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PUBLIC FACILITY REQUIREMENTS OVER THE NEXT DECADE

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HEARINGS BEFORE THE SUBCOMMITTEE ON ECONOMIC PROGRESS OF THE JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES NINETIETH CONGRESS SECOND SESSION

DECEMBER 3 AND 4, 1968

Printed for the use of the Joint Economic Committee

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PUBLIC FACILITY REQUIREMENTS OVER THE NEXT DECADE

TUESDAY, DECEMBER 3, 1968

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMIC PROGRESS OF THE
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The Subcommittee on Economic Progress met, pursuant to notice, at 10 a.m., in room 2128, Rayburn House Office Building, Hon. Wright Patman (chairman of the subcommittee) presiding.

Present: Representatives Patman, Moorhead, and Rumsfeld.

Also present: John R. Stark, executive director; Arnold H. Diamond, consulting economist; and Douglas C. Frechtling, minority economist.

Chairman PATMAN. The subcommittee will please come to order.

Studies by this subcommittee have shown that this Nation will have to build additional public facilities in the amount of \$500 billion over the 10-year period between 1966 and 1976. Our studies also showed that a good part of this aggregate amount would have to be obtained by borrowing, and we came up with the highly disturbing conclusion that the only major source of additional financing in the amounts required seemed to be the commercial banks.

In order to help correct this very disturbing prospect, Senator Proxmire and I have introduced bills to provide for Government guarantees and interest subsidies for State and municipal bonds. This would be in lieu of tax exemption. This developed from earlier hearings we held on the borrowing problems of the smaller communities and the unfair effects of bond rating on municipalities.

At this time, this Subcommittee on Economic Progress of the Joint Economic Committee would like to focus on these basic public facility needs, themselves, and to obtain the insight of four public officials who have been most involved with this subject in their departmental responsibilities. They are Mr. Wilbur J. Cohen, Secretary of Health, Education, and Welfare; M. Cecil Mackey, Assistant Secretary for Policy Development, Department of Transportation; Robert C. Wood, Under Secretary, Department of Housing and Urban Development; and Stewart L. Udall, Secretary of the Interior.

It strikes me as urgently important to look ahead at this point and see how we can supply our basic community needs and to anticipate some of the very difficult public policy problems that the Federal Government, the States, and the localities will have to solve over the next decade.

At this point in the record we will include the announcement of these hearings and scheduled witnesses.

(Material follows:)

NOVEMBER 26, 1968.

CONGRESS OF THE UNITED STATES JOINT ECONOMIC COMMITTEE

SUBCOMMITTEE ON ECONOMIC PROGRESS

Representative Wright Patman (D., Tex.), Vice Chairman of the Joint Economic Committee and Chairman of its Subcommittee on Economic Progress, today announced that his subcommittee will hold hearings next week on public facilities needs in the United States.

"We did some projections two years ago of future needs for schools, utilities, roads, and other basic public facilities," he said, "and the study showed that these requirements will impose heavy demands on both physical and financial resources.

"The present time is the most opportune one for the Subcommittee to hear from responsible officials of the four Federal Departments most concerned on these matters. We hope, particularly, to get from them a meaningful evaluation of priorities and some ideas of the financing measures that will be needed to pay for them."

The hearings will be held in the Banking and Currency Committee Hearing Room, 2128 Rayburn House Office Building. Following is the schedule of witnesses:

Tuesday, December 3:

10 a.m.—WILBUR J. COHEN, Secretary of Health, Education, and Welfare

11 a.m.—M. CECIL MACKEY, Assistant Secretary for Policy Development,
Department of Transportation

Wednesday, December 4:

10 a.m.—ROBERT C. WOOD, Under Secretary, Department of Housing and
Urban Development

11 a.m.—SEWART L. UDALL, Secretary of the Interior.

Chairman PATMAN. I had hoped the Secretary of Health, Education, and Welfare, Mr. Cohen, as our first witness, would give us an opportunity to really examine these needs.

I have just heard that Mr. Cohen is ill and will not be able to be here today. Is there someone here to speak for him? Mr. Cohen was scheduled as our first witness.

Mr. COSTON. Yes, sir; I am here for him.

Chairman PATMAN. Who are you, please?

Mr. COSTON. Mr. Chairman, I am Mr. Dean Coston, the executive assistant to Secretary Cohen.

Chairman PATMAN. Yes. Well, of course, we are not willing to accept you. Of course, we don't mean to say anything against you or to impugn your motives or to question you. But the subcommittee must insist on hearing a top policymaking representative.

Mr. COSTON. I understand.

Chairman PATMAN. Nothing like that—we just want the Secretary. Can you explain why the Secretary is not here?

Mr. COSTON. The Secretary asked me to express his very profuse apologies, Mr. Chairman, but he was taken ill this morning with a kidney ailment and had to go over to the hospital to have it attended to and he did ask me to come up and express—

Chairman PATMAN. Is it something that will probably detain him several days?

Mr. COSTON. We have no idea.

Chairman PATMAN. Well, we will just have to postpone this.

Mr. COSTON. Very good, sir.

Chairman PATMAN. I suspect about Thursday or Friday would be the nearest time that we could get to it and we will just postpone his part then until Thursday morning.

Mr. COSTON. His availability, Mr. Chairman, I am sure, would be subject to whatever medical opinion he gets this morning.

Chairman PATMAN. Why, certainly, we would respect the medical authorities and the Secretary's own request on that. We certainly don't want to ask him to come up here if he is not able to come.

Mr. COSTON. Fine, sir.

Chairman PATMAN. And we also asked that Mr. Gannon be here. Do you know why he is not here?

Mr. COSTON. I was not aware that Mr. Gannon had been requested, Mr. Chairman.

Chairman PATMAN. Mr. Gannon has been contacted, I understand. He will be up here right away and we will hear him but we will look forward to hearing Mr. Cohen Thursday morning here in this room at 10 o'clock.

Mr. COSTON. Thank you, Mr. Chairman.

Chairman PATMAN. All right, fine.

I notice a statement just put on my desk a few moments ago from Mr. Cohen of Health, Education, and Welfare, and without objection we will just file this statement as his testimony before this subcommittee and excuse him from testifying Thursday. Will that be satisfactory with you, Mr. Moorhead?

Representative MOORHEAD. Satisfactory.

Chairman PATMAN. Without objection it is so ordered.

(Statement of Secretary Cohen follows:)

STATEMENT OF THE HONORABLE WILBUR J. COHEN, SECRETARY OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. Chairman and members of the subcommittee, we have prepared sets of materials for your use in updating your committee's 1966 study, "State and Local Public Facility Needs and Financing." We are supplying these materials for the assistance of your staff.*

In education programs on the elementary and secondary levels, there today are 45.8 million children enrolled. In fall 1972, there will be 49.3 million, according to the best information we now have available. We hesitate to make any projection beyond 1972, because the children who will enter kindergarten in the years 1973 to 1975 have not been born.

We are including copies of a May 1968 office of education study, "Projections of Public School Facilities Needs, 1968-69 Through 1972-73."

Table I gives fall enrollments from a year ago to 1972. It is this table that shows the 4½ million increase in enrollments in the public schools. This table does not include figures for private and parochial schools.

*Additional materials, consisting mainly of responses to questions submitted to HEW by the subcommittee, appear in app. I, p. 93.

Table 2 indicates that for the 1967-68 school year, the public schools of the Nation needed 519,300 more classrooms simply to eliminate their current backlog.

Tables 4, 5, and 6 give the projections in student stations, classrooms and number of square feet of school facilities to overcome unsatisfactory conditions and accommodate growth.

In summary, the added facilities needed by 1972 are 1,340,500,000 square feet, or 770,500 new classrooms, on the elementary and secondary levels alone.

If we go into an extensive preschool program, which we hope to see, the needs over the next 4 years will amount to 129.9-million square feet, or the equivalent of 108,200 classrooms.

The needs for junior or community colleges will continue apace with the growth of their potential student bodies. The current backlog and projected need by 1972 come to 83,228,000 square feet. Student enrollment this year is 1.176 million. In 4 years, the figure is estimated to rise to 1.430 million.

Mr. Chairman, recent higher education data from the National Center for Educational Statistics indicate difficulty of making firm projections in the current tight money situation.

The Center has tabulated 1,781 responses from 793 public and 988 private colleges and universities on their 1965-70 plans. These institutions indicated that if the money became available as hoped for, they would provide instructional facilities for 48.3 percent more students in 1970 than in 1965. As a growth rate, this is 8 percent greater than originally foreseen 3 years ago. The expenditures planned for 1965-70 for buildings and campus improvements is estimated at \$17 billion.

The sources of capital funds for both public and private colleges and universities are more varied and thus less predictable than for elementary and secondary education. Significant sources of capital funds for both public and private colleges and universities include governmental appropriations, Federal grants, general obligation bonds and revenue bonds. The last three of these are directly tied in to the money market.

The Department now has applications for \$33 million in Federal funds to assist in ETV facilities costs. Fewer than 20 percent of these projects are expected to receive Federal funds, due to low appropriations.

Studies and projections made by the National Association of Educational Broadcasters and others indicate a need for \$400 million in new money from 1971 to 1975 for capital costs. Of that, \$190 million would be Federal funds.

We have updated the chapter in the 1966 study on educational TV for the committee record.

Turning now to health facilities, we remind you that the needs in all aspects have only one way to go: upward. Well beyond my expectations of the last 30 years, the aged of our Nation now are able to afford to have the medical attention they need, thanks to the medicare program. What this means is that we need many more doctors and other health professionals, many more hospital rooms, and more of everything else connected with health, including money.

HILL-BURTON

The need for modernization is a key problem for at least half of the Nation's hospitals. The critical shortage of hospitals which led to the Hill-Burton Act 22 years ago has been largely overcome.

The 1967 Hill-Burton State plans show these major needs—

Modernization of nearly 3,300 of the 6,661 existing general hospitals, involving 263,000 of the 796,000 beds.

\$8 billion to modernize general hospitals alone.

More than 100 new general hospitals, to be located primarily in suburban areas, plus additions to existing hospitals. This is to provide 75,000 new beds.

AMBULATORY CARE (OUTPATIENT) FACILITIES

Of some 9,000 outpatient facilities now existing, 2,300 need modernization. Another 2,200 new facilities are needed. Rising hospital costs and utilization have intensified the impetus toward broadened use of outpatient facilities. Projections indicate a 10-year need for \$3.2 billion in capital outlays.

LONG-TERM-CARE FACILITIES

There are about 700,000 beds in 12,900 long-term-care facilities, which include nursing homes, chronic disease hospitals and long-term units of hospitals. As of last June, more than 4,700 of these facilities having 325,000 beds had been certified for participation under medicare as "extended care facilities."

The 1967 Hill-Burton State plans indicated needs for—

Two thousand new long-term-care facilities, with 149,000 added beds.

Capital requirements of \$7.2 billion.

COMMUNITY MENTAL HEALTH CENTERS

The community mental health centers needs projection is one area in which a decline over the 1966-75 period is indicated. Whereas in 1966, we estimated \$2.934 billion in total outlays for the 10 years, we now estimate a need for \$2.027 billion. Of this latter figure, \$608 million would be Federal funds.

Each community mental health center was originally planned to provide five basic mental health services to a "catchment area" of 100,000 persons on average. However, the experience of the last 4 years indicated that each of these centers is providing the services to an average of 155,000 persons. We estimated in 1966 that the need for community mental health facilities was 2,200 center programs serving 222 million people. We now expect that 2,058 community mental health centers can and will be established by 1980.

MENTALLY RETARDED

Appropriations for construction of facilities to serve the mentally retarded in their own communities have been well below authorizations in the last 2 years. As a result, construction has barely kept pace with

the needs required by normal population growth. Although 240 projects have received Federal construction aid, the programs will result in serving only 66,000 retarded individuals.

HEALTH RESEARCH FACILITIES

Capital funds needs for health research facilities are estimated at \$220 million a year over the 1-year period—\$120 million for renovation and replacement and \$100 million for new construction. The Federal share is estimated at about 50 percent, so that over the 10 years the total Federal money would total around \$1.1 billion.

Progress in medical and health sciences is critically dependent upon the availability of good facilities. Capital outlays for 1,155 facilities in which the Federal program participated in 1956 to 1968 amounted to \$1.058 billion, of which the Federal share is \$454 million.

MEDICAL AND OTHER HEALTH SCHOOLS

The current national shortage of about 50,000 physicians illustrates the problem of health education facilities. The number of qualified applicants exceeds the available number of student spaces. The needed enrollment increase in medical schools is impossible without more facilities.

More facilities are needed if we are to meet the goal of another 50,000 first-year places in nursing schools by 1975. Many of the Nation's 1,200 nursing schools are housed in inadequate or makeshift buildings.

Capital needs to 1975, including the current backlog, are estimated at \$3.6 billion for medical schools, \$900 million for dental schools, \$1.5 billion for nursing schools, and \$500 million for schools teaching the skills of other health professions.

Mr. Chairman, we have arranged for several officials of the Department of Health, Education, and Welfare to remain and serve as resource personnel during the remainder of this morning's hearing.

Chairman PATMAN. Mr. Cohen couldn't be here on account of illness. Part of his testimony was to relate to orders concerning a credit union reorganization plan. Credit unions are important financial institutions. You see, credit unions have deposits aggregating about \$11 billion, and they have loans aggregating \$10 billion, and these loans are for many worthwhile purposes. It is important that we interrogate Mr. Cohen about the credit union orders and about the supervision of credit unions, since they are regulated under his jurisdiction. Since he could not be here, Mr. Gannon, the director of the Bureau of Federal Credit Unions, has been asked to appear and we would like to query him now. We asked him to come up rather abruptly in view of the illness of Mr. Cohen. We will have Mr. Mackey step aside for the present and come back after we get through with Mr. Gannon. Would you like to do that?

Representative MOORHEAD. Yes, Mr. Chairman, because I would like to ask some questions of Mr. Mackey. I would like to hear your questions and the answers.

Chairman PATMAN. Would you like to do that, sir?

Representative MOORHEAD. Yes.

Chairman PATMAN. Come around, Mr. Gannon. Mr. Gannon, we are delighted to have you, sir. It is a convenience to the committee that you have come up in view of the fact that Mr. Cohen is ill this morning.

It is necessary that we ask you some questions about the credit unions because they are under your jurisdiction, in fact under direct jurisdiction, is that right, Mr. Gannon?

**STATEMENT OF J. DEANE GANNON, DIRECTOR, BUREAU OF
FEDERAL CREDIT UNIONS**

Mr. GANNON. That is right, Mr. Chairman.

Chairman PATMAN. In fact you have the overall responsibility for them under Mr. Cohen?

Mr. GANNON. That is right.

Chairman PATMAN. I have just seen your publication here. I thought it was a credit union publication but I notice you have been getting it out for some time. This is the October 1968 issue, you get them out once a month.

Mr. GANNON. Is that the Bulletin, Mr. Chairman?

Chairman PATMAN. Yes, sir.

Mr. GANNON. No, that comes out quarterly, Mr. Chairman.

Chairman PATMAN. Quarterly. It seems to be a very fine publication, judging from the one I have here, and gives some very fine information.

Is it gotten out through your auspices?

Mr. GANNON. Yes, indeed.

Chairman PATMAN. And how is it paid for?

Mr. GANNON. It is paid out of our funds which are, of course, made up of the fees paid by the Federal credit unions.

Chairman PATMAN. In other words, the credit unions pay for it?

Mr. GANNON. That is right, Mr. Chairman.

Chairman PATMAN. Are they consulted about what goes into the Bulletin?

Mr. GANNON. Well, they are not consulted individually, Mr. Chairman. Last year we invited credit unions to make suggestions on material they would like to see included in the Bulletin and we are guided by the suggestions we received.

Chairman PATMAN. I see.

The other day we received notice of an order that had been issued by Mr. Cohen and filed in the Federal Register, which, of course, makes it effective as a law at a specific time, moving some of the agencies of credit union; in other words, reducing the number of regions in the Nation from 9 to 6. In conversation with you I learn that the reason that this was done was because you received instructions from the White House that in view of the austerity program something should be done about reducing your budget as much as possible. Is that correct?

Mr. GANNON. That is right, Mr. Chairman.

Chairman PATMAN. Do you have a copy of that order or regulation?

Mr. GANNON. This was the general Government-wide directive from the administration. It didn't apply just to our Bureau, Mr. Chairman.

Chairman PATMAN. It didn't apply to your bureau?

Mr. GANNON. I say it did apply, but not specifically—or exclusively—I guess “exclusively” is the word I am trying to say. It was a Government-wide directive.

Chairman PATMAN. Why would it apply to the credit unions when they don't use Government money? It applies only to the Federal Budget, doesn't it?

Mr. GANNON. Yes, but our budget is part of the Federal Budget, Mr. Chairman.

Chairman PATMAN. I know, but the credit unions pay for your expenses, don't they?

Mr. GANNON. That is right.

Chairman PATMAN. They pay every dime of it.

Mr. GANNON. The revenue we receive is fees from the Federal credit unions, Mr. Chairman. As you know, we have had four adjustments in the salaries of Federal employees since 1965, as I recall, and there is another one pending in July of 1969. Now, in order for us to meet the costs of our program it is necessary for us to assess fees against the Federal credit unions.

Chairman PATMAN. Well, you have done that consistently, have you not?

Mr. GANNON. We have done that, sir.

Chairman PATMAN. The credit unions have always paid.

Mr. GANNON. They have always paid.

Chairman PATMAN. And the Federal Government has no chance of any loss in that, has it?

Mr. GANNON. No, sir.

Chairman PATMAN. No chance. Well, why would you be so concerned about the budget affecting the Federal credit unions when it doesn't affect the Federal Government?

Mr. GANNON. Well, sir, we feel a strong sense of responsibility for the prudent utilization of the fee income. We feel that we should be just as careful about the expenditure of fee revenue as we would be of appropriated funds—probably even more so, sir—because we realize that generally credit unions are relatively small organizations without a great deal of income, and their income is generally returned to the members in the form of dividends, so it is essential that they maintain their expenses at a minimum also.

Chairman PATMAN. You seldom ever hear of any loss by a credit union and it is very, very seldom that one ever is liquidated except where the project that it is serving is moving and they have to liquidate it to transfer it, isn't that right?

Mr. GANNON. That is true, Mr. Chairman. Of course, this doesn't involve loss but the fees that they would pay to us together with the other expenses that they must assume will have an effect upon their ability to pay dividends to their members.

Chairman PATMAN. Did you confer with any of the credit union people about that?

Mr. GANNON. We did not confer with the credit union people prior to the issuance of this order. I spent yesterday afternoon conferring with representatives of CUNA International which is the organization—

Chairman PATMAN. That was after the order was issued, wasn't it?

Mr. GANNON. That is right, Mr. Chairman.

Chairman PATMAN. And I asked Mr. Cohen—and I asked you to arrange it—for me to confer with him about this, and I got a reply from him that he had already made the order effective and that it would be useless or needless to confer, isn't that correct?

Mr. GANNON. That is right, Mr. Chairman.

Chairman PATMAN. So why would you be conferring with the credit unions after Mr. Cohen had said that it is all effective and that nothing can be done?

Mr. GANNON. Well, I did it for the purpose of explaining to them why we did it, Mr. Chairman, that we were trying to exercise some prudence in the light of the previous salary adjustments and in the light of the one that is pending, we just felt we must now give consideration to the fee income and the amount that we are saving here, Mr. Chairman, will reduce the amount of the increase in fees that we will have to make.

Chairman PATMAN. Don't you think that is a little far-fetched because you know you are going to get your money anyway?

Mr. GANNON. Well, we know we are going to get the money, Mr. Chairman, but I suppose that there could ultimately be a point at which credit unions would refuse to pay these fees if they became too high. I hope we never reach that stage.

Chairman PATMAN. Yes, sir. Out of all this change that you have made you told me it would be about a \$156,000 saving?

Mr. GANNON. That is right, Mr. Chairman.

Chairman PATMAN. That is in the whole reduction—

Mr. GANNON. On an annual basis.

Chairman PATMAN. On an annual basis. Who will save that, will the Federal Government save it or the credit unions?

Mr. GANNON. The credit unions will save that.

Chairman PATMAN. But you didn't consider the inconvenience it will be for the employees to be transferred to other areas and that will be rather expensive. Who will pay the transfer fees?

Mr. GANNON. Well, Mr. Chairman, the Bureau will pay it as is customary with the Government.

Chairman PATMAN. I know, but they will get that money from the credit unions.

Mr. GANNON. Actually, the number of people being transferred is a relatively small number.

Chairman PATMAN. In fact, the area where I am from there are about 11 people being transferred, or 13—something like that.

Mr. GANNON. In that particular area, sir, we have offered the same positions in the new location to all of our employees. They may elect to take their position or not. Since we are a part of the Social Security Administration, we are making every effort to place these people who elect not to move in another position so that they will not lose their positions. They may not be working for the Bureau of Federal Credit Unions but they will be employed and they probably will be employed by the Social Security Administration.

Chairman PATMAN. We can shorten this a good deal if you will answer my questions specifically. Any charges of employees having to move will ultimately be paid by the credit unions, that is correct, isn't it?

Mr. GANNON. That is right, sir. It will be paid from our fund which is made up of the fees we assess.

Chairman PATMAN. Yes.

In other words, you will get it from the credit unions, and you have never failed to get every penny from the credit unions that you asked them for?

Mr. GANNON. Right.

Chairman PATMAN. That is a pretty good record then, I think you would expect that kind of record in the future.

Mr. GANNON. I think we would, sir, except as I said if our fees become exorbitant than they might rebel.

Chairman PATMAN. That is right. You are not anticipating that, I hope.

Mr. GANNON. No. As I say we are very concerned about the amount of our expenditures so we will not burden the credit unions.

Chairman PATMAN. In November 1967 I wrote Mr. Cohen, asking him to comment on a bill that I had proposed that would give the Federal Credit Unions independent status. In other words, the commercial banks have their agencies like the Comptroller of the Currency, and the Federal Reserve System, and also the FDIC and the savings and loan associations have the Federal Home Loan Bank System. I discussed it with a lot of people, and the general opinion was that by reason of the importance of the Federal Credit Unions, we should have a separate agency for them. I wrote Mr. Cohen and asked him for comment on that, and I have not to this day received a reply. Have you been called upon to make a reply to it?

Mr. GANNON. Sir, inasmuch as this had to do with the reorganization of the Department, this was a matter for the Secretary and did not involve the Bureau.

Chairman PATMAN. Not a matter for the Bureau of Federal Credit Unions.

Mr. GANNON. That is right, Mr. Chairman.

Chairman PATMAN. But you don't know why no reply has been made to my letter?

Mr. GANNON. No, sir; I am sorry but I have no idea.

Chairman PATMAN. You have no way of knowing?

Mr. GANNON. No, sir.

Chairman PATMAN. How would you feel about an independent agency for the Federal Credit Unions? Don't you think they are big enough to kind of walk around on their own feet now?

Mr. GANNON. Well, I guess this is a matter of judgment, Mr. Chairman. I know that your views are that they should have this independent status.

Chairman PATMAN. Yes, sir.

Mr. GANNON. Certainly there are many things that can be said in its favor. I think we also would say, of course, that there are many things to be said in favor of the fact that we now operate within the Social Security Administration and while we are somewhat in the nature of a financial institution supervisor, we are also in the nature of a social institution because we do not regard our credit unions as being financial per se.

Chairman PATMAN. You mean they are not financial per se when it is their whole business of accepting savings? They are thrift institutions.

Mr. GANNON. But, as you well know, credit unions operate on a philosophy that is quite a bit different from other financial institutions.

Chairman PATMAN. So far as making loans, accepting savings and making loans of those savings they are the same; are they not?

Mr. GANNON. Yes, technically, sir, although as you know we now have Project Moneywise, which has been a very integral part of our effort to win the war on poverty. We have established credit unions for the poverty-stricken people and we are teaching them how to provide for their own economic security.

Chairman PATMAN. It is very fine. In fact I talked to Mr. Shriver about it.

Mr. GANNON. That is what I mean in the nature of a social institution rather than financial.

Chairman PATMAN. Well, commercial banks have social features too when they make loans to low-income groups; don't they?

Mr. GANNON. This is right. I don't mean to imply we have this exclusively, sir.

Chairman PATMAN. You don't put them under social security because they do that. It occurs to me that credit unions are very important as financial institutions, with \$11 billion in savings. I think the Government ought to give them an award for being so successful in inducing people to save their money. And \$10 billion of it has been invested in different things, making loans to people when they need it and need it quickly. They can get a loan in a few minutes time, and I think personally, and my honest opinion is, that next to the church, credit unions perform the greatest good to humanity and they do more for people at the lower level than all other financial institutions in the country.

Mr. GANNON. Mr. Chairman, we know so well your feelings about credit unions and our success has been in a good measure due to your efforts to provide us with the tools with which we could carry on. The credit union movement today is greatly indebted to you, Mr. Chairman. Without your assistance we probably would have faltered, and perhaps failed, years back.

Chairman PATMAN. Thank you for the compliment, but I just want to make sure that credit unions are consulted about these things. They pay the bill, and I think they ought to be consulted. Furthermore I am going to do my very best to get an independent agency bill through and I hope it doesn't receive your opposition because you know so much about credit unions.

What was your background before you became Director?

Mr. GANNON. I came from the Banking Department of the State of Wisconsin where I was supervisor of the credit union division for State-chartered credit unions in Wisconsin.

Chairman PATMAN. They were under the Banking Department of Wisconsin.

Mr. GANNON. They were within the Banking Department of Wisconsin and, as you know, Wisconsin was one of the pioneer States in credit unions.

Chairman PATMAN. I know it was. In fact, Wisconsin is the only State which has a law now that creates an agency and the agency has employees, they are paid by money furnished by the State of Wisconsin, whose sole duty is to organize more credit unions and help more people. You are acquainted with that law, aren't you?

Mr. GANNON. Yes, Mr. Chairman. Dr. Commons, who was well known at the University of Wisconsin, was responsible for having that provision put in the credit union law back in the 1930's.

Chairman PATMAN. Yes, sir, I remember that. Now, in view of the exercise of thrift by people who normally would not be induced to do anything about it I would say that it is a very good law that Wisconsin has; would you agree?

Mr. GANNON. Yes, sir; I think it is a good law. Maybe I am not entirely objective, having been associated with it, but the credit union movement in Wisconsin, I think, has been a successful movement and has done the job that it was intended to do and I think would have made Dr. Commons happy, too.

Chairman PATMAN. Yes, sir.

Did any of the credit unions complain to you when they found out about this order; or to the Secretary?

Mr. GANNON. No, sir; to this date now—I haven't received my mail yet this morning—I have not received any complaints from Federal Credit Unions.

Chairman PATMAN. You better go back and look at your mail.

Mr. GANNON. I will.

Chairman PATMAN. Because I have got copies of your order.

Mr. GANNON. I do want you to know, Mr. Chairman—I would be glad to leave this for the record—we sent a letter to every Federal Credit Union in the United States so they are thoroughly aware of what we have done and why we did it. It is not our intention to keep this a secret, sir.

Chairman PATMAN. Do you have a copy of that letter that we may have?

Mr. GANNON. Yes, sir; I will be very happy to leave it with you.

Chairman PATMAN. Yes, sir.

(The letter referred to, follows:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
BUREAU OF FEDERAL CREDIT UNIONS,
Washington, D.C. November 1968.

*To the Board of Directors of Federal Credit Unions in the Following Regions:
New York, Charlottesville, Kansas City, Dallas:*

The Secretary of Health, Education and Welfare has approved a plan for the reorganization of the Bureau of Federal Credit Unions' regional offices. The action will reduce costs substantially and will improve administration of the Federal Credit Union Program, but it will not adversely affect the present level of service which BFCU provides Federal credit unions.

Under the reorganization plan, three BFCU regions—New York, Charlottesville, and Kansas City—are being consolidated with the existing regional offices in Boston, Harrisburg, and Dallas. *As a part of the reorganization, the Dallas office will be relocated in Austin, Texas.*

The present regional offices in New York, Charlottesville, and Kansas City are being abolished. Nevertheless, officials of Federal credit unions which will have new regional offices should continue to send correspondence to the former offices until you are notified that the reorganization has been effected. The new offices should be operational some time in January.

The number and location of field examiners is unaffected by the reorganization, so the enlarged regional boundaries for the six regions will have little influence upon the services currently available to Federal credit unions. On the other hand, the cost reductions and administrative improvements made possible by the reorganization will be particularly important to Federal credit unions, since they furnish the BFCU's sole source of income.

An important administrative improvement resulting from the new alignment will be the more uniform distribution of Federal credit unions among the re-

gional offices. The new supervisory workloads will permit a greater standardization in staffing patterns and work assignments, with consequent improvement in program efficiency.

Attached to this letter is a list showing the six BFCU regional offices, the States and territories in their areas, and the number of Federal credit unions under their supervision. Informational copies of the letter and attachment are being sent to Federal credit unions in the regions unaffected by the reorganization—Boston, Atlanta, Harrisburg, Chicago, and San Francisco.

Sincerely yours,

J. DEANE GANNON, *Director*.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, BUREAU OF FEDERAL CREDIT UNIONS, REGIONAL OFFICES

Regions	States	Number of FCU's
Boston.....	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Delaware.	2,589
Harrisburg.....	Pennsylvania, Maryland, District of Columbia, Virginia, West Virginia, Puerto Rico, Virgin Islands, and Kentucky.	2,168
Atlanta.....	North Carolina, South Carolina, Georgia, Alabama, Mississippi, Tennessee, Florida, and Canal Zone.	1,358
Chicago.....	Ohio, Indiana, Illinois, Michigan, and Wisconsin.....	1,971
Austin.....	Iowa, Missouri, Kansas, Nebraska, Minnesota, North Dakota, South Dakota, Colorado, Utah, Wyoming, Montana, Idaho, Arkansas, Louisiana, Texas, Oklahoma, and New Mexico.	2,499
San Francisco.....	Arizona, Nevada, California, Oregon, Washington, Alaska, Hawaii, and Guam.....	2,016

Chairman PATMAN. Now, then, did anybody from any of the credit unions complain about the setup, that there were changes that were needed, that prompted you to make the change or did you do it on your own initiative?

