,147,394	114,817,127	.490
Recreational facilities, excluding buildings	174,113,124	83,060,326	.477
Publicly owned or operated utilities	282,234,690	129,765,078	.460
Airports and airways	35,730,255	18,666,359	.522
Conservation	99,020,475	43,144,251	.436
Sanitation	51,508,736	20,474,311	.397
Miscellaneous	52,201,957	26,266,916	.503
Division of Professional and Service Projects, total	720,679,864	337,744,656	.469
Sewing	237,854,239	92,041,441	.387
All other	482,825,625	245,703,215	.509
Supply fund	23,123,718	14,720,732	.637
Projects operated by other Federal agencies [1]	107,343,341	48,200,778	.449

[1] Distribution by type of project is not available. Includes projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939.

TABLE 8. WORK PROJECTS ADMINISTRATION.—*Hours worked, earnings of workers, and average hourly earnings on WPA projects,*[1] *by State, for fiscal year ending June 30, 1940*

State or Territory	Hours worked	Earnings	Average hourly earnings
Grand total	3,019,348,468	$1,334,519,744	$0.442
Continental United States	3,001,161,707	1,330,090,642	.443
Alabama	64,187,941	22,500,124	.351
Arizona	10,376,268	4,935,636	.476
Arkansas	57,381,539	19,087,543	.333
California	129,279,860	66,900,384	.517
Colorado	33,859,629	15,409,215	.455
Connecticut	27,645,773	14,390,458	.521
Delaware	3,685,669	1,678,631	.455
District of Columbia	15,726,965	8,518,940	.542
Florida	55,776,306	21,357,103	.383
Georgia	65,180,032	23,053,445	.354
Idaho	14,533,298	6,417,909	.442
Illinois	233,649,780	108,201,972	.463
Indiana	85,720,942	37,118,302	.433
Iowa	34,589,620	14,887,178	.430
Kansas	36,737,367	15,015,363	.409
Kentucky	66,770,560	23,213,389	.348
Louisiana	48,107,423	18,103,315	.376
Maine	11,270,468	4,697,172	.417
Maryland	21,271,711	9,573,406	.450
Massachusetts	128,243,165	65,889,576	.514
Michigan	129,854,393	60,998,630	.470
Minnesota	65,979,917	30,599,005	.464
Mississippi	52,470,886	16,953,142	.323
Missouri	110,123,805	46,233,017	.420
Montana	18,489,387	8,574,874	.464
Nebraska	36,940,357	15,798,526	.428
Nevada	2,530,476	1,138,172	.450
New Hampshire	10,923,780	4,716,833	.432
New Jersey	102,888,803	51,479,116	.500
New Mexico	17,462,368	7,572,309	.434
New York	231,206,331	126,102,430	.545
North Carolina	59,233,507	20,431,066	.345
North Dakota	17,437,621	6,982,014	.400
Ohio	198,238,763	94,046,532	.474
Oklahoma	65,821,799	22,790,519	.346
Oregon	20,942,139	10,456,700	.499
Pennsylvania	216,892,841	105,238,692	.485
Rhode Island	17,733,206	8,692,977	.490
South Carolina	55,467,400	19,776,068	.357
South Dakota	19,698,373	7,728,521	.392
Tennessee	54,995,968	18,683,635	.340
Texas	124,165,959	44,077,481	.355
Utah	15,591,152	7,373,296	.473
Vermont	6,535,428	2,738,814	.419
Virginia	35,818,137	12,956,774	.362
Washington	41,837,320	20,717,189	.495
West Virginia	48,702,945	19,888,911	.408
Wisconsin	74,044,348	34,116,636	.461
Wyoming	5,139,982	2,279,702	.444
Alaska	306,517	152,861	.499
Hawaii	2,564,167	1,081,428	.422
Puerto Rico	13,595,272	2,864,784	.211
Virgin Islands	1,720,805	330,029	.192

[1] Includes projects operated by WPA and projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939.

TABLE 9. WORK PROJECTS ADMINISTRATION.—*Number of persons employed on Federal work and construction projects and recipients of relief, by program and State, June 1940*

State	Federal work and construction projects					Special types of public assistance [1]			General relief [2] (cases)	Farm Security Administration grants [3] (grant vouchers)
	Work Projects Administration [4] (employees)	NYA programs [5]		Civilian Conservation Corps [6] (enrollees)	Other Federal agencies [7] (employees)	Old-age assistance (recipients)	Aid to dependent children (families)	Aid to the blind (recipients)		
		Student work program (employees)	Out-of-school work program (employees)							
Continental United States	1,734,497	313,367	269,033	239,573	[8] 392,621	1,970,226	346,287	71,854	1,372,651	60,310
Alabama	34,523	1,903	6,196	6,950	9,889	19,940	5,914	600	2,498	1,262
Arizona	5,740	1,855	670	2,547	1,738	8,136	2,544	356	3,614	4,234
Arkansas	26,941	1,043	4,105	7,823	2,946	19,755	4,654	812	4,149	799
California	75,571	16,124	9,522	7,455	23,414	141,792	15,517	7,161	112,322	8,383
Colorado	17,234	2,564	1,425	2,282	3,684	41,152	5,960	640	14,133	3,001
Connecticut	16,724	3,666	2,471	1,545	5,508	17,148	[9] 1,400	246	19,053	2
Delaware	2,736	547	649	358	970	2,686	513	----------	1,259	34
District of Columbia	10,799	1,682	1,337	688	13,078	3,353	933	210	2,131	----------
Florida	25,379	3,665	5,926	3,730	8,852	35,222	3,783	2,351	9,820	548
Georgia	35,388	3,398	8,863	7,600	7,942	28,243	3,815	1,111	6,744	1,127
Idaho	7,237	808	1,406	904	1,079	8,933	2,894	278	2,166	770
Illinois	135,737	24,434	14,805	11,545	17,218	138,291	[9] 7,500	[9] 7,700	148,035	469
Indiana	47,345	4,611	6,906	4,886	5,382	66,255	17,365	2,439	41,620	133
Iowa	19,093	7,307	4,989	2,651	4,197	55,109	[9] 3,000	1,460	28,789	141
Kansas	20,374	3,855	5,425	3,399	3,499	27,147	6,416	1,272	19,726	2,469
Kentucky	34,463	1,468	6,029	5,704	8,554	48,734	[9] 290	----------	[9] 5,600	238
Louisiana	24,783	1,815	6,059	5,398	6,464	31,882	13,081	1,067	9,677	528
Maine	6,246	2,065	2,098	1,516	4,470	13,884	1,527	1,233	9,924	184
Maryland	15,220	3,138	3,988	2,167	6,407	18,516	7,326	683	8,458	210
Massachusetts	65,910	11,789	6,978	6,801	20,679	86,005	12,114	1,183	68,133	17
Michigan	67,155	15,577	7,803	7,473	5,693	73,302	18,639	863	53,976	450
Minnesota	35,674	10,148	6,555	6,286	3,861	62,908	8,864	935	35,948	983
Mississippi	25,758	3,262	5,932	5,439	8,449	21,510	[9] 104	780	1,166	1,103
Missouri	64,411	9,568	9,360	9,718	9,131	92,032	11,076	[9] 3,655	23,633	1,910
Montana	8,736	630	1,420	1,862	3,630	12,175	2,370	195	4,931	3,790

Nebraska	20,196	4,646	2,927	2,639	5,544	27,784	5,428	688	10,501	2,115
Nevada	1,470	143	327	233	1,173	2,272	[9] 100	[9] 15	869	22
New Hampshire	6,234	566	1,508	527	4,925	5,785	673	321	[9] 6,900	41
New Jersey	58,511	11,707	6,737	6,505	21,508	31,145	11,174	720	48,138	102
New Mexico	9,024	1,771	2,162	1,947	2,032	4,483	1,888	233	2,152	5,873
New York	145,146	42,854	24,932	14,938	27,394	118,702	36,058	2,848	240,870	349
North Carolina	37,460	4,964	6,658	6,093	7,398	35,694	9,352	1,947	5,465	399
North Dakota	9,598	2,373	2,467	2,867	1,361	8,822	2,368	181	5,080	1,943
Ohio	118,994	17,080	10,969	11,018	10,942	122,885	9,934	3,947	86,345	292
Oklahoma	37,843	5,517	5,326	9,028	3,805	72,739	18,554	2,228	[9] 12,400	2,706
Oregon	12,658	1,610	1,185	1,801	3,640	19,173	1,980	452	9,491	279
Pennsylvania	158,605	29,071	20,477	14,942	35,877	98,218	38,049	12,962	183,601	445
Rhode Island	10,952	2,039	1,630	195	5,552	6,772	1,210	65	[9] 10,500	10
South Carolina	28,668	5,435	4,394	5,218	8,938	19,796	2,964	794	2,185	413
South Dakota	9,463	1,225	1,970	2,444	1,799	14,752	1,900	238	[9] 5,000	5,470
Tennessee	33,600	2,461	5,600	6,487	10,487	40,303	14,187	1,607	[9] 3,800	118
Texas	73,246	14,957	15,157	15,889	13,656	118,380	[9] 95	----------	12,384	3,886
Utah	8,702	2,346	1,359	939	1,442	13,639	3,392	202	5,445	583
Vermont	3,833	1,128	746	374	774	5,442	569	153	2,488	44
Virginia	26,259	6,325	6,209	5,456	17,111	17,438	2,975	1,023	7,460	30
Washington	23,557	1,891	3,502	3,419	13,687	39,128	4,979	1,037	11,051	761
West Virginia	30,011	3,572	5,743	4,067	2,617	17,816	7,809	807	15,829	106
Wisconsin	38,713	11,956	5,513	5,262	2,130	51,545	12,303	2,008	45,803	825
Wyoming	2,577	808	618	558	2,091	3,403	747	148	1,398	713

[1] Includes recipients of the 3 special types of public assistance under the Social Security Act and estimated number of recipients of similar types of assistance not under the act. Figures for a number of States include some cases receiving hospitalization and burial only. Revised through July 15, 1940. Source: Social Security Board.

[2] Number of resident families and single persons receiving general relief. Figures for a number of States include some cases receiving hospitalization and burial only. Revised through July 25, 1940. Source: Social Security Board.

[3] Net number of grant vouchers certified. Ordinarily only 1 grant voucher per case per month is certified. Includes cases receiving commodities purchased and distributed by the Farm Security Administration. Source: Farm Security Administration.

[4] Average weekly employment during the calendar month on projects operated by the Work Projects Administration and projects operated by other Federal agencies with WPA funds. Revised through Aug. 10, 1940. Source: Work Projects Administration.

[5] Number of different persons employed during the calendar month. Source: National Youth Administration.

[6] Average enrollment during the calendar month by State from which enrolled. Source: Civilian Conservation Corps.

[7] Average weekly employment during the fiscal month on projects financed with PWA funds and projects financed in whole or in part from emergency and regular Federal funds. Includes calendar-month data on Public Roads Administration projects financed with regular funds. Source: U. S. Department of Labor, Bureau of Labor Statistics.

[8] Includes 4 persons not reported by State.

[9] Estimated.

TABLE 10. WORK PROJECTS ADMINISTRATION.—*Amount of funds available to WPA during fiscal year ending June 30, 1940*

Specific appropriation, ERA Act of 1939	$1,477,000,000
Balances available from prior ERA Acts	42,823,577
Total funds available to WPA	1,519,823,577
Transfer of WPA funds to—	
Federal Works Agency, for administration	79,000
Procurement Division, for work relief supply fund	500,000
Net funds available to WPA	[1] 1,519,244,577
Projects operated by WPA	[1] 1,401,392,768
WPA expenses for administration	53,660,944
Transfers to other Federal agencies	[1] 59,934,463
Miscellaneous (tornado relief and damage claims)	42,000
Undistributed	4,214,402

[1] Includes $9,884,299 of 1938 Act funds which continued to be available for obligation through provisions of the 1939 Act; of this amount $7,685,976 was available for projects operated by WPA and $2,198,323 for WPA projects operated by other Federal agencies.

Source: U. S. Treasury Department report on the status of funds and analyses of expenditures under the ERA acts of 1935, 1936, 1937, 1938, and 1939, as of June 30, 1940.

TABLE 11. WORK PROJECTS ADMINISTRATION.—*Amount of WPA funds expended for programs operated by WPA and other Federal agencies,[1] United States and Territories, by program and by fiscal year, 1936–40, and by month for fiscal year ending June 30, 1940*

[In thousands; 000 omitted]

Period	Total	Programs operated by WPA [2]	Programs operated by other Federal agencies [3]
Total	$8,254,491	$8,122,625	$131,866
Fiscal year ending—			
June 30, 1936	1,258,130	1,258,130	----------
June 30, 1937	1,818,131	1,818,131	----------
June 30, 1938	1,427,374	1,427,374	----------
June 30, 1939	2,230,750	2,157,200	73,550
June 30, 1940	1,520,106	1,461,790	58,316
1939:			
July	141,716	137,097	4,619
August	137,074	132,488	4,586
September	106,280	102,121	4,159
October	116,016	111,248	4,768
November	118,565	113,479	5,086
December	133,301	127,804	5,497
1940:			
January	121,060	116,470	4,590
February	120,431	115,889	4,542
March	141,645	136,929	4,716
April	134,775	129,806	4,969
May	130,572	125,340	5,232
June	118,671	113,119	5,552

[1] Does not include programs financed by transfer of WPA allocations to the Farm Security Administration under the ERA Acts of 1935 and 1936.

[2] Includes expenditures for work projects, purchase of surplus clothing, aid to self-help and cooperative associations, settlement of property-damage claims, tornado relief, and administration, including administrative expenses of the NYA incurred prior to July 1939 when the WPA and NYA programs were administered jointly.

[3] Includes expenditures for work projects and administration on programs financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939.

Source: Based on reports of the U. S. Treasury Department.

TABLE 12. WORK PROJECTS ADMINISTRATION.—*Amount of WPA funds expended for programs operated by WPA,[1] United States and Territories, by object of expenditure and by fiscal year, 1936–40, and by month for fiscal year ending June 30, 1940*

[In thousands; 000 omitted]

Period	Total	Work projects		Administrative [2]	Miscellaneous [3]
		Labor	Nonlabor		
Total	$8,122,625	$6,915,349	$869,615	$321,787	$15,874
Fiscal year ending—					
June 30, 1936	1,258,130	1,040,351	153,216	64,563	----------
June 30, 1937	1,818,131	1,472,934	278,353	66,844	----------
June 30, 1938	1,427,374	1,231,583	131,983	63,808	----------
June 30, 1939	2,157,200	1,881,011	186,961	73,401	15,827
June 30, 1940	1,461,790	1,289,470	119,102	53,171	47
1939:					
July	137,097	117,258	14,652	5,183	4
August	132,488	113,524	14,155	4,807	2
September	102,121	89,292	8,449	4,344	36
October	111,248	97,214	9,538	4,496	[4]
November	113,479	97,849	11,555	4,075	[4]
December	127,804	113,607	10,408	3,789	[4]
1940:					
January	116,470	104,468	7,178	4,824	[4]
February	115,889	104,951	6,779	4,159	[4]
March	136,929	124,390	8,917	3,621	1
April	129,806	115,598	9,020	5,187	1
May	125,340	112,151	8,595	4,593	1
June	113,119	99,168	9,856	4,093	2

[1] Does not include WPA funds allocated to other Federal agencies.
[2] Includes NYA administrative expense incurred prior to July 1939 when the WPA and NYA programs were administered jointly.
[3] Includes expenditures for the purchase of surplus clothing, aid to self-help and cooperative associations, settlement of property-damage claims, and tornado relief.
[4] Less than $500.

Source: Based on reports of the U. S. Treasury Department.

TABLE 13. WORK PROJECTS ADMINISTRATION.—*Amount of WPA and sponsors' funds expended for WPA-operated projects,[1] United States and Territories, by fiscal year, through June 30, 1940*

[Amounts in thousands; 000 omitted]

Fiscal year	Total	WPA	Sponsor		Sponsors' nonlabor as percent of total nonlabor expenditures
			Amount	Percent of total	
Total	$9,578,382	$7,784,964	$1,793,418	18.7	63.1
Fiscal year ending—					
1936	1,326,456	1,193,567	132,889	10.0	40.5
1937	2,051,891	1,751,287	300,604	14.7	46.9
1938	1,735,174	1,363,566	371,608	21.4	70.2
1939	2,561,911	2,067,972	493,939	19.3	69.0
1940	1,902,950	1,408,572	494,378	26.0	77.7

[1] Does not include WPA projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939.

Source: WPA expenditures are based on reports of the U. S. Treasury Department. Sponsors' expenditures are based on WPA State office reports.

TABLE 14.—WORK PROJECTS ADMINISTRATION.—*Amount of WPA and sponsors' funds expended on WPA-operated projects, by major type of project and by State, for fiscal year ending June 30, 1940*

State or Territory	Total	Highways, roads, and streets		Public buildings		Recreational facilities, excluding buildings		Sewer systems and other utilities		Airports and airways	
		Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Total	$1,902,949,771	$791,863,207	41.6	$183,447,897	9.6	$119,339,923	6.3	$199,838,640	10.5	$37,279,450	2.0
Alabama	35,276,851	21,539,539	61.1	3,309,820	9.4	437,696	1.2	1,161,784	3.3	106,585	.3
Arizona	7,803,673	4,780,006	61.3	1,152,356	14.8	42,496	.5	536,192	6.9		
Arkansas	28,810,241	19,293,798	67.0	2,918,718	10.1	464,415	1.6	268,614	.9	90,656	.3
California	93,238,636	16,340,682	17.5	13,611,951	14.6	7,176,324	7.7	8,968,495	9.6	3,662,501	3.9
Colorado	21,632,383	7,692,079	35.6	2,566,702	11.9	866,427	4.0	2,341,465	10.8	1,198,187	5.5
Connecticut	20,685,369	7,046,911	34.1	2,933,673	14.2	1,721,640	8.3	3,189,129	15.4	380,906	1.8
Delaware	2,242,426	463,231	20.7	317,011	14.1	134,769	6.0	454,674	20.3		
District of Columbia	8,906,381	906,409	10.2	1,123,128	12.6	206,288	2.3	1,580,232	17.7	956,939	10.7
Florida	29,646,968	12,421,021	41.9	4,051,190	13.7	878,923	3.0	1,338,229	4.5	831,377	2.8
Georgia	33,259,720	18,539,386	55.7	2,913,549	8.8	759,414	2.3	1,760,592	5.3	150,637	.5
Idaho	9,473,356	3,386,991	35.8	1,000,905	10.6	302,045	3.2	912,350	9.6	153,701	1.6
Illinois	154,979,063	62,489,244	40.3	8,777,130	5.7	14,124,513	9.1	19,464,394	12.6	859,613	.5
Indiana	55,087,544	30,603,630	55.6	3,971,415	7.2	2,521,316	4.6	4,766,954	8.7	125,431	.2
Iowa	24,943,271	12,291,795	49.3	1,826,511	7.3	780,207	3.1	2,775,554	11.1	871,971	3.5
Kansas	21,723,793	9,894,535	45.5	1,795,072	8.3	3,295,382	15.2	1,545,273	7.1	541,062	2.5
Kentucky	32,432,690	19,228,730	59.3	4,162,968	12.8	430,489	1.3	2,340,063	7.2	12,693	(1)
Louisiana	25,638,521	10,898,881	42.5	2,324,905	9.1	3,036,381	11.8	1,780,147	6.9	304,249	1.2
Maine	6,450,948	3,684,060	57.1	601,988	9.3	261,328	4.1	749,490	11.6	59,048	.9
Maryland	11,592,127	5,080,550	43.8	1,066,625	9.2	408,190	3.5	1,247,287	10.8	294,519	2.5
Massachusetts	86,587,781	21,018,396	24.3	10,419,994	12.0	5,439,798	6.3	14,721,593	17.0	524,953	.6
Michigan	86,730,838	45,182,268	52.1	4,386,160	5.1	3,973,963	4.6	11,575,766	13.3	439,186	.5
Minnesota	46,434,520	15,935,578	34.3	5,301,542	11.4	5,080,754	10.9	6,397,170	13.8	770,318	1.7
Mississippi	27,943,640	15,078,364	54.0	1,733,843	6.2	331,146	1.2	831,297	3.0	65,210	.2
Missouri	62,926,873	29,833,818	47.4	5,306,445	8.4	3,360,842	5.3	7,992,609	12.7	171,581	.3
Montana	12,934,030	5,840,785	45.2	1,133,285	8.8	470,896	3.7	661,834	5.1	200,674	1.6
Nebraska	23,296,108	11,208,468	48.1	2,141,845	9.2	955,041	4.1	2,731,442	11.7	113,623	.5
Nevada	1,849,893	667,203	36.1	162,853	8.8	189,569	10.2	221,979	12.0	1,790	.1
New Hampshire	6,097,095	1,297,711	21.3	306,589	5.0	565,006	9.3	1,617,305	26.5	489	(1)
New Jersey	72,903,980	29,900,789	41.0	6,549,368	9.0	6,682,274	9.2	6,905,384	9.5	441,080	.6
New Mexico	10,515,835	3,306,931	31.5	2,925,851	27.8	376,288	3.6	745,648	7.1	88,509	.8