Mr. GANNON. This act was undertaken on our own initiative.

Chairman PATMAN. On your own initiative. You did not do it by reason of any complaint from credit unions?

Mr. GANNON. No, sir.

Chairman PATMAN. In other words, you didn't have a single complaint?

Mr. GANNON. No, sir.

Chairman PATMAN. Not a single complaint?

Mr. GANNON. No, sir.

Chairman PATMAN. I notice you have dated this letter to the credit unions, November 1968.

Mr. GANNON. Yes, sir.

Chairman PATMAN. Do you know the exact date of that? It doesn't have it on here.

Mr. GANNON. This letter was mailed on Wednesday of last week, Mr. Chairman.

Chairman PATMAN. What date would that be, November 27?

Mr. GANNON. I might just say the reason there isn't a specific date on it is that we are not always sure when the printing press is going to be able to turn it out so that a specific date was not inserted, but it was mailed on the day before Thanksgiving so that some credit unions—now, I recall even more specifically, sir, it was mailed on Tuesday night so some of the credit unions would have received it on Wednesday.

Chairman PATMAN. That was the 26th.

Mr. GANNON. Those on the west coast probably didn't receive it until Friday because of the holiday.

Chairman PATMAN. Now, I judge from what you have stated here before this subcommittee that no one has consulted you about this bill that I sent to the Secretary of Health, Education, and Welfare about an independent agency. You have not been consulted about it?

Mr. GANNON. No, sir.

Chairman PATMAN. And none of the higher-ups have talked to you about it at all?

Mr. GANNON. There has been talk about it, Mr. Chairman, of course.

Chairman PATMAN. But they didn't talk to you about what you should do about it or how you stood on it?

Mr. GANNON. No, sir.

Chairman PATMAN. Mr. Moorhead, would you like to ask any questions?

Representative MOORHEAD. No, Mr. Chairman, I yield my time to you, sir.

Chairman PATMAN. I appreciate your confidence. I just have a feeling that it is shocking for a Federal agency that is charged with the duty of making sure that an institution like the Federal Credit Unions are administered properly, to take over the management and control to the extent, that the real beneficiaries of it, the 19½ million credit union members, are not even conferred with nor even consulted. It is shocking to me, that things like that would occur.

Therefore, it appears to me that we should make a strong effort to get a bill for an independent agency enacted at the next session of Congress as quickly as possible. I don't charge you with any bad faith, Mr. Gannon, and generally, I think, your administration of the act has been all right. I don't know of any evidences of wrongdoing. I feel like you have honestly tried to administer the act in a fair way. But this is going too far, in my book, to just take over the credit unions and say, "Well now, we are going to change the regional lines, we are going to change the regional office, we are going to move people around just because there is an order expressed or implied from the White House that we are facing an austerity program and we have got to make reductions." This order applies only to Federal budgets. It doesn't apply to Federal Credit Union dollars. It doesn't apply to non-tax money. Every bit of this is paid by the Federal Credit Unions themselves.

So, I feel I must personally express disappointment to you, Mr. Gannon, and I hope that more consideration is given in the future to the wishes of the people who are really affected and pay the money.

Mr. GANNON. Well, I certainly appreciate your comments, sir.

I would just like to make this one statement, and I thought I had made this point to you the other day when we were talking about it. Actually, the relationship between the credit unions and our examiners is wholly unchanged in this proposal. Our examiners are not being moved at all. We have, I think, in the neighborhood of 400 examiners who are stationed out in the field, and each one has a specific headquarters and a district, and they average around 40 to 50 credit unions, for example.

Chairman PATMAN. Well, offhand that would seem—this other would seem—so unimportant.

Mr. GANNON. Well, sir, this is my point, you see, that the examiner has contact with these credit unions, he is right there where they are, and they know him and he knows them, so that—

Chairman PATMAN. You say "examiners," do you mean auditors, too?

Mr. GANNON. Well, we call them examiners, Mr. Chairman.

Chairman PATMAN. Do they audit?

Mr. GANNON. They examine these credit unions and call on them and consult with them.

Chairman PATMAN. I know the banks do that too, but they do that by just calling the officials in and just talking to them.

Mr. GANNON. That is right. They are the direct contact from the Bureau.

Chairman PATMAN. Do they have any audits?

Mr. GANNON. Yes, they have audits.

Chairman PATMAN. Are they audited a certain number of times each year or one time each year?

Mr. GANNON. Remember, we just changed the law now to reduce the number of audits from quarterly to semiannually.

Chairman PATMAN. That is right.

But they are audits. The banks say they are examinations, but I mean they are not audits.

Mr. GANNON. The audits are made by the supervisory committees or CPA's. Our examination is a supervisory examination and we call them examinations too, and this is what our examiners do. They examine the credit unions and at the conclusion of each examination they have a meeting with the officials. They sit down and discuss with the officials their findings and they make recommendations to them and criticize, if necessary, any practices that might be detrimental to the credit unions.

Chairman PATMAN. But you do have an audit at least once a year of each credit union?

Mr. GANNON. That is an internal audit, Mr. Chairman. We have an examination by the Bureau which is what I am talking about.

Chairman PATMAN. Then do you have the audit by some outsider?

Mr. GANNON. It may be by an outsider or it may be by their own supervisory committee.

Chairman PATMAN. They pay for it and they have the audit made and submit it to you, is that right?

Mr. GANNON. They submit a report to us.

Chairman PATMAN. Well, don't they submit their audit?

Mr. GANNON. An audit report, sir. You are talking about the outside audits?

Chairman PATMAN. Yes.

They submit their audit to you?

Mr. GANNON. Yes, an audit report.

Chairman PATMAN. And, of course the auditor must be a reputable person, a CPA, or you won't accept it?

Mr. GANNON. Well, the small credit unions, as you know, can't afford a CPA audit so they have their own supervisory committees which are made up of members of their own organization.

Chairman PATMAN. Well, I sincerely hope, Mr. Gannon, that you will persuade Mr. Cohen to reevaluate his views on this matter and give the credit unions an opportunity to be heard on it, and I think that if he doesn't it will be a great disappointment to many of the 19½ million members in this country.

I think it is a great tribute to the credit union organization that they can in a few years be so successful in reaching down to the people—to the grass roots—and inducing them to save their money and doing it for their own benefit. I think it is a great tribute to them.

You know Senator Morris Sheppard of Texas was the one who got me interested in the Federal Credit Union Act. He lived in my hometown, and we lived as neighbors there. I thought the act was a wonderful thing, and when I came to Congress in 1929, the Senator introduced a bill in the Senate. I commenced helping him in the House on it. I feel very proud of it because I was the only Member of the House of the Congress, who testified before the House committee in favor of credit unions. We called them "baby banks" then. We contemplated inaugurating a baby bank system over the Nation to encourage thrift, and I thought it was a pretty good name but somehow or another the baby bank part has lost out along the way especially when credit unions get up to pretty good size, you know. But I am really proud of it, and it is a great tribute to the memory of Senator Sheppard and the people who did so much to inaugurate the credit unions. I feel so proud of it because it has been so helpful to the people, and I feel that the Federal Government should have a law like the State of Wisconsin has, to encourage the people to organize credit unions.

I would like to see them in all the schools. It would be a good means for economic education if they would have a credit union in every school. Sometimes each grade would support one or at least each school. It would be a wonderful springboard for economic education. There are a lot of graduates of high school and college now who don't have any sense or knowledge about money. Some don't even know how to make a bank deposit. They don't know how to seek a loan if one is needed. They don't even know where to go or how to confer with people. But in school if they had something to do with accepting money for thrift purposes or making loans to people who are qualified, they would get a wonderful financial education. Anybody can join a credit union who has got a quarter—25 cents. And then they have to deposit \$5 as an evidence of good faith, but they get interest on that \$5 so there is nothing to lose. Credit unions are a wonderful thing. And you know, credit union members are sometimes able to save from \$200 to \$500 on financing a new automobile compared to what they would have to pay on prevailing commercial rates in that particular area. It represents a tremendous savings to people who perhaps very much need it.

Mr. GANNON. Of course, Mr. Chairman, one reason why credit unions can do this is because they operate at a very low expense ratio.

Chairman PATMAN. Yes. Many members of credit unions volunteer their services as group collectors, and so forth. You might call it sort of a labor of love. This helps keep expenses down, doesn't it?

Mr. GANNON. That is right.

Chairman PATMAN. And the neighbors help the neighbors.

Mr. GANNON. That is right.

Chairman PATMAN. It is a wonderful thing and they have got about 19½ million people in it, it is bound to be mighty good.

Would you like to ask some questions, Mr. Moorhead?

Representative MOORHEAD. No, Mr. Chairman, other than to agree with you that the reason for the credit unions being located in the Social Security Administration escapes me.

Chairman PATMAN. We will ask the other witness then to come around.

Thank you, Mr. Gannon.

Mr. GANNON. Thank you, Mr. Chairman.

Chairman PATMAN. Mr. Mackey, you are recognized.

Mr. MACKEY. Yes, sir.

Chairman PATMAN. Mr. Mackey, you are Assistant Secretary for Policy Development, Department of Transportation, is that correct?

STATEMENT OF M. CECIL MACKEY, ASSISTANT SECRETARY FOR POLICY DEVELOPMENT, DEPARTMENT OF TRANSPORTATION, ACCOMPANIED BY RICHARD J. BARBER, DEPUTY ASSISTANT SECRETARY FOR POLICY, DEPARTMENT OF TRANSPORTATION

Mr. MACKEY. Yes, sir.

Chairman PATMAN. Do you have a prepared statement, Mr. Mackey?

Mr. MACKEY. Yes, sir, I have. I have given copies of the statement to the committee staff. I think they should be available.

Chairman PATMAN. All right.

You may proceed in your own way, sir.

Mr. MACKEY. Mr. Chairman, with me this morning is Mr. Richard J. Barber, Deputy Assistant Secretary for Policy Development in our Department. I think he is known to you and this subcommittee. He was formerly on the staff of this committee. We appreciate the training he got here for the work we have.

Chairman PATMAN. Yes, sir, I remember very well.

Mr. MACKEY. Impressive as the recent growth of the American economy has been, its continued economic expansion necessitates careful investment planning that fully anticipates our Nation's long-term needs. Today the gross national product of the United States is close to the \$900 billion mark. Nearly 79 million people are employed, 7 million more than only 5 years ago. With civilian unemployment in October at a seasonally adjusted annual rate of 3.6 percent—lower, on an annual basis, than it has been at any time since 1953—we have been able to put our valuable human resources to reasonably effective use. True, we have our problems—and it is needless for me to attempt to add to this committee's knowledge of them or to underscore their importance—but on the whole just about everyone would agree that the performance of the U.S. economy in the 1960's has been remarkable. One reason for this success is that our infrastructure has been adequate to the burdens placed upon it.

To sustain our growth in the decade ahead, however, will demand even larger capital outlays—private and public, State and local as well as Federal—than have been made in recent years. Between now and 1975 the population of the United States will increase by 20 to 25 million. In that target year, now barely half a decade away, the GNP (in then-current dollars) will no doubt exceed \$1.3 trillion. The civilian

labor force, which now numbers 79 million, will have increased to close to 90 million. A growing proportion of these workers, and of the total population, will live in urban areas. Indeed, by 1980 it is likely that there will be a third more metropolitan areas with at least 1 million people than there are now.

To sustain this growing, highly urbanized population and work force and to maintain the conditions for rapid economic expansion will call for increased investment in virtually every sector of the economy. To say that, though, is not enough. To meet the growing needs of the Nation requires careful, highly refined projections of future demands. This Subcommittee on Economic Progress recognized this when it began its study of State and local public facility needs and financing in 1966. The value of this continuing study, and of the two volumes of data and analysis which have been published, is of the greatest practical importance. The information published to date, and the further material that will be made available in the current hearings, will help lay the foundation for the farsighted planning that is absolutely essential to continued, balanced economic growth.

Today, I would like to focus most of my attention on planning for transportation. Transportation with all its components taken into account makes up about one-fifth of our gross national product. That tells a great deal about its importance—but its essentiality to economic growth and to the satisfaction of human needs for mobility have even greater, if more subtle implications. No area of public commitment pulls together, in such a complicated way, the public and private sectors and the many levels of government. It is this intricate institutional setting which makes long-term forecasts of transportation expenditures so extremely difficult. That is why I intend to concentrate my attention on the major policy issues involving transportation rather than upon specific forecasts of public facility needs themselves.

Considered in general terms, the forecasts of public facility transportation needs published by the committee in 1966 appear to fall reasonably in line with past trends and with the anticipated real growth of the economy, and in the table which follows my statement I have summarized principal transportation projections. From 1965 to 1975 total capital outlays for transportation facilities, it is estimated, will just about double, rising from something over \$9 billion to something around \$19 billion. At the same time the GNP, expressed in current dollars, is expected to increase from \$684 billion in 1965 to about \$1.3 trillion in 1975. That is an increase of about 90 percent. If allowance were made for certain differences in statistical assumptions, the two forecasts—one of GNP, the other of transportation facility needs—would fall almost exactly in line with one another.

While the close fit between the committee's projection of facility requirements in 1975 and likely economic growth contains no surprises, it should not be allowed to obscure the significance of the assumptions one makes about the goals that are to be achieved. In Leonard Lecht's 1965 study for the National Planning Association it was forecast that to provide a far better transportation system than we now have—and this was defined in general terms, as one that would take full advantage of various technological advances—1975 transportation expenditures would have to exceed \$28 billion, compared with the earlier forecasts I mentioned of \$19 billion. Similarly the study

done for the Council of State Governments in 1966 forecast that in 1970 transportation facilities would call for spending of more than \$18 billion. That figure compares with an estimate of less than \$15 billion contained in volume I of the committee's study.

In citing for comparison the National Planning Association study and the forecasts developed for the Council of State Governments, my primary purpose is to emphasize how important it is to agree upon objectives in estimating future transportation investment. The NPA projection established goals to which we might "aspire"; to meet those goals would call for spending in 1975 at a level nearly \$10 billion more than this committee's study has forecast. The difference is explained by the kind of transportation system which is assumed to exist for 1975. Until we can define our objectives and reach a consensus on them, we cannot expect to have any high degree of conformity in forecasts. And reaching that agreement is far more a reflection of the political process—State and local as well as Federal—than it is of the prognostic skills of professional economists. Agreement on goals—"what kind of transportation system do we want?"—is obviously essential to the formulation of overall future transport spending requirements for the future.

The articulation of goals in transportation is closely interconnected with the role of comprehensive transportation planning. To put it differently, even if there is agreement on objectives, sensible decisions about investment can only be made after a rigorous comparison of the alternative ways to satisfy those ends. In this respect, it is the firm conviction of the Department of Transportation that the country's transportation needs can best be met only by looking at the transportation system as a whole. In the past this has not been the way we have viewed our problems. The "needs," and I use that term in quotes because it has a particular meaning to transportation planners, the needs of each particular transport sector have been looked at in virtual isolation, with little or no effort to make comparisons and to channel investment on the basis of where it could provide the greatest return.

In creating the Department of Transportation, Congress assigned to the Secretary of Transportation the job of facilitating coordination in the various national transportation programs. In attempting to fulfill this statutory assignment we, in the last few months since our creation, have initiated a number of projects which are designed to provide information about the relative effectiveness of different types of transportation to serve the needs of passenger travel and the movement of goods. This work is now at a very preliminary stage but ultimately it should yield considerably more insights into the kind of mix of ingredients to serve national transportation requirements. In the course of this work we anticipate having to make recommendations concerning a number of major policy choices that will inevitably affect future investment in particular types of transport facilities.

To focus more pointedly on these issues, let me turn to a few specific cases. First of all, urban transportation. With more than 70 percent of our population now living in urban areas, it is reasonable to expect that the great bulk of future spending will be for transportation to serve the cities. Here the journey to work seems to represent the

biggest problem and the greatest challenge. Whether our cities needs can better be met through additional highways or mass transit is a question that will continue to be vigorously debated, but the answer is now shaped as much by financial inconsistencies as it is by the merits of the various transportation alternatives. Under existing arrangements, statutes, the States receive grants in aid ranging up to 90 percent of the cost of construction of highways in urban areas. Because of the character of the highway trust fund and the earmarking of user taxes, there is both reliability and continuity of the money available for road construction. The same cannot be said, however, for mass transit.

With the mass transit program currently funded at a level of less than \$200 million per year, about one-fifteenth of annual Federal grants for urban highway construction), the Federal Government does not provide local communities with a level of support comparable to that available for highway construction, and choices by local planners are correspondingly limited. As a result, many of the mass transit projects which cities have wished to undertake (one list is provided on p. 307 of vol. 1 of the committee's study) have either been postponed or terminated. In our view, unless the Federal mass transit program is funded more adequately, it is likely that mass transit will be severely inhibited, even though cities may feel that it better meets their local transport and other needs than additional highway construction. As a consequence, the volume I projection of mass transit related expenditures could be higher than will actually materialize. Conversely, it could also mean that local units of government will have to absorb an even larger share of the financial burden that has been expected.

Let me turn to another area: air transportation. Here the need for additional investment is quite clear. The rulemaking proceeding which was announced in the papers this morning is a temporary expedient. It is necessary to help solve the air congestion problem but it certainly does not eliminate the need for additional investment. By 1974 we estimate that the revenue passenger-miles flown by the airlines will rise to 200 billion—more than double the 1967 level. Over that 7-year period the air carrier fleet will increase from 2,300 aircraft today to more than 3,300. And to give you a little better indication of what that means by the mid-1970's we expect approximately a million people a day to be boarding commercial airlines. Meanwhile, the general aviation aircraft fleet, private aircraft, will increase from 105,000 in 1967 to 160,000 by 1974. These projections assume a substantial increase in the capacity of the federally operated airways system and additional airport capacity to meet the growing demands. Currently, our best estimate of publicly-owned airport development requirements, including terminals, is about \$4 billion for the period fiscal year 1969 through fiscal year 1973. Actually there are 10,000 more airports in the country. I am focusing here on about 2,500 that are publicly owned.

The fact that the Nation will need additional airports and airways capacity does not, however, give us any indication of who should pay for this or in what way. The principle of recovery of airways costs through user charges is generally accepted by most, but not all, users of the airways. On the airport side some people think that the Federal Government should make available a great deal of the money through outright grants for airports; others propose elaborate Federal loan arrangements. By contrast, our review of the situation persuades us

that those who use air transportation, whether in operation of their own aircraft or as passengers or shippers of cargo, can and should pay for both airways and the airport development costs which will be required to meet their demands. This judgment was reflected in the administration's airport-airways program submitted to the Congress earlier this year. Shifting the burden of providing facilities for air transportation from the general taxpayer to the user will help ease this large financial problem and also help assure more efficient investment in air transport facilities. This, too, may significantly affect total as well as State-local airport facility capital projections for the 1970's.

My comments about the uncertainties pertaining to urban highway construction, mass transit, and air transportation and about the importance of more clearly defining our transportation goals should not cloud the fact that between now and 1975 there simply must be substantial increases in the investment for public transportation facilities. Nonetheless, while increased transportation outlays are both necessary and inevitable, their level, timing, character of these expenditures, and the method of financing them represent vital choices that can and should be made in a far more discriminating fashion than has been the case in the past. The key to this is good analysis and careful planning coupled with the freedom to make investments where they will be the most productive and contribute most effectively to meeting our transportation requirements. Comprehensive transport planning is only now getting underway. For years all levels of government have relied on unrefined statements of "need" as a substitute for good economic analysis. In the future the competition for the public dollar is going to become a great deal more intense and it will be imperative that we make better use of our transportation investment than we have up to now. To do that will demand, not just better planning, but also the creation of a financial climate that will enable the States and the cities to invest in those transportation facilities that they deem most likely to solve their transportation problems. To bring this about will call for many changes in existing policy, particularly with respect to the restrictions and conditions which the Federal Government presently places upon the grants it makes to the States and cities.

Better planning and a less restrictive financial environment are the essential preconditions to more efficient investment in public transportation facilities. If those conditions are to be satisfied, however, Federal, State, and local government, along with private transportation organizations, will have to work very closely together in planning for the Nation's transportation facility requirements.

(Table follows:)

	1975 PROJECTIONS							
	[In millions of dollars]							
	Actual 1965 total	Projected 1975 spending						
		Total	Highways	Toll bridges, etc.	Offstreet parking	Urban mass transit	Air- ports	Marine ports
JEC: Total capital outlays (all spending units).....	18,643	18,980	15,830	500	1,000	1,370	630	150
JEC: State and local public facility capital outlays.....	8,934	17,670	15,830	500	300	960	530	50
Lecht NPA "aspiration" projection		28,200						
GNP.....	684,000	1,300,000						

¹ Actual 1965 figures for offstreet parking facilities and urban mass transit facilities unavailable.

Chairman PATMAN. Thank you very much, Mr. Mackey. Members desiring to do so will submit questions to you and which you may answer when you look over your transcript of this testimony. You would be willing to do that I assume?

Mr. MACKEY. Certainly.

Chairman PATMAN. I have some questions myself that I would like to submit to you now. Mr. Moorhead, would you like to submit some later or now?

Representative MOORHEAD. I have been prepared. But are we going to have a chance to interrogate the witness now?

Chairman PATMAN. All right, sir, you may submit to questions from Mr. Moorhead, if you will, please.

Representative MOORHEAD. Mr. Mackey, I appreciate your testimony and particularly the emphasis which you gave to the importance of mass transportation or hopefully rapid transportation within cities, I think you point out very clearly that we have stacked the deck in favor of highways as opposed to public transportation, not only in the dollar amount of Federal assistance, which is 15 times that for mass transit, but also in assuredness of the money actually being forthcoming.

Do you have any suggestions as to how we could reduce that balance in favor of mass transportation?

Mr. MACKEY. The Department does not have a proposal at this time, Mr. Moorhead. I think we may very well have a proposal in a relatively short time. We have been hard at work in examining some of the alternative ways to financing transit needs and trying to get a better determination of the level of transport needs and I think there probably will be some proposals evolved.

Representative MOORHEAD. In the future do you expect to have federally assisted highways within city borders, and what particular problems in costs, in dollars, in problems of engineering and in problems of human suffering do these highways within city borders create?

Mr. MACKEY. I think that we will need more highways within urban areas. I think the highways which we will build will be considerably more expensive because they will be designed and located in such a way as to minimize the economic and sociological and the esthetic impact. There are a number of examples of what has been done since the Department of Transportation was created—perhaps most important has been the establishment of design concept teams to try to determine how highways can better be fitted into the environment. But given the desire of people for personal mobility, their continuing love affair with the automobile, and their tendency to live in the urban areas, I think we will have to build more highways but obviously different types of highways than we have in the past.

Representative MOORHEAD. Different types of highways?

Mr. MACKEY. Yes; sir.

I think the standards to which they will be built will be different. They will be more designed to minimize problems of pollution, problems of noise. They will be designed to fit into the landscape, they will be designed and built in a way which doesn't destroy neighborhoods, or break up the sociological patterns of the cities.

Representative MOORHEAD. I know there is one highway in our area that is definitely breaking up the neighborhood patterns. This is the

East Street expressway, with which you may be familiar, on the north side of Pittsburgh. Mr. Mackey, the way to get this before us is clear from your testimony—you refer to capital outlays for transportation facilities going up from \$9 billion to \$19 billion. Do you have a breakdown by percentages anyway as to what percentage for highways, maybe even that subdivided for urban highways and outside of urban areas, and then, second, how much for aviation expenditures, how much for mass transportation, how much for the various categories of transportation. Is that broken down? Instead of answering it now, perhaps you would submit your answer for the record.

Mr. MACKEY. I think that would be easier. I can give you sort of a rough estimate of what it is today. The Department of Transportation's budget is about \$61½ billion. The Federal aid to highway program is running at a level of about \$41½ billion annually. Our airways expenditures run more than \$800 million a year. The Federal aid to airports program is funded at a level of about \$30 million a year. Our transit program is funded at about \$170 million a year for grants, demonstrations, and research. The Coast Guard which performs services essentially like the Federal Aviation Agency has a total budget of around \$550 million a year. There are a number of other Federal programs, and in the other miscellaneous projects—when I say miscellaneous I don't mean to minimize them—the Corps of Engineers is not a part of the program, they spend about \$300 million a year for new construction and as much as \$150 million a year for maintenance of waterway projects, and there are \$50 or \$60 million in subsidies to local service airlines, so that there is a great variety. The total Federal expenditures for public transportation facilities will add up to possibly \$8 to \$9 billion. But we will provide you with a more detailed breakdown. (See app. II, p. 109.)

Representative MOORHEAD. I am glad you mentioned the National Planning Association's budget with which they would aspire for a really first class transportation system—I would also like to know how the ideal would be broken down as compared to the—

Mr. MACKEY. Unfortunately NPA did not break that down as much as you would like. They said, "This is what we think would be required for a much better system," but they were not able to define the improved system for 1975 as much as you would like, and we are now at work trying to use their numbers, to work with them to try to get a better qualitative and quantitative assessment of future assistance but we will give you the best information we have.

Representative MOORHEAD. Mr. Mackey, I said that I commended your statement particularly with respect to the to and from work transportation in city areas. There are two other areas that you didn't touch upon and I hope that is just because you wanted to keep your statement brief. One is the interurban rapid surface transportation—I am thinking particularly of the northeast corridor, although I think it is going to be the way of the future.

Mr. MACKEY. My personal opinion is that some type of high speed surface transportation with a short and intermediate range intercity travel is simply essential. Aviation technology is probably not going to progress rapidly enough for it to take such a major burden, and there won't be enough money or enough room to build all the lines

of highways you might build to accommodate the traffic moving between some of these urbanized areas. So exactly what form it will take is not entirely clear, but some form of very high speed mass movement on the surface, whether it is tracked or cushioned vehicles or high speed trains it is just essential to move the people and cargo.

Representative MOORHEAD. The second area of my interest, and I hope the department's also, is the movement from airports to downtown cities or from airport to airport. I think that one of the solutions to airport congestion is going to be able to use airports, particularly in the Washington area of the Dulles airport, and also the interchanges of transportation getting from Kennedy Airport to La Guardia or Newark. I think that this again, in the field of rapid transportation, is very, very important.

Mr. MACKEY. I think there is no question, sir, that the problem of airport access is a very difficult one and certainly it is one of the bottlenecks of air transportation now. But in virtually all of the urban areas I believe it will be impossible to solve the airport access problem outside of the context of a more general solution on the urban areas' internal transportation system, and Dulles is a good example. It will be comparatively easy to get a high-speed train link to Dulles once we have got the basic District of Columbia subway system in effect. It will go out in that direction and adding a line out to Dulles from Rosslyn or from farther out will be an easier job than trying to start with no system at all, and I think this will be true in most cities.

The high-speed links for the airports will probably have to be a part of a broader solution and if we have transit systems of some type in more cities they should certainly be designed to include airport access. The new system in Cleveland, I think, is a good example of how this can be done.

Representative MOORHEAD. This is exactly what I meant. Mr. Chairman, I think if it would be appropriate, I have here an editorial from the Washington Post of November 21, commenting on the opening of the rapid transit line to the airport in Cleveland and suggesting very strongly that a similar link be made in Washington to the Dulles Airport. I would like to insert it in the record.

Chairman PATMAN. It will be helpful. It may be inserted.

(Editorial submitted by Representative Moorhead follows:)

[From the Washington Post, Nov. 21, 1968]

RAPID TRANSIT TO DULLES

The first rapid transit system in North America between a central city and its principal airport opened this week in Cleveland and that fact alone ought to stimulate thinking in Washington about a similar system to Dulles Airport. But when that is coupled with two events which should be forthcoming here within the next year or so—groundbreaking for the subway and a decision on the future of National Airport—the need for a full reappraisal of a rapid transit link to Dulles becomes imperative.

It seems clear from the recent recommendations made to the Federal Aviation Administration that unless Dulles soon becomes this city's principal airport major changes must be made at National. It cannot cope with either the traffic or the passengers that the future will bring it if things continue as they now are. A decision to rebuild National along any of the lines suggested to the FAA, however, will mean that the investment in it will be so large that it will have to continue as a major airport indefinitely. And that means acceptance by the city and its neighbors along the river of more noise, more dirt, and more wondering

about when one of those giants of the air is going to plunge into an apartment house.

Yet, it now appears that for less than the cost of even the cheapest proposal put to the FAA a high-speed transit link can be built from Dulles into the city if it is tied in with the construction of the subway. An eventual expansion of the subway to near Dulles is on the planner's worksheets for sometime in the indefinite future. That, however, will not really meet the needs of the airport since it will have stops along the way. What is needed is a nonstop or, perhaps, one-stop trains to whisk passengers from Dulles to a terminal located either in Rosslyn or downtown Washington. Given the sophisticated switching system that will be used on the subway, it would seem that at least part of this run could be made on the subway tracks if it is worked into the subway plans now.

Since the subway system is now awaiting a go-ahead from Congress and since that go-ahead has been tied to a resolution by the Johnson Administration of the District's freeway problem, it would be appropriate, in its closing days, for this Administration to take a look at rapid transit to Dulles. A recommendation to the Nixon Administration that the funds which must be spent on preparing the Nation's Capital for future air traffic ought to go toward making Dulles, not National, the key airport would be a legacy of which any Administration—and this city—could be proud.

Representative MOORHEAD. I have no further questions, Mr. Chairman.

Chairman PATMAN. Thank you very much, sir, for your attendance. We will submit additional questions for you to answer for the record.

Mr. MACKEY. Thank you, Mr. Chairman, for the opportunity to testify, and we will be happy to respond to your questions. (See app. II, p. 109.)

Chairman PATMAN. Tomorrow morning we have two other witnesses. We have Robert C. Wood, Under Secretary of the Department of Housing and Urban Development at 10 o'clock; and then we have Mr. Stewart Udall, Secretary of the Interior, at 11, so we will stand at recess until tomorrow morning at 10 o'clock in this room.

(Whereupon, at 11:10, the hearing was recessed to reconvene Wednesday, December 4, 1968, at 10 a.m.)

Dear Sir,

I have the honor to acknowledge the receipt of your letter of the 14th inst. in relation to the proposed extension of the term of office of the members of the Board of Directors of the National Bank of Commerce, and in reply to inform you that the same has been referred to the Board of Directors for their consideration. The Board of Directors has the honor to advise you that they have decided to extend the term of office of the members of the Board of Directors for a period of two years, commencing on the 1st day of January, 1908, and terminating on the 31st day of December, 1909. This extension of the term of office of the members of the Board of Directors is subject to the approval of the stockholders of the National Bank of Commerce at their annual meeting to be held on the 1st day of January, 1908. I am, Sir, very respectfully,
Yours truly,
Wm. H. Wood, President.

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PUBLIC FACILITY REQUIREMENTS OVER THE NEXT DECADE

WEDNESDAY, DECEMBER 4, 1968

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMIC PROGRESS
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The Subcommittee on Economic Progress met, pursuant to recess, at 10 a.m., in room 2128, Rayburn House Office Building, Hon. Wright Patman (chairman of the subcommittee) presiding.

Present: Representatives Patman and Moorhead; and Senator Proxmire.

Also present: John R. Stark, executive director; Arnold H. Diamond, consulting economist; and Douglas C. Frechtling, minority economist.

Chairman PATMAN. The subcommittee will please come to order.

Today we resume our hearings on requirements for public facilities. Our first witness will be Prof. Robert Wood, Under Secretary of Housing and Urban Development.

Professor Wood, you may proceed in your own way, sir.

STATEMENT OF ROBERT C. WOOD, UNDER SECRETARY, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, ACCOMPANIED BY HENRY B. SCHECHTER, DIRECTOR, OFFICE OF ECONOMIC AND MARKET ANALYSIS

Mr. Wood. Thank you, Mr. Chairman and members of the subcommittee.

I appreciate the opportunity to present to this committee, which has done so much to identify our national public facilities' needs—the views of the Department of Housing and Urban Development.

The brief interlude between now and January 20—a period which my colleagues in the permanent civil service kindly refer to as the indian summer of this presidential administration—permits those of us who have served this administration to view with perhaps unaccustomed objectivity the many problems the Nation must deal with in the years ahead. Identifying the public facility needs that have to be met if our cities are to be fit places in which to live, planning their location and size, and providing for the capital and manpower resources necessary to insure their construction, is not the least of these problems.

Yet we cannot view our needs for public facilities in isolation. They have to be treated in terms of housing activity and in terms of new

efforts to assure orderly, effective use of urban space. Land, shelter, and facilities, together, make communities.

The major foundation of our national commitment to restore old cities and build new ones of beauty and excellence is the Housing and Urban Development Act of 1968. This legislation spells out the national commitment in detail and puts behind us, once and for all, the debate as to whether America is going to do anything about its cities. For the first time in the history of domestic legislation, Congress, in the 1968 Housing Act, has specified a community development goal in quantitative terms. The 1949 Housing Act set forth the national policy of a decent home and a suitable living environment for every American family. The 1968 Housing Act supports that laudable goal with hard specifics. It commits the country to a production schedule—26 million units of housing in the next 10 years—6 million of these units to be for low and moderate income families. This is a national commitment to a stated quantity, to be produced in a stated period of time, that is clear, specific, detailed, and precise.

The commitment was not agreed to without debate. Some such as the Kerner Commission, thought our national housing needs so urgent as to warrant whatever efforts were necessary to achieve our goal in 5 years. Even now, in the face of the commitment, solemnly made, some doubt the national will to achieve the goal in the 10-year period allotted.

We, in the Department of Housing and Urban Development, are still convinced that the attempt to provide 6 million additional housing units for low income families through a 5-year program would have been self-defeating. The effects of such a massive increase in the subsidized housing programs upon the cost of materials, the availability of construction labor, mortgage money and suitable building sites, would pose, in our judgment, impossible barriers to efficient production.

On the other hand, we do not share the pessimism of those who believe that the national commitment is only rhetoric. Clearly, the pledge of 26 million units—6 million for low and moderate income families—will be met only if we take those actions necessary to allocate to housing construction the resources required to achieve this production. We believe that national policy will be used to assure the financing, the trained manpower, the building sites, and the subsidy funds needed to assure that the goal is met.

The issue then is no longer the national commitment to housing production. Volume production of housing is on its way. In the latter half of this year, housing starts increased dramatically. Even conservative forecasters now confidently predict 2 million housing starts by 1970.

The danger now is that our emphasis on the production of housing might make us forget that our broader goal is communities that can provide all the services and amenities that are required to provide a suitable living environment.

Assuring construction of all the public facilities our communities ought to have to provide a suitable living environment requires us to deal with three broad issues:

First, we must establish, in quantitative terms, the aggregate public facilities needs.

Second, we must identify the resources available to secure production of those facilities—and consider alternative methods of assuring the allocation of these resources to that use.

Third, we must identify, modify, improve, and, where necessary, help create those institutions required to inventory our public facilities needs, secure the allocation of resources needed for their production, and efficiently plan their location and utilization.

Thanks in large measure to the work of this committee, we now have a sound basis for projecting our national public facilities needs.

The subcommittee's study on State and local public facility needs and financing, published in January 1967, has given us for the first time a complete array of the Nation's public facility infrastructure. It contains a wealth of information on 41 different categories of public facilities. Volume 1 of the study presented detailed information on each public facility category in terms of physical characteristics, services rendered, standards of performance, an inventory of the existing capital plant, costs and user charges, past trends of capital outlays and projections of future needs and capital outlays.

Although the projections for the next decade have been extremely useful to us in terms of program planning and periodic budget reviews, I think the more significant contribution of volume 1 is that it forced all of us to think more clearly about the aggregate of State and local government capital outlays rather than just in terms of narrow functional categories. Of course, in light of our program responsibilities for water and sewer facilities, urban mass transit, open space, neighborhood centers, college housing, public works planning, and public facility loans, we necessarily must be concerned also with individual public facility categories. While we regard each of these program areas to be important functions of State and local governments, we now have a better appreciation that each public facility category must compete with many others for the limited fiscal resources of such governments. We know, too, they must be planned, funded, scheduled, and built in concert and in proper proportion.

These assumptions govern our most recent estimates of the Nation's public facilities needs, and the resource that will be available for allocation to the production of these facilities:

Between now and 1980 our population will increase almost 25 percent to 243 million.

The population will age somewhat. The young—that is, those under 21—will increase by little more than 20 percent, while the elderly (65 or more) and intermediate group (21–64) each increase by 25 percent. By 1980 almost 10 percent of the population will be at least 65, 40 percent will be under 21, and 50 percent will be in the age group 21–65.

And, of course, all projections indicate that almost 90 percent of the total national population increase will be concentrated in the existing standard metropolitan statistical areas.

We have projected that from 1969 to 1980 gross national product will rise 5.5 percent annually, with 4 percent of this increase representing real growth, and 1.5 percent price increases. This projection would result in a gross national product of \$1,560 billion in 1980, compared with roughly \$900 billion this year.

These assumptions coupled with our projections of the demand for public services and facilities that will be generated by the 40 million new urban citizens we expect by 1980, lead us to the following:

In 1980, construction expenditures for new housing will be about \$72 billion, including the effects of cost increases, or about three times the current level, although the number of units required would be less than double.

For elementary and secondary education, including salaries and maintenance, as well as capital outlays, we would need to spend in the neighborhood of \$60 billion, or about double the recent levels.

For water supply and sewer facilities, we will need to more than double recent outlays before we even consider the growing problem of separation of storm and sanitary sewers.

When we also add the projected needs for urban transportation, health care, and public safety, we arrive at a total 1980 expenditure requirement of \$155 billion, or 10 percent of the gross national product, compared with 8 percent of the gross national product devoted to similar expenditures in 1966.

Some of these needs, Mr. Chairman, such as in housing and urban transportation, will be filled largely by private enterprise. The Federal Government has to pursue policies to see that the required capital resources will be available to meet these needs, however, as well as to help finance those that are traditionally in the public sector, such as elementary and secondary education and water and sewer facilities.

The critical thing to note is that the estimated expenditure requirement for these selected types of public facilities would amount to 10 percent of the enlarged 1980 gross national product, compared with the 8 percent of the gross national product required for these facilities in 1966. Two percent of the gross national product in 1980 will amount to \$30 billion—and this is the measure of the amount by which we will fail to provide enough of these facilities unless we change national expenditure patterns. It seems clear that if the Nation's public facilities needs are to be met, a greater share of the gross national product will have to be allocated to the production of such facilities. Obviously, there will have to be trade-offs between the provision of goods and services that can be provided only by public expenditure and some of the more exotic gadgets that our economy could otherwise produce.

It is inconceivable that the world's richest nation will not allocate sufficient resources to meet these conservative public facilities requirements. The issue is not whether we will allocate resources to the task, but how we most efficiently and equitably proceed to that allocation.

Traditionally, State and local governments have financed about half of their public facilities capital requirements by borrowing so that future users, as well as present users, can help pay for such facilities. While the Joint Economic Committee study found that adequate loan funds would continue to be available in the capital markets to finance half of the projected State and local government capital requirements for public facilities over the next decade, it did not indicate the price that would be required to obtain these funds.

The benefits of tax exemption accorded the securities of State and local governments have, over the years, provided a form of Federal subsidy to help finance needed public facilities, while according to

State and local governments the greatest possible autonomy in selecting the public facilities to be financed in the capital markets.

However, the steadily growing volume of tax exempt financing has turned the tax exemption feature into an increasingly inefficient means of subsidizing public facilities constructed by State and local governments. This is true because as the volume of tax exempt securities grows larger, investors in lower and lower income tax brackets have to be attracted into the market in order to provide a large enough supply of funds to meet the demand. Of course, the value of the tax exemption is less for taxpayers in lower income tax brackets and an increasingly higher yield must be provided as it becomes necessary to obtain the funds of these lower income investors. As this process accelerates, the tax exemption accorded the securities of State and local governments tends to cost the Federal Treasury more and more, while benefiting State and local governments less and less.

In the face of the erosion of the value of tax exemption to State and local governments, and a growing awareness of its cost to the Treasury, serious consideration has begun to be accorded proposals which would enable State and local governments to tap other sectors of the capital market for loan funds to finance their public facilities needs. Two specific proposals have been put forward. One would establish some form of development bank that would sell its obligations in the taxable sector of the capital market and use the proceeds to make direct loans to State and local governments to finance their public facilities' needs. The other would authorize Federal guarantees of State and local debt securities, provided that the interest income is made subject to the Federal income tax. Both would involve some degree of direct Federal subsidy payments to bring the interest rates paid by State and local borrowers down to the level of interest rates now obtainable by them in the tax-exempt market.

It is not a necessary condition of either of these proposals that it be viewed as a substitute for the present tax-exempt status accorded the securities of State and local governments. Either of these proposals could be adopted while the alternative provided by the benefits of tax exemption remain open to State and local governments.

It seems clear that proposals such as these will receive closer attention as the increasing pressure on the tax-exempt market tends to reduce the benefits of tax exemption.

While the specifics of any particular proposal will have to be carefully scrutinized, the broad purposes that an acceptable proposal must meet are these:

First, and foremost, it should make possible a greater allocation of capital to the development of public facilities necessary to deal with the problems of the urban environment.

Second, it should stimulate the construction of public facilities which will contribute to the economy, efficiency, and comprehensively planned development of the area in which the facility is to be located.

Third, it should alleviate the potential disruption of the capital markets occasioned by the uncoordinated actions of State and local governments seeking to borrow funds to finance the large increase in public facilities expenditures which will take place in the next decade.

Finally, it should reduce the excessive revenue loss resulting from the present tax-exempt status accorded State and municipal securities.

Up to this point my remarks have dealt with public facility needs and the problems associated with State and local government borrowing of that half of the cost of these facilities usually financed with loan funds. But, as the members of this committee appreciate, the other half of the cost of these facilities will have to be financed either from revenues collected by these governments or from some grant arrangement. Let me now turn to some alternative means of providing these intergovernmental payments.

To relieve local governments, and for that matter State governments, of part of the fiscal burdens they now face, a number of proposals have common currency. One would encourage State government collection of income taxes by providing a Federal income tax credit for the State income tax. A second involves some form of tax sharing, that is, an allocation of a specified portion of Federal income tax revenues to State and local governments. A third would create a system of block grants for broad public purposes such as education, welfare, or transportation. Each of these three propositions bears examination.

In the past, State and local governments have relied mainly upon excise and property taxes to finance their expenditure requirements. Increasingly, State governments have turned to income taxes as a means of augmenting their revenues. In addition, about 200 local governments, mainly cities but also counties in the case of Maryland, are now collecting some form of income tax or wage tax, either directly or piggyback to a State income tax. Advocates of the tax credit proposal would seek to encourage greater use of the income tax as a source of revenue for State governments and, apparently, also for local governments.

Because an income tax, even one largely proportional to income rather than graduated, is much less regressive than either property taxes or excise taxes, tax credits have a number of advocates. However, the use of tax credits has a perverse effect with respect to the Federal personal income tax, which has a graduated scale of tax brackets now ranging from 15.4 percent to 77 percent. For the taxpayer in the lowest bracket, a tax credit of \$1 is worth \$1.18 in before-tax income. For a person in the 77-percent bracket, a tax credit of \$1 is worth \$4.35 in before-tax income. A taxpayer in the lower tax brackets with, say, \$1,000 of taxable income would, if the State income tax rate were 5 percent, pay the State \$50 and get a Federal tax credit of \$50. On the other hand, a person with a \$100,000 taxable income would pay the State \$5,000 and get a Federal tax credit of \$5,000. The larger amount of tax credit coupled with the higher value attributable to each dollar of tax credit, would result in a significant advantage to wealthy persons in the higher tax brackets.

Turning to the tax sharing proposal, under the plan advocated in recent years by Walter Heller and Joseph Pechman, the Federal Government would each year set aside in a trust fund 2 percent of the Federal income tax base—the amounts reported as net taxable income by all individuals preparing tax returns for the personal income tax. This would mean that under the current tax rate schedule (including the surtax), the Federal Government would collect 2 percentage points in each tax bracket to be deposited in a trust fund for tax share with the State governments; and the remaining 13.4 to 75 percentage points

would go into the Federal Government Treasury. The moneys in the trust fund would be distributed to the States on a per capita basis.

Originally, the tax sharing proposition contemplated that the sharing would be done with the State governments only; and the State governments, in turn, would decide whether or how to pass through any of the shared revenue to the local governments within the respective State. Recognizing that they might not receive what they considered to be a fair share at the State Capitols, the city governments have called for direct Federal revenue sharing with the cities. In effect, they advocate revenue sharing that would bypass the State governments.

Some equitable and politically acceptable method of allocating a portion of the federally collected tax funds to urban areas either directly or by some pass-through formula is an essential ingredient of any viable tax-sharing scheme.

The block grant is a cross between the general purpose grants revenue sharing would provide and the grants for specific projects and activities authorized by the existing Federal categorical grant programs.

The model cities program presently provides to local governments, what is in effect, a block grant. A lump sum is made available to the locality for allocation by it among a whole range of projects and activities being carried out as part of a local program to eliminate physical and social blight in some designated area in the community. As the model cities program moves from its current planning phase into actual operations, both the participating cities and the Federal Government will gain valuable experience in how the flexibility provided by such grants can best be utilized to carry out broadly defined national objectives.

Federal block grants could also be used to shift to the Federal tax structure some of the burden "big-ticket" items such as education and welfare now impose on local governments. Such block grants could, of course, be made subject to whatever Federal performance standards, need allocations, and program guidelines appear appropriate.

It has become increasingly evident that the financial burdens resulting from educational and welfare expenditures, when added to other local government responsibilities, have become more than many local governments can bear. Moreover there is a growing recognition the education and welfare expenditures are no longer a matter of exclusive local government concern. We have begun to recognize that investment in human resources transcends the responsibility of local governments.

The mobility of the American people, and the significant population shifts of the past two decades, have brought to the cities from Appalachia and the rural south those recent migrants who are now the urban poor. It does not necessarily follow that, because these migrants have come to particular cities, only the other residents of such cities must bear the financial burdens required to educate and prepare them to participate in the mainstream of American life.

If the cities and other local governments could be relieved of the heavy fiscal burdens resulting from the current expenses for education and welfare, they would be able to devote their limited resources to resolving the many problems that collectively have been termed the "crisis of the cities." More funds would be available to pay for adequate

police and fire staffs; to modernize and adequately staff municipal hospitals and health clinics; to develop, improve, or expand rapid transit systems that would relieve city traffic bottlenecks; and other needed facilities that would again make cities attractive.

With some room for fiscal maneuverability, the municipalities could afford the costs of adequate code enforcement and encouragement of rehabilitation of residential or commercial structures through tax relief. They could undertake to refurbish entire neighborhoods by providing modern street lighting, garbage collection, and neighborhood recreational centers for children and the elderly. Similarly, with adequate fiscal resources, local governments could endeavor to attract new businesses, or retain existing businesses, by expending funds to assemble land for factory sites, provide necessary utilities, arrange for capital financing, and participate in the training or retraining of labor.

But we must be wary of those who would have us believe that tax sharing, or tax credits, or block grants, can serve as a substitute for existing grant-in-aid programs. The deepening fiscal plight of State and local governments makes it imperative that these newer forms of Federal assistance be regarded as additional aid rather than as replacements for tried and accepted programs. The old adage of not putting all of our eggs in one basket clearly applies to the alternative means of providing Federal assistance to State and local governments.

While we cannot provide the facilities our communities will need without allocating to the task a greater share of the Nation's wealth than we have heretofore, easier credit and Federal transfer payments to State and local governments will not—by themselves—do the job. Money alone is not enough. There must exist adequate institutions, personnel, competence, at the receiving end.

We must help State and local governments modify, improve, and, where necessary, create institutions able to plan for efficient and orderly growth and development, achieve better allocation of State and local resources, develop more rational decisionmaking processes, and establish more efficient administration of public activities.

I believe that if urban America is to meet the challenge presented by the growth it must accommodate within the next 10 years, it will have to achieve a greater consolidation of authority at the metropolitan level and a decentralization of authority at the neighborhood level. These arrangements are not as contradictory as they may first appear.

America's great urban regions presently lack the powers to guide the course of their development. They cannot decide the use of their most precious commodity—open land; nor prevent the fouling of the air and water; nor assure equality in education and opportunity for their children. Until they have such authority—until suburb and central city acknowledge in these specific respects their common concerns—we can blanket the present array of local jurisdictions in a blizzard of Federal cash and still fail to protect our urban heritage and upgrade our urban environment. The careful nurturing and rapid expansion of regional forms of urban government, limited in scope but capable of decisive action in guiding the course of urban development, is an urgent need in our Federal system.

At the same time, however, as our regions grow larger, as the typical American urban community numbers its citizens by the hundreds of thousands, we need to put certain powers closer to the people. We

need to decentralize both debate and action on those community activities that affect intimately the everyday life of every citizen—housing, schools, health care, jobs, public protection. The restoration of the neighborhood as a vital place whose residents have a sense of purpose and belonging is as great a challenge to the American system today as regional development. Only in the neighborhood can the appearance and pace of life be changed—the conditions of the home, the cleanliness of the streets, the construction of community centers. And it is only in the neighborhood that men and women have a chance to meet face to face, to come to know one another, to distinguish between the individual and his group, and to learn how to work and live together—and be the richer for the experience.

With this, Mr. Chairman, my last statement to a congressional committee as a member of the Johnson Administration, I have attempted to paint, in broad strokes, some of the basic problems involved in providing the facilities needed to make our communities decent places in which to live. It would be tragic if the momentum this Administration has achieved in trying to help State and local governments cope with the tremendous problems they face should be lost. I have faith that what we have tried so hard to begin will continue.

Chairman PATMAN. Thank you very much, Professor. You are to be congratulated for the fine work that you have done for the U.S. Government during the time that you have been here. You have made a great record for yourself. You have a fine reputation with this committee, I know. We are always glad to have you as a witness. You have facts and you can document your statements so well that we are all impressed by them.

These hearings, I think, will be of great value to us in the implementing of the 1968 Housing Act. It has been said that the 1968 Housing Act which originated here in our committee, as you know, is about the most important legislation on housing that we have had since 1949 and possibly more comprehensive and more important than the 1949 act. Would you like to comment on that?

Mr. WOOD. I believe, Mr. Chairman, that what the 1968 act that this committee worked on so diligently as its third major effort in 4 years, has built on the 1949 act has two distinctive features. It not only revises, updates, and builds on the experience of our existing programs, but also it provides for those two deep new subsidies that really begin to tackle the problem of housing for the poor. I think it will stand the test of time, and I think all of us who have had a part in the development of the 1968 Housing and Urban Development Act will take considerable satisfaction in it.

Chairman PATMAN. Do you know of any housing legislation that we will need in the next year or two, in other words during this 91st Congress that is coming up? It occurs to me that the principal thing that we will need are appropriations and implementation of the 1968 act. Do you agree to that?

Mr. WOOD. That is my view also, Mr. Chairman. I would not, however, want to prejudice the creativity of the incoming administration to any degree.

Chairman PATMAN. Neither would I.

Mr. WOOD. I would say, however, that the next stage should clearly be the implementation of this act, the activation of the National Hous-

ing Partnership and securing of the volume production the 1968 act calls for.

We have been able to double productions in publicly assisted housing during the last year. Next year our schedule calls for production three times faster than in the past. By 1970 we will have to achieve a volume of production of housing for the poor that is 10 times the accustomed rate in earlier years. That is going to be an enormous management problem on the Federal side. It is going to require a major evaluative effort from the legislative branch to see how we proceed, and it is going to put a great burden on our counterparts in State and local governments as well as on the private sector. So, I would look to the next few years as years of production and achieving our goals.

Chairman PATMAN. Thank you, sir.

In your statement you bring up something, I think, that is attracting the attention of a lot of people. I will just read this one sentence that is in your statement :

Recognizing that they might not receive what they considered to be a fair share at the State capitals, the city governments have called for direct Federal revenue sharing with the cities. In effect, they advocate revenue sharing that would bypass the State governments.

The last year or two I believe I have sensed almost a battle royal between the Governors of the States and the mayors of the cities of this country. It is not out in the open, but do you see anything that indicates to you that that battle has been going on for some time?

Mr. WOOD. I think what we have seen, Mr. Chairman, is an increasing frustration felt by many mayors, with their cities beset by the problems that we all know so well when they see the lack of compassionate response either in providing resources or even in giving attention that many State governments exhibit.

I think, however, we can see the beginnings of appreciation by some States of the problems of the cities: in Congressman Moorhead's Commonwealth of Pennsylvania, in New Jersey, and in Massachusetts to some degree.

But I think the mayors feel it just has not come fast enough.

The effective allocation of duties between State and local governments in the urban area is not easy but I think the State governments must—unless they want to see this kind of debate you describe continue—design more effective action.

There are three areas that have always seemed to me to provide unexploited opportunities for State governments. One is simply to use their constitutional powers of eminent domain and their capacities to form local governments and to charter special corporations, to begin to formulate an effective land policy.

The second is the States' power, if not responsibility, to guide transportation development. Their enormous investments in our national transportation systems is more direct than at any other level of government and this has, as you know, just major repercussions for the course of city development.

The third opportunity for States is the way they plan and use their great public institutions for education, health and institutional custodial care generally.

The institutions have a great untapped resource in their power to generate employment. In an enormously powerful way, State educa-

tional and custodial institutions are the most rapidly growing manpower areas in the national economy. The location of medical schools, of universities, of institutions of all kinds can do great good or harm to the cause of community development, particularly to small or medium-sized communities.

There is a final resource for State contribution and that is the universities themselves. Public universities can affect the course of States in a much more decisive way than they have up until now.

It is in these directions, as well as revenue support for the cities, that I hope the States begin to move.

Chairman PATMAN. I will not take any more time but I would like to read a few questions that I would like you to answer when you look over your transcript, Professor Wood, if you would do so?

Mr. WOOD. I would be delighted to do so for the record.

Chairman PATMAN. We had allocated the time to you to 11 o'clock and Secretary Udall from 11 because he has a Cabinet meeting that he will have to attend, and I want, of course, Congressman Moorhead to have some time to ask questions and I think maybe the chairman of the Joint Economic Committee, Senator Proxmire, will be here and he would like to have some questions, I know. But I will read these few that I would like for you to answer.

Mr. WOOD. We would be delighted to, Mr. Chairman.

(Mr. Wood's answers, subsequently received, follow each question.)

Chairman PATMAN. First: I would appreciate if you could submit for the record an analysis comparing the projections set forth in the subcommittee's study on Public Facility Needs and Financing with actual developments for the past few years. Specifically the comparisons should relate to State and local government capital outlays, new debt issued and 1967 yearend holdings of municipal securities by significant investor groups.

Answer. Table B 4 of volume 2 of the committee's study projected total capital requirements for State and local governments as follows: \$26.3 billion in 1966, \$27.8 billion in 1967 and \$29.2 billion in 1968. These projections compare to estimated capital outlays by such governments of \$25.1 billion in 1966, \$27.7 billion in 1967 and \$31.3 billion in 1968.

According to The Bond Buyer, actual gross municipal long term bond sales amounted to \$11.1 billion in 1966, or 22 percent less than the projection of \$14.2 billion shown in table B 4. Undoubtedly, this disparity was largely due to the credit crunch of 1966. In 1967, actual bond sales amounted to \$14.3 billion, much closer to the projected \$14.9 billion. For 1968, total actual long term bond sales amounted to \$16.4 billion, compared to the projected \$15.7 billion. For the 3 years 1966-1968, long term municipal bond sales were projected at \$44.8 billion, whereas actual bond sales are estimated at \$41.8 billion.

With respect to the indicated sources of municipal debt financing, table D 1 of volume 2 of the JEC study projected that at the end of 1967 commercial banks would hold \$49.7 billion of municipal securities. At the end of 1967, commercial bank actual holdings totaled \$50.1 billion. For mutual savings banks, municipal security holdings at the end of 1967 were projected at \$200 million; actually they were \$219 million. For life insurance companies, 1967 yearend holdings were

projected at \$2.9 billion; actual holdings were \$2,976 million. For fire and casualty insurance companies, 1967 yearend holdings were projected at \$13.8 billion; actual holdings were \$14.1 billion. For other significant sources—such as Federal credit agencies, State and local governments and retirement funds, nonfinancial corporations and individuals—the committee's projections were not as close, largely due to recent statistical revisions.

Second: In your statement, you refer to a proposed development bank. Would such a bank be a substitute for such existing Federal loan programs as the public facility loan program, the rural water and sewer loan program, the irrigation loan program and the public facility loan program in economic development areas?

Answer. The public facility loan program, authorized by Title II of the Housing Amendments of 1955, is administered by the Department of Housing and Urban Development; the rural water and sewer loan program, authorized by Title III of the Consolidated Farmers Home Administration Act of 1961, as amended, is administered by the Department of Agriculture; the irrigation loan programs, authorized by various legislation, are administered by the Department of Interior; and the EDA public facility loan program, authorized by the Public Works and Economic Development Act of 1965, is administered by the Department of Commerce. Each of these programs is designed to carry out specific national purposes as defined to carry out specific national purposes as defined in its respective enabling legislation.

In establishing these programs, the Congress recognized the special purposes to be served, and the difficulties that the borrowers fulfilling these purposes might face in obtaining loans from private sources. Since the Congress has determined that the aforementioned Federal credit programs should be assured of financing that can serve their specified purposes, we believe that these programs would be retained.

Third: If a single development bank were to sell its obligations in the market in lieu of the individual bonds now sold by State and local governments, wouldn't that put out of business the many small firms now underwriting municipal bonds? Further, wouldn't it contribute to greater concentration of financing among the large commercial banks and bond underwriters?

Answer. Currently, many of the small size municipal bond issues, especially those sold by small local public bodies, are underwritten by local investment banking firms, a large number of which may be characterized as "small firms." If a single development bank were to sell obligations in the capital market, with the proceeds used to make loans to smaller local government units, these small municipalities would have less need for the local investment banker, unless such banker could bid for its bonds at a price that results in a lower net interest cost to the borrowing municipalities than would be obtainable on a loan from the development bank.

To the extent that loans from the proposed development bank displace bond issues that would have been underwritten by investment bankers, such bankers would experience a reduction in their underwriting business. On the other hand, the development bank, whether it be a Federal agency or a federally sponsored agency, would have

to obtain the funds needed for its loans by selling obligations in the private capital market. Experiences of existing Federal agencies and federally sponsored agencies indicate that such sales would probably be made to an underwriting syndicate composed of commercial banks as well as dealer firms. The underwriters could be large commercial banks and/or investment banking firms; and they usually include a number of smaller firms and banks.