New York	181,509,724	40,863,839	22.5	26,905,672	14.8	17,127,047	9.5	28,186,131	15.5	16,423,849	9.1
North Carolina	32,148,188	15,160,971	47.2	4,103,221	12.8	1,704,939	5.3	2,064,451	6.4	423,032	1.3
North Dakota	10,588,559	5,089,229	48.1	1,430,823	13.5	431,195	4.1	592,797	5.6	156,284	1.5
Ohio	131,856,332	68,106,651	51.6	4,352,956	3.3	11,917,653	9.0	12,740,942	9.7	1,198,890	.9
Oklahoma	31,321,478	16,268,935	51.9	5,003,282	16.0	699,682	2.2	1,104,517	3.5	175,246	.6
Oregon	14,525,855	6,761,430	46.6	1,647,892	11.3	789,580	5.4	1,351,984	9.3	220,660	1.5
Pennsylvania	137,599,394	68,554,905	49.8	10,549,211	7.7	6,772,116	4.9	10,640,419	7.7	573,790	.4
Rhode Island	12,416,669	2,368,300	19.1	677,271	5.5	1,258,538	10.1	4,174,250	33.6	----------	----------
South Carolina	28,318,977	11,866,426	41.9	5,044,816	17.8	588,807	2.1	2,784,614	9.8	361,402	1.3
South Dakota	11,696,149	5,112,295	43.7	1,272,707	10.9	328,331	2.8	917,029	7.8	136,469	1.2
Tennessee	30,168,293	19,253,353	63.8	1,260,999	4.2	739,143	2.5	1,173,380	3.9	206,136	.7
Texas	66,826,021	29,529,839	44.2	8,237,286	12.3	1,807,922	2.7	4,227,542	6.3	334,037	.5
Utah	10,736,751	3,827,902	35.6	1,663,275	15.5	236,775	2.2	1,658,314	15.4	86,809	.8
Vermont	3,651,129	1,710,395	46.9	154,432	4.2	59,831	1.7	486,638	13.3	19,024	.5
Virginia	17,199,564	7,064,760	41.1	1,711,505	9.9	442,280	2.6	1,384,587	8.0	258,238	1.5
Washington	29,604,011	9,124,571	30.8	2,006,769	6.8	1,899,069	6.4	5,272,429	17.8	1,912,452	6.5
West Virginia	28,684,661	18,131,509	63.2	1,524,912	5.3	352,076	1.2	779,519	2.7	901,259	3.2
Wisconsin	51,084,601	13,746,750	26.9	3,817,380	7.5	6,748,018	13.2	8,334,261	16.3	402,223	.8
Wyoming	3,265,791	1,391,663	42.6	323,626	9.9	115,026	3.5	292,630	9.0	9,305	.3
Hawaii	1,961,630	823,970	42.0	904,501	46.1	14,832	.8	56,720	2.9	62,857	3.2
Puerto Rico	1,767,064	1,253,725	71.0	61,969	3.5	33,243	1.9	32,541	1.8	----------	----------
Virgin Islands	15,234	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Undistributed by State [2]	3,959,142	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

[1] Less than 0.05 percent.

[2] Includes supply fund and textile account adjustments, and central-office projects.

TABLE 14. WORK PROJECTS ADMINISTRATION.—*Amount of WPA and sponsors' funds expended on WPA-operated projects, by major type of project and by State, for fiscal year ending June 30, 1940*—Continued

State or Territory	Conservation		Sanitation		Sewing		Professional and service, excluding sewing		Miscellaneous [1]	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Total	$64,818,819	3.4	$29,788,136	1.6	$118,135,663	6.2	$332,947,338	17.5	$25,490,698	1.3
Alabama	674,519	1.9	1,476,977	4.2	1,080,905	3.1	4,947,095	14.0	541,931	1.5
Arizona	43,491	.6	198,041	2.5	173,055	2.2	1,018,166	13.0	−140,130	−1.8
Arkansas	158,546	.5	162,340	.6	1,628,367	5.7	3,657,952	12.7	166,835	.6
California	10,485,326	11.3	196,751	.2	9,183,581	9.9	21,109,566	22.6	2,503,459	2.7
Colorado	636,240	2.9	324,129	1.5	1,670,431	7.7	3,535,662	16.4	801,061	3.7
Connecticut	901,715	4.4	442,741	2.1	633,542	3.1	3,381,634	16.3	53,478	.3
Delaware	82,059	3.7	26,719	1.2	290,555	12.9	280,389	12.5	193,019	8.6
District of Columbia	185,825	2.1	86,066	1.0	449,829	5.0	3,282,292	36.9	129,373	1.5
Florida	569,864	1.9	635,679	2.2	3,004,040	10.1	5,852,791	19.7	63,854	.2
Georgia	165,631	.5	1,206,161	3.6	2,315,799	7.0	5,004,501	15.0	444,050	1.3
Idaho	2,526,930	26.7	152,083	1.6	285,252	3.0	674,734	7.1	78,365	.8
Illinois	1,954,927	1.3	1,716,933	1.1	7,669,683	4.9	37,786,092	24.4	136,534	.1
Indiana	3,149,439	5.7	644,718	1.2	2,703,439	4.9	6,905,113	12.5	−303,911	−.6
Iowa	915,768	3.7	55,069	.2	1,436,285	5.8	3,521,656	14.1	468,455	1.9
Kansas	543,996	2.5	353,869	1.6	1,479,774	6.8	2,232,453	10.3	42,377	.2
Kentucky	50,074	.2	257,116	.8	1,799,708	5.6	4,238,769	13.1	−87,920	−.3
Louisiana	529,504	2.1	533,156	2.1	1,554,780	6.1	4,159,746	16.2	516,772	2.0
Maine	45,830	.7			450,107	7.0	538,745	8.4	60,352	.9
Maryland	611,428	5.3	172,832	1.5	476,718	4.1	1,443,728	12.5	790,250	6.8
Massachusetts	6,618,140	7.7	72,498	.1	5,314,442	6.1	18,619,478	21.5	3,838,489	4.4
Michigan	2,310,182	2.6			4,394,000	5.1	13,549,180	15.6	920,133	1.1
Minnesota	1,775,765	3.8			2,955,934	6.4	7,742,741	16.7	474,718	1.0
Mississippi	501,030	1.8	2,660,299	9.5	1,576,258	5.6	5,083,571	18.2	82,622	.3
Missouri	3,499,358	5.6	82,484	.1	3,305,733	5.3	8,007,305	12.7	1,366,698	2.2
Montana	1,131,194	8.8	233,726	1.8	1,318,273	10.2	1,911,674	14.8	31,689	(2)
Nebraska	398,898	1.7	420,129	1.8	1,286,649	5.5	3,629,720	15.6	410,293	1.8
Nevada	14,547	.8	78,444	4.2	189,536	10.2	304,602	16.5	19,370	1.1
New Hampshire	863,291	14.2			846,977	13.9	470,516	7.7	129,211	2.1
New Jersey	1,593,957	2.2	871,287	1.2	3,812,440	5.2	15,114,090	20.7	1,033,311	1.4
New Mexico	1,199,718	11.4	256,635	2.4	522,987	5.0	871,382	8.3	221,886	2.1

New York	790,528	.4	1,942,918	1.1	6,590,559	3.6	40,131,980	22.1	2,547,201	1.4
North Carolina	335,195	1.0	1,348,573	4.2	1,936,418	6.0	5,117,072	15.9	−45,684	−.1
North Dakota	594,371	5.6	376,370	3.6	520,922	4.9	1,285,615	12.1	110,953	1.0
Ohio	1,202,794	.9	206,200	.2	8,788,380	6.7	22,784,988	17.3	556,878	.4
Oklahoma	266,571	.9	606,554	1.9	2,212,905	7.1	5,149,793	16.4	−166,007	−.5
Oregon	554,534	3.8	198,087	1.4	667,172	4.6	1,887,699	13.0	446,817	3.1
Pennsylvania	2,965,205	2.2	1,697,049	1.2	14,226,361	10.3	21,401,776	15.6	218,562	.2
Rhode Island	486,244	3.9	376,439	3.0	1,252,523	10.1	1,521,214	12.3	301,890	2.4
South Carolina	110,903	.4	1,421,377	5.0	1,468,446	5.2	4,519,518	16.0	152,668	.5
South Dakota	887,144	7.6	394,972	3.4	732,159	6.3	1,865,318	15.9	49,725	.4
Tennessee	447,794	1.5	3,191,899	10.6	458,200	1.5	3,599,386	11.9	−161,997	−.6
Texas	2,874,285	4.3	1,036,245	1.6	8,836,376	13.2	9,897,150	14.8	45,339	.1
Utah	804,663	7.5	224,716	2.1	503,869	4.7	1,488,730	13.9	241,698	2.3
Vermont	237,810	6.5			230,815	6.3	718,294	19.7	33,890	.9
Virginia	153,566	.9	423,824	2.5	1,506,201	8.8	3,936,894	22.9	317,709	1.8
Washington	3,702,270	12.5	121,805	.4	1,711,317	5.8	3,914,681	13.2	−61,352	−.2
West Virginia	196,492	.7	2,286,706	8.0	642,910	2.2	3,648,510	12.7	220,768	.8
Wisconsin	3,935,323	7.7	328,764	.6	1,719,942	3.4	10,185,154	19.9	1,866,786	3.7
Wyoming	129,140	3.9	124,164	3.8	321,074	9.8	527,651	16.2	31,512	1.0
Hawaii							98,901	5.0	−151	(2)
Puerto Rico	6,795	.4	164,592	9.3	35	(2)	174,025	9.8	40,139	2.3
Virgin Islands							15,234	100.0		
Not distributed by State [3]							202,412	5.1	3,756,730	94.9

[1] Includes adjustment of Federal expenditures to total reported by the Treasury Department; sponsors' expenditures for land, land leases, easements, and rights-of-way, for which the distribution by type of project is not available; and projects not included under the major types.
[2] Less than 0.05 percent.
[3] Includes supply fund and textile account adjustments, and central office projects.