It remains to be seen whether the small firms now underwriting municipal bonds would be able to underwrite as many of the development bank's obligations as members of its underwriting syndicates as their current municipal bond underwritings. Similarly, it remains to be seen whether the large commercial banks and investment banking firms would dominate the syndicates to an extent that there is a greater concentration of financing than presently exists.

Fourth: Mr. Sherrill, of the Federal Reserve Board, testified before this committee that the "credit crunch" of 1966 had little effect upon capital expenditures by State and local governments. Doesn't this mean that the only sector of the economy severely affected by the 1966 crunch was the housing sector? If so, what would you propose be done to insulate housing from the severe effects of credit restraint?

Answer. Mr. Sherrill testified that on the basis of a study by the Federal Reserve of the effects of the credit crunch in 1966 upon State and local governments, it was found that the bulk of State and local governments were able to realize their expenditure plans by either borrowing long term at higher interest rates or by using temporary financial arrangements. In other words, the only sector of the economy in which current activity was severely affected by the severe credit restraints imposed in 1966 was the housing sector, as dramatized by the sharp drop in housing starts.

To insulate housing from the severe effects of credit restraints would call for Federal action on several fronts. In the credit market sector, for example, it would require retention of the ceilings now in effect on the rates of interest that may be paid on savings by commercial banks, mutual savings banks, and savings and loan associations. Such ceilings could serve to eliminate a potential competitive escalation of interest rates on savings that in the past has worked to the detriment of the mortgage oriented thrift institutions.

It might also require prompt Federal action through appropriate tax measures designed to dampen business capital investments. For example, temporary suspension of tax incentives for business capital investments would help to reduce their attractiveness at a time when the economy shows signs of overheating from this form of investment demand. A reduction in business capital investments, in turn, would decrease the demand for funds by the business sector in the capital market and thereby lessen the upward pressures on corporate bond interest rates. Similarly, the Treasury demand for funds in the capital market might be lessened by narrowing the size of the Federal deficit through a combination of increased taxes and decreased expenditures. A decline in the volume of credit demand for these two important sectors of the capital market would ease the upward pressures on capital market interest rates and would make marketable securities less attractive as alternative investments to individual savers who ordinarily hold their savings as deposits in thrift institutions.

In other words, as long as residential mortgage loans continue to be the residual investment decision by many of the Nation's financial institutions, to be accommodated after all other borrowers, it is either necessary to take appropriate actions to reduce the credit requirements of these other borrowing sectors or to provide replacement sources of mortgage funds. However, past experiences in 1957, 1960, and 1966 show that the general economic corrective measures take time to have an impact.

As a temporary or permanent alternative, there could be various forms of Federal support of residential mortgage loans, such as the use of special assistance funds, now administered by the Government National Mortgage Association, to acquire recently originated housing mortgage loans. Such steps were taken in 1958 and again in 1966. General expansion of mortgage purchases in the secondary mortgage market by the Federal National Mortgage Association and increased advances from the Federal Home Loan Banks to member savings and loan associations are also helpful. Finally, the Federal Reserve credit authorities could employ open market purchases to support the market for Federal housing agency obligations so as to assure a continuing source of financing for such securities at a time when it is needed most.

Chairman PATMAN. Incidentally, in connection with this last question regarding "credit crunch," I am placing in the record a study dealing with bank credits to real estate mortgage lenders, which illustrates the effect of severe credit restraint such as occurred during the 1966 credit crunch.

(The study referred to by Chairman Patman, follows:)

BANK CREDITS TO REAL ESTATE MORTGAGE LENDERS

INTRODUCTION

During the mid and late 1950's, the Board of Governors of the Federal Reserve System conducted a series of surveys of the weekly reporting member banks to ascertain the volume of credits extended to mortgage lenders. This series reflected a recognition that mortgage lenders frequently "warehouse" part of their mortgage loan holdings either by borrowing from commercial banks or by selling mortgage loans to the banks under repurchase agreements. Altogether, a total of 13 such surveys were made, with the volume of credits reported ranging from \$552 million to \$1,326 million and the volume of mortgage purchases under repurchase agreements ranging from \$55 million to \$405 million.

As detailed in table 1, the largest amount of the bank credits extended to real estate mortgage lenders during this period went to mortgage companies, mainly in the form of loans secured by mortgages. In contrast, bank credit support for life insurance companies and mutual savings banks were mainly in the form of mortgage loan purchases under repurchase agreements. Bank credit support for savings and loan associations and for other nonbank real estate lenders were largely direct loans rather than purchases under repurchase agreements.

This series was discontinued in 1959 because of an impending revision of the statistics compiled from the weekly reporting banks. Beginning with the data for July 8, 1958, the weekly series of statistics

reported by commercial banks in leading cities, and published by the Board of Governors of the Federal Reserve System, was revised in part to establish a separate borrower classification category termed loans to nonbank financial institutions other than sales, personal, and business finance companies. Included in this new category were loans made to mortgage companies and other real estate lenders, loans to mutual savings banks, savings and loan associations, and insurance and investment companies, and loans to Federal lending agencies.¹ As of July 1, 1959, this new category consisted of the following:

Loans to	Millions	Percent
1. Mortgage companies and other real estate lenders.....	\$1,183	80.9
2. Mutual savings banks.....	2	.....
3. Savings and loan associations.....	74	5.1
4. Insurance and investment companies.....	112	7.7
5. Federal lending agencies.....	42	2.9
6. Other lenders.....	49	3.4
Total.....	\$1,462	100.0

Since mid-1959 this statistic on bank loans to nonbank financial institutions, other than sales, personal and business finance companies, has been collected from the weekly reporting commercial banks and published in a weekly release issued by the Board of Governors of the Federal Reserve System and also in the Federal Reserve Bulletin. As shown in table 2, this reported weekly figure has grown from \$1,528 million for the last Wednesday in July 1959 to \$5,002 million for the last Wednesday in November 1965. It subsequently declined to reach \$3,998 million in February 1967, after which it has increased again to \$4,384 million in August 1967.

On the basis of the distribution reported by the Board of Governors, as of July 1, 1959, one might assume that about 81 percent of these loan amounts are accounted for by loans to mortgage companies. Or, on the basis of the distributions derived from the 13 Federal Reserve surveys (detailed in table 3), one might assume that the proportion accounted for by loans to mortgage companies ranges between 85 percent and 90 percent, depending upon the stage of the credit cycle. But such assumptions rest on an underlying belief that there have been no significant changes in the pattern of commercial bank credits to the other nonbank financial institutions whose borrowings are reflected in the combined weekly figure.

In light of the severe credit crunch experienced in the mortgage market, especially the credit shortages reported by mortgage companies, it became opportune to ascertain the composition of the banks' credits comprising the single weekly bank credit statistic. Accordingly, in a letter dated September 22, 1966 (exhibit A), the Chairman of the Joint Economic Committee requested of the bank supervisory agencies that "a supplementary schedule be included in the call report for December 1966, showing the components of the overall line item entitled 'loans to other financial institutions.' This would mean that separate data would be shown for loans to: (a) mortgage companies (b) savings and loan associations, (c) life insurance companies, (d) mutual savings banks, and (e) other real estate lenders."

¹ Federal Reserve Bulletin, August 1959, p. 887.

In late November 1966, representatives of the Comptroller of the Currency, Federal Deposit Insurance Corporation, Board of Governors of the Federal Reserve System and the Bureau of the Budget met with committee staff to develop the requisite questionnaire for the requested survey (exhibit B). To achieve comparability with previous Federal Reserve surveys, the questionnaire included information on real estate mortgage loans purchased under repurchase agreements; and as a control for the figures supplied the responding bank was requested to relate the loans to real estate mortgage lenders to the line item in the Call Report "loans to financial institutions other than domestic and foreign commercial banks." The survey responses were tabulated by the Division of Data Processing of the Board of Governors of the Federal System.

SURVEY FINDINGS

Tabulation of the supplementary schedule found that, as of December 31, 1966, the 13,534 insured commercial banks reported loans to financial institutions other than domestic and foreign commercial banks totaling \$13,150 million. Of this sum, \$8,298 million represented loans to sales finance, personal finance, factors and other business credit companies, \$3,723 million were loans to mortgage lenders, and \$1,129 million were loans to other financial institutions (investment companies, regional or local industrial authorities).

The \$3,723 million of loans to real estate mortgage lenders comprised \$2,330 million to mortgage companies, \$425 million to savings and loan associations, \$342 million to life insurance companies, \$59 million to mutual savings banks and \$568 million to other real estate mortgage lenders (firms that make or hold substantial amounts of real estate loans). In addition, the insured banks had purchased \$648 million of real estate mortgage loans under repurchase agreements from mortgage lenders as follows: mutual savings banks—\$222 million; mortgage companies—\$204 million; life insurance companies—\$48 million; savings and loan associations—\$28 million; and from other real estate mortgage lenders—\$146 million.

Table 4 breaks down the foregoing figures by type of bank—national bank, State member bank, and insurance nonmember banks. As will be noted, \$2,590 million, or 70 percent of the loans to mortgage lenders were made by national banks. As detailed in table 5, which distributes the data by size group of bank, \$2,071 million, or 56 percent of the loans to mortgage lenders were accounted for by banks with deposits exceeding \$1 billion. In other words, the large national banks accounted for a substantial portion of the loans made to real estate mortgage lenders.

This finding is in accord with what one might expect that nonbank financial institutions are likely to borrow from the larger commercial banks that possess sufficient financial resources to accommodate the sizable lines of credit and drawdowns required by such institutions. As detailed in table 6, over 55 percent of the loans to mortgage lenders were made by banks located in three Federal Reserve districts—New York, San Francisco, and Chicago, with the largest proportion in each

made by reserve city member banks. (See table 7.) Loans to mortgage lenders made by country member banks and insured nonmember banks, broken down by Federal Reserve district, are shown in tables 8 and 9.

The foregoing data relate to all insured commercial banks which number 13,534. However, as detailed in the memoranda columns of table 4, the 340 weekly reporting banks account for 91 percent of the total loans made to mortgage lenders by all insured commercial banks. For identifiable institution groups, other than savings and loan associations, the weekly reporting banks account for even larger proportions of the loans made, ranging from 93 percent, in the case of mortgage companies and other real estate mortgage lenders to 94 percent, in the case of life insurance companies, and 99 percent, in the case of mutual savings banks. For savings and loan associations, the proportion accounted for was 75 percent.

Of the 340 weekly reporting banks, seven alone accounted for \$1,046 million, or 28 percent of the total loans reported made to real estate mortgage lenders. Another five of the weekly reporting banks accounted for \$357 million, or 10 percent, and another 23 accounted for \$806 million, or 22 percent. As detailed in table 10, 62 of the weekly reporting banks reported no credits extended to real estate mortgage lenders; and most of the remaining 278 banks reported relatively minor amounts of such credits. On the other hand, 112 of the weekly reporting banks accounted for 83 percent of the credits made to real estate mortgage lenders by all insured banks and for 91 percent of such credits made by the weekly reporting banks.

With respect to real estate mortgage loans purchased under repurchase agreements, the weekly reporting banks accounted for 80 percent of the purchases made by all insured commercial banks, including 99 percent of the purchases from mutual savings banks, the largest selling group.

NEED FOR A CONTINUING SERIES

In light of the surveys conducted during the 1950's it seemed reasonable to assume that over 50 percent of the weekly figure reported by the Federal Reserve Board on bank loans made to nonbank financial institutions other than personal, sales and business finance companies represented loans to mortgage companies. As detailed in table 3, this percentage fluctuated from 85 percent to 90 percent in the 13 periodic surveys conducted during that period, and on July 1, 1959, this percentage was 81. But the special survey conducted, as of December 31, 1966, indicates that this assumption is no longer realistic.

On that date, loans to financial institutions other than to domestic and foreign commercial banks by the weekly reporting banks totaled \$11,346 million, of which \$6,921 million reflected loans to sales, personal and business finance companies. Of the remaining \$4,425 million of loans to nonbank financial institutions, only \$2,164 million, or 49 percent, represented loans to mortgage companies. The other 51 percent was accounted for by \$1,039 million, or 24 percent, of loans to financial institutions other than mortgage lenders or sales, personal or business finance companies, \$320 million, or 7 percent, of loans to life

insurance companies, another \$320 million of loans to savings and loan associations, \$58 million, or 1 percent, of loans to mutual savings banks, and \$525 million, or 12 percent, of loans to other real estate mortgage lenders.

In view of this breakdown, it is not entirely clear what interpretation can be given to the line item in the weekly reporting series called loans to nonbank financial institutions, other than sales, personal and business finance companies. Clearly it is no longer a reasonable measure of bank loans to mortgage companies. Instead, it has become a miscellaneous borrower category comprising such institutional borrowers as mortgage companies, life insurance companies, savings and loan associations, mutual savings banks, other real estate mortgage lenders, investment companies and regional or local industrial credit authorities. Such an assortment of borrower categories means that this line item collected weekly from the 340 weekly reporting banks conveys little information to the analyst other than the fact that about 40 percent of the loans to unclassified borrowers (representing the sum of this "other" category plus the "all other" category) are loans to "nonbank" financial institutions.

One of the reasons given for discontinuation in 1959 of the periodic surveys of bank loans to real estate mortgage lenders, described above, was that a reasonable measure of commercial bank lending to mortgage companies would be obtainable from the new series inaugurated in 1959, inasmuch as over 80 percent of the loans to nonbank financial institutions, other than sales, personal and business finance companies, were loans to mortgage companies. But this preponderance is no longer the case.

Yet mortgage companies continue to play an important role in the residential mortgage credit market, accounting for over 60 percent of FHA insured and VA guaranteed home loan originations and for nearly 80 percent of the mortgage loan sales to FNMA under its secondary market operation. Moreover, available information suggests that during periods of credit tightness commercial bank loans to, and mortgage loan purchases under repurchase agreements from, life insurance companies, mutual savings banks, savings and loan associations and other real estate mortgage lenders tend to rise. Since this information is not presently obtainable or discernible from the available bank credit statistics, there would appear to be a serious gap in our economic intelligence system. Thus, those responsible for national credit policy, housing finance and for assessing the course of the economy currently do not obtain critical data that would help indicate the turning points in mortgage credit availability, which is so vital to housing.

Availability of a continuing series on commercial bank credits to real estate mortgage lenders, broken down by significant institutional groups, and concomitant purchases of real estate mortgage loans from such institutions under repurchase agreements, would provide a means of quantifying the use of bank credits by mortgage companies and the reliance upon bank credits by nonbank mortgage lenders. Prompt availability of such data would provide a sensitive indicator of impending pressures within the mortgage loan market.

As detailed in the tables, most commercial banks do not extend, or extend negligible amounts of, credits to real estate mortgage lenders. Thus, the requisite information could be obtained weekly from the 340 weekly reporting banks which accounted for 91 percent of the loans made to real estate mortgage lenders and for 80 percent of the real estate mortgage loans purchased from such lenders under repurchase agreements. Alternatively, most of the requisite data could be obtained through a weekly survey of the 112 weekly reporting banks, which together accounted for 83 percent of the bank loans made to real estate mortgage lenders.

POSTSCRIPT: On January 29, 1969, the Board of Governors of the Federal Reserve System issued a release regarding a survey of loans made by the weekly reporting banks to real estate mortgage lenders, as of the end of October 1968.

EXHIBIT A

SEPTEMBER 22, 1966.

HON. KENNETH A. RANDALL,
Chairman, Federal Deposit Insurance Corporation,
Washington, D.C.

DEAR MR. RANDALL: This is with reference to a need for additional information on mortgage companies. These institutions, as you know, act as middlemen in the mortgage market, originating loans for builders and then selling such loans to institutional investors. In recent years they have accounted for over 60% of the home mortgage loans under FHA and VA guarantees. In 1965 such companies originated over \$10 billion of loans.

Because of severe constriction of the money market, there has been a sharp curtailment of credit available to mortgage lenders. They complain that they are having trouble in placing loans and that they have encountered difficulties in obtaining credit from commercial banks.

Analysis of this crucial sector of our economy, which is under such great pressure at the present time, is handicapped by the need for information. At present there is no statistical series available to the public or to the committees of Congress on the amount of commercial bank credit that is being extended to these companies.

I am advised by staff that this situation could be readily corrected if the supervisory agencies were to collect periodically statistics on commercial bank credit to real estate mortgage lenders with a specific indication of the credits extended to the aforementioned mortgage companies. As an initial step, it is requested that a supplementary schedule be included in the call report for December 1966 showing the components of the overall line item entitled "Loans to other financial institutions." This would mean that separate data would be shown for loans to: (a) mortgage companies, (b) savings and loan associations, (c) life insurance companies, (d) mutual savings banks and (e) other real estate lenders.

This matter has been discussed in a preliminary way by members of our respective staffs and according to my information there is general understanding that it would be feasible and desirable to collect the additional information.

Kindly advise as soon as convenient if it would be possible for the Federal Deposit Insurance Corporation to undertake this data collection. Similar requests are being forwarded to the Federal Reserve Board and the Office of the Comptroller of the Currency.

Sincerely yours,

WRIGHT PATMAN,
Chairman.

Exhibit B

Form FR 105A-3
(December 1966)

Form Approved
Budget Bureau No. 55-6f006
Approval Expires April 15, 1967

CREDIT EXTENDED TO REAL ESTATE MORTGAGE LENDERS
AND TO OTHER FINANCIAL INSTITUTIONS.

Name of bank _____ Date of call _____ 19____
Location _____
(City) (State) (Zip Code) (Fed. Res. Dist.)

	Amount Outstanding		
	Dollars	Cts.	
Please read instructions on the back of this form carefully. Every item must be completed and "None" inserted where no amounts are reported.			
1. Loans to financial institutions other than to domestic and foreign commercial banks (must agree with item 2(b) of Schedule A of the Report of Condition and the sum of items 1(a), 1(b), and 1(c) below)--Total.....			1
1(a) Loans to sales finance, personal finance, factors and other business credit companies.....			(a)
1(b) Loans to mortgage lenders--Total.....			(b)
(1) Insurance companies.....			(b-1)
(2) Mortgage companies.....			(b-2)
(3) Savings and loan associations.....			(b-3)
(4) Mutual savings banks.....			(b-4)
(5) Other real estate mortgage lenders.....			(b-5)
1(c) Loans to financial institutions other than those included under items 1(a) and 1(b) above.....			(c)
2. Real estate mortgage loans purchased from real estate mortgage lenders under resale agreements (included with other mortgage loans in item 1(a) through item 1(e) of Schedule A of the Report of Condition)--Total.....			2
(a) Insurance companies.....			(a)
(b) Mortgage companies.....			(b)
(c) Savings and loan associations.....			(c)
(d) Mutual savings banks.....			(d)
(e) Other real estate mortgage lenders.....			(e)
MEMORANDUM:			
Total deposits (must agree with item 20 of Report of Condition).....			

Signature and title of officer authorized
to sign this report

RETURN ORIGINAL AND ONE COPY OF THIS REPORT TO THE FEDERAL RESERVE BANK

EXHIBIT B
INSTRUCTIONS

Item 1—Loans to financial institutions other than domestic and foreign commercial banks. This item corresponds to and should agree with the total of item 2(b) of Schedule A of the Report of Condition. Include all extensions of credit, regardless of security or the type of instruments involved in the transaction, to financial intermediaries whose functions are predominately the extension of credit for business purposes or to finance personal expenditures, and to insurance companies.

Item 1(a)—Loans to sales finance, personal finance, factors and other business credit companies. Include both direct loans and negotiable obligations of sales finance and personal finance companies purchased either direct from the issuing company or from dealers. Include loans to factors and other financial intermediaries and short-term business credit institutions extending credit to finance inventories or to carry accounts receivable. Include in this item all purchases of securities from such institutions under resale agreements or similar transactions.

Item 1(b)—Loans to mortgage lenders. Include in the appropriate subitems all direct loans to insurance companies, mortgage companies, savings and loan associations, mutual savings banks, and other mortgage lenders. For the purpose of this report it is not necessary to look to the use of the funds. Include all loans secured by the pledge of real estate mortgage loans owned by the borrowers and loans to such real estate mortgage lenders otherwise secured or unsecured. Include all loans secured by the pledge of real estate mortgages whether or not they are also supported by a firm commitment from another financial institution to purchase the mortgages from the borrower within a specified period. Exclude transactions with customers under which mortgages are held under resale agreements. These are to be included in item 2 in this report.

Item 1(b)5—"Other mortgage lenders" should include loans to firms, other than banks and other than those specifically mentioned above that make or hold substantial amounts of real estate loans.

Item 1(c)—Loans to all other financial institutions. Include all loans to financial institutions other than mortgage lenders as listed in items 1(b) 1 through 1(b)5, above, and other than to sales finance, personal finance, factors and other business credit financing companies included in item 1(a) above. This will include loans to investment companies that hold stock of operating companies for management or developmental purposes and loans to regional or local industrial authorities whose function is extension of credit to business firms to assist in relocation or expansion, unless such loans are secured by real estate mortgages. Include as loans all purchases of securities from such institutions under resale agreements or similar transactions.

Item 2—Real estate mortgage loans purchased from real estate mortgage lenders under resale agreements. Include all mortgages purchased from the specified category of mortgage lenders that are held under firm commitment by the borrower to repurchase the mortgages at a specified time or at the end of a specified period. For the purpose of this report, include in item 2(e) "Other real estate mortgage lenders," all mortgages purchased from firms (other than banks and the mortgage lenders specified above) that make or hold substantial amounts of real estate loans. For the purposes of this report, item 2(e) will include mortgages purchased from builders, contractors, or real estate developers under resale agreements.

TABLE 1.—COMMERCIAL BANK CREDIT EXTENDED TO REAL ESTATE MORTGAGE LENDERS AND MORTGAGE PURCHASES UNDER REPURCHASE AGREEMENTS, BY WEEKLY REPORTING MEMBER BANKS, AUG. 11, 1954, TO FEB. 11, 1959
[In millions of dollars outstanding]

	1954		1955				1956				1957				1958		1959
	Aug. 11,	Aug. 10	Aug. 10	Nov. 16	Feb. 15	May 16	Aug. 8	Nov. 14	Feb. 13	May 15	Aug. 14	Feb. 12	Aug. 13	Feb. 11	Aug. 13	Feb. 11	
A. Credits extended:¹																	
Mortgage companies.....	497	935	1,073	1,041	944	1,034	1,078	888	727	753	710	905	1,176				
Mutual savings banks.....	14	42	55	32	38	44	42	34	6	6	33	36	44				
Savings and loan associations.....	4	15	22	14	14	17	12	8	32	38	10	17	20				
Life insurance companies.....	37	77	67	69	77	89	88	86	77	77	70	69	86				
Other borrowers.....																	
Total.....	552	1,069	1,217	1,156	1,073	1,184	1,227	1,022	855	888	823	1,027	1,326				
B. Mortgages purchased:²																	
Mortgage companies.....	44	90	109	107	107	103	113	98	92	88	84	92	129				
Mutual savings banks.....		4	13	22	36	50	68	76	71	62	49	50	47				
Savings and loan associations.....		2	7	13	11	11	15	10	7	5	2	1	5				
Life insurance companies.....	7	235	265	116	113	104	102	62	47	33	39	22	38				
Other borrowers.....	4	7	11	8	8	8	11	10	8	9	8	12	10				
Total.....	55	338	405	266	276	276	309	256	225	200	182	177	219				
C. Credits and purchases:																	
Mortgage companies.....	541	1,025	1,182	1,148	1,051	1,137	1,182	986	819	841	794	997	1,305				
Mutual savings banks.....		4	13	24	40	55	74	82	77	71	53	54	53				
Savings and loan associations.....	14	44	62	45	50	55	58	44	39	43	35	37	49				
Life insurance companies.....	11	250	287	130	127	121	114	70	54	47	49	39	48				
Other borrowers.....	41	84	78	77	85	97	99	96	91	86	78	81	96				
Total.....	608	1,408	1,623	1,425	1,354	1,465	1,525	1,278	1,079	1,089	1,009	1,208	1,551				

¹ Credits secured by mortgage plus other credits.
² Mortgages purchased under repurchase agreements.

Note: Sum of figures may not equal total because of rounding.
Source: Board of Governors of the Federal Reserve System.

TABLE 2.—WEEKLY REPORTING COMMERCIAL BANK LOANS TO NONBANK FINANCIAL INSTITUTIONS OTHER THAN PERSONAL AND SALES FINANCE COMPANIES
[In millions of dollars]

Last Wednesday of month	1959	1960	1961	1962	1963	1964	1965	1966	1967
January.....		1,756	1,619	2,332	2,740	3,551	4,034	4,925	4,166
February.....		1,725	1,574	2,301	2,704	3,478	3,962	4,743	3,998
March.....		1,711	1,639	2,273	2,740	3,449	4,088	4,838	4,022
April.....		1,635	1,616	2,324	2,760	3,571	4,083	4,947	4,176
May.....		1,617	1,675	2,320	2,869	3,584	4,125	4,773	4,086
June.....		1,617	1,693	2,490	3,074	3,811	4,383	4,878	4,411
July.....	1,528	1,608	1,748	2,528	3,275	3,958	4,672	4,743	4,330
August.....	1,528	1,645	1,790	2,599	3,321	3,965	4,709	4,718	4,384
September.....	1,603	1,662	2,027	2,696	3,448	4,043	4,948	4,692	-----
October.....	1,651	1,655	2,191	2,712	3,484	3,978	4,980	4,516	-----
November.....	1,678	1,672	2,302	2,714	3,559	4,023	5,002	4,358	-----
December.....	1,746	1,684	2,365	2,774	3,694	4,103	4,954	4,338	-----

Source: Federal Reserve Bulletin, various issues.

TABLE 3.—PERCENT DISTRIBUTION OF COMMERCIAL BANK CREDITS TO REAL ESTATE MORTGAGE LENDERS DURING 1954-59

Date	Mortgage companies	Mutual savings banks	Savings and loan associations	Life insurance companies	Other borrowers
1954: August 11.....	90.1	-----	2.5	0.7	6.7
1955:					
August 10.....	87.5	-----	3.9	1.4	7.2
November 16.....	88.2	-----	4.5	1.8	5.5
1956:					
February 15.....	90.0	-----	2.8	1.2	6.0
May 16.....	88.0	-----	3.5	1.3	7.2
August 8.....	87.4	-----	3.7	1.4	7.5
November 14.....	87.8	0.5	3.5	1.0	7.2
1957:					
February 13.....	86.9	.6	3.3	.8	8.4
May 15.....	85.1	.7	3.7	.8	9.7
August 14.....	84.7	.7	4.3	1.6	8.7
1958:					
February 12.....	86.3	-----	4.0	1.2	8.5
August 13.....	88.1	-----	3.5	1.7	6.7
1959: February 11.....	88.7	-----	3.3	1.5	6.5

Source: Table 1.

Table 4.—CREDIT EXTENDED TO REAL ESTATE MORTGAGE LENDERS AND TO OTHER FINANCIAL INSTITUTIONS, ALL INSURED COMMERCIAL BANKS, DEC. 31, 1966, BY CLASS OF BANK
 [Dollar amounts in thousands]

Item	Memorandums						Percent held by weekly reporting banks
	All banks	National banks	State member banks	Insured non-member banks	Weekly reporting banks	Other banks	
1. Loans to financial institutions other than to domestic and foreign commercial banks, total.	\$13,150,206	\$7,892,723	\$4,456,047	\$801,436	\$11,346,304	\$1,803,902	86.3
1(a) Loans to sales finance, personal finance, factors, and other business credit companies.....	8,297,614	4,745,352	2,948,636	602,626	6,920,754	1,376,860	83.4
1(b) Loans to mortgage lenders, total.....	3,723,486	2,590,015	3,777,956	153,515	3,396,687	336,799	91.0
(1) Insurance companies.....	341,541	213,956	119,679	7,816	319,758	21,783	93.6
(2) Mortgage companies.....	2,329,537	1,700,450	557,717	71,270	2,163,835	165,702	92.9
(3) Savings and loan associations.....	425,297	205,692	165,731	53,874	319,612	105,695	75.2
(4) Mutual savings banks.....	58,966	19,335	39,231	400	38,101	855	98.5
(5) Other real estate mortgage lenders.....	568,145	450,282	95,808	22,095	525,381	42,764	92.5
1(c) Loans to financial institutions other than those included under items 1(a) and 1(b).....	1,129,106	556,356	529,355	43,295	1,038,863	90,243	92.0
2. Real estate mortgage loans purchased from real estate mortgage lenders under resale agreements, total.....	648,260	396,691	209,542	42,027	519,525	128,734	80.1
(a) Insurance companies.....	47,506	37,270	9,142	1,094	41,234	6,272	86.8
(b) Mortgage companies.....	204,460	126,708	63,951	13,801	158,203	46,157	77.4
(c) Savings and loan associations.....	27,913	14,696	10,472	2,705	16,274	9,689	65.3
(d) Mutual savings banks.....	222,238	124,128	98,072	38	220,743	1,495	99.3
(e) Other real estate mortgage lenders.....	146,143	93,889	27,905	24,349	81,022	65,121	55.4
Total deposits.....	351,437,558	206,456,287	85,547,346	59,433,925	211,453,050	139,984,508	60.2
Number of banks.....	13,534	4,799	1,351	7,384	340	13,194	-----

Note: Amounts shown above are summaries of information reported by all insured commercial banks in supplements to the 1966 year-end call for reports of condition. These data were processed separately from other information in reports of condition and due to revisions, or corrections, in either condition reports or supplementary related data. Details may not add to totals due to rounding.

TABLE 5.—CREDIT EXTENDED TO REAL ESTATE MORTGAGE LENDERS AND TO OTHER FINANCIAL INSTITUTIONS ALL INSURED COMMERCIAL BANKS, DEC. 31, 1966, BY SIZE OF BANK

Item	All banks	Size group-total deposits (in thousands of dollars)				
		Less than 10,000	10,000 to 100,000	100,000 to 500,000	500,000 to 1,000,000	Over 1,000,000
1. Loans to financial institutions other than to domestic and foreign commercial banks—Total						
1(a) Loans to sales finance, personal finance, factors, and other business credit companies.....	8,297,614	180,901	1,011,228	1,523,682	1,209,676	4,372,127
1(b) Loans to mortgage lenders—Total.....	3,723,466	28,135	218,041	712,800	693,866	2,070,644
(1) Insurance companies.....	341,541	1,670	15,597	46,207	50,881	227,186
(2) Mortgage companies.....	2,329,537	12,707	115,380	467,666	480,344	1,253,440
(3) Savings and loan associations.....	425,297	6,908	61,491	177,109	66,271	143,568
(4) Mutual savings banks.....	58,966	212	853	2,402	9,058	46,641
(5) Other real estate mortgage lenders.....	568,145	6,538	24,320	43,416	87,362	399,809
1(c) Loans to financial institutions other than those included under items 1(a) and 1(b).....	1,129,106	19,882	58,670	118,043	151,350	781,161
2. Real estate mortgage loans purchased from real estate mortgage lenders under resale agreements—Total.....						
(a) Insurance companies.....	47,506	391	5,753	18,628	5,135	17,599
(b) Mortgage companies.....	204,460	2,390	41,502	105,725	36,782	17,861
(c) Savings and loan associations.....	27,913	1,522	1,681	3,706	1,004	15,004
(d) Mutual savings banks.....	222,238	38	1,957	1,200	4,279	215,264
(e) Other real estate mortgage lenders.....	146,143	21,744	36,943	65,196	1,142	19,113
Total deposits.....	351,437,558	40,173,699	87,692,254	64,679,084	36,759,067	122,133,454
Number of banks.....	13,534	9,574	3,547	318	55	40

For explanatory note see table 1.

TABLE 6.—CREDIT EXTENDED TO REAL ESTATE MORTGAGE LENDERS AND TO OTHER FINANCIAL INSTITUTIONS, ALL INSURED COMMERCIAL BANKS, DEC. 31, 1966, BY CLASS OF BANK, BY FEDERAL RESERVE DISTRICTS

ALL INSURED COMMERCIAL BANKS

[Dollar amounts in thousands]

Item	Boston	New York	Phila- delphia	Cleveland	Richmond	Atlanta	Chicago	St. Louis	Minne- apolis	Kansas City	Dallas	San Francisco
I. Loans to financial institutions other than to domestic and foreign commercial banks, total.....	\$544,202	\$3,906,001	\$784,979	\$801,059	\$712,249	\$636,476	\$2,348,480	\$484,924	\$201,910	\$455,955	\$575,246	\$1,698,728
(a) Loans to sales finance, personal finance, factors, and other business credit companies.....	339,620	2,536,950	544,895	532,305	420,495	361,197	1,686,758	314,959	129,933	277,791	267,535	885,178
(b) Loans to mortgage lenders, total.....	172,142	821,647	199,830	177,958	258,158	245,380	513,848	156,391	37,269	145,182	270,645	725,037
(1) Insurance companies.....	10,947	83,920	40,016	3,956	17,735	20,201	11,612	3,723	2,959	8,963	99,822	37,687
(2) Mortgage companies.....	118,581	344,638	90,362	133,356	138,127	181,515	373,370	123,804	25,665	114,278	145,816	540,029
(3) Savings and loan associations.....	16,975	91,008	27,258	17,179	87,635	10,506	32,207	10,424	913	8,667	18,319	104,208
(4) Mutual savings banks.....	4,156	19,359	34,887	-----	274	200	-----	50	-----	40	-----	-----
(5) Other real estate mortgage lenders.....	21,485	282,723	7,308	23,468	14,387	32,959	96,659	18,391	7,732	13,234	6,687	43,113
(c) Loans to financial institutions other than those included under items (a) and (b).....	32,440	547,406	40,253	90,795	33,597	29,898	147,875	13,575	34,708	32,982	37,068	88,511
2. Real estate mortgage loans purchased from real estate mortgage lenders under resale agreements, total.....	3,561	296,117	21,798	15,100	15,088	117,895	44,428	9,045	17,405	29,947	29,007	48,770
(a) Insurance companies.....	250	6,762	4,768	2,224	217	7,339	3,385	264	3,382	5,911	2,839	10,166
(b) Mortgage companies.....	1,759	50,464	7,196	7,843	4,759	54,396	17,810	2,707	9,353	12,309	13,805	22,074
(c) Savings and loan associations.....	16	8,331	199	10	1,637	1,675	1,546	795	99	467	5,120	7,968
(d) Mutual savings banks.....	1,002	211,477	7,855	-----	981	-----	-----	-----	279	-----	-----	644
(e) Other real estate mortgage lenders.....	535	19,084	1,780	5,024	7,445	54,494	21,790	5,278	4,293	11,260	7,243	7,917
Total deposits.....	13,545,409	76,749,474	17,144,883	25,777,558	19,553,070	25,575,375	56,927,471	16,716,613	10,900,358	16,998,159	20,447,987	51,101,195
Number of banks.....	377	470	519	833	810	1,550	2,418	1,490	1,349	1,911	1,278	449

Note: For explanatory note see table I.

TABLE 7.—CREDIT EXTENDED TO REAL ESTATE MORTGAGE LENDERS AND TO OTHER FINANCIAL INSTITUTIONS, ALL INSURED COMMERCIAL BANKS, DEC. 31, 1966, BY CLASS OF BANK,
BY FEDERAL RESERVE DISTRICTS
RESERVE CITY MEMBER BANKS
[Dollar amounts in thousands]

Item	Boston	New York	Phila- delphia	Cleveland	Richmond	Atlanta	Chicago	St. Louis	Minne- apolis	Kansas City	Dallas	San Fran- cisco
1. Loans to financial institutions other than to domestic and foreign commercial banks—Total.....	\$317,079	\$3,338,985	\$597,277	\$652,242	\$500,068	\$351,359	\$1,788,151	\$329,849	\$135,494	\$285,308	\$384,903	\$1,492,877
1(a) Loans to sales finance, personal finance, factors and other business credit companies.....	169,163	2,097,901	396,898	413,610	295,006	164,857	1,205,764	193,610	68,544	151,288	149,180	754,440
1(b) Loans to mortgage lenders—Total.....	126,712	716,877	164,212	153,343	186,017	166,975	459,980	132,619	34,078	114,639	207,036	663,296
(1) Insurance companies.....	7,253	83,435	40,011	3,350	14,078	10,319	9,123	2,367	2,736	7,330	92,430	33,089
(2) Mortgage companies.....	99,654	294,627	78,566	115,342	99,711	132,562	343,847	113,554	24,925	94,201	107,959	504,563
(3) Savings and loan associations.....	7,177	49,054	3,942	13,617	67,670	2,655	15,041	5,542	-----	2,309	4,156	93,703
(4) Mutual savings banks.....	1,625	17,956	34,887	-----	-----	-----	-----	-----	-----	-----	-----	-----
(5) Other real estate mortgage lenders.....	11,003	271,805	6,806	21,035	4,558	21,440	91,969	11,156	6,417	10,800	2,490	31,941
1(c) Loans to financial institutions other than those included under items 1(a) and 1(b).....	21,203	524,207	36,167	85,289	19,045	19,526	122,407	3,620	32,872	19,381	28,687	75,141
2. Real estate mortgage loans purchased from real estate mortgage lenders, under resale agreements—Total.....	1,960	246,981	15,231	12,778	28	93,170	6,085	481	13,400	17,919	8,411	16,211
(a) Insurance cost.....	250	6,762	4,768	2,023	-----	6,093	3,092	218	3,272	4,498	1,903	8,784
(b) Mortgage cost.....	1,087	8,992	2,271	6,271	-----	41,073	2,994	263	9,095	5,880	6,232	6,413
(c) Savings and loan associations.....	-----	-----	-----	-----	-----	914	-----	-----	-----	437	226	407
(d) Mutual savings banks.....	526	206,802	7,855	-----	-----	-----	-----	-----	279	-----	-----	605
(e) Other real estate mortgage lenders.....	98	16,094	337	4,484	28	45,089	-----	-----	755	7,104	51	-----
Total deposits.....	4,078,320	54,093,121	6,026,171	13,061,895	7,393,388	7,136,161	23,848,892	4,871,665	2,346,591	4,870,424	7,598,780	38,353,022
Number of banks.....	5	15	6	16	16	25	26	15	8	22	17	21

For explanatory note see table 1.

TABLE 8.—CREDIT EXTENDED TO REAL ESTATE MORTGAGE LENDERS AND TO OTHER FINANCIAL INSTITUTIONS, ALL INSURED COMMERCIAL BANKS, DEC. 31, 1966, BY CLASS OF BANK, BY FEDERAL RESERVE DISTRICTS

Item	COUNTRY MEMBER BANKS											
	Boston	New York	Philadel- phia	Cleveland	Richmond	Atlanta	Chicago	St. Louis	Minne- apolis	Kansas City	Dallas	San Francisco
[Dollar amounts in thousands]												
1. Loans to financial institutions other than to domestic and foreign commercial banks (total).....	\$199,649	\$491,470	\$101,035	\$129,732	\$132,823	\$223,340	\$393,632	\$73,719	\$51,575	\$119,299	\$149,349	\$109,556
1(a) Loans to sales finance, personal finance, factors and other business credit companies.....	151,306	377,203	82,243	102,738	77,959	155,943	328,753	53,298	48,859	87,856	97,377	71,193
1(b) Loans to mortgage lenders (total).....	38,607	91,207	16,831	22,118	43,273	61,387	43,728	15,285	2,049	24,419	45,715	37,569
(1) Insurance companies.....	3,432	485	5	23	3,373	8,567	1,892	625	223	1,402	5,585	2,589
(2) Mortgage companies.....	17,067	45,566	8,312	16,932	25,684	37,493	24,598	7,089	467	16,297	26,688	22,467
(3) Savings and loan associations.....	7,210	35,321	8,136	3,064	7,793	5,268	13,344	2,751	776	5,333	10,367	7,195
(4) Mutual savings banks.....	2,531	1,003	-----	-----	274	200	-----	50	-----	40	-----	-----
(5) Other real estate mortgage lenders.....	8,368	8,832	379	2,099	6,150	9,858	3,894	4,770	582	1,347	3,075	5,315
1(c) Loans to financial institutions, other than those included under items 1(a) and 1(b).....	9,737	23,061	1,961	4,876	11,591	6,010	21,152	5,137	667	7,024	6,258	793
2. Real estate mortgage loans purchased from real estate mortgage lenders under resale agreements (total).....	1,481	48,554	5,129	1,694	5,370	21,676	29,953	2,474	1,287	8,127	16,127	31,706
(a) Insurance companies.....	-----	-----	-----	201	-----	1,246	279	7	47	980	588	1,382
(b) Mortgage companies.....	578	41,435	4,410	1,180	352	12,470	14,286	726	98	4,717	4,994	14,846
(c) Savings and loan associations.....	-----	-----	199	-----	594	576	1,213	795	99	-----	3,815	7,561
(d) Mutual savings banks.....	476	4,675	-----	-----	961	-----	-----	-----	-----	-----	-----	-----
(e) Other real estate mortgage lenders.....	426	2,444	520	314	3,424	7,384	14,176	946	1,043	2,430	6,730	7,917
Total deposits.....	7,618,197	19,807,615	7,676,026	9,721,351	6,878,463	10,779,732	21,387,999	5,354,202	5,140,995	7,723,021	8,474,450	7,758,152
Number of banks.....	244	385	381	482	383	499	969	465	486	813	656	195

Note: For explanatory note see table I.

TABLE 9.—CREDIT EXTENDED TO REAL ESTATE MORTGAGE LENDERS AND TO OTHER FINANCIAL INSTITUTIONS, ALL INSURED COMMERCIAL BANKS, DEC. 31, 1966, BY CLASS OF BANK, BY FEDERAL RESERVE DISTRICTS

Item	INSURED NONMEMBER BANKS [Dollar amounts in thousands]											
	Boston	New York	Phila- delphia	Cleveland	Richmond	Atlanta	Chicago	St. Louis	Minne- apolis	Kansas City	Dallas	San Francisco
1. Loans to financial institutions other than to domestic and foreign commercial banks (total).....	\$27,474	\$15,346	\$86,667	\$19,085	\$19,358	\$61,777	\$66,693	\$31,566	\$14,841	\$1,418	\$40,894	\$85,295
I(a) Loans to sales finance, personal finance, factors and other business credit companies.....	19,151	61,846	65,754	15,957	47,530	40,392	152,241	68,051	12,530	(7)	20,872	50,545
I(b) Loans to mortgage lenders (total).....	6,823	13,563	18,787	2,497	28,868	17,018	10,140	8,487	1,142	6,124	2,304	24,172
(1) Insurance companies.....	262	-----	-----	583	284	1,315	597	781	(7)	291	1,897	2,006
(2) Mortgage companies.....	1,860	4,445	3,484	1,082	12,732	11,460	4,925	3,161	273	786	11,169	12,989
(3) Savings and loan associations.....	2,588	6,633	15,180	498	12,172	2,583	3,822	2,184	137	1,025	3,596	3,310
(4) Mutual savings banks.....	-----	400	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
(5) Other real estate mortgage lenders.....	2,114	2,086	2,123	364	3,679	1,561	796	2,465	733	423	1,122	5,857
I(c) Loans to financial institutions other than those included under items I(a) and I(b).....	1,500	138	2,125	630	2,961	4,362	4,316	4,818	1,169	6,177	2,123	12,577
2. Real estate mortgage loans purchased from real estate mortgage lenders under resale agreements (total).....	120	582	1,438	628	9,690	3,049	8,490	6,090	2,718	8,900	4,469	853
(a) Insurance companies.....	-----	-----	-----	197	-----	-----	14	39	63	433	348	-----
(b) Mortgage companies.....	94	37	515	392	4,407	843	530	1,718	160	1,712	2,579	815
(c) Savings and loan associations.....	16	-----	-----	10	1,093	185	333	-----	-----	30	1,079	-----
(d) Mutual savings banks.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
(e) Other real estate mortgage lenders.....	11	546	923	226	3,993	2,021	7,614	4,332	2,495	726	462	-----
Total deposits.....	1,848,892	2,848,738	3,442,692	2,994,312	5,276,219	7,659,482	11,690,580	6,490,746	3,412,772	4,404,714	4,374,757	4,980,021
Number of banks.....	128	70	132	335	411	1,006	1,523	1,010	855	1,076	605	233

For explanatory note see table 1.

TABLE 10.—NUMBER OF WEEKLY REPORTING BANKS EXTENDING CREDIT TO MORTGAGE LENDERS AS OF DEC. 31, 1966, BY AMOUNTS OF CREDIT EXTENDED
 [Dollar amounts in thousands]

Amount of credit extended	Loans to—							Amounts reported		
	Mortgage lenders, total	Insurance companies	Mortgage companies	Savings and loan associations	Mutual savings banks	Other real estate mortgage lenders	Loans to mortgage lenders, total	Mortgage companies		
More than \$100,000,000.....	7	1	4	.....	.....	.....	\$1,046,069	1	.....	\$464,066
\$50,000,000 to \$100,000,000.....	5	3	5	.....	.....	.....	367,487	2	.....	325,951
\$25,000,000 to \$50,000,000.....	23	1	10	.....	.....	.....	805,518	.....	.....	322,155
\$10,000,000 to \$25,000,000.....	41	1	38	1	.....	.....	621,743	.....	.....	372,555
\$5,000,000 to \$10,000,000.....	36	6	28	4	2	.....	258,125	7	.....	206,387
\$2,000,000 to \$5,000,000.....	65	21	63	10	.....	.....	214,547	6	.....	199,196
\$1,000,000 to \$2,000,000.....	38	18	35	27	1	.....	153,807	20	.....	51,403
Less than \$1,000,000.....	63	52	59	69	5	.....	23,401	12	.....	22,322
Number of banks:.....	278	102	242	132	16	.....	.....	105	.....	.....
Reporting credit extended.....	62	238	98	208	324	.....	.....	235	.....	.....
Reporting no credit extended.....	62	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total credit extended.....	\$3,386,687	\$319,758	\$2,163,835	\$319,612	\$58,101	\$525,381	3,386,687	.....	.....	2,163,835

Chairman PATMAN. Mr. Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman, I also have some questions which I will submit in writing if I may. (See app. III, p. 120.)

First, Mr. Chairman, I would like to join with you in your words of well-deserved praise for Under Secretary Wood who has simply done a magnificent job in the Department of Housing and Urban Development, and I know those of us in this committee, and the committee which you also chair, the House Banking and Currency Committee, will miss having him before us.

The chairman mentioned the battle royal between the mayors and the State governments and you indicated, Mr. Secretary, that maybe Pennsylvania's situation was improving. Let me relate to you a dilemma we have gotten into with the city of Pittsburgh. The State legislature of one party passed a law which in effect took away from the mayor and city council the right to set wages for city firemen and policemen; yet when the arbitration award increased the wages, as I think was proper, and the mayor went back to the legislature for authority to impose certain taxes to pay for this increase, the legislature refused to give it to him; he is now absolutely caught in a bind where the expenditures, over which he no longer has control, are imposed on him without the authority to increase the taxes to pay for them. So you see, friction between the cities and the States, I regret to say, continues to exist even in the Commonwealth of Pennsylvania.

Mr. WOOD. That, Congressman Moorhead, leaves us to ponder the problems in the other 49. I think that part of the concept of sensitizing the States that I mentioned earlier is realizing what they are doing when they try either to regulate every aspect of municipal activity or play the game of imposing costs without providing revenues.

Representative MOORHEAD. Mr. Wood, I like your thought on "The restoration of the neighborhood." It has a good ring to it, it is conservative, it is going back to something that once existed and yet it is progressive in that it is something new; but really what do you have in mind? There was no institution that ever existed as "a neighborhood." It was more a psychological thing. Are you proposing a return to this psychological neighborhood or are you thinking more of a formally institutionalized thing which I don't think ever existed?

Mr. WOOD. You are right, Mr. Congressman, in that there has never been a formal institutional organization called neighborhood. I think, however, that the political processes of urban government have existed in responsible neighborhoods in an informal way for some years.

As the city of New York has learned in its own tragic way, we are faced with some of the most complicated issues in government that this country has ever encountered. Namely, what do we mean by decentralization? What do we mean by neighborhood participation, by the participatory administration that in the last 4 years the Johnson administration has undertaken to establish.

It is clear to me, on the one hand, that this continental democracy of 200 million people, classless, is now faced with a reaction that requires a major centralization of power, particularly in its large urban cities. On the other hand it is clear to me that this cannot be done in manner that leaves the municipal government, the political process of municipal government impotent and unable to act or in a manner that creates a series of small neighborhood sovereignties.

What we try to do as we wrestle through with this problem in the model cities program—and I know all the members of this committee followed that closely—is to establish communication, a notion of shared presence between the neighborhood and the local government, and a concentration on effective participation in issues that really concern the citizens of the neighborhood.

It seems to me, that this new experiment, this untested method, the neighborhood activities have got to be concentrated on specific issues; have to relate to what the people in the neighborhood care about; should be educational in terms of the processes of government, and should allow people to feel effective.

The example I often use, having lived for 10 years in a town that still has an unlimited town meeting form of government, is that I am not very well prepared to debate with the school architect about whether the local gym has a 4-inch or a 6-inch joist. But I am prepared to debate about the kind of values that I think my kids ought to get in the schools.

Now there, Congressman Moorhead, is the kind of learning process I think all great cities are going to have to go through, I think it begins with the basic principle that the existing process of municipal government is the bedrock on which you start. You then improve and sensitize both people and process, but you do not confront it. This is the philosophy of the model cities program.

Representative MOORHEAD. Well, I think we will have to observe the model cities program, I think it is, or I have seen, participatory democracy in neighborhood fighting, wrangling and it is a rather healthy thing in Pittsburgh.

Mr. WOOD. Yes, I am sure it is an uneven pattern as yet, but it is a beginning.

Representative MOORHEAD. Mr. Secretary, have you given any thought as to how we could change the financing of transportation systems in the United States? I think that if I were the mayor of a city or a locality deciding whether it would go for a highway where the Federal Government would pay 90 percent, or for a mass transportation system where the Federal Government would pay two-thirds of the project costs. I would go for the means by which the transportation would only be 10 percent.

Mr. WOOD. One of the objectives of the President's Organization Plan No. 2, Mr. Moorhead, was to rationalize the mass transportation activities of HUD and DOT, and was, as Secretary Boyd and I testified last summer, to provide an open, equal option to cities to choose their own forms of transportation. I think the reorganization and the reallocation of transportation functions between HUD and DOT called for DOT to take the first position of mass transportation grants-in-aid where that kind of financing could be most effective.

At the same time, from HUD's point of view, we wanted to assure that in both research and in planning we are able to compare costs and benefits over and beyond the financing of grants so that mayors will be able to see real and imputed costs. So, by these moves, I hope that we are moving in that direction.

Representative MOORHEAD. Thank you, Mr. Chairman.

Chairman PATMAN. Senator Proxmire?

Senator PROXMIRE. Mr. Wood, I am very sorry I was late and wasn't able to be here when you made your presentation. I have had a chance to scan your statement and it is a very fine statement, one of the best I have read in a long time, I wish I had more chance to go into it in detail. I am delighted that you set forth the problem the way you did. We have these broad, ambitious Federal goals with regard to housing set forth in the housing bill. The achievement of these goals, of course, is going to determine a great deal about the quality of life and the kind of country we have in the next 20 or 30 years. We want to achieve these goals in the next 10. The question that comes to my mind right away, and perhaps you have answered it although as I say I have only had a chance to scan your statement, is whether it is possible for us to drive for these goals and, at the same time, provide the kind of decentralization, the kind of options for the local governments to move in their own way, and to make their own decisions in community facilities?

Mr. WOOD. I think that is going to be one of the tightropes we walk in implementation, Senator. I think, as my testimony indicates, it is clear that we can produce housing. The fact that we are halfway between the Kerner Commission and the Brookings Institution on our projected time schedule makes me think we are in the ball park. But it is not at all clear that production in the public facilities component that really creates communities can equal our counterparts at the local level in production schedule.

There are two ways, I think, we can begin to tackle this. We have published our housing goals, and the two substantive committees on which Chairman Patman and you serve call for the annual reports on housing, allow us, for the first time, to indicate our short falls in other than qualitative terms. I think the work of this committee will allow us to measure the quantitative relationships between production levels in housing starts and community facilities and services. We have known this in general terms, but we have never been able to pinpoint it in a way that I think now will be possible. I hope that Congress will continue to evaluate annual production.

Secondly, if we can strengthen in a few decisive areas the capacity for local governments to work together in metropolitan regions by planning, by the increase of metropolitan area programing and budgeting capacities and in terms of the equalization of resources in the two critical fields that we have touched on, as well as in welfare and education, then I think you are going to see a rapid increase in competence at the local level.

I guess one of the few disappointments I have had in the 3 years I have been privileged to serve and appear before these committees has been the inability of HUD to achieve progress on the metropolitan development front consonant to what we have achieved for the communities in general and for inner cities in particular.

I think it has been difficult to indicate how the metropolitan development program might have provided incentives for local governments to combine their community resources and regional facilities. But that is in the law. It has not been as actively pursued administratively as I would have wanted. I think it will come.

Senator PROXMIRE. You feel one of the reasons we have to continue the grant-in-aid program rather than substitute either tax sharing or block grants is because you have to have this coordination if you are going to achieve the goals effectively.

Mr. WOOD. Coordination is one reason, yes. Another is that we do have national responsibilities which affect quality and safety of our national life and what kinds of cities we want. These are national missions. I think the other reason goes back to Congressman Moorhead's inquiry to me. There is unfortunately, a prevalent idea that if we only redistribute resources in some magic way; if we only put dollars in peoples pockets somehow; or if we only give to existing institutions some economic benefit, we will have solved our problems.

I don't think this country suffers from an excess of institutions. I don't think it suffers from an excess of ways in which people find each other and have communal experiences. I think what this Nation lacks is the ability to recognize nonproduction institutions and to change and strengthen them where appropriate.

This should be one of our high priorities. This the Federal Government can do without using authoritarian procedures and without, I think, diminishing local initiative and flexibility. It involves learning how to use the American Federal system; stopping the debate, as the chairman indicated, between the State and the local communities over this allocation of resources; stopping the old game of the Federal authorities accusing the local governments of lack of forthrightness in their planning, and the local governments saying that the Federal redtape diminishes the impact of the grants they receive. Learning really how to bring the Federal system up to date in this urban world has to go hand in hand with resource allocation.

Senator PROXMIRE. How far can we go just with Federal loan guarantees, of the bonds issued by State and local governments, provided the interest income is taxable?

Mr. WOOD. We can, at least, indicate some priorities; some preferences for the kinds of investments we consider desirable.

Senator PROXMIRE. This, I think, is a practical thing that Congress can do pretty easily. As far as the block grants are concerned, we may or may not be able to afford them, but Federal guarantees of municipal bonds are something we can act on promptly.

Mr. WOOD. Guarantees are one of the most simple areas and, perhaps, one of the most effective, but I was trying to suggest that there should be some kind of priority system in the guarantees. Some notion of performance standards or eligibility requirements that speak to the coordinating and planning activities ought also to be introduced.

Senator PROXMIRE. Do you think that Federal guarantees of municipal bonds are preferable to Federal Government sponsored banks?

Mr. WOOD. I would at the present time prefer to not choose between alternatives but rather to start with one, and then examine each proposition in further detail.

Senator PROXMIRE. You would start with Federal guarantees of municipal bonds?

Mr. WOOD. Beg your pardon?

Senator PROXMIRE. You would start with Federal guarantees of municipal bonds, with the interest income taxable?

Mr. WOOD. I think I would; yes.

Senator PROXMIRE. Mr. Wood, thank you very much. I might have had some more questions but I think your responses have been excellent and, as I say, this is a very fine statement and I appreciate it.

Mr. WOOD. Thank you.

Chairman PATMAN. We have an understanding with Professor Wood we may submit questions, and he will answer them when he looks over his transcript. Your footprints of real helpful and effective service will be around Washington for decades to come.

Mr. WOOD. You have been very kind, Mr. Chairman, and I appreciate it. Thank you very much.

Chairman PATMAN. Mr. Udall, please.

We are also honored with the presence this morning of the Honorable Stewart L. Udall, Secretary of the Interior, to appear and testify before this subcommittee.

Secretary Udall, we are delighted to have you, sir, and we look forward to listening to your testimony. You may proceed in your own way.

STATEMENT OF HON. STEWART L. UDALL, SECRETARY OF THE INTERIOR

Secretary UDALL. Thank you very much, Mr. Chairman.

Mr. Chairman and members of the subcommittee, the invitation to appear before you today—for a sort of valedictory discussion—is truly appreciated. It is not often a public official, about to leave office, is asked for words of counsel. He who has such words to offer usually must do so in his “memoirs.” So far as I am concerned, memoirs still lie in the distant future. But I have ventured to put my present thoughts in writing in the form of a small book which was published last week with the title “1976: Agenda for Tomorrow.” What I am about to say here—in more detail and with discussion of other related matters—is in that book.

What weighs most heavily on my mind, and I think on the minds of most Americans, is the fact that our Nation is now confronted with internal troubles fully as serious as any it has faced since the Civil War. I am optimistic about our potentiality for safe passage through this time of troubles—but only on condition that the public and its leaders face the facts and on condition that we are willing to bear the heavy costs of remedial actions.

Foremost among the dangers and troubles we face is our “urban affliction.” For the first time since General Sherman’s scorched-earth march to the sea in 1865, parts of our cities have been put to the torch by Americans.

No sudden lapse led to this emergency. In large measure it is the outgrowth of old errors and of shortcomings of previous generations. The seeds were planted by public and private policies of keeping a whole race in an inferior state; by approaches to economics that accepted poverty and slums as inevitable incidents of American life; by a division of power that strangled local government and demeaned local leadership; by a national default of conscience which produced the degradation of the environment; by the belief that producing goods for man was more important than the cultivation of the good in man. The truth is that our cities were on fire decades before the first flames at Watts.

After the summer riots of 1967, at a time when the Nation could boast of the most prolonged peacetime prosperity, a Detroit business man peered into the pus-pocket slums of his city and exclaimed: “Absolutely terrifying. No wonder people riot.”

Why should a people prideful of its science settle for a soiled and second-rate environment? Why has the most science-centered society in history *not* developed a science of human settlements?

Why is our industry complex able to build Saturn rockets but unable to fashion tools to renovate and renew the environment where most of us live? Why if it is sound to spend billions of dollars on supersonic aircraft to whisk us to London in 2 hours, is it not equally important to devise systems of public transportation to get us to and from work in less than half the time?

The answers to some of these questions lie, of course, in our history. Agrarian roots and the rural suspicion of two centuries taught us to distrust city conglomerations; distrust led to the rigging of arrangements (rotten boroughs and rural malapportionment were only the most notorious disfranchising devices), which seriously weakened city government; weak city government led to a system of low priorities, then to even lower citizen expectations of the capability of local government. Finally, waste and improvidence led to supposedly "insoluble" problems, and insoluble problems meant that cities were indeed "ungovernable." Thus the ring closed back to the anticity bias where it all began.

But glib talk about "ungovernable" cities is a rationalization that masks an unwillingness to revitalize local governments and permit large-scale urban renovation to begin. Weak city and county government is the foreseeable result of past practices. Rural-run legislatures and congresses have rationed local power and retained the superior sources of revenue. At the same time, the "higher" bureaucracies have sat complacently while the overpowering problems of poverty, pollution, and racial discord were piled on the doorsteps of underfinanced, undermanned, and already floundering urban governments.