TABLE 15. WORK PROJECTS ADMINISTRATION.—*Amount of WPA and sponsors' funds expended for WPA-operated projects,[1] United States and Territories, by type of project and object of expenditure, July 1935–June 1940, and fiscal year ending June 30, 1940*

[Amounts in thousands; 000 omitted]

Type of project	Total		WPA			Sponsor				Labor expenditures as percent of total funds
				Labor		Total		Nonlabor		
	Amount	Percent	Total	Amount	Percent of total WPA funds	Amount	Percent of total funds	Amount	Percent of total sponsors' funds	
	JULY 1935–JUNE 1940									
All projects	$9,578,382	100.0	$7,784,964	$6,915,349	88.8	$1,793,418	18.7	$1,489,541	83.1	75.4
Division of Operations, total	7,540,849	78.7	6,011,401	5,243,591	87.2	1,529,448	20.3	1,289,735	84.3	72.7
Highways, roads, and streets	3,727,392	38.9	2,931,738	2,542,103	86.7	795,654	21.3	676,329	85.0	71.4
Public buildings	998,897	10.4	767,998	677,695	88.2	230,899	23.1	194,126	84.1	71.5
Recreational facilities (excluding buildings)	855,246	8.9	743,329	646,932	87.0	111,917	13.1	89,707	80.2	78.2
Publicly owned or operated utilities	964,742	10.1	756,995	667,971	88.2	207,747	21.5	172,553	83.1	72.9
Airports and airways	200,506	2.1	150,812	112,656	74.7	49,694	24.8	45,676	91.9	58.2
Conservation	378,586	3.9	325,994	285,109	87.5	52,592	13.9	41,969	79.8	78.1
Sanitation	201,426	2.1	160,708	152,329	94.8	40,718	20.2	38,123	93.6	76.9
Engineering surveys	35,802	.4	30,511	29,308	96.1	5,291	14.8	2,979	56.3	88.3
Other	178,252	1.9	143,316	129,488	90.4	34,936	19.6	28,273	80.9	76.4
Division of Professional and Service Projects, total	2,022,961	21.1	1,777,860	1,669,221	93.9	245,101	12.1	180,939	73.8	85.7
Education	192,773	2.0	165,390	157,503	95.2	27,383	14.2	22,231	81.2	84.4
Recreation	183,381	1.9	147,146	143,520	97.5	36,235	19.8	27,069	74.7	83.3
Library	91,514	1.0	78,566	76,960	98.0	12,948	14.1	8,912	68.8	88.5
Museum	22,711	.2	19,833	19,188	96.7	2,878	12.7	1,618	56.2	90.0
Art	25,595	.3	24,653	23,194	94.1	942	3.7	838	89.0	91.0
Music	60,789	.6	58,300	56,643	97.1	2,480	4.1	2,156	87.0	93.7
Writing	19,629	.2	19,253	18,287	95.0	376	1.9	297	78.9	93.6
Research and surveys	194,728	2.0	166,420	160,335	96.3	28,308	14.5	12,121	42.8	90.7
Public records	140,062	1.5	120,595	119,303	98.9	19,467	13.9	10,842	55.7	91.3
Historical records survey	20,876	.2	20,083	19,245	95.8	793	3.8	620	78.2	93.0
Public health and hospital work	61,123	.6	50,102	49,248	98.3	11,021	18.0	5,231	47.5	90.0
Sewing	632,908	6.6	586,746	519,910	88.6	46,162	7.3	44,641	96.7	82.4
Production projects (excluding sewing)	61,420	.7	54,764	52,480	95.8	6,656	10.8	5,898	88.6	86.7
Housekeeping aides	63,438	.7	60,701	60,138	99.1	2,737	4.3	1,989	72.7	96.0
Household workers' training	3,029	(2)	2,772	2,555	92.2	257	8.5	225	87.4	85.4
School lunches	51,787	.6	34,524	32,933	95.4	17,263	33.3	16,381	94.9	65.3

Distribution of surplus commodities	70,329	.7	51,435	47,826	93.0	18,894	26.9	13,760	72.8	75.3
Other	126,869	1.3	116,568	109,953	94.3	10,301	8.1	6,110	59.3	90.0
Miscellaneous [3]	14,572	.2	−4,297	2,537		18,869		18,867	100.0	17.4
FISCAL YEAR ENDING JUNE 30, 1940										
All projects	$1,902,950	100.0	$1,408,572	$1,289,470	91.5	$494,378	26.0	$414,861	83.9	67.8
Division of Operations, total	1,464,827	77.0	1,050,238	949,756	90.4	414,589	28.3	356,537	86.0	64.8
Highways, roads, and streets	791,863	41.6	564,179	505,901	89.7	227,684	28.8	197,884	86.9	63.9
Public buildings	183,448	9.6	128,113	116,852	91.2	55,335	30.2	47,916	86.6	63.7
Recreational facilities (excluding buildings)	119,340	6.3	93,008	84,581	90.9	26,332	22.1	21,725	82.5	70.9
Publicly owned or operated utilities	199,839	10.5	143,282	131,071	91.5	56,557	28.3	47,610	84.2	65.6
Airports and airways	37,279	2.0	22,262	19,200	86.2	15,017	40.3	14,100	93.9	51.5
Conservation	64,819	3.4	50,430	45,589	90.4	14,389	22.2	11,590	80.5	70.3
Sanitation	29,788	1.6	21,517	20,607	95.8	8,271	27.8	7,753	93.7	69.2
Engineering surveys	11,005	.6	9,057	8,821	97.4	1,948	17.7	1,136	58.3	80.2
Other	27,446	1.4	18,390	17,134	93.2	9,056	33.0	6,823	75.3	62.4
Division of Professional and Service Projects, total	440,035	23.1	359,403	341,356	95.0	80,632	18.3	59,130	65.2	77.6
Education	36,399	1.9	28,514	27,102	95.0	7,885	21.7	6,508	82.5	74.5
Recreation	43,717	2.3	31,860	30,833	96.8	11,857	27.1	8,715	73.5	70.5
Library	23,461	1.2	18,752	18,248	97.3	4,709	20.1	3,255	69.1	77.8
Museum	7,289	.4	6,110	5,920	96.9	1,179	16.2	717	60.8	81.2
Art	5,752	.3	5,174	4,889	94.5	578	10.1	509	88.1	85.0
Music	11,588	.6	10,026	9,825	98.0	1,562	13.5	1,339	85.7	84.8
Writing	3,692	.2	3,392	3,276	96.6	300	8.1	222	74.0	88.7
Research and surveys	43,395	2.3	34,655	33,680	97.2	8,740	20.1	3,740	42.8	77.6
Public records	35,789	1.9	29,408	28,963	98.5	6,381	17.8	3,532	55.4	80.9
Historical records survey	6,903	.4	6,290	6,096	96.9	613	8.9	467	76.2	88.3
Public health and hospital work	13,864	.7	10,329	10,226	99.0	3,535	25.5	1,595	45.1	73.8
Sewing	118,136	6.2	103,538	92,230	89.1	14,598	12.4	13,891	95.2	78.0
Production projects (excluding sewing)	15,325	.8	13,074	12,684	97.0	2,251	14.7	1,986	88.2	82.8
Housekeeping aides	20,726	1.1	19,552	19,375	99.1	1,174	5.7	842	71.7	93.5
Household workers' training	771	(2)	697	620	89.0	74	9.7	65	87.8	80.4
School lunches	19,251	1.0	12,855	12,473	97.0	6,396	33.2	5,950	93.0	64.8
Distribution of surplus commodities	20,134	1.1	13,315	13,244	99.5	6,819	33.9	4,586	67.3	65.8
Other	13,843	.7	11,862	11,672	98.4	1,981	14.3	1,211	61.1	84.3
Miscellaneous [3]	−1,912	−.1	−1,069	−1,642		−843		−806		

[1] Does not include projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939.

[2] Less than 0.05 percent.

[3] Includes WPA expenditures for supply fund; sponsors' expenditures for land, land leases, easements, and rights-of-way, for which the distribution by type of project is not available; and adjustments of WPA reports of total expenditures to reports of the U. S. Department of the Treasury. Credit figures result from an excess of these adjustments over actual expenditures for miscellaneous purposes.