Into this complacent system, between 1950 and 1968, 6 million southern Negroes spilled northward, bearing with them all the accumulated disabilities of a demoralizing social system that had left them wholly unprepared to succeed in the cities. The only reception these "immigrants" got was joblessness and the cold hospitality of a demeaning system of social welfare. This new American melting pot quickly became a cold cauldron of frustrated hopes. Unsolved human problems multiplied in urban areas functionally incapable of dealing with them. So we came with slow understanding to what we now call the "urban crisis of the 1960's."

But the hard realities of the 1960's—the squalor, the ugliness, the inhumanity, and the police squads at the ready—tell us that the failure of American urbanization is now a judgment of history. The urban malady is severe and pervasive. Experience has taught us the hard lesson that far more is required than palliatives and pilot programs. The urban affliction will respond only to sound surgery and humane therapy of a dedicated generation. If our social problems are great, so are our resources, our talents, our aspirations. Man's highest hopes, his most remembered experiments in living, have been acted out in cities throughout the course of history. The future of this Nation can be no greater than the future of the American city.

I said, a few moments ago, that we must be willing to face ugly facts as they are and to be willing to pay the costs of remedial and renovative action. And we must not let the timid souls deter us with that moth-eaten question "where is the money coming from?"

In the 1940's the Nation organized and successfully carried out the Manhattan Project which built the atomic bomb. In the mid-1950's, the Congress authorized and the President approved the 41,000-mile Interstate Highway System which the New York Times a decade later editorially described as: "* * * the most enormous public works project in the history of the world. In cost, it is likely to exceed \$60 billion by the time it is completed in 1972. In size and complexity it dwarfs all of mankind's previous works such as the Pyramids, the Great Wall of China, the Panama Canal, or Grand Coulee Dam." In the 1960's all our restless energy, our competitive spirit, and our scientific and industrial process were brought into sharp focus in order to put U.S. spacemen on the moon on a predetermined schedule. One point of these three projects is inescapably made: big goals require big plans and clear-cut deadlines to achieve success.

A nation that could organize and carry out such dominating projects can in the 1970's, genuinely begin the even more difficult and urgent task of transforming the worst slums from Manhattan to Los Angeles into civilizing habitats for man. Technicians who can construct spacecraft that circle the earth in an hour can also help us build balanced cities. If we have the expertise to engineer the largest system of highways in history—and incidentally, to finance the construction of that system without resort to a dime's worth of interest bearing debt—we should be able to build bridges between the races that have lived on, but never really shared this continent for three centuries.

The task is less to renovate than to recreate. More than slum clearance is involved. There are gilded as well as slum ghettos. Given the will, we can turn our drab urban landscape into a spiritually nourishing as well as physically satisfying environment, not only in a broken Newark or a gutted Detroit, but also in ugly cities, towns, and villages that stretch from New York to Memphis and on to Los Angeles.

The first phase of Project 76 should involve every community in drafting a master plan to achieve the redesign and renovation of its entire environment not later than the year 2000. Each mayor could convene a "Council to Recreate the City" whose dynamic, representative, revolving membership would educate the community, review all individual projects, and gear future plans to aims of excellence. For the first time, decisions about design and the harmonizing of private actions and public amenities could be guided by the finest thought and leadership in each city.

"Developers" would no longer decide the shape of the city, but would be forced to consider fresh solutions in which present and future welfare would be interwoven. This could give the public life of many communities a creative excitement largely unknown in this country.

To succeed, Project 76 would have to be truly national. It would offer the same promise of rural renewal as of urban renovation. To gain unswerving congressional support, it should encompass every community of every size from Miami to Hilo, from Aroostook to Anchorage.

The master planning phase could begin immediately, with Federal grants to cover at least half the cost, and with local public and private participation supplying the balance. Each community should have a plan and some large-scale projects underway by 1976.

While initial planning was proceeding during the first 2 or 3 years, immediate priority should be given to job-creating cleanup work, which could be done by hard-core unemployed in the worst slums. Just as Franklin Roosevelt sent unemployed youths into the devastated woodland to replant the forests, we should launch an urban cleanup corps to roll back blight, reclaim public beauty, and begin the training of the work force required for large-scale blight-removal projects.

Federal planning and construction grants for urban renewal and community facilities should be trebled to 5 billion the first year. That first year we should spend at least as much on Project 76 as we have been spending annually on the exploration of outer space. Such expenditures should be increased, out of our constantly expanding gross national product, to an annual grant level of \$50 billion not later than 1985. The Federal Government should deal directly with the cities. Funds could be channeled to them under a distribution formula giving first-phase priority to slum renovation, but guaranteeing ultimate participation by each community on the basis of its population and willingness to invest matching money (perhaps 25 percent) in Project 76 programs. As the action accelerated, solutions for such regional problems as providing of mass transit for each megalopolis, the encouragement of new towns in appropriate areas, and the renewal of towns and cities of under 30,000 population (to slow down the implosion of people into big cities) should get special attention.

Project 76 could influence the whole course of our history. As we learned in our peacetime experience in carrying out the Marshall plan and our national adventure in space, any great decision or enunciated goal, if it is a decisive, galvanizing act, has far-reaching consequences. It coalesces thought and energies. It stirs syntheses into being, sets events and investments in motion, all of which give a sense of purpose and commitment otherwise lacking.

Before closing this statement, which has dealt largely with the "urban crisis," I want to say something about the new dimensions of conservation.

The way a people possess the land they live on is always a revealing comment on their character and institutions. The tidy farm-scapes of the Pennsylvania Dutch country and the billboardless vistas of Hawaii say something positive about our people, just as a dying Lake Erie, the polluted rivers in every industrial State, the poisonous air of southern California, and the hideous slums of our big cities express the distorted values that permit us to demean and diminish so much of our continent.

Realism requires much more than moralizing about the industrial "rights" and environmental "wrongs" of past years in which, heedlessly, we put profits ahead of the future welfare of the people.

Since the onset of the industrial revolution we have tormented ourselves by believing that the price we have to pay to enjoy the full benefits of mechanized industry is the blighting and befouling of the land and its renewable resources. This is false bookkeeping. It is rooted in the erroneous concept that to build a nation, part of its permanent capital must be spent. We must dedicate ourselves to authentic conservation which maintains the productivity of our resource capital by wise use of resources and the maintenance of an environment that assures their continued full productivity. The mature industrial revo-

lution of tomorrow will find enlightened enterprise using our versatile technology within a framework that shows recognition of the fact that conservation is indispensable to the long-term wealth of nations.

The signs of this revolution are appearing in many places: the quest for clean energy by some segments of the electric power industry; the aggressive if belated research of the petroleum and automotive industries for a clean combustion engine; the growing awareness in agriculture that fertilizers and pesticides that will leave nature unharmed must be produced; the realization by metal-using industries that recycling of "waste" metals is the only longrun solution to the problems of efficiency and self-sufficiency. All these, and other developments, are making conservation, for the first time, an accepted part of the business creed of this country. Were all entrepreneurs to be put on equal footing through the enactment of wise national laws that would establish performance standards, sound conservation practices would soon be part of the regular cost of doing business in America. Thereafter, the consumers of goods or services would pay for a cleaner technology, and, in return get a much cleaner country.

We have the wealth and technical skill to make this a tidy, clean, well-ordered land without impairing our ability to harvest the fruits of a highly prosperous economic system.

Statesmanship must arrange an overdue marriage between the economics of production and the economics of beauty, and we must encourage the incentives and investments required to guarantee that no industrial activity degrades the overall environment. To put it positively, our enterprise system must enhance living values by the design and location of plants, by the control of processes and effluent, and by the creation of a fulfilling milieu for its employees.

A program that embraces the all-encompassing dimensions of the new conservation must be an integral part of Project 76. Our best efforts to bring population into balance and to rebuild cities that will nourish the whole man cannot succeed unless, as a nation, we obey the imperatives of ecology. By accepting fully the discipline of the master science, the other branches of science will, in turn, become sensitive allies of beauty and order.

This will mean, of course, a drastic change in our approach to production. If, for example, we evaluate the impact of the aluminum can, the supersonic transport, or a new chemical pesticide before production, rather than after damage has occurred, safe and sane yardsticks of progress will soon be established. We have acquired an astonishing capacity to make and sell almost anything, but we have blighted and contaminated the continent in the process. The old criterion of the national marketplace "can it be made, mass produced, and sold at a profit?" is dangerously outdated. The task ahead is to win support for this more mature test: "Beyond its salability, will it work for man and with nature for the future?" We must learn to reckon profit by new accounting standards that do not discount the welfare of future generations.

Thank you, Mr. Chairman.

Chairman PATMAN. Thank you, Mr. Udall. You have presented a fine statement.

Secretary UDALL. I may sound at times like I am a bookseller. As I stated before, I have a new book out as of last week. It represents

some of my thinking after 6 years in Congress and 8 years in the Cabinet of two Presidents, and it is an attempt to do really what I think this committee has undertaken in its best moments of trying to focus on the great problems, try to help the country sort out its priorities. In fact, I have a chapter in my book on politics.

One of the things that I think is missing on the Washington scene, if I may make my own pitch for congressional reform, and I have written about this at length, is that I think the Congress itself—the committee system does this to a high degree—is fragmented. It tends to look at the pieces institutionally. One suggestion I have made is not exactly new, but I am very serious about it, is that Congress every year, for a month or 6 weeks maybe after the President has delivered his state of the Union message and budget, would conduct its own national assessment, or annual national look at priorities. Maybe you would invite the television cameras in and let the Nation for a few weeks every year talk about what kind of country we ought to be, where we are heading, and what our shortcomings are. The Congress would really back off and to do what I think this committee is trying to do in its annual look at the real needs of the Nation. Thinking back on my experience here in Washington it does seem to me that one of the very grave weaknesses of the system is that the Secretary of the Interior looks at the Interior Department—with his own blinders on. He doesn't relate it, oftentimes, to what other needs are and what the other national requirements are.

While I look back, Mr. Chairman, at these years I have been in Washington, it seems to me there have been very great achievements. We ought to take pride in the fact that our country is stronger—our economy is functioning better, the standard of living is up generally. Yet I can't look at this period of time without feeling that there has been a very serious imbalance in our performance as a nation; this ultimately gets down to the whole question of priorities.

One of the reasons we have done so well in terms of our defense responsibilities here and around the world is that we have spent what money had to be spent. Congress, as we all know, votes with a hoot and holler anything that is recommended in the defense field. This is traditional. I suppose the new President—if he were to propose vast new programs and say that the Nation has to have it—Congress would accede. Because it doesn't really know, it would vote them.

So out of this has come a picture, it seems to me, of providing the goods and services of an affluent society. We have done very well in those terms. As for maintaining military power in the fast-paced economic system, with constantly growing GNP, we can point with pride at what is happening. But there has been serious neglect during this period of domestic needs. Those failures, what I feel are national failures, tend to focus today on the cities of the Nation.

I would say that we have a very notable national failure, in what I call generally urbanization. Most of our cities in one way or another are a mess. We have to be honest about that. I think in terms of managing the resources of the country with all of the air pollution and water pollution and what the landscape and countryside looks like today this has been an area of national failure generally.

We made some big strides in the 1960's, I think we started down the right road. If what this administration has done serves as a foundation

for followup actions, I can see some hope in this area. But there is no doubt we also have failed—and this is the reason why some of our cities are rioting today—in terms of doing the other things a great civilization must do. That is to produce harmony and amity between the different segments and groups that compose the Nation.

So, it seems to me, we have done almost everything except the things that a great civilization does: to build beautiful, balanced, well-ordered cities; to compose the differences between its groups; and to manage its environment in such a way that the whole environment is more life-giving and more attractive to man rather than him finding every day or every week that there is some new intrusion which makes life less satisfying.

These are some of the things, Mr. Chairman, that I have written about. This committee has performed, over the last 20 years or more, a very valuable role in terms of focusing on the economic needs of the country.

The great goal we had in mind when this Joint Economic Committee was established under the Full Employment Act of 1946 was to be sure we could make the economy work. We wanted jobs and we wanted housing and we wanted an economy that would function properly.

I think one can point to many areas of our national life where we have succeeded. I have indicated some. But the problems now, the primary problems it seems to me, are not jobs and housing—the traditional things we have talked about during this whole period. In fact one of the reasons our cities are in so much trouble today is we built housing but not communities. We have not been thinking of the overall question of what constitutes a city or a neighborhood. We have simply been interested in housing. We are aware now, I think, that is one reason why some of our cities are in difficulty—that housing is not enough. You have to build communities and you have to build neighborhoods and you have to have the right mix of people and so on.

I think it should be clear to us that we can't smugly sit and be satisfied if each year we continue to produce a few more hundred thousand automobiles than we did the year before. This is not enough. Yet this has been one of the great indexes of economic progress in this country. We are a nation that takes great pride and interest in mobility. But let's look at the other side of the coin. The automobile (and our highway program which again is a specialized responsibility of one small group in the Congress) is responsible for much of the environmental mess that our cities are in today. The automobile, with its congestion, with its air pollution and other things, has created tremendous problems in this country. We have to begin to solve them rather than simply sit back and take pride in the fact that we produce more automobiles by far than any other nation in the world.

Again, here are questions of priorities and responsibilities as to what our Nation should do.

I have expressed the idea that I would like to see this country encourage a leveling off of population. This may sound like a radical idea but it really isn't. The population of the United States leveled off for over a decade in the 1920's and the 1930's. We have been growing so fast that we haven't been able to get ahead of our problems in terms of the quality of life in this country. We have been building roads and

building housing and expanding the suburbs. In the meantime quality has been deteriorating in terms of the general life of people in this country.

There has been—it is a major fact of life that few have noticed, although it occurred before the pill showed up, that there has been a sharp break in the birth rate in the 1960's. It started back in 1960. The birth rate today is near the low point in the depression. If this trend continues as it has for another few years we will have a leveling off of population.

I submit this as a question to the subcommittee: Is this a disaster in terms of the economy? I am sure some people think it is. But to me it is not. I don't think the power of this country or its success, economic or otherwise, rests on numbers of people. I don't think this is the way that the strength of a modern nation is judged, and I think if our population did level off and we could concentrate—not simply on expanding, with our school people spending most of their energy on expansion—or concentrating on the individual and the quality of education, we might really change this Nation and improve it. So this is one idea I have offered in my book. I have also suggested we give more attention to all environmental problems, you would expect that from a Secretary of the Interior.

I would like to see us enunciate a big national goal on which we are going to spend billions of dollars to attain and enlist the whole Nation in a mighty effort to do something that will obviously be to the benefit of all the people.

The only programs of that kind I can single out since I came to Congress in 1955 are the Federal highway program, a \$50 to \$60 billion program, carried out over a period of 15 or 20 years. It is still going on. It is undoubtedly among the finest and the greatest engineering projects in history. But that program is in trouble now—because it is cutting up and messing up the cities. I think we ought to slow it down and reassess it. This is a big program, with a national goal. We set money aside in a special fund for that program. I have a lot of ideas of my own about how I would like to see it changed but this is not the place to discuss them.

The other program I can single out, where we had a clear-cut goal we were going to spend money on, is the space program. We were going to achieve both goals.

Why shouldn't we now resolve to do what a great civilization has to do—to remake the cities of this country. I do not mean just the big cities, you can never get the kind of support you need in the Congress for just that because you don't have the votes merely to eradicate slums of big cities. So let's redo all of the cities, large and small. The small and medium sized cities—and I am very familiar with them, that is the kind of congressional district I come from—have problems and need help. I think we should set as a national goal the last third of this century a rejuvenation and restoration of all of the cities of this country—to eliminate the problems that plague them and plague the people who must live in them.

I really believe that unless we give the cities priority and develop a method of national planning and national effort and an alteration of priorities, we are going to be in increasing difficulty.

This, Mr. Chairman, is probably not what you expected of me this morning, but a lame duck Cabinet member can be very relaxed and very forthright. It has been a pleasure to be with you this morning and give you some of my thoughts in regard to the future of this country.

Thank you for your indulgence.

Chairman PATMAN. Thank you, sir.

We appreciate your statement, Mr. Udall, and we appreciate the fine work that you have done in preparing your statement and the information that you have given to us.

Senator PROXMIRE, would you like to ask the Secretary some questions?

Senator PROXMIRE. Yes; I would like to also join the chairman in congratulating you on a fine oral statement as well as an excellent written statement, and I think your call for Project '76 is welcome and needed.

You started off by indicating that you thought we ought to have a broad discussion of priorities in the Congress, in the executive branch, and so forth, perhaps for a month or 6 weeks, at the beginning of the year, and then you seemed to finish by saying we ought particularly to focus on a priority for the cities, broadly defined, as we have done with the space program and the highway program, and I am wondering if maybe the first suggestion shouldn't be given more emphasis, because as I look down the possibilities here, we obviously should have a discussion on priorities in defense. I feel very strongly, for example, that some of our defense weapons systems and some of our commitments in defense are very hard to defend, very hard to justify. I think, furthermore, as we go down the list and establish priorities sensibly we can free resources from other things. The supersonic aircraft, I think, is a frill we can forgo, frankly just expressing the view of one Member of Congress. I think as we discuss this we can determine how much we have available in resources to do this job.

In the space program, we are going to achieve the objective established by President Kennedy to land an American on the moon. That has been a national objective you referred to, and perhaps we can have some resources freed from that source.

There is no question in my mind that this roadbuilding program has been allowed to go on because it has such a neat, clear source of financing. You don't have to raise any money, it is isolated, you can't spend it for anything else, it is there and if tens of thousands of miles of concrete is not laid down it just piles up.

But in all these areas it would seem to me that we can have a very constructive discussion that could then determine whether or not we had resources available which the taxpayer would be willing to let us allocate in these areas.

For example, I don't know if you read the National Observer for this week but they have a fascinating article on health, pointing out we have increased our health expenditures by the Federal Government since 1960 from \$3 billion per year to \$14 billion per year. Of course, a lot of that is medicare.

However, we have not, at least to date, improved the Nation's health in any way that you can measure very much. A slight increase in longevity has been achieved but we have slipped, if anything, compared to other countries healthwise.

It seems even here, even in an area where everybody can agree we have a goal that compassionate Americans want to achieve, we ought to set up, establish priorities and adopt some system of measures whether we are getting results.

What I am getting to in this long preliminary to the question is whether you think it would be sensible and practical for us to try to find a cost-effectiveness measure at least as a guide, but not to rivet us into a system where we have to adopt whatever has the best cost-effectiveness result by applying some uniform or fairly uniform discount rate. I know this is very delicate ground for the Secretary of Interior, but such analysis could provide a basis for making a judgment which would be much more objective than it has been in the past as to whether we ought to go ahead with some of the commitments we have.

The two areas where they refuse to give you any notion of a discount rate or cost effectiveness are space and roadbuilding. As a matter of fact, when this committee wrote to the Administrator of the highway program and asked what kind of a discount rate he used, he said, "We don't use one, we haven't in the past and we don't intend to use it in the future." Build a road from nowhere to nowhere and we have the money, why not. And it seems to me if we can get some kind of an instrument like this to begin to measure the results we are getting then we will be in a much better position to evaluate the capacity to reach these various national priorities and goals and what kind of resources we have available to do the things we want to do the most.

Secretary UDALL. Senator, I couldn't agree with you more—on the general statement you made and particularly with regard to getting sound yardsticks that can be used to tackle these programs.

Every time I am driving on the new interstate highway out in my own part of the country where it is a long way between towns sometimes, and I see these overpasses that are built where maybe one rancher twice a day uses one, and I know they cost \$150,000, \$200,000, or \$250,000, and I ask you, well, it is there, it is in place, it provides a little element of safety that wouldn't be there and the road is really built in terms of standards 25 years ahead of its time. I am not against foresight but if you ask whether that money really is needed there or is needed in some of these cities that are drowned in automobiles. I think we have a fantastic distortion of priorities. I think our experience, the experience of this administration, with cost effectiveness, not only what Secretary McNamara has done but because the Bureau of the Budget has instituted this programing, planning approach which uses the cost-effectiveness yardstick, I think it is very helpful. It certainly helped me as an administrator and my people in getting a much sharper picture of what we are doing and how effectively the money we are spending is being used.

Senator PROXMIRE. Well, I think that is a very, very helpful response.

I am wondering how this priority discussion that you properly suggest can best be organized. I have thought for a long time that this committee could be helpful in that regard. After all we are the Joint Economic Committee of the Congress. We have the responsibility for recommending economic policies or at least considering them and mak-

ing reports on them. Our jurisdiction is very broad, it cuts across all kinds of lines.

Would it be helpful, in your view, if we had hearings on priorities, try to make a report on priorities, invited in not only members of the executive branch, but Members of Congress who would be interested to testify on priorities and try to get the discussion going that way? It seems to me that unless we do that it is going to be very difficult. The natural thing, of course, is for the President to move in. I am not criticizing the President at all, he has to do it, but in his state of the Union message and his budget, he establishes the priorities, and the new President, some people say, may put a very heavy emphasis on expanding our defense establishment and expanding the space program. Maybe he is right to do it, but once he has made this commitment in the budget and in the state of the Union message, Members of Congress who are acting in a more or less disorganized way or an unrelated way, don't have much opportunity to modify that presidential decision as to what our priorities are, or even to consider alternatives or to understand how they relate to each other. So do you think this committee would be a good institution for the purpose?

Secretary UDALL. Senator, if Congress as a whole doesn't take action, I would think action by this committee would certainly be a good second best, and I think if you structured your hearings in the right way and you invited people from outside the Government and made it into a kind of discussion of priorities and national purpose, this might attract the kind of attention that is needed.

Senator PROXMIRE. How can Congress itself do it? I am not saying they shouldn't do it. Perhaps they should, but how can Congress do it without a committee stepping in and moving ahead?

Secretary UDALL. Well, Congress as an institution does not like change, as we all know, but it would be rather simple, as I proposed it. Congress would simply resolve itself into a Committee of the Whole. The Senate could do it; the House could do it separately; you could do it in a joint session, which is what I am talking about. You would have an actual debate for 3 or 4 weeks on national purpose, national priorities and a real broad-gage discussion of the type you never have.

Now, I have watched Presidents put budgets together and prepare the state of the Union messages. They have actually to sit down, and it is the most exciting part of their work, and ask themselves: Where is the country going? What should we be doing this year? Where should we be spending our money?

Congress doesn't do that. The Appropriations Committees don't even have a discussion of how money is going to be spent. Each subcommittee, as we know, has its own blinders on, no questions are asked in the main. The Senate debates appropriation bills probably more than the House does, but neither has an adequate overall view.

Senator PROXMIRE. I agree with you on this. I am on the Senate Appropriations Committee. I am on five subcommittees, and those are the five subcommittees I pay attention to. We are all busy as the dickens and we don't get any broad overall notion of what our priorities ought to be. Maybe we can put these two ideas together, I don't know what the timing of it may be. This is the Joint Economic Committee, we have a broad charter from the Congress on broad overall governmental policy. Perhaps what we could do is hold hearings and make a re-

port and have this serve as a basis for debate in the House and Senate. It would seem to me that to have joint sessions lasting for 6 weeks with debates, for which you would have to use the House rules, of course. Consequently, you could only have relatively few of the 535 Members speaking and speaking rather briefly in terms of our goals and priorities. Most Members of Congress wouldn't have a chance to say anything and when Members of Congress don't have a chance to say much they lose interest and they don't show up because it is not very significant to them. So it would seem that if you just had that alone without having a responsible committee holding hearings, and then issuing a report and having that report available as a concrete basis for discussion, I would doubt if you would arrive at priorities that would in any real sense provide alternatives to what the President is offering.

Secretary UDALL. Well, Senator, I certainly would agree. If there is any committee that could assume this as a chore and responsibility I think this is the committee best equipped to do that.

The reason I am interested in this is not simply in getting Members of Congress to sort of back away and do some overview and overthinking, but I think the country needs to do it.

Now, we do this in a way every 4 years in our national political campaigns, I suppose, but if you had the idea of something built in, it was a annual national assessment, as it were, where we could stop and ask ourselves and, of course, this would spin off a lot of articles in the press and editorials and everything else, and maybe we would have the kind of discussion of priorities—

Senator PROXMIRE. It has got to be organized around the budget. In a political campaign the difficulty is, after all, all of us who run for office are interested in getting elected. In a political campaign presidential candidates don't make a speech anywhere in the country attacking popular Government programs because each one has a lot of constituents; so if the candidate is saying anything about these programs he is for them, whether you were Humphrey or Nixon. In the last campaign, you are for the space program, you are for any program that has broad support for it, and, of course, we are all in a sense for every program. But when you come right down to the point of getting the money to spend you have to make a decision on priorities.

It is a budget decision, perhaps it is a decision for the Appropriations Committee, but I would think it is a broader decision than that and, therefore, I would hope that the spark that you have lit this morning would catch fire and perhaps this committee can provide the kind of discussion on goals and priorities.

Chairman Patman and I have discussed this in the past, and I have discussed this with other committee members and we have discussed this with members of the staff so I think this could be a very, very useful function that this committee could perform. If other committees want to move in, great, because I agree with you there is nothing we can do that would be more important than specifying our priorities and our goals. The two examples you have given where we have done beautifully, sensationally well, space and highways, I think are splendid examples of what you can do if you establish a goal.

Thank you, Mr. Chairman.

Chairman PATMAN. Mr. Moorhead?

Representative MOORHEAD. Thank you, Mr. Chairman.

Mr. Secretary, you have given us testimony which is inspiring, but it is also discouraging, to think that the only two successes we have had are both so materialistic, the highway program and the space program, and we should also be thinking about things of the spirit.

I think your suggestion about getting the Congress discussing general goals and priorities is a good one, and I believe that this committee could very well be the focal point for this because we can cover all of the jurisdictions of the other committees without interfering with them due to the fact that we have no power to affect their legislation or appropriations. Maybe one of the subjects we should be considering is not just making the economy work, as you have suggested, but making the economy civilized. Not just relying on the marketplace to determine our priorities but in some ways test doing the uneconomic thing because it really is better for the spirit and the quality of life. I think this is one of the statements that you make very strongly on the last page of your prepared testimony, am I correct?

Secretary UDALL. Yes, yes; you have caught one of my main themes. I really believe that. I know of Senator Proxmire's interest in some of the same things.

I think the problem in terms of science and technology today is not simply doing all kinds of exciting new things. We can build almost any machine or anything we want to build. It is what I call civilizing technology. We can build a supersonic transport. We can fly it overland in this country, if we want to, and we can disturb the lives of millions of people. But if we are going to have a civilized technology, and a civilized economy, the things we are interested in from here on out are not simply things that add to our wealth, or affluence, and our ease, but things that make peoples' lives more satisfying and that make our cities the places where we live everyday a more civilized and more creative life. This is what we have to concentrate now, it seems to me.

Representative MOORHEAD. One of the daily irritations in life is trying to get to work in the morning, and get home in the evening, in this magnificent highway program we are putting all of our money into getting people to and from by highways but it has actually caused more irritation rather than less, and I wonder if maybe we can persuade the motorists of today that even they as motorists would be better off if some of the people who were on the highways with them could be induced to use the rapid transit systems. What I am leading up to is that we could persuade the motorists that part of the highway trust funds can properly be used for rapid transit to relieve congestion on the highways.

Secretary UDALL. Mr. Moorhead, I couldn't agree with you more. I would take half the funds—the money in the highway trust fund—for a few years, and I would do something to benefit the highway users. I mean to solve the problems that the highway users face. We need big heavy-duty highways across this country, no question about it. But when you get to the cities the same highways, if they are built in the wrong places and in the wrong way can be enormously destructive. They can cause congestion, they can cause air pollution with very serious consequences. We have simply got to address our selves to these problems which a good program is creating. We have, in effect, to civilize that program. I don't know whether Congress will do it or not.

But somebody has got to speak up and try to get this overview look of what is being done.

Representative MOORHEAD. Mr. Secretary, I have one pet idea that I am sure you would share. Almost every city has been built adjacent to water, whether it be a seaport, a river system or a lake because of the economics of transportation. In almost every instance close to the city we have despoiled this water, and yet the best source, or at least a major, source of recreation is water-based recreation. Near every city in the United States is the best source of recreation—water—which we have despoiled. I think, by reversing that process, we can have wonderful recreation very close to the great population centers.

Secretary UDALL. Yes, it is one of our environmental tragedies, one of the worst that plagues us today; no question about it. Man loves water; it provides so many varied forms of recreation. A river next to a city, as Justice Holmes once said, is a treasure, and yet over the period of the "industrial revolution" in this country we slowly befouled our rivers. Most cities turn their back to the rivers. Just look at them the next time you have an opportunity. Instead of rivers being a source of pleasure and satisfaction to most people in this country who live in big cities, they hold their nose when they go by the rivers. This is another reason why a country as wealthy as ours has to get at the business of cleaning up rivers and lakes. You fully appreciate this only when you see a real clean river as I saw the St. Croix with Senator Nelson 30 miles from Minneapolis—water that you could drink—a fairly large river. When you realize there are a few left you suddenly see what a marvelous thing it is and what it can mean to people.

Representative MOORHEAD. Thank you, Mr. Chairman.

Chairman PATMAN. I know what a tight schedule you have, Mr. Secretary, and I will forgo asking you any questions but I will reserve the right to submit some to you to be answered when you look over your transcript, please. We are greatly obligated to you for coming here and testifying as you have done. We appreciate your testimony. It will be very useful to us.

Secretary UDALL. Thank you, Mr. Chairman.