TABLE 16. WORK PROJECTS ADMINISTRATION.—*Amount of WPA and sponsors' funds expended for WPA-operated projects, United States and Territories, by object of expenditure and by State, for fiscal year ending June 30, 1940*

[Amounts in thousands; 000 omitted]

State or Territory	Total					Labor					Nonlabor				
	Total	WPA		Sponsor		Total	WPA		Sponsor		Total	WPA		Sponsor	
		Amount	Percent	Amount	Percent		Amount	Percent	Amount	Percent		Amount	Percent	Amount	Percent
Grand total	$1,902,950	$1,408,572	74.0	$494,378	26.0	$1,368,987	$1,289,470	94.2	$79,517	5.8	$533,963	$119,102	22.3	$414,861	77.7
Continental United States	1,899,206	1,406,205	74.0	493,001	26.0	1,366,435	1,287,296	94.2	79,139	5.8	532,771	118,909	22.3	413,862	77.7
Alabama	35,277	25,222	71.5	10,055	28.5	23,291	22,141	95.1	1,150	4.9	11,986	3,081	25.7	8,905	74.3
Arizona	7,804	4,907	62.9	2,897	37.1	4,975	4,395	88.3	580	11.7	2,829	512	18.1	2,317	81.9
Arkansas	28,811	21,385	74.2	7,426	25.8	20,170	18,735	92.9	1,435	7.1	8,641	2,650	30.7	5,991	69.3
California	93,238	69,086	74.1	24,152	25.9	68,504	63,809	93.1	4,695	6.9	24,734	5,277	21.3	19,457	78.7
Colorado	21,632	15,536	71.8	6,096	28.2	14,703	13,939	94.8	764	5.2	6,929	1,597	23.0	5,332	77.0
Connecticut	20,686	14,618	70.7	6,068	29.3	14,697	13,871	94.4	826	5.6	5,989	747	12.5	5,242	87.5
Delaware	2,242	1,705	76.0	537	24.0	1,688	1,606	95.1	82	4.9	554	99	17.9	455	82.1
District of Columbia	8,906	6,900	77.5	2,006	22.5	7,152	6,402	89.5	750	10.5	1,754	498	28.4	1,256	71.6
Florida	29,647	22,580	76.2	7,067	23.8	21,102	20,170	95.6	932	4.4	8,545	2,410	28.2	6,135	71.8
Georgia	33,259	24,454	73.5	8,805	26.5	22,759	21,819	95.9	940	4.1	10,500	2,635	25.1	7,865	74.9
Idaho	9,473	6,309	66.6	3,164	33.4	6,202	5,746	92.6	456	7.4	3,271	563	17.2	2,708	82.8
Illinois	154,979	116,974	75.5	38,005	24.5	118,359	108,114	91.3	10,245	8.7	36,620	8,860	24.2	27,760	75.8
Indiana	55,087	40,397	73.3	14,690	26.7	38,505	36,683	95.3	1,822	4.7	16,582	3,714	22.4	12,868	77.6
Iowa	24,944	16,320	65.4	8,624	34.6	16,011	14,701	91.8	1,310	8.2	8,933	1,619	18.1	7,314	81.9
Kansas	21,723	15,747	72.5	5,976	27.5	14,570	13,983	96.0	587	4.0	7,153	1,764	24.7	5,389	75.3
Kentucky	32,433	25,516	78.7	6,917	21.3	23,541	22,326	94.8	1,215	5.2	8,892	3,190	35.9	5,702	64.1
Louisiana	25,639	19,393	75.6	6,246	24.4	18,619	17,710	95.1	909	4.9	7,020	1,683	24.0	5,337	76.0
Maine	6,452	4,792	74.3	1,660	25.7	4,699	4,384	93.3	315	6.7	1,753	408	23.3	1,345	76.7
Maryland	11,592	8,584	74.1	3,008	25.9	8,598	7,963	92.6	635	7.4	2,994	621	20.7	2,373	79.3
Massachusetts	86,587	66,629	77.0	19,958	23.0	66,524	63,746	95.8	2,778	4.2	20,063	2,883	14.4	17,180	85.6
Michigan	86,731	65,508	75.5	21,223	24.5	65,518	61,148	93.3	4,370	6.7	21,213	4,360	20.6	16,853	79.4
Minnesota	46,435	33,027	71.1	13,408	28.9	32,062	30,114	93.9	1,948	6.1	14,373	2,913	20.3	11,460	79.7
Mississippi	27,944	19,164	68.6	8,780	31.4	17,589	16,608	94.4	981	5.6	10,355	2,556	24.7	7,799	75.3
Missouri	62,927	49,737	79.0	13,190	21.0	47,358	45,394	95.9	1,964	4.1	15,569	4,343	27.9	11,226	72.1
Montana	12,934	8,564	66.2	4,370	33.8	8,465	7,819	92.4	646	7.6	4,469	745	16.7	3,724	83.3

Nebraska	23,296	17,063	73.2	6,233	26.8	16,143	15,381	95.3	762	4.7	7,153	1,682	23.5	5,471	76.5
Nevada	1,850	1,139	61.6	711	38.4	1,170	1,050	89.7	120	10.3	680	89	13.1	591	86.9
New Hampshire	6,097	4,626	75.9	1,471	24.1	4,631	4,422	95.5	209	4.5	1,466	204	13.9	1,262	86.1
New Jersey	72,904	53,052	72.8	19,852	27.2	53,092	9,793	93.8	3,299	6.2	19,812	3,259	16.4	16,553	83.6
New Mexico	10,516	7,873	74.9	2,643	25.1	7,499	7,176	95.7	323	4.3	3,017	697	23.1	2,320	76.9
New York	181,510	131,953	72.7	49,557	27.3	129,290	123,788	95.7	5,502	4.3	52,220	8,165	15.6	44,055	84.4
North Carolina	32,148	22,318	69.4	9,830	30.6	20,114	19,337	96.1	777	3.9	12,034	2,981	24.8	9,053	75.2
North Dakota	10,589	7,288	68.8	3,301	31.2	6,860	6,543	95.4	317	4.6	3,729	745	20.0	2,984	80.0
Ohio	131,856	99,924	75.8	31,932	24.2	100,008	93,220	93.2	6,788	6.8	31,848	6,704	21.0	25,144	79.0
Oklahoma	31,321	23,630	75.4	7,691	24.6	22,797	21,376	93.8	1,421	6.2	8,524	2,254	26.4	6,270	73.6
Oregon	14,526	10,428	71.8	4,098	28.2	10,500	9,987	95.1	513	4.9	4,026	441	11.0	3,585	89.0
Pennsylvania	137,599	109,801	79.8	27,798	20.2	107,006	102,990	96.2	4,016	3.8	30,593	6,811	22.3	23,782	77.7
Rhode Island	12,417	8,702	70.1	3,715	29.9	8,926	8,305	93.0	621	7.0	3,491	397	11.4	3,094	88.6
South Carolina	28,319	21,030	74.3	7,289	25.7	19,336	18,538	95.9	798	4.1	8,983	2,492	27.7	6,491	72.3
South Dakota	11,696	7,948	68.0	3,748	32.0	7,585	7,145	94.2	440	5.8	4,111	803	19.5	3,308	80.5
Tennessee	30,168	21,026	69.7	9,142	30.3	20,527	18,396	89.6	2,131	10.4	9,641	2,630	27.3	7,011	72.7
Texas	66,826	48,363	72.4	18,463	27.6	43,786	41,507	94.8	2,279	5.2	23,040	6,856	29.8	16,184	70.2
Utah	10,737	7,332	68.3	3,405	31.7	7,393	6,893	93.2	500	6.8	3,344	439	13.1	2,905	86.9
Vermont	3,651	2,553	69.9	1,098	30.1	2,618	2,391	91.3	227	8.7	1,033	162	15.7	871	84.3
Virginia	17,200	12,180	70.8	5,020	29.2	11,824	10,798	91.3	1,026	8.7	5,376	1,382	25.7	3,994	74.3
Washington	29,604	20,528	69.3	9,076	30.7	20,623	19,198	93.1	1,425	6.9	8,981	1,330	14.8	7,651	85.2
West Virginia	28,685	21,422	74.7	7,263	25.3	20,705	19,744	95.4	961	4.6	7,980	1,678	21.0	6,302	79.0
Wisconsin	51,085	36,869	72.2	14,216	27.8	36,100	33,879	93.8	2,221	6.2	14,985	2,990	20.0	11,995	80.0
Wyoming	3,266	2,145	65.7	1,121	34.3	2,107	1,979	93.9	128	6.1	1,159	166	14.3	993	85.7
Not distributed by State	3,958	3,958	100.0	----------	-------	134	134	100.0	----------	-------	3,824	3,824	100.0	----------	-------
Hawaii	1,961	1,183	60.3	778	39.7	1,303	1,072	82.3	231	17.7	658	111	16.9	547	83.1
Puerto Rico	1,768	1,169	66.1	599	33.9	1,234	1,087	88.1	147	11.9	534	82	15.4	452	84.6
Virgin Islands	15	15	100.0	----------	-------	15	15	100.0	----------	-------	----------	----------	-------	----------	-------

TABLE 17. WORK PROJECTS ADMINISTRATION.—*Amount of WPA and sponsors' funds expended for nonlabor costs on WPA-operated projects,[1] United States and Territories, by type of purchase or rental and source of funds, July 1935–June 1940 and fiscal year ending June 30, 1940*

[Amounts in thousands; 000 omitted]

Type	July 1935–June 1940					Fiscal year 1940				
	Total		WPA	Sponsor		Total		WPA	Sponsor	
	Amount	Percent of grand total		Amount	Percent of total, by type	Amount	Percent of grand total		Amount	Percent of total, by type
Grand total	$2,359,156	100.0	$869,615	$1,489,541	63.1	$533,963	100.0	$119,102	$414,861	77.7
Purchase of materials, supplies, and equipment, total	1,335,381	56.6	519,748	815,633	61.1	298,181	5.58	81,007	217,174	72.8
Stone, clay, and glass products	464,565	19.7	189,816	274,749	59.1	102,737	19.3	29,546	73,191	71.2
Cement	122,425	5.2	71,531	50,894	41.6	28,133	5.3	13,376	14,757	52.5
Clay products	59,006	2.5	22,126	36,880	62.5	12,281	2.3	2,916	9,365	76.3
Concrete products	67,575	2.9	27,697	39,878	59.0	16,512	3.1	4,742	11,770	71.3
Crushed stone	79,733	3.4	31,266	48,467	60.8	17,649	3.3	4,213	13,436	76.1
Sand and gravel	90,806	3.8	25,556	65,250	71.9	19,761	3.7	3,115	16,646	84.2
Other stone and glass products	45,020	1.9	11,640	33,380	74.1	8,401	1.6	1,184	7,217	85.9
Metal products (excluding machinery)	265,615	11.3	87,538	178,077	67.0	58,834	11.0	12,311	46,523	79.1
Cast-iron pipe and fittings	67,242	2.8	19,299	47,943	71.3	13,089	2.5	1,933	11,156	85.2
Structural and reinforcing steel	58,487	2.5	23,846	34,641	59.2	11,227	2.1	2,820	8,407	74.9
Iron and steel products[2]	79,564	3.4	24,109	55,455	69.7	20,356	3.8	4,573	15,783	77.5
Other metal products	60,322	2.6	20,284	40,038	66.4	14,162	2.6	2,985	11,177	78.9
Lumber and its products (excluding furniture and fixtures)	135,512	5.7	37,438	98,074	72.4	27,709	5.2	5,290	22,419	80.9
Bituminus mixtures, paving and other	116,257	4.9	47,644	68,613	59.0	26,498	5.0	5,656	20,842	78.7
Textiles	88,578	3.8	58,747	29,831	33.7	19,785	3.7	8,878	10,907	55.1
Machinery and equipment	66,971	2.8	33,685	33,286	49.7	16,283	3.0	6,929	9,354	57.4
Electrical machinery, supplies, and equipment	27,894	1.2	9,032	18,862	67.6	6,637	1.2	1,005	5,632	84.9
Paving, other construction, and transportation equipment	13,868	.6	10,723	3,145	22.7	3,166	.6	2,634	532	16.8
Other machinery and equipment	25,209	1.0	13,930	11,279	44.7	6,480	1.2	3,290	3,190	49.2

Chemicals and allied products	41,353	1.7	13,538	27,815	67.3	9,209	1.7	2,535	6,674	72.5
Petroleum products	34,580	1.5	16,247	18,333	53.0	9,311	1.7	4,124	5,187	55.7
Miscellaneous	121,950	5.2	35,095	86,855	71.2	27,815	5.2	5,738	22,077	79.4
Rental of equipment, total	820,505	34.8	293,862	526,643	64.2	175,178	32.8	25,986	149,192	85.2
Motor vehicles	452,957	19.2	202,687	250,270	55.3	93,029	17.4	21,413	71,616	77.0
Teams and wagons	40,072	1.7	31,806	8,266	20.6	1,667	.3	196	1,471	88.2
Construction equipment	302,841	12.8	56,142	246,699	81.5	72,580	13.6	3,937	68,643	94.6
Other equipment	24,635	1.1	3,227	21,408	86.9	7,902	1.5	440	7,462	94.4
Other nonlabor expenditures	203,270	8.6	56,005	147,265	72.4	60,604	11.4	12,109	48,495	80.0

[1] Does not include projects operated by other Federal agencies and financed by allocation of WPA funds under the provisions of sec. 3 of the ERA Act of 1938 and sec. 11 of the ERA Act of 1939.
[2] Not elsewhere classified.

TABLE 18. WORK PROJECTS ADMINISTRATION.—*Physical accomplishment and public participation on WPA-operated projects, continental United States, cumulative through June 30, 1940, and during selected recent periods*

Item	Unit of measurement	Number	
Highways, roads, streets, and related facilities			
Highways, roads, and streets, total	Miles	517,431	
Rural roads, total	do	454,606	
High-type surface, total	do	33,712	
New construction	do	17,870	
Reconstruction or improvement.	do	15,842	
Low-type surface and unsurfaced.	do	420,894	
Urban streets, total	do	54,432	
High-type surface, total	do	22,184	
New construction	do	12,797	
Reconstruction or improvement.	do	9,387	
Low-type surface and unsurfaced.	do	32,248	
Other roads (in parks, etc.), total	do	8,393	
High-type surface, total	do	1,745	
New construction	do	1,026	
Reconstruction or improvement.	do	719	
Low-type surface and unsurfaced.	do	6,648	
		New construction	Reconstruction or improvement
Bridges and viaducts, total	Number	64,426	39,794
	Linear feet	2,024,645	1,706,302
Wood bridges and viaducts	Number	47,718	22,499
	Linear feet	1,409,719	698,165
Steel bridges and viaducts	Number	4,870	13,495
	Linear feet	253,590	851,671
Masonry bridges and viaducts	Number	11,838	3,800
	Linear feet	361,336	156,466
Culverts	Number	780,438	93,640
	Linear feet	21,343,386	2,400,216
Road drainage ditch and pipe, total.	Miles	60,332	75,203
Road drainage ditch	do	57,158	74,480
Road drainage pipe	do	3,174	723
Sidewalks and paths, total	do	17,166	6,195
Paved sidewalks and paths	do	14,258	4,496
Unpaved sidewalks and paths	do	2,908	1,699
Curbs	do	16,996	2,966
Gutters	do	4,530	713
Guardrails and guard walls	do	2,022	1,000
Road and street lighting	Number of lights	22,647	60,889
Traffic signs erected	Number	692,000	
Traffic-control line painted	Miles of line	5,054	
Roadside landscaping	Miles of road		36,787
Car and railroad track removal	Miles		1,281

TABLE 18. WORK PROJECTS ADMINISTRATION.—*Physical accomplishment and public participation on WPA-operated projects, continental United States, cumulative through June 30, 1940, and during selected recent periods*—Continued

Item	Unit of measurement	New construction	Reconstruction or improvement	Additions
Public buildings, excluding utility plants and buildings at airports				
Public buildings, total	Number	25,796	67,724	3,202
Educational buildings, total	do	4,499	29,675	1,676
Libraries	do	116	785	55
Schools	do	4,383	28,890	1,621
Recreational buildings, total	do	7,071	4,691	454
Auditoriums	do	327	349	102
Gymnasiums	do	942	606	190
Other recreational buildings	do	5,802	3,736	162
Offices and administrative buildings	do	1,142	3,624	222
Hospitals	do	132	1,592	78
Penal institutions	do	131	458	23
Dormitories	do	815	2,933	32
Firehouses	do	224	2,010	53
Garages	do	1,870	1,448	148
Storage buildings	do	1,670	2,359	100
Armories	do	236	356	39
Barns and stables	do	1,553	3,618	64
Other public buildings	do	6,453	14,960	313
Outdoor recreational facilities				
Stadiums, grandstands, and bleachers	Number	1,799	639	91
	Seating capacity	3,019,000	2,669,000	233,000
Fairgrounds and rodeo grounds	Number	41	236	5
Parks	do	1,394	5,679	141
	Area in acres	64,332	382,760	4,267
Playgrounds, total	Number	2,521	8,413	94
School playgrounds	do	1,525	7,245	83
Other playgrounds	do	996	1,168	11
Athletic fields	do	2,630	2,182	50
	Area in acres	14,836	13,361	192
Handball courts	Number	1,465	121	----------
Horseshoe courts	do	1,932	144	----------
Tennis courts	do	8,316	2,719	----------
Swimming pools	do	676	298	----------
Wading pools	do	699	69	----------
Ice-skating areas	do	1,060	79	----------
Ski trails	Miles	308	53	----------
Ski jumps	Number	60	14	----------
Band shells	do	197	72	----------
Outdoor theaters	do	121	24	----------
Golf courses	do	217	324	----------
	Number of holes	2,373	4,315	----------
	Area in acres	15,340	32,321	----------
Public utilities and sanitation				
Utility plants, total	Number	1,736	914	78
Electric-power plants	do	39	144	12
	Capacity in kilowatts	25,075	254,416	7,581
Incinerator plants	Number	85	45	----------
	Capacity in tons per day	1,646	11,273	----------
Pumping stations	Number	834	255	11
	Capacity in gallons per day	1,526,059,000	3,066,012,000	62,365,000
Sewage-treatment plants	Number	639	339	43
	Capacity in gallons per day	361,467,000	2,794,118,000	31,756,000
Water-treatment plants	Number	139	131	12
	Capacity in gallons per day	189,129,000	1,876,455,000	7,833,000
Water mains and distribution lines	Miles	11,242	2,899	----------
Water wells	Number	3,429	1,659	----------
Storage tanks, reservoirs, etc	do	2,333	491	----------
	Capacity in gallons	1,486,821,000	24,198,578,000	----------
Storm and sanitary sewers	Miles	17,928	3,242	----------
Manholes and catch basins	Number	560,000	336,000	----------
Sanitary privies	do	1,933,000	34,000	----------

TABLE 18. WORK PROJECTS ADMINISTRATION.—*Physical accomplishment and public participation on WPA-operated projects, continental United States, cumulative through June 30, 1940, and during selected recent periods*—Continued

Item	Unit of measurement	New construction	Reconstruction or improvement	Additions
Public utilities and sanitation—Con.				
Abandoned-mine sealing	Openings sealed	211,000		
Mosquito-control drainage	Acres drained	1,926,000	1,777,000	
	Miles of ditch and pipe.	13,938	18,473	
Mosquito-control spraying	Gallons sprayed	2,172,000		
Telephone and telegraph lines	Miles	2,881	1,739	
Police, fire-alarm, and traffic signal systems.	Miles of line	1,247	1,245	
Electric-power lines	Miles	2,153	957	
Gas, oil, and steam pipe lines	do	492	98	
Conservation, flood and erosion control, and irrigation				
Fish hatcheries	Number	161	143	90
	Annual capacity in fingerlings.	1,032,520,000	420,226,000	104,261,000
Firebreaks	Miles	4,973	763	
Fire and forest trails	do	4,318	1,365	
Planting oysters	Bushels planted	7,217,000		
Levees and embankments	Miles	439	970	
Jetties and breakwaters	do	93	4	
Bulkheads	do	125	40	
Retaining walls and revetments	do	1,431	119	
Riprap	Square yards	13,432,000	1,798,000	
Riverbank and shore improvement	Miles		4,118	
Stream bed improvement	do		6,926	
Conservation, flood, and erosion control dams.	Number	15,815	769	
Irrigation systems	Acres	285,000	3,164,000	
	Miles of ditch, canal, pipe, or flume.	960	4,370	

Item	Unit of measurement	New construction	Reconstruction or improvement	Additions	Surfacing
Airport and airway facilities					
Facilities at airports and landing areas:					
Landing fields	Number	197	317	50	
	Area in acres	23,455	49,894	2,845	
Runways	Linear feet	1,971,000	433,000		221,000
Airport buildings, total	Number	474	1,088	65	
Administrative and terminal buildings.	do	73	60	14	
Hangars	do	167	259	10	
Other airport buildings	do	234	769	41	
Seaplane ramps and landing platforms.	do	25	2		
	Area in square feet	203,000	29,000		
Landing areas floodlighted	Number lighted	69	17		
	Number of lights	1,915	191		
Boundary lights	do	8,523	1,853		
Airport drainage	Number drained	87	29		
	Miles of ditch and pipe.	759	60		
Airway facilities:					
Airway markers	Number	10,493	2,870		
Airway beacons	do	67	15		

TABLE 18. WORK PROJECTS ADMINISTRATION.—*Physical accomplishment and public participation on WPA-operated projects, continental United States, cumulative through June 30, 1940, and during selected recent periods*—Continued