(Chairman Patman's questions and Secretary Udall's answers, subsequently submitted, appear in app. IV, p. 123.)

Chairman PATMAN. Last summer we had some hearings on my proposal and that of Senator Proxmire, to provide for Federal interest subsidies to municipalities and States to help them bear the interest burdens on their bonds. Our analysis indicates that these bills, by substituting an interest subsidy coupled with a Federal guarantee of taxable bonds for the current tax exemption of the interest income on municipal bonds would prove less costly to the Federal Government than the loss of revenues from such tax-exempt bonds.

The Federal Reserve, represented by Mr. Sherrill in its testimony in our previous hearings concluded otherwise, indicating that there would not be any saving to the Government. I have had the committee staff prepare an analysis of the Federal Reserve presentation, and I am submitting this analysis for the record, together with a letter from the Treasury Department commenting on the study.

Without objection, they will be included at this point. (See p. 92.)

COST AND REVENUE IMPLICATIONS OF INTEREST REDUCTION SUBSIDIES FOR STATE AND LOCAL GOVERNMENT BORROWING

INTRODUCTION

Pursuant to H.R. 15991 and S. 3170, 90th Congress, a Federal Government agency, to be known as the Municipal Bond Guarantee Corporation, would be authorized to guarantee the payment of debt service on securities issued by State and local public bodies to finance needed public facilities where such public bodies elect to issue securities, the interest income of which would be subject to Federal taxation. If a public body elects to issue such taxable securities, the two bills further provide that the Corporation would be authorized to make interest-reduction grants equal to one-third of the annual interest charge on the taxable securities, plus the annual guarantee fee of two-tenths of 1 percent per annum of the aggregate amount of securities outstanding at the beginning of each year.

Underlying this proposed legislation is the view that the cost of the one-third interest-cost subsidy would be more than offset by increased Federal income tax collections arising from the taxation of the interest income of these taxable securities. According to a Treasury Department analysis, included in the study issued by the Joint Economic Committee ("State and Local Public Facility Needs and Financing," vol. 2, ch. 20), the aggregate average marginal tax rate of holders of tax-exempt municipal securities (based on a 1965 distribution of holdings), was 42 percent. If the U.S. Treasury were to receive 42 percent of each interest dollar on taxable securities issued in lieu of tax-exempt securities, while paying subsidies equal to 33 percent (plus the annual guarantee premium) per interest dollar, it would appear to give rise to a net gain for the U.S. Treasury.

In testimony before the Joint Economic Committee on July 10, 1968, Mr. William M. Sherrill, member of the board of governors of the Federal Reserve System contended that "Federal income tax revenues caused by investors shifting into taxable assets might not meet the full cost of such a subsidy, no matter what the extent of its use." The subsidy plan, he continued: "will cost 33 cents for every dollar's worth of investment shifted into a taxable category; but the investors most likely to make such a shift will be those who on the average pay less than 33 cents in taxes on each additional dollar of income."

In support of his views, Mr. Sherrill submitted to the committee for the record a technical analysis, "Cost and Revenue Implications of the State and Local Borrowing Subsidy Plans Found in H.R. 15991 and S. 3170," including an algebraic presentation. Using as an illustration the AAA corporate and municipal bond yields, as of December 1967, the technical analysis argues that the "net revenues" accruing to the Federal Government as a result of the subsidy plan equals "the differential between the tax rate of the marginal holder and the average tax rate of all investors in those State and local [debt] issues which are now taxable."

The technical analysis further contends: "If the subsidy rate is to be 33 percent, then that figure will also be the marginal income tax

rate of the marginal investor. The crucial fact is that the average income tax rate of all those investors now opting to purchase taxable securities rather than tax-exempt probably will be less than 33 percent. This, in turn, means that tax revenues from taxable securities will, on the average, be less than the subsidies paid to support these issues. This implies a Federal Government deficit for any such program."

The technical analysis concluded: "Barring a substantial change in the tax structure or in investor behavior, the plan to subsidize State and local obligations, subject to a tax on the interest income of investors, very likely will not generate enough tax revenues to cover the subsidies."

The present paper endeavors to examine the validity of these contentions in terms of the recent factual situation in the municipal securities market, with particular reference to December 1967, the time period referred to in the Federal Reserve presentation.

1. RATIONAL INVESTORS

Obviously, not everybody who acquires tax exempt municipal securities does so because his after-tax yields are greater than those obtainable on comparable taxable securities. For a variety of reasons (other than yield comparisons), there are some investors in the lower tax brackets who acquire tax-exempt municipals, even though there is no financial incentive for them to do so. To the economic observer there investment behavior is regarded as "irrational."

Fundamental to the Federal Reserve presentation is a belief that these "irrational investors" will suddenly behave rationally, if the supply of new tax-exempt municipals is curtailed. Thus, they assert that the investors most likely to shift from tax exempts into taxables "will be those who on the average pay less than 33 cents in taxes on each additional dollar of income."

If such investors were motivated in the past by factors other than after tax yield comparisons, there is little reason to expect them to change their investment habits in the future. Of course, some may have been on the brink of switching out of tax exempts so that a slight realignment of yields may induce a substitution of taxable investments in lieu of tax exempts. But it does not necessarily follow that there would be a wholesale shifting from tax exempts into taxables by investors in the lower tax brackets, if there is a smaller volume of new tax-exempt issues. Instead, the same nonyield considerations that influenced investment decisions up to now would undoubtedly prevail in the future.

From available statistics on municipal security holdings it is not possible to measure with any degree of precision the relative importance of municipal security buyers who are in tax brackets below 33 percent. Clearly they account for less than 10 percent of the market, and the data presented in table 4 indicates that their market share probably does not exceed 1.5-5.0 percent. When allowance is made for the likelihood that not all investors in the lower tax bracket would shift out of tax exempts, if the supply is curtailed, the market share accounted for by those who would shift is likely to be even smaller, perhaps only 1 or 2 percent.

Speculation as to what might be is always a hazardous exercise; and the Federal Reserve should not be faulted merely because its assumptions regarding future investment behavior appear to be questionable. There is a slim possibility, however remote, that its assessment of "irrational" investment behavior may turn out to be correct. Accordingly, the analyses presented below give full weight to the Federal Reserve's assumptions regarding investor behavior.

2. DEMAND FOR MUNICIPAL SECURITIES

In 1967, the market for tax-exempt municipal securities consisted essentially of commercial banks, fire and casualty insurance companies, and individuals (including personal trust funds, municipal bond investment funds, as well as households). As shown in table 1, aside from Federal credit agencies, only these three investor groups experienced a net increase in 1967 in their holdings of municipal securities. Nonfinancial corporations, which in recent years increased their municipal security holdings, nevertheless experienced decreases in 1966 and 1967. Most of the other significant investor groups do not find the yields on tax exempt securities to be attractive, either because of their relatively low tax rates or because they themselves are tax exempt. Both State and local public retirement funds and State and local governments have decreased their holdings of municipal securities each year since 1961; mutual savings banks steadily reduced their holdings since 1962; and life insurance companies experienced annual net decreases in their municipal security holdings since 1963.

Municipal security holdings by savings and loan associations, which have never exceeded \$100 million, also showed a decrease in 1967. Non-insured pension funds and credit unions reportedly do not hold municipal securities.

Determining the composition of investor groups active in the municipal securities market on the basis of statistics on their net change of holdings of such securities is the essence of the "transaction" tabulations contained in the Federal Reserve "flow of funds" analysis.¹ However, it should be noted that a net change of holdings figure does not disclose whether the change is due to a change of security purchases, sales, or retirements. Thus, in 1967, life insurance companies acquired \$221 million of municipal securities, but they either sold or received in repayments \$362 million of municipals to achieve a net decrease in holdings of \$141 million (line of table 1).

In the absence of any comprehensive measures of gross acquisitions of municipal securities by identifiable investor groups, one can approximate the prospective demand for municipal securities by reference to those groups that are expanding their holdings of municipal securities. Contrariwise, one can assume that, given the current structure of income tax rates, the relative volumes of securities issued and traded in each of the capital market sectors, the relative yields obtainable on each type of security and the financial resources flowing to each investor group, such as prevailed in 1967, those investor groups

¹ The numerical differences between the "flow of funds" figures and those used in table 1 are explained in the JEC study *State and Local Public Facility Needs and Financing*, vol. 2, supp. C to the introduction, pp. 36-42, and the source notes to table 1.

that registered in 1967 net decreases in their holdings of municipal securities probably are not likely to be significant factors in the demand for municipal securities within the foreseeable future.

Accordingly, one can approximate to prospective demand for tax-exempt municipal securities by reference to the recent net increases in holdings of such securities.² In 1967, of the almost \$11.0 billion of annual net increases of municipal security holdings registered, \$9.0 billion, or 82 percent were accounted for by commercial banks, \$1.6 billion, or 15 percent, by fire and casualty insurance companies, and \$0.3 billion, or 3 percent, by individuals. In anticipation of a possible contention that 1967 was an unusual year in view of the dominant role of commercial banks in the market for municipal securities, table 2 also shows the percent distribution of the investor groups that accounted for the net increase in municipal security holdings during the 5-year period 1963-67. This span includes the credit crunch of 1966, when commercial banks noticeably reduced their activity as buyers of municipals.

According to Treasury Department technicians, just about every commercial bank, fire and casualty insurance company, and nonfinancial corporation that now buys tax-exempt municipal securities is in the 48-percent³ tax brackets, at least with respect to its marginal income.⁴ Individuals that buy municipal securities may be in tax brackets ranging from 14 to 70 percent. Table 3 shows the 1962 distribution of tax-exempt interest income received by individuals according to income class (and, in effect, tax bracket). Since 1962 with the growth of personal incomes there are proportionately more individuals in the higher income classes; and in 1964 there was a substantial reduction in income tax rates so that tax exemption of interest income has become less attractive, especially to those in the lower- and middle-income classes (under \$25,000). Inasmuch as there are no more recent tabulations of municipal security investments by individuals, it is assumed that the distribution shown in column 2 of table 3 provides a reasonable approximation of the current demand for tax-exempt municipals by individuals, even though developments since 1962 suggest that probably a greater proportion of such buyers are now in the \$25,000 or more income class.

Combining the information presented in tables 2 and 3 and assuming that life insurance companies would account for about 1 percent of the market,⁵ table 4 presents the prospective demand for tax-exempt

² It is stressed that "net flows" provide only a rough approximation of gross acquisitions of new-issue municipal securities. "Net flows" represent the net change of holdings resulting from total security purchases (both new issues and outstanding issues) less the sum of repayments received plus security sales. From the available statistics there is no way to ascertain how much of the net change is accounted for by purchases, as distinguished from repayments or sales. Moreover, when some of the investor groups register net decreases in holdings and others register net increases in holdings, the resultant net change in holdings figure is less than the sum of individual net increases. Rather than calculate proportionate shares on the basis of total net change in holdings, the aggregate of which exceeds 100 percent, it seems preferable to contrast the individual net increases to total net increases in order to approximate relative shares of the market for the investor groups that are adding to their holdings of municipal securities.

³ Without regard to the recently enacted surtax. Since the Federal Reserve analysis was apparently prepared prior to such enactment, this review also does not take it into account. Should the surtax be extended indefinitely, the tax revenues shown in Table 8 would be 10 percent larger without any corresponding increase in Federal subsidy costs.

⁴ The residual nature of municipal security investments by investor groups is detailed in *State and Local Public Facility Needs and Financing*, Volume 2, pp. 19-20.

⁵ Of the \$221 million of life insurance company gross acquisitions of municipal securities in 1967, about one-third could be attributed to purchases in the secondary market (2½ times the size of the new issues municipal securities market), purchases of industrial development revenue bonds and some short-term notes which are excluded from the supply of municipals, as noted later in the text.

municipal securities by investors classified by income tax brackets. Two demand schedules are presented, one based on the 1967 distribution of net growth of municipal securities and one based on the 1963-67 distribution of net growth of municipal securities. Based on the 1967 distribution and assuming that new issue long-term municipal security sales total \$15 billion, it is estimated that about \$14.7 billion, or 98 percent, would be acquired by investors in tax brackets of 48 percent or higher, \$70 million or 0.45 percent would be acquired by investors in the 33.3 percent tax bracket and \$240 million or 1.63 percent would be acquired by investors in tax brackets of 27.4 percent or lower.

Based on the 1963-67 distribution of net growth of municipal securities and assuming \$15 billion of new issue municipal security sales, it is estimated that \$13.8 billion, or 92 percent would be acquired by investors in tax brackets of 48 percent or higher, \$430 million, or about 3 percent, would be acquired by investors in the 33.3 percent tax bracket and \$750 million, or about 5 percent, would be acquired by taxpayers in tax brackets of 27.4 percent or lower.

3. SUPPLY OF MUNICIPAL SECURITIES

According to the Bond Buyer, municipal bonds sold by State and local public bodies grew from \$7.2 billion in 1960 to \$14.3 billion in 1967. In 1967, municipal issues sold at net interest costs ranging from below 4.0 percent to above 6.0 percent. The actual interest cost for a particular issue depended upon: (a) the prevailing levels of municipal interest rates (as reflected by a barometer such as the Bond Buyer index), (b) the credit worthiness attributed to the issue (as indicated by the bond rating grade, or the absence of a bond rating), (c) the "name" of the issuer (lesser known municipalities usually pay higher interest rates), (d) the size of the bond issue (smaller issues frequently have higher interest costs), (e) the maturity distribution of the bonds (shorter maturities generally carry lower interest rates), (f) the volume of competing municipal issues recently sold and scheduled to be sold, (g) the unsold inventory position of underwriters, especially of those who might bid for the bonds, (h) the absorption rate of the market (as reflected by rapidity at which recent issues were sold to investors), (i) the financial status of prospective investors (in terms of cash flows, alternative loan and investment opportunities in taxable securities or loans, income tax brackets, and taxable income prospect), (j) current events, particularly economic reports, international developments, changes in national credit and fiscal policies, (k) anticipations regarding possible changes in economic forces, credit and fiscal policies, future levels of interest rates, and (l) the various speculations that appear in publications, especially advisory newsletters, that cause worry and apprehension among municipal bond buyers.

While this list of factors influencing municipal interest rates is not intended to be exhaustive, it should be sufficient to convey the proposition that each municipal bond issue is unique. Consequently, for classification purposes, municipal securities may be regarded as heterogeneous, rather than as homogeneous.⁶

⁶ A market composed of heterogeneous commodities gives rise to what is termed in economic theory "product differentiation," a form of monopolistic competition with less than perfect substitutability resulting in price differentials.

Notwithstanding this lack of homogeneity among individual municipal bond issues, the distribution of their net interest costs tend to congregate around some average. This is shown in table 5, which presents the frequency distribution of net interest costs of municipal bonds (with maturities exceeding 1 year)⁷ sold during December 1967 (the month used in the Federal Reserve illustration).⁸ As will be noted, in terms of number of bond issues the average net interest cost was about 4.79 percent whereas in terms of dollar amount of bonds the average was about 4.66 percent.

By and large, the span of interest rates of slightly above 200 basis points (2 percent) and the frequency distribution within such span (as shown in table 5) that was found in December 1967, generally occurs in other months as well, unless there is an unusually large bond sale in a particular month.⁹ However, as the general level of interest rates fluctuate, it causes a corresponding rise or fall in the interest rates comprising the 2-percent span.

In effect, then, table 5 could be regarded as a supply schedule of municipal securities, that is, an interest rate distribution of municipal bond issues coming into the tax-exempt municipal bond market. As may be observed, in December 1967, in terms of number of bond issues, about 5 percent had interest costs of $4\frac{1}{8}$ or lower, about 35 percent had interest costs ranging between $4\frac{1}{8}$ and $4\frac{5}{8}$ percent, 39 percent had interest costs ranging between $4\frac{5}{8}$ and $5\frac{1}{8}$ percent and 21 percent had interest costs exceeding $5\frac{1}{8}$ percent. In terms of dollar amounts of bonds sold, about one-half of 1 percent had interest costs of $4\frac{1}{8}$ percent or lower, 62 percent had interest costs ranging between $4\frac{1}{8}$ and $4\frac{5}{8}$ percent, 21 percent had interest costs ranging between $4\frac{5}{8}$ and $5\frac{1}{8}$ percent, and 16.5 percent had interest costs exceeding $5\frac{1}{8}$ percent.

4. INTEREST RATE FOR FEDERALLY GUARANTEED TAXABLE MUNICIPAL BONDS

Inasmuch as federally guaranteed taxable municipal bonds have not been issued before, one can only conjecture as to the interest rates at which they can be sold. The experience of federally guaranteed public housing bonds (the interest income of which is tax exempt) suggest that their credit quality would be regarded as Aaa. In December 1967 the market yield on Aaa-rated outstanding corporate bonds was 6.19 percent; and for recently issued Aaa-rated corporate bonds (FHA series) the yield was about 6.25 percent. In December 1967 the yield on Treasury long-term bonds (maturity of 10 or more years) was 5.36 percent, the yield on Federal agency 10-year bonds was 6.21

⁷ Short-term municipals (maturities under 1 year) are discussed later in the text.

⁸ As will be noted from table 5, of the \$1,131 million of bonds sold in December, \$295 million were industrial development revenue bonds and \$19 million were bonds purchased by Federal credit agencies. They have been excluded from the frequency distribution calculations because: (1) it is assumed that in light of the 1968 tax legislation few, if any, industrial-aid bonds will be issued in the future in amounts exceeding \$5 million, and (2) if there were a Federal guarantee program, most of the potential borrowers under a direct Federal-loan program would probably sell federally guaranteed securities rather than borrow in the tax exempt market. If one chooses to make the opposite assumptions—that industrial-aid borrowers and prospective Federal-loan borrowers will instead borrow in the tax-exempt securities market—the resultant borrowings are likely to take place in the upper spectrum of tax-exempt interest rates. Such a development would serve to reinforce the conclusions that are developed later in the text.

⁹ In December 1967 there was a public housing bond sale amounting to \$138.5 million.

percent, and the yield on 10–20-year FNMA certificates of participation was about 6.25 percent.

Most analogous to federally guaranteed taxable municipal bonds would be the federally guaranteed merchant marine bonds. A study by Morgan, Stanley & Co. found that the yield differential between these bonds and Treasury bonds of comparable maturity (about 25 years) for merchant marine bonds sold during 1962–66 ranged between 0.19 to 0.43 percent (see table 6). Extending this study to marine bonds sold in 1967 found a yield differential of 0.72 percent.

Inasmuch as the yield on Treasury 25-year bonds in December 1967 was about 5.5 percent, it would seem that a federally guaranteed taxable bond issue could have been sold in that month (after allowing for a “sweetener”) at an interest rate of about 6.25 percent. Such an interest rate would be in the range of yields on Federal agency securities, certificates of participation, and Aaa-rated corporate bonds described above. But, as evidenced by the experience of public housing bonds issues, a Federal guarantee does not always result in the same interest rate on different bond issues sold on the same day. Instead, the rates may vary by as much as three-eighths of 1 percent. Accordingly, in December 1967, federally guaranteed taxable municipal bonds might have been sold at interest rates ranging from 6.125 to 6.5 percent, but the yield structure described above suggests that most of the interest rates would have clustered around 6.25 percent.¹⁰

Assuming that federally guaranteed taxable municipal bonds could be sold at an average interest rate of 6.25 percent, the net borrowing cost to municipalities would be 4.17 percent. In December 1967, the average yield on AAA-rated tax-exempt outstanding municipal bonds was 4.15 percent. The Federal Government cost would be 2.28 percent (2.08 percent for the interest reduction subsidy and 0.20 percent for the loan guarantee premium).

5. INVESTMENT ADJUSTMENTS

If municipalities were to issue taxable securities in lieu of tax-exempt obligations in order to achieve lower borrowing costs, it does not necessarily follow that the taxable securities would be purchased by the same investors who withdraw from the tax-exempt market because of the smaller supply available. Instead, one might expect that the federally guaranteed taxable municipal securities would be acquired by investors who place a premium on safety, that is, those who tend to purchase high grade corporate, Federal agency, and Treasury obligations. To do so, without any change in their loanable funds, means that they would have to make corresponding cutbacks in their acquisitions of other loans and investments.

Contrariwise, investors who cut back on their acquisitions of tax-exempt municipals because there are less of these securities available would have to find other loans or investments in which to place their otherwise idle funds. To some extent they would acquire the loans and investments, which might have been made by the investors who

¹⁰ While the weight of evidence would appear to support an average 6.25 percent interest rate for federally guaranteed taxable municipal bonds, it is conceivable that such bonds would require another $\frac{1}{8}$ percent of interest to be sold. Accordingly, table 7 shows the Federal subsidy costs assuming average interest rates for guaranteed taxable municipal bonds of 6.25 and 6.375 percent.

have decided instead to acquire taxable municipal securities. To some extent they would acquire taxable municipal securities because such securities are best suited for their investment requirements. There might even be some other shifting of investment patterns because of the realignment of interest rates in the capital market.

But, assuming no change in savings flows, loan repayments or retirements and money creation by the banking system, the aggregate volume of credits supplied by all sources would be the same irrespective of whether municipal credit needs were met entirely by tax-exempt securities or by a combination of taxable and tax-exempt securities. All that would change are the adjustments in the loan and investment portfolios of the respective investor groups.

Relevant to the Treasury tax-revenue-subsidy cost question would be the investment adjustments by the investor groups who would acquire less tax-exempt securities because fewer are issued by State and local government units. It stands to reason that most of these investors would employ the funds no longer going into tax-exempt securities to make additional loans and investments, the distribution of which is similar to the composition of loans and investments that they have been otherwise making.

By and large, these otherwise idle funds would be invested in debt instruments, the interest income of which is taxable. Commercial banks (which, with minor exceptions, can only make loans or purchase debt securities) would likely employ their otherwise idle funds to make more business loans, mortgage loans, and consumer loans. Life insurance companies (which in 1967 utilized about 94 percent of available funds to acquire debt instruments) probably would channel the funds that might have gone into municipal into additional corporate bond and mortgage loan acquisitions. Nonfinancial corporations would likely limit investments of their temporarily unneeded treasury balances to short-term-debt instruments that have a high degree of liquidity.

Individuals in the lower tax brackets, because they have little need for tax shelter, would probably place their unused funds either in taxable bonds or taxable time deposits. On the other hand, individuals in the higher tax brackets and fire and casualty insurance companies, to the extent that they curtail purchases of tax-exempt municipals, would be more inclined to shift into stocks or some other form of investment which offers tax shelter in addition to acquisitions of taxable debt instruments.

Underlying the Federal Reserve analysis is the proposition that if municipalities replace tax-exempt obligations with taxable obligations so that the volume of tax-exempt securities is less than it might otherwise be, withdrawals from the tax-exempt market will be by those marginal investors to whom tax exemption has the least value, that is, investors in the lower tax brackets. Alternatively, those in the higher tax brackets, to whom tax exemption is worth a great deal more, would endeavor to acquire as many as possible of the reduced supply of tax-exempt municipal securities. Under the circumstances, any wholesale shifting from tax-exempt municipals into some other form of investment which offers tax shelter would seem to be remote, but some shifting of this nature probably would occur.

Thus, although there would be some shifting from tax-exempt municipal securities into stock purchases or acquisitions of the other investments offering tax shelter, most of the funds made idle by a decreased supply of tax-exempt municipal securities would in all likelihood instead be invested in taxable debt instruments. Less sophisticated investors and those concerned with the safety of their investments would either acquire Treasury bonds or notes, Federal agency securities, top grade corporate bonds or the new federally guaranteed taxable municipal securities. In December 1967 these "prime" investments had, or might have had, interest rates ranging from $5\frac{3}{8}$ to $6\frac{1}{4}$ percent. To a minor extent, such investors might also place their funds in time deposits with taxable yields ranging from 4 to 5.25 percent.

On the other hand, investors seeking yield (i.e., most commercial banks, life insurance companies, fire and casualty insurance companies, and individuals in the middle and upper income tax brackets) would in the main use their otherwise idle funds to acquire lower grade corporate bonds, mortgage loans, and other categories of loans with more remunerative returns. In December 1967, the average yield on A rated corporate bonds was 6.58 percent, and for Baa rated bonds the average yield was 6.93 percent; the average yield on life insurance company commitments for directly placed corporate bonds was 6.98 percent, the average yield on FHA insured home mortgage loans was 6.81 percent, and for conventional home loans (FHA series) the average yield was 6.7 percent; and the average yield on life insurance company commitments for mortgage loans on income-producing properties was 7.13 percent.

On balance, in the context of December 1967 interest rates, a 6.25-percent average return for all investors withdrawing from tax-exempt securities would seem to be reasonable. However, if commercial banks and life insurance companies account for most of the withdrawals from the tax-exempt market, the foregoing data suggest that the average return would be around 6.5 percent. Both average return figures are used in table 8, which shows estimated tax revenues.

6. TREASURY REVENUES AND COSTS

To examine the Federal Reserve contention that the proposed subsidization of taxable State and local government obligations very likely will not generate enough tax revenues to cover the subsidies, table 7 measures the Treasury costs that may be expected to arise under different assumptions regarding the share of municipal borrowing requirements accounted for by issuances of taxable bonds. Allowing for a 6.25-percent interest rate on the taxable bonds and a guarantee premium of 0.2 percent of the outstanding bonds, the table shows the resultant total Federal costs for different volumes of taxable bonds. As will be noted, these estimated subsidy costs range from \$6.8 million for \$300 million of taxable bonds issued to \$171.1 million for \$7.5 billion of bonds issued. At a 6.375-percent interest rate the total costs range from \$7 million to \$174.2 million.

Tax revenues would depend upon the tax brackets of those investors who were forced out of the tax-exempt market because of a curtailed supply of tax-exempt securities and upon the presumption that they would purchase instead taxable securities. On the assumption that the

first investors to withdraw from the tax-exempt market would be those in the lowest tax bracket (i.e., life insurance companies with an average tax bracket of 12 percent), followed by investors in successively higher tax brackets, table 8 shows the tax revenues that would arise under various assumptions. These assumptions relate to: (a) the tax bracket distribution of investors who withdraw from the municipal securities market (1967 distribution or 1963-67 distribution) and (b) the average rate of taxable return on substitute investments (6.25 or 6.5 percent). For the 1967 distribution of investors, the estimated tax revenues range between \$3.5 million for \$300 million of taxable bonds issued to \$228.2 million for \$7.5 billion of bonds issued. For the 1963-67 investor distribution, the estimated tax revenues range between \$2.6 million for \$300 million of taxable bonds issued to \$215.8 million for \$7.5 billion of bonds issued.

The net Treasury revenues or losses arising from a Federal subsidy of guaranteed taxable municipal bonds are detailed in table 9. If the substitution of taxable obligations for tax-exempt obligations accounts for only 2 percent of total municipal borrowing of \$15 billion, then the Treasury stands to lose about \$3.2 million, if the 1967 investor distribution is assumed, or about \$4.2 million, if the 1963-67 investor distribution is assumed. Alternatively, if taxable obligations account for 50 percent of municipal borrowing requirements, the Treasury would achieve a net gain of around \$50 million, if the 1967 market is assumed or around \$40 million, if the 1963-67 market is assumed.

Assuming the 1967 investor distribution, Treasury tax revenues would exceed total Federal costs (for interest subsidies and loan guarantee premiums), if taxable obligations account for at least 4.7-5.2 percent of municipal borrowing requirements.¹¹ Assuming the 1963-67 investor distribution, Treasury tax revenues would exceed total Federal costs, if taxable obligations account for at least 14.5-16.3 percent of municipal borrowing requirements.¹² Combining the two sets of findings, "barring any substantial change in the tax structure or in investor behavior" (a Federal Reserve postulate), Treasury tax revenues would exceed total costs, if taxable bonds account for at least 10 percent of municipal borrowing requirements.

The crucial question, then, is the extent to which municipalities would borrow through issuances of taxable bonds in order to achieve lower borrowing costs. If one accepts the "rational behavior" assertion of the Federal Reserve that "State and local government units will offer taxable obligations until the interest cost burdens of both taxables and tax exempts are equated by the subsidy rate," a 4.17-percent net interest cost for taxable bonds should induce municipalities accounting for over 86 percent of the bonds to be issued to employ taxable bonds in lieu of tax exemption obligations (according to table 5).

But there are likely to be many municipal officials who truly believe in the sanctity of the tax exemption accorded to the interest income on

¹¹ Assuming the interest cost on guaranteed taxable municipal obligations at 6.25 percent and the average return on alternative taxable investments at 6.5 and 6.25 percent, respectively. The nearest break even market share for an interest cost of 6.375 percent and a 6.5 percent average return on alternative taxable investments is 4.9 percent. A comparison of interest cost at 6.375 percent and average return at 6.25 percent was not made because it is inconceivable that investors would forego a 6.375 percent return on top quality obligations in order to acquire other top quality securities with returns of 6.25 percent or less.

¹² Same assumptions set forth in footnote 11. The nearest break-even market share for an interest cost of 6.375 percent and a 6.5 percent average return on alternative taxable investments is 15.3 percent.

municipal securities; and they can be expected to continue to elect to sell tax-exempt obligations, even if it means paying a higher interest cost as compared to the 4.17-percent net cost obtainable for taxable bonds. On the other hand, there are also likely to be a large number of municipal officials, especially those facing criticism from irate taxpayer groups, a hostile press, and a difficult reelection campaign, who would find it advantageous to sell taxable bonds in view of their lower net interest cost.

The extent to which municipalities turn to taxable obligations in lieu of tax-exempt securities thus depends not only upon interest cost minimization considerations, but also upon political and philosophical considerations, engendered by various pressure groups. Under the circumstances, there may evolve a "margin of tolerance" wherein communities would elect "not to rock the boat" by continuing to issue more costly tax-exempt obligations rather than taxables so long as the higher interest cost is within a tolerable margin, that is, up to three-eighths of 1 percent.