Item	Unit of measurement	New construction	Reconstruction or improvement	Additions
Miscellaneous items				
Cemeteries	Number	17	829	77
	Area in acres	237	9,556	723
Landscaping and beautification, other than roadside and parks.	Acres		97,116	
Ornamental pools and fountains	Number	743	63	
Monuments and historic markers	do	981	126	
Drainage, other than airport, roadside, and mosquito control.	Acres drained	3,538,000	10,847,000	
	Miles of ditch and pipe.	5,004	16,838	
Tunnels, total	Number	708	103	
	Linear feet	316,708	62,008	
Vehicular tunnels	Number	21	6	
	Linear feet	2,671	5,683	
Pedestrian tunnels	Number	142	31	
	Linear feet	24,476	9,828	
Other tunnels	Number	545	66	
	Linear feet	289,561	46,497	
Docks, wharves, and piers	Number	277	267	
Artificial channels, other than drainage and irrigation.	Miles	73	188	
			Number	
Education, art, and music activities (during June 1940)				
Adult education:				
Literacy and naturalization	Enrollment		257,876	
Vocational training	do		188,750	
Correspondence work	do		15,261	
Other adult education	do		398,667	
Lectures and forums	Attendance		127,272	
Nursery schools	Schools		1,369	
	Enrollment		39,853	
Special instruction for institutionalized and handicapped persons.	do		29,069	
Art instruction	do		41,826	
Music:				
Instruction	do		170,875	
Concerts	Performances		4,668	
	Attendance		3,957,910	
		Total	Children	Adults
Public health and hospital activities				
Clinic and other health services (during a 2-week period in January 1940):				
Dental clinics:				
Examinations and treatments	Persons receiving service.	35,100	27,300	7,800
Medical clinics:				
Examinations and treatments	do	119,300	21,700	97,600
Tests	do	20,900	4,400	16,500
Immunizations	do	10,700	7,400	3,300
Home visits:				
Examinations and treatments	do	17,000	11,100	5,900
Tests	do	1,300	1,000	300
Immunizations	do	1,700	600	1,100
School services:				
Examinations and treatments	do	36,600	36,600	
Tests	do	33,100	33,100	
Immunizations	do	3,100	3,100	
Other services:				
Examinations and treatments	do	34,700	25,300	9,400
Tests	do	27,200	10,900	16,300
Immunizations	do	1,700	1,600	100

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TABLE 18. WORK PROJECTS ADMINISTRATION.—*Physical accomplishment and public participation on WPA-operated projects, continental United States, cumulative through June 30, 1940, and during selected recent periods*—Continued

Item	Unit of measurement	Number
Public health and hospital activities—Continued		
Housekeeping-aide services:		
Families assisted (during month of December 1939).		57,000
Visits made (cumulative through Dec. 31, 1939).		17,159,000
School-lunch services:		
During March 1940	Schools serviced	13,720
	Lunches served	22,817,000
Cumulative through Dec. 31, 1939	do	384,213,000
Library and book-repair activity		
Library units operated or assisted (during December 1939), total.		9,358
General public-library units		3,358
Public-school library units		5,066
Other library units		799
Bookmobiles		135
Book renovation (cumulative through Dec. 31, 1939), total.		67,364,000
General public-library volumes		32,611,000
Public-school library volumes		26,407,000
Other library volumes		8,346,000
Braille (cumulative through Dec. 31, 1939): Pages transcribed.		3,909,000
Sewing and food preserving (cumulative through Dec. 31, 1939)		
Garments completed, total (excluding layettes)		222,683,000
Men's garments		47,299,000
Women's garments		57,793,000
Boys' garments		41,288,000
Girls' garments		48,342,000
Infants' garments (excluding layettes).		27,961,000
Articles other than garments		67,960,000
Food preserving:		
Quarts canned		42,203,000
Pounds dried		1,819,000
Writers and art projects (cumulative through June 1940)		
Writing:		
Books published		134
Pamphlets published		565
Art:		
Index of American Design plates		18,833
Easel works		66,896
Fine print designs		10,092
Sculptures		10,451

TABLE 19. WORK PROJECTS ADMINISTRATION.—*Facilities*[1] *constructed or improved on projects operated by the WPA for use of military and naval agencies, and for development of civil airports and airways, continental United States, cumulative through June 30, 1940*

Item	Unit of measurement	New construction	Reconstruction or improvement	Additions
Buildings (other than utility plants and airport buildings), total.	Number	1,615	9,886	193
Administrative buildings	do	53	301	11
Hospitals and infirmaries	do	20	151	3
Garages	do	173	562	14
Storage buildings	do	221	1,576	16
Armories	do	236	356	39
Barracks and officers' residences	do	329	3,562	37
Mess halls and kitchens	do	255	510	17
Barns and stables	do	24	224	19
Other buildings	do	304	2,644	36
Utility plants	do	49	52	
Water mains and distribution lines	Miles	156	69	
Storm and sanitary sewers	do	252	64	
Telephone and telegraph lines	do	114	49	
Electric power lines	do	210	524	
Facilities at airports and landing areas:				
Landing fields	Number	197	317	50
Runways	Linear feet	1,971,000	653,000	
Airport buildings, total	Number	474	1,088	65
Administrative buildings	do	73	60	14
Hangars	do	167	259	10
Other airport buildings [2]	do	234	769	41
Seaplane ramps and landing platforms	do	25	2	
Landing areas floodlighted	do	69	17	
Airway facilities:				
Airway markers	do	10,493	2,870	
Airway beacons	do	67	15	

[1] These totals are included in WPA table 18.
[2] Includes seaplane base buildings.

TABLE 20. WORK PROJECTS ADMINISTRATION.—*Selected items of physical accomplishment on construction projects operated by WPA, continental United States, by State, cumulative through June 30, 1940*

State	Miles of highways, roads, and streets (new and improved)	Number of public buildings				Number of bridges and viaducts (new and improved)	Number of culverts (new and improved)	Number of parks (new and improved)	Number of playgrounds and athletic fields (new and improved)
		Schools		All other					
		New construction and additions	Reconstruction or improvement	New construction and additions	Reconstruction or improvement				
Total	517,431	6,004	28,890	22,994	38,834	104,220	874,078	7,073	15,746
Alabama	17,491	208	507	413	504	9,356	37,381	28	245
Arizona	2,028	44	220	236	139	295	4,563	10	44
Arkansas	7,890	376	443	606	268	4,470	26,972	36	112
California	9,533	232	718	1,614	2,462	1,330	16,884	408	668
Colorado	7,169	102	367	409	602	2,924	17,608	134	167
Connecticut	3,244	12	459	223	529	324	3,401	134	149
Delaware	102	3	41	24	215	16	40	18	21
District of Columbia	133		11	36	312		64	93	118
Florida	6,206	245	278	601	268	1,237	6,272	146	191
Georgia	7,333	291	495	393	1,334	2,531	26,251	122	350
Idaho	3,188	29	54	173	73	917	7,499	39	53
Illinois	37,949	70	846	680	1,630	10,799	81,017	519	953
Indiana	20,253	48	845	549	1,177	2,620	25,372	350	357
Iowa	25,224	35	173	405	417	5,537	29,241	235	162
Kansas	16,061	66	128	392	289	984	15,546	131	188
Kentucky	9,391	300	784	387	880	3,216	55,896	29	153
Louisiana	3,611	57	303	264	412	1,734	7,978	20	113
Maine	1,698	17	91	51	69	221	3,862	34	57
Maryland	1,009	13	448	150	743	196	3,751	50	155
Massachusetts	3,518	9	1,290	387	1,988	289	2,785	280	461
Michigan	18,643	122	1,006	690	1,401	578	58,053	281	452
Minnesota	21,801	145	893	1,084	1,076	1,189	24,137	299	453
Mississippi	12,700	184	200	489	118	7,950	17,026	25	104
Missouri	18,755	311	611	255	404	1,433	38,905	173	734
Montana	8,186	28	297	331	506	2,441	12,258	89	211
Nebraska	11,463	51	253	387	994	6,214	20,338	170	111
Nevada	1,810	3	34	147	55	137	1,004	27	31
New Hampshire	1,344		65	70	98	238	3,768	41	67
New Jersey	4,956	22	910	472	1,887	362	2,321	317	490
New Mexico	3,184	291	225	300	68	1,532	2,810	33	125
New York	8,287	19	901	1,061	3,748	710	12,389	476	790
North Carolina	9,679	155	1,075	594	401	455	7,262	90	494
North Dakota	13,645	46	1,388	414	499	915	12,409	122	240
Ohio	20,123	74	1,648	862	3,621	6,445	43,484	485	790
Oklahoma	25,548	748	1,880	1,067	435	3,193	43,426	111	1,955
Oregon	4,193	42	114	310	279	376	7,909	78	181
Pennsylvania	14,104	100	2,867	765	2,526	1,571	29,142	310	1,119
Rhode Island	599		160	47	282	34	106	34	52
South Carolina	8,136	623	1,298	920	637	1,005	7,936	71	286
South Dakota	14,643	78	159	243	241	1,115	8,019	93	74
Tennessee	31,053	227	538	419	85	4,778	43,533	65	266
Texas	24,348	235	262	973	951	6,852	24,118	173	454
Utah	3,740	25	177	240	343	1,025	7,886	26	151
Vermont	1,451	7	106	34	179	530	3,131	14	23
Virginia	5,798	134	817	222	994	350	7,713	34	206
Washington	9,859	50	457	703	688	827	25,802	176	574
West Virginia	14,778	51	1,482	599	311	1,119	19,081	26	151
Wisconsin	18,131	58	485	1,137	1,506	699	14,699	389	391
Wyoming	3,443	18	81	166	190	1,151	3,030	29	54

TABLE 20. WORK PROJECTS ADMINISTRATION.—*Selected items of physical accomplishment on construction projects operated by WPA, continental United States, by State, cumulative through June 30, 1940*—Continued

State	Miles of water mains and distribution lines		Miles of storm and sanitary sewers		Number of sanitary privies (new construction)	Drainage other than roadside—miles of ditch and pipe		Miles of bulkheads, retaining walls, and revetments (new construction)
	New construction	Reconstruction or improvement	New construction	Reconstruction or improvement		New construction	Reconstruction or improvement	
Total	11,242	2,899	17,928	3,242	1,933,032	19,642	35,351	1,556
Alabama	98	7	207	31	28,086	1,287	13	32
Arizona	106	4	34	(1)	19,169	20	(1)	30
Arkansas	38	4	53	62	51,897	173	771	19
California	1,042	172	845	77	20,233	173	166	129
Colorado	199	76	181	3	26,770	26	51	54
Connecticut	66	13	304	63	66	547	22	26
Delaware	31	----	45	----	2,992	1,099	832	2
District of Columbia	33	1	92	12	----	89	11	3
Florida	167	31	271	49	24,353	645	410	14
Georgia	169	21	386	9	44,415	941	459	15
Idaho	142	77	93	9	18,747	82	466	18
Illinois	523	1,195	1,326	369	55,019	1,555	858	32
Indiana	204	14	449	98	90,993	92	145	54
Iowa	219	14	221	17	11,226	82	292	18
Kansas	367	31	121	47	43,454	145	12	30
Kentucky	94	2	383	71	58,351	49	27	26
Louisiana	194	15	386	20	46,467	208	938	6
Maine	45	1	81	3	----	19	3	3
Maryland	98	13	152	5	11,544	36	103	24
Massachusetts	471	47	682	128	180	486	145	54
Michigan	525	157	1,232	38	196	589	8,985	14
Minnesota	242	9	508	79	239	128	215	46
Mississippi	74	16	180	7	127,666	600	68	3
Missouri	396	27	644	60	2,734	21	934	44
Montana	111	17	111	2	15,316	7	----	8
Nebraska	214	40	295	64	30,709	53	7	22
Nevada	28	8	17	4	2,919	4	6	6
New Hampshire	29	4	123	(1)	33	24	9	8
New Jersey	172	37	565	222	22,120	632	1,061	75
New Mexico	72	15	185	----	16,422	277	111	24
New York	923	62	1,301	909	832	1,775	13,432	89
North Carolina	257	8	438	10	131,456	2,442	362	15
North Dakota	67	7	66	28	29,810	20	2	2
Ohio	594	91	1,718	122	69,748	421	1,262	77
Oklahoma	266	168	231	64	86,413	244	15	23
Oregon	219	105	70	20	14,823	66	237	29
Pennsylvania	389	53	962	273	48,628	141	53	174
Rhode Island	14	2	119	1	16	160	275	34
South Carolina	184	9	215	1	103,186	2,017	172	21
South Dakota	100	12	85	9	32,765	6	18	6
Tennessee	90	1	120	2	184,150	653	458	38
Texas	402	151	577	123	56,843	363	767	36
Utah	303	32	207	2	25,266	99	94	18
Vermont	41	8	42	7	2	1	----	9
Virginia	244	29	234	25	125,478	820	672	24
Washington	545	37	301	16	15,666	153	271	45
West Virginia	58	6	235	19	213,154	42	4	39
Wisconsin	314	33	796	61	16,194	125	131	32
Wyoming	63	17	39	1	6,286	5	6	6

[1] Less than 0.5 mile.

Selected List of Publications of the Work Projects Administration

ANNUAL AND MONTHLY PUBLICATIONS:

Report on Progress of the WPA Program. Issued monthly from March to August 1936,[1] and thereafter as follows: October [1] and December [1] 1936; March,[1] June,[1] and December [1] 1937; June 1938, June 1939, and June 1940.

WPA Statistical Bulletin. Issued monthly, March 1939 to date.

Federal Work Programs and Public Assistance. Issued monthly, July 1939 to date.

Federal Work and Construction Projects. Issued monthly, October 1938 to date.

Monthly Report of the Federal Emergency Relief Administration. (May 1933 through June 1936.)

Index of the monthly reports of the Federal Emergency Relief Administration, June 1933 through June 1936. (1937.)

RESEARCH STUDIES AND SPECIAL REPORTS:

Catalog of Research and Statistical Publications (January 1940).

Index of Research Projects:

Volume I (1938).

Volume II [1] (1939).

Volume III (1939).

A Survey of Relief and Security Programs.[1] (1938.)

Trends in Relief Expenditures, 1910–35. (1937.)

Chronology of Federal Emergency Relief Administration, May 12, 1933 to December 31, 1935. (1937.)

Statistical Report of the FERA. (In press.)

Statistical Summary of Emergency Relief Activities, January 1933 through December 1935.[1] (1937.)

General Relief Statistics for the Fifteen-Month Period, January 1936 through March 1937. (1938.)

Average General Relief Benefits, 1933–38. (1940.)

Analysis of Civil Work Program Statistics. (1939.)

Digest of State Legislation for the Financing of Emergency Relief, January 1, 1931–June 30, 1935. (1935.)

Legislative Trends in Public Relief and Assistance. (1936.)

State Public Welfare Legislation. (1939.)

Workers on Relief in the United States in March 1935:

Volume I—A Census of Usual Occupations. (1938.)

Volume II—Study of Industrial and Educational Backgrounds. (1939.)

[1] Out of print.

RESEARCH STUDIES AND SPECIAL REPORTS—Continued.

Usual Occupations of Workers Eligible for Works Program Employment in the United States, January 15, 1936. (1937.)

Urban Workers on Relief:

Part I—The Occupational Characteristics of Workers on Relief in Urban Areas, May 1934. (1936.)

Part II—The Occupational Characteristics of Workers on Relief in 79 Cities, May 1934. (1936.)

Changing Aspects of Urban Relief. (1939.)

Six Rural Problem Areas, Relief—Resources—Rehabilitation.[1] (1935.)

Comparative Study of Rural Relief and Non-Relief Households.[1] (1935.)

Areas of Intense Drought Distress, 1930–36. (1937.)

The People of the Drought States. (1937.)

Relief and Rehabilitation in the Drought Area. (1937.)

Farmers on Relief and Rehabilitation. (1937.)

Part-Time Farming in the Southeast. (1937.)

Rural Youth on Relief. (1937.)

Changing Aspects of Rural Relief. (1938.)

Five Years of Rural Relief. (1938.)

Effects of the Works Program on Rural Relief. (1938.)

Rural Youth: Their Situation and Prospects. (1938.)

Farming Hazards in the Drought Area. (1938.)

Rural Families on Relief. (1938.)

Youth in Agricultural Villages. (1940.)

Landlord and Tenant on the Cotton Plantation.[1] (1936.)

The Plantation South, 1934–37. (In press.)

Rural Regions of the United States. (1940.)

Seven Stranded Coal Towns. (In press.)

The Pecan Shellers of San Antonio. (1940.)

The Transient Unemployed.[1] (1935.)

The Migratory-Casual Worker. (1937.)

A Survey of the Transient and Homeless Population in 12 Cities, September 1935 and September 1936. (1937.)

Migrant Families. (1938.)

Rural Migration in the United States. (1939.)

Migratory Cotton Pickers in Arizona. (1939.)

Mexican Migratory Workers of South Texas. (In press.)

Survey of Cases Certified for Works Program Employment in 13 Cities. (1937.)

Employment on Projects in March 1936, WPA, Including NYA.[1] (1936).

Age of Persons From Relief Rolls Employed on WPA Projects in June 1936.[1] (1937.)

Age of WPA Workers, November 1937. (1938.)

Assigned Occupations of Persons Employed on WPA Projects, November 1937.[1] (1939.)

The Skill of Brick and Stone Masons, Carpenters, and Painters Employed on Works Progress Administration Projects in Seven Cities in January 1937.[1] (1937.)

Hourly Wage Rates for WPA and for Private and Other Public Construction, 1938, Selected Occupations.[1] (1939.)

Leisure-Time Leadership: WPA Recreation Projects.[1] (1938.)

[1] Out of print.

RESEARCH STUDIES AND SPECIAL REPORTS—Continued.

Community Recreation Programs, February 1940. (1940.)
Physical Accomplishments on WPA Projects: Through June 30, 1940, U. S. and State Summaries. (1940.)
Survey of Workers Separated from WPA Employment in Eight Areas During the Second Quarter of 1936. (1937.)
Survey of Workers Separated from WPA Employment in Nine Areas, 1937. (1938.)
Former Relief Cases in Private Employment. (1939.)
Construction Expenditures and Employment, 1925–36.[1] (1937.)
Construction Expenditures and Employment, 1937 Compared with 1936.[1] (1938.)
Construction Expenditures and Employment, 1936–38. (1939.)
Urban Housing: A Summary of Real Property Inventories Conducted as Work Projects, 1934–36. (1938.)
Local Wage Rates for Selected Occupations in Public and Private Construction, 1936.[1] (1937.)
Unemployment in the United States.[1] (1936.)
Family Unemployment: Preliminary Summary. (1939.)
Family Unemployment: An Analysis of Unemployment in Terms of Family Units. (1940.)
Seasonal Employment in Agriculture.[1] (1938.)
Price Dispersion and Industrial Activity, 1928–38.[1] (1939.)
Intercity Differences in Costs of Living in March 1935, 59 Cities.[1] (1937.)
Studies and reports (67) of the WPA National Research Project on Reemployment Opportunities and Recent Changes in Industrial Techniques. This project was organized in December 1935 to inquire, with the cooperation of industry, labor, and governmental and private agencies, into the extent of recent changes in industrial techniques and to evaluate the effects of these changes in the volume of employment and unemployment.

PAMPHLETS:

Questions and Answers on the WPA. (1939.)
Public Roads and the WPA. (1940.)
Public Health and the WPA. (1940.)
On Relief, May 1935. (1935.)
Youth on Relief. (1936.)
Rural Youth. (1939.)
Rural Poverty. (1938.)
Rural Relief and Recovery. (1939.)
Depression Pioneers. (1939.)
Facts About Unemployment. (1940.)
The Plantation South Today. (1940.)
Thirty Thousand Urban Youth. (In press.)

WPA WRITERS' PROGRAM:

American Guide Series:
Guides to the States and Territories.
Regional, City, and Town Guides.
Life in America Series:
Books dealing with American life and customs, education, natural history, the American Negro, military and maritime history, folklore, ethnic groups, etc.

[1] Out of print.

Other series, such as the American Pictorial Guide Series and the Fact Books (small encyclopedias of facts and figures on the social, economic, and political life of each State), are in preparation.

In addition to the above volumes which are issued by regular publishers and sold through bookstores, the Writers' Program has written and its sponsors have published locally, frequently in mimeographed form, leaflets, pamphlets, and booklets for local distribution, many of which are free.

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