But, as shown in table 5, about 21 percent of the tax exempt bond issues and 16.5 percent of the amount of bonds sold would carry interest costs at least 1 percent higher than the 4.17-percent net cost for taxable bonds. Another 39 percent of the tax-exempt bond issues accounting for 21 percent of the bonds sold would carry net interest costs about one-half to a full 1 percent higher than the net interest cost on taxable bonds. If only three-fourths of the first group and half of the second group were to employ taxable obligations, the resultant share of municipal borrowing would be approximately 35 percent of the number of issues and over 22 percent of the amount of bonds.

A market share of 22 percent would, in terms of the 1963-67 investor distribution (less favorable to the net Treasury revenue thesis of S. 3170 and H.R. 15991), cause Treasury tax revenues to exceed total costs by at least \$4 million (see table 9). If the 1967 investor distribution is assumed (more favorable to the net Treasury revenue thesis), a market share of 22 percent for taxable securities would cause Treasury tax revenues to exceed total costs by at least \$16 million. These findings compare with Mr. Sherrill's observation that Treasury losses would occur "no matter what the extent of its use."

7. INTEREST RATE EFFECTS

The preceding analysis of revenue-cost effects arising from the substitution of taxable securities for tax-exempt securities did not allow for any interest rate effects of such transfers. Presumably a reduction in the volume of tax-exempt bond flotations should produce a bidding up of prices by investors who find tax-exempt securities profitable. Alternatively, "other things being equal," an increase in the supply of taxable securities should produce a general rise in interest rates of taxable securities and loans.

If prices of tax-exempt securities were to rise, there would be a corresponding decline in the yields of these municipal securities, which would cause marginal buyers to channel their funds into alternative investments. Such investment shifts would serve to dampen any sharp price rises of tax-exempt municipal securities. Contrariwise, higher interest rates for taxable securities and loans would serve to attract

additional loan funds to a point where the supply of, and demand for, funds are again brought into balance.

Where the volume of securities transferred from one sector of the capital market to another is significantly large relative to the supply of new issue flotations and the existing stock of outstanding securities, the foregoing price and interest rate changes have a reasonable likelihood of occurrence. But where their relative importance is small, such price and interest rate changes are likely to be minimal if at all.

In the tax-exempt municipal securities market, if bids by investors exceed the new supply coming into the market and thereby cause a rise in the prices for tax exempts, a sizable number of holders of outstanding tax-exempt municipals are likely to find it advantageous to dispose of their holdings in the more favorable market. Thus, while \$3.3 billion accounts for 22 percent of a new issue volume of \$15 billion, it accounts for less than 4 percent of the overall tax-exempt market of new issues plus outstanding bonds. Moreover, holders of outstanding municipals, such as State and local retirement funds, State and local governments, and life insurance companies, which may hold relatively low-interest-rate securities acquired years ago when interest rates were much lower and which current are no longer interested in tax-exempt securities, are likely to dispose of such holdings, if there were to be a sharp improvement in municipal bond prices. These circumstances suggest that the bidding-up process would likely have a minimal effect upon municipal interest rates.¹³

Similarly, a negligible effect on interest rates for taxable securities is envisaged, if State and local governments issue taxable obligations. When compared to the heavy volume of Treasury and Federal agency debt, corporate and foreign bonds and mortgage loans coming into the market each year and the tremendous amounts outstanding of such loans and securities,¹⁴ a sale of \$3.3 billion of taxable municipals ranks relatively small. Furthermore, the absorptive capacity of the taxable-securities market is considerably larger than the tax-exempt market inasmuch as it includes the ever-increasing resources of savings and loan associations, mutual savings banks, non-insured pension funds, State and local retirement funds, State and local governments, and life insurance companies.

CONCLUDING COMMENTS

After allowing for a number of conservative assumptions¹⁵ (less

¹³ Allowing for an increase in public housing and urban renewal financing to reflect the administration's 10-year housing program, in addition to the municipal bond sales growth projected in the JEC study "Public Facility Needs and Financing", the Department of Housing and Urban Development projected an expansion of new municipal security issues from \$15.8 billion in 1967 to \$26.8 billion in 1978. (See hearings before Senate Banking and Currency Committee on 1968 Housing and Urban Development legislation, pt. 2, p. 1378.) In view of the narrow market for tax-exempt securities, such an expansion could cause a rise in tax-exempt interest rates relative to taxable interest rates in order to make tax exempts attractive to investors in the lower tax brackets whose purchases would be needed if the expanding supply of tax exempts is to be marketed successfully.

¹⁴ According to the Office of Business Economics at the end of 1967 the combined outstanding debt of the U.S. Government, Federal financial agencies, corporations (long-term only) and other mortgage debt totaled \$969 billion (Survey of Current Business, May 1968, p. 11).

¹⁵ Such assumptions as (a) breaking down the projected demand for municipal securities in accordance with the investor group distribution calculated for 1963-67, rather than for 1967 only (the latest year), (b) using a 1962 income distribution of municipal security holdings by individuals, with no allowance for the subsequent rise in personal incomes and the reduction of income tax rates, (c) giving full weight to public housing bonds (the interest rates of which are considerably below the average), even though there are usually

favorable to the Treasury net revenue thesis), the foregoing study nevertheless finds that (a) the Treasury would achieve a net revenue gain if taxable obligations account for at least 16.3 percent of State and local government borrowing and (b) there is a good probability that taxable securities would account for at least 22 percent of State and local government borrowing. Using assumptions more favorable to the Treasury net revenue thesis, the minimum or "break even" market share for taxable securities drops to 4.7 percent and the probable share rises substantially above 22 percent.

Fundamental to these conclusions are two basic expectations—first, that investors in tax brackets of 48 percent or more will continue to account for over 90 percent of the demand for tax-exempt municipal securities and second, that a significant portion (at least 16.5 percent) of tax-exempt municipal securities issued will continue to be sold at net interest costs of at least 1 percent higher than the interest rates obtainable by Aaa rated municipal bonds. While available data fully support these expectations, it is, of course, possible that they may not materialize.

Suppose they do not materialize and that municipalities accounting for only 5 percent of total municipal borrowing shift from tax exempt to taxable financing. Suppose, further, that withdrawal of \$750 million of securities from a \$15 billion market leads to aggressive bidding for the remaining \$14,250 million, with the resulting higher prices reducing municipal interest rates by an average of 1 percent. Assuming a market demand reflecting the 1963-67 net increases of municipal security holdings and a minimal return on alternative investments, such a situation would result in a Treasury net loss of \$8.2 million.

A reduction of municipal interest rates by 1 percent for \$14,250 million of bond sales would produce interest cost savings to State and local government borrowers of \$142.5 million, or 17.4 times the Treasury net loss of \$8.2 million. Compared to the various Federal grant-in-aid programs to State and local governments for public facilities where the Federal grant accounts for up to 90 percent of cost, a Federal assistance program where the leverage effect is 17.4 times the Federal Government cost is undoubtedly one of the most economical means of Federal assistance to help the fiscally impoverished municipalities, be they cities, counties, or special districts. Moreover, such interest cost savings could be used by such municipalities for any public service without any Federal strings attached.

The prime objective of S. 3170 and H.R. 15991 is to achieve lower borrowing costs for State and local government units. While the available data clearly support the view that this objective can be accomplished with a net revenue gain to the Federal Treasury, occurrence of a net revenue loss would not be objectionable so long as it helps to bring about municipal interest cost savings many times greater.

But in view of the tremendous growth in State and local government borrowing projected for the coming decade, the resources of the

only four sales a year, (d) excluding industrial aid bonds (which had interest rates appreciably higher than the average), (e) estimating the interest rate required for a guaranteed taxable municipal security on the basis of a 25-year term bond, even though most municipal bonds are amortized over 20 years or less, and (f) disregarding the existing surtax which would increase tax revenues by 10 percent above the amount shown in table 8 with no corresponding increase in Federal subsidy costs.

tax-exempt municipal securities market will be severely strained unless they are augmented by investors in the lower tax brackets. To attract such investors would require an upward adjustment of tax-exempt-interest rates relative to taxable interest rates, reducing further the interest cost savings to municipalities on account of tax exemption.

Faced with such a prospect, municipalities can be expected to turn increasingly to guaranteed taxable bond financing because of the lower net interest costs attainable. Under such circumstances, the share of municipal borrowing accounted for by taxable bonds is likely to exceed by far the minimum shares above which the Treasury achieves a net revenue gain.

TABLE 1.—HOLDINGS OF MUNICIPAL SECURITIES BY SIGNIFICANT INVESTOR GROUPS AT END OF DECEMBER 1967

[Dollars in millions]

	1967 year-end holdings			1967 net change
	Total assets	Municipal securities		
		Amount	Percent assets	
INVESTOR GROUP				
1. Commercial banks.....	1 \$367,736	\$50,124	13.6	\$9,013
2. Mutual savings banks.....	66,366	219	.3	(-32)
3. Savings and loan associations.....	143,602	74	.1	(-3)
4. Life insurance companies.....	177,201	2,973	1.7	(-141)
5. Fire and casualty insurance companies.....	44,470	14,300	32.2	1,640
6. Non-insured pension funds.....	71,820			
7. State and local retirement funds.....	2 41,500	2,300	5.8	(-200)
8. State and local governments.....	2 68,000	1,800	2.6	(-200)
9. Non-financial corporations.....	3 90,700	2,840	3.1	(-500)
10. Credit unions.....	12,713			
Subtotal.....	1,084,108	74,630		
OTHER SIGNIFICANT HOLDERS				
11. Federal credit agencies.....		3,790		120
12. Personal trust funds.....		2 15,000		1,000
13. Individuals and others.....		2 25,000		(-700)
14. Total outstanding.....		2 119,000		10,000
Or.....		118,500		9,500

1 Total loans and investments.

2 Approximate.

3 Cash, government securities, other short-term investments.

SOURCES

- Line 1. FDIC Report of Call No. 82 (Dec. 30, 1967).
 Line 2. National Association of Mutual Savings Banks "Fact Book" (May 1968).
 Line 3. Federal Home Loan Bank Board, semiannual survey.
 Line 4. Life Insurance Association of America, "Tally Sheets."
 Line 5. Estimated by SEC, based on quarterly survey and Best's "Fire and Casualty Aggregates and Averages."
 Line 6. SEC, based on monthly survey.
 Line 7-8. Estimated by Department of Housing and Urban Development by reference to fiscal year statistics compiled by Bureau of the Census.
 Line 9. SEC.
 Line 10. Bureau of Federal Credit Unions, Department of Health, Education, and Welfare.
 Line 11. Compiled by Department of Housing and Urban Development on basis of Federal agency reports.
 Line 12. Estimated by Department of Housing and Urban Development on basis of survey conducted by Comptroller of Currency, surveys and estimates by trust division of American Bankers Association.
 Line 13. Residual: Line 14 less sum of lines 1-12.
 Line 14. Estimated by Department of Housing and Urban Development, by reference to June 30 total municipal debt outstanding, as reported by Office of Business Economics, converted into Dec. 31 figures on basis of long-term (over 1 year) municipal bonds sold, as compiled monthly by the Bond Buyer.

TABLE 2.—RECENT DEMAND FOR TAX EXEMPT MUNICIPAL SECURITIES, PERCENT DISTRIBUTION BY INVESTOR GROUP

[Dollar amounts in billions]

Investor group	Net increase in holdings of municipals				Tax bracket (percent)
	During 1967		During 1963-67		
	Amount	Percent	Amount	Per cent	
1. Commercial banks.....	\$9,013	82	\$25,329	67	48
2. Fire and casualty insurance companies.....	1,640	15	4,580	12	48
3. Nonfinancial corporations.....	-----	-----	730	2	48
4. Individuals.....	300	3	7,400	19	14-62
5. Total net increase.....	10,953	100	38,039	100	-----

Sources:

Line 1—Federal Deposit Insurance Corporation "Report of Call."

Line 2—Best's "Fire and Casualty Aggregates and Averages," as modified by the Securities and Exchange Commission.

Line 3—Securities and Exchange Commission, based on surveys of nonfinancial corporations.

Line 4—Residual: Derived by subtracting aggregate of annual net change of holdings of municipal securities of identifiable institutional groups from estimated total net change of holdings for all holders.

Tax bracket percentages: Office of Tax Analysis, Treasury Department.

TABLE 3.—DISTRIBUTION OF "INDIVIDUAL" DEMAND FOR TAX EXEMPT MUNICIPAL SECURITIES BY INCOME CLASS

Income class	Tax bracket (percent)	Percent of 1962 tax exempt interest received by "individuals" (2)	Relative proportion of market based on net increase in holdings (percent)	
			1967 (3)	1963-67 (4)
			(1)	(2)
0 to \$3,000.....	15.0	4	0.12	0.76
\$3,000 to \$5,000.....	16.7	-----	-----	-----
\$5,000 to \$7,500.....	18.0	1	.03	.19
\$7,500 to \$10,000.....	18.0	8	.24	1.52
\$10,000 to \$15,000.....	21.5	11	.03	.19
\$15,000 to \$25,000.....	27.4	7	.21	1.33
\$25,000 to \$50,000.....	33.3	15	.45	2.85
\$50,000 to \$100,000.....	49.7	42	1.26	7.98
\$100,000 and over.....	62.0	22	.66	4.18
Total.....	-----	100	3.00	19.00

Sources: Col. 1; Office of Tax Analysis, Treasury Department. Col. 2; Federal Reserve Board, unpublished data from consumer survey; made public in the hearings before the House Ways and Means Committee on "President's 1967 Tax Proposals" (Aug. 14-15, 21-25), p. 195. col. 3; col. 2 percentages applied to 3 percent; col. 4; col. 2 percentages applied to 19 percent.

TABLE 4.—PROSPECTIVE DEMAND FOR MUNICIPAL SECURITIES BY INVESTORS CLASSIFIED BY INCOME TAX BRACKET

[Dollar amounts in millions]

Tax bracket (percent)	Proportion of market (percent) based on distribution for—		Prospective demand schedule based on \$15 billion municipal bond sales	
	1967	1963-67	1967 distribu- tion	1963-67 distribu- tion
	(1)	(2)	(3)	(4)
12.0	1.00	1.00	\$150	\$150
15.0	.12	.76	18	114
18.0	.27	1.71	41	257
21.5	.03	.19	4	28
27.4	.21	1.33	31	199
33.3	.45	2.85	68	428
48.0	96.00	80.00	14,400	12,000
49.7	1.26	7.98	189	1,197
62.0	.66	4.18	99	627
Total	100.00	100.00	15,000	15,000

¹ Percent attributed to life insurance company purchases; deducted from 48 percent tax bracket.

Sources:

Cols. (1) and (2): Combination of tables 2 and 3.

Col. (3): Col. (1) applied to \$15 billion.

Col. (4): Col. (2) applied to \$15 billion.

TABLE 5.—NET INTEREST COST OF MUNICIPAL BONDS ¹ SOLD IN DECEMBER 1967 ²

[Dollars in thousands]

Interest rate (percent)	Number of bond issues		Amount of bonds	
	Volume	Percent	Volume	Percent
3.75 to 4	5	1.9	\$935	0.1
4.01 to 4.125	7	2.6	3,706	.4
4.126 to 4.25	16	6.0	108,169	13.2
4.26 to 4.375	21	7.9	133,964	16.4
4.376 to 4.50	35	13.1	182,987	22.4
4.51 to 4.625	22	8.3	83,101	10.1
4.626 to 4.75	31	11.7	96,506	11.8
4.76 to 4.875	23	8.6	38,996	4.8
4.876 to 5	43	16.1	26,472	3.2
5.01 to 5.125	8	3.0	8,810	1.1
5.126 to 5.25	11	4.1	12,048	1.5
5.26 to 5.375	6	2.3	7,706	.9
5.376 to 5.50	13	4.9	25,952	3.2
5.51 to 5.625	6	2.3	15,236	1.9
5.626 to 5.75	9	3.4	31,517	3.9
5.76 to 5.875	2	.8	4,500	.5
5.876 to 6	8	3.0	37,605	4.6
Subtotal	266	100.0	818,210	100.0
Industrial aid bonds	25		294,670	
Federal Government loans	14		18,544	
Grand total	305		1,131,424	
Subtotal, average interest rate		4.79		4.66

¹ Excludes securities maturing in less than 1 year.

² Undated bond sales attributed to December, if description of sale indicates it was probably sold in December.

Source: The Weekly Bond Buyer municipal bond sales section (December 1967, January-February 1968) and special tabulation by Investment Bankers Association.

TABLE 6.—YIELDS OF U.S. GOVERNMENT INSURED MERCHANT MARINE BONDS COMPARED TO YIELDS ON COMPARABLE U.S. TREASURY BONDS, SELECTED ISSUES, 1962-67

Offering date	Borrower	Maturity	Yield (percent)	Yields on comparable Treasury bonds on offering date		Yield differential (percent)
				Maturity	Yield (percent)	
Dec. 8, 1962	Grace Line, Inc.	December 1987	4.20	May 1985	3.97	.23
Dec. 21, 1962	Gulf & South American Steamship Co., Inc.	December 1988	4.20	May 1985	3.96	.24
Dec. 21, 1962	Gulf & South American Steamship Co., Inc.	December 1988	4.25	May 1985	3.96	.29
Dec. 27, 1963	U.S. Lines Co.	November 1986	4.375	May 1985	4.19	.19
Mar. 23, 1966	States Steamship Co.	March 1993	5.10	August 1992	4.67	.43
Feb. 3, 1967	Grace Line Inc.	February 1992	5.10	August 1992	4.49	.61
Sept. 19, 1967	American Mail Line, Ltd.	March 1993	6.00	August 1992	5.16	.84

Sources: Bonds issued in 1962-66: Morgan Stanley & Co., special study. Bonds issued in 1967: newspaper advertisements and Merrill Lynch, Pierce, Fenner & Smith, Inc.

TABLE 7.—FEDERAL COSTS ARISING FROM SUBSIDY OF GUARANTEED TAXABLE MUNICIPAL BONDS
[Dollars in thousands, except bond amounts]

Taxable bonds ¹		6.25-percent cost			6.375-percent cost	
Share of market (in percent)	Amount (millions)	Total interest costs ²	One-third interest subsidy ³	Guarantee premium (0.2 percent) ⁴	Total Federal costs ⁵	Total Federal costs ⁶
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2	\$300	\$18,750	\$6,244	\$600	\$6,844	\$6,969
5	750	46,875	15,609	1,500	17,109	17,422
10	1,500	93,750	31,219	3,000	34,219	34,843
15	2,250	140,625	46,828	4,500	51,328	52,265
20	3,000	187,500	62,438	6,000	68,438	69,686
30	4,500	281,250	93,656	9,000	102,656	104,529
40	6,000	375,000	124,875	12,000	136,875	139,373
50	7,500	468,750	156,094	15,000	171,094	174,216

¹ Assume total municipal borrowing of \$15 billion.

² 6.25 percent times col. 2.

³ 33.3 percent of col. 3.

⁴ 0.2 percent of col. 2.

⁵ Cols. 4 plus 5.

⁶ Result of calculations based on 6.375 percent cost.

TABLE 8.—TAX REVENUES ARISING FROM GUARANTEED TAXABLE MUNICIPAL BONDS
[Dollar amounts in thousands, except bond amounts]

Taxable bonds		1967 investor distribution		1963-67 investor distribution	
Share of market (percent)	Amount (millions)	6.25-percent return	6.50-percent return	6.25-percent return	6.50-percent return
(1)	(2)	(3)	(4)	(5)	(6)
2.0	\$300	\$3,506	\$3,646	\$2,599	\$2,703
5.0	750	16,896	17,572	8,911	9,267
10.0	1,500	39,396	40,972	27,497	28,597
15.0	2,250	61,896	64,372	49,997	51,997
20.0	3,000	84,396	87,772	72,497	75,397
30.0	4,500	129,396	134,572	117,497	122,197
40.0	6,000	174,396	181,372	162,497	168,997
50.0	7,500	219,396	228,172	207,497	215,797

Calculations:

- (a) Distribution of bond amount (col. (2)) according to tax bracket distribution shown in table 4 (in ascending order).
 (b) For each subamount of bonds, multiply by percent return (6.25 or 6.50 percent);
 (c) Multiply resultant return by respective tax bracket.

TABLE 9.—NET REVENUES OR LOSSES ARISING FROM FEDERAL SUBSIDY OF GUARANTEED TAXABLE MUNICIPAL BONDS

(Dollar in thousands)

Share of market (percent)	1967 investor distribution			1963-67 investor distribution		
	6.25-percent cost compared to—		6.375-percent cost compared to 6.50-per- cent return	6.25-percent cost compared to—		6.375-percent cost compared to 6.50-per- cent return
	6.25-percent return	6.50-percent return		6.25-percent return	6.50-percent return	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2.....	(\$3,338)	(-\$3,198)	(\$3,323)	(-\$4,245)	(-\$4,141)	(-\$4,266)
5.....	(-213)	463	150	(-8,198)	(-7,842)	(-8,155)
10.....	5,177	6,753	6,129	(-6,722)	(-5,622)	(-6,246)
15.....	10,568	13,044	12,107	(-1,331)	669	(-268)
20.....	15,958	19,334	18,086	4,059	6,959	5,711
30.....	26,740	31,916	30,043	14,841	19,541	17,668
40.....	37,521	44,497	41,999	25,622	32,122	29,624
50.....	48,302	57,078	53,956	36,403	44,703	41,581

Calculations	Tax revenues (table 8) minus	subsidy costs (table 7)
Col. 2.....	Col. 3.....	Col. 6.....
Col. 3.....	Col. 4.....	Col. 6.....
Col. 4.....	Col. 4.....	Col. 7.....
Col. 5.....	Col. 5.....	Col. 6.....
Col. 6.....	Col. 6.....	Col. 6.....
Col. 7.....	Col. 6.....	Col. 7.....

TREASURY DEPARTMENT,
Washington, D.C., December 31, 1968.

DEAR SENATOR PROXMIRE: Secretary Fowler has asked me to reply to your letter of October 25, 1968 in which you request an estimate of the Federal income tax receipts from the interest on taxable municipal bonds which might be issued under the provisions of S. 3170.

As you know, the Treasury Department prepared an analysis for the Joint Economic Committee in 1966 in which it was estimated that the Treasury revenue from the interest on taxable bonds issued to finance municipal projects which would otherwise be financed with tax-exempt bonds would be 42 percent of the interest paid on the taxable bonds. That analysis was based on the assumption that the interest on all new municipal borrowings would be subject to Federal income taxation. S. 3170 presents a somewhat different analytical problem in that it requires an estimate of increased Treasury revenue from taxable municipal bonds under circumstances in which States and localities would have the option of issuing tax-exempt bonds or issuing taxable bonds with a Federal guarantee and interest rate subsidy. On the basis of our preliminary analysis, however, it appears that the current impact on Treasury revenues would not be substantially different under either approach.

We would agree with the thrust of your staff analysis that the increased Treasury revenues from substituting taxable for tax-exempt bonds will arise from the increased taxes paid by those high bracket investors who would have purchased the tax-exempt bonds but, because of the reduced supply of tax-exempts, are required instead to expand their holdings of taxable instruments.

As your staff analysis indicates, the principal purchasers of tax-exempt securities are commercial banks, and the reduced volume of tax-exempt securities resulting from S. 3170 would tend to result in increased commercial bank investment in business loans and other taxable loans and securities eligible for commercial bank investment.

Holdings of State and local securities by insured commercial banks increased from \$17 billion in 1960 to \$50 billion in 1967. Almost completely as the result of this increase in holdings of tax-exempt securities and the decrease in the top corporate tax rate from 52 percent to 48 percent, the effective rate of Federal income tax paid by insured commercial banks declined from over 38 percent in 1960 to less than 24 percent in 1967. On the basis of our preliminary analysis these banks would have paid approximately \$2 billion in Federal income taxes in 1967, rather than the \$1 billion actually paid, were it not for their holdings of tax-exempt obligations.

The dominant role of commercial banks in the municipal bond market appears to be the major determinant of interest rates on tax-exempt obligations. Since commercial banks are primarily in the business of making loans—they are not significant investors in corporate bonds—they apparently seek a rate on tax-exempt bonds which is approximately equal to the after tax return available on loans.

Thus, because of the tax exemption, municipal bonds are attractive only to high tax bracket investors, such as commercial banks, and, thus, State and local borrowers are forced to compete with demands for bank loans at significantly higher levels of interest rates than prevail on corporate bonds. The dependence on bank investors is also a fundamental consequence of the fact that tax-exempt securities are issued by a wide variety of local governmental units. These appear to be the essential obstacles to reducing the level of interest rates paid by States and localities on tax-exempt borrowings.

The argument that the increased Treasury revenues from S. 3170 would be relatively small initially or over the long run is apparently based on the assumption that low tax bracket investors, such as State and local retirement funds and life insurance companies, would be prompted to switch from tax-exempts to taxable securities. As your technical analysis indicates these investors have for a number of years been net disinvestors in municipals. The legal, institutional, and other reasons for past investment in tax-exempt bonds by these low bracket investors would presumably not be affected by S. 3170. Consequently, the revenue estimate should clearly not be based on assumptions with respect to the tax brackets of investors who purchase the new taxable municipals generated by S. 3170.

Thus, we believe that the revenue estimate made in 1966 is applicable to the present problem. The Treasury would gain in revenue more under your proposal than the cost of the interest subsidy.

Sincerely yours,

WILLIAM F. HELLMUTH, Jr.,
Deputy Assistant Secretary.

Chairman PATMAN. Anything else before we conclude these hearings for the present? Without objection we will stand at recess subject to the call of the Chair.

(Whereupon, at 11:45 a.m., the hearing was adjourned, subject to the call of the Chair.)

APPENDIX I

The materials contained in appendix I, are responses to questions submitted by Chairman Patman and the subcommittee staff to the Department of Health, Education, and Welfare.

THE SECRETARY OF HEALTH, EDUCATION, AND WELFARE,
Washington, January 18, 1969.

HON. WRIGHT PATMAN,
Chairman, Subcommittee on Economic Progress,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: I am pleased to enclose for your consideration replies to the questions posed to me as a result of your Subcommittee's hearings in early December on "Public Facility Requirements Over the Next Decade."

The materials submitted herewith, together with those submitted for the Subcommittee's record on December 3, should assist in updating the excellent study, "State and Local Public Facility Needs and Financing," published in 1966 by the Joint Economic Committee.

It is our feeling that the answer to Health Question No. 3, regarding organ transplants, is simply not available anyplace on an authoritative basis. I am advised that the science and art of organ transplantation is in an evolving state, and information concerning availability of facilities and particularly of the costs involved in such operations has not been identified.

Also enclosed is text to update Chapter 28 of the 1966 study, on "Medical and Other Health Schools." This will replace the Chapter 28 draft supplied for the Subcommittee record on December 3.

With all good wishes, I remain,
Sincerely,

WILBUR J. COHEN, *Secretary.*

A. QUESTIONS AND ANSWERS ON HEALTH FACILITIES

Question 1.—What is being done to increase the number of medical schools and expand the facilities for the training of doctors?

Answer. The need for increase in the capacity and output of medical schools, and for financial assistance for such increase, by the Federal Government has been recognized by the Congress in:

The Health Professions Educational Assistance Act of 1963

Health Professions Educational Assistance Act Amendments of 1965

Health Manpower Act of 1968

Under these authorities construction aid has helped to establish 12 new medical schools and to increase the enrollment of existing schools; basic improvement grants to all medical schools have strengthened and assisted in expansion, and loans and scholarships have made it possible for many young people from low-income families to enter medical school.

The Health Manpower Act of 1968 will continue and increase assistance for construction, school operation, and student assistance.

The funding levels proposed and recommended by the Department for the years 1970-73, should make possible an increase of more than 30 percent in admissions to medical schools (1975 over 1968).

Question 2. Do we have enough training schools for dentists, nurses, and the other specialized fields of health? What should be done to alleviate the shortages?

Answer. [DENTISTRY] There are not enough schools of dentistry at the present time. The Health Professions legislation (listed above) provides assistance to dental schools, including construction aid, operating assistance, and loans and scholarships for students. Accomplishments under the legislation include the construction of 5 new dental schools, and increased enrollment in many existing schools.

The Health Manpower Act of 1968 if continued and funded at the levels recommended by the Department, should increase admissions to dental schools by more than 30 percent in 1975 as compared to 1968.

[NURSING] To meet the critical needs for nurses both the Nurse Training Act of 1964 and the Health Manpower Act of 1968 provides assistance for school construction, aid to schools, and loans and opportunity grants for students. Over 700 schools of nursing have participated in one or more provisions of the Nurse Training Act. Construction grants awarded to 93 schools will permit the accommodation of approximately 12,200 additional students.

The Health Manpower Act of 1968, if continued and funded at recommended levels, should increase admissions to schools of nursing by more than 30 percent in 1975 as compared to 1968.

[ALLIED HEALTH PROFESSIONS] The needs for expansion of training facilities for allied health manpower are receiving increasing attention. The Department has provided limited program-related assistance for such workers for some time. More general support was first provided under the Allied Health Professions Personnel Training Act.

There has been less than 2 full years of experience under this legislation. The greatest effort has been in the area of curriculum support, with grants to 230 junior colleges, colleges, and universities in support of programs for the preparation of allied health personnel. Construction provisions of this legislation were first funded in 1968, at a level of \$2 million. In 1969, \$3 million is available.

New legislative proposals in this area are expected to be proposed to the 91st Congress.

Question 3. We read almost daily of some new medical advance such as heart transplants, transplants of other vital organs, kidney machines and other marvels of medical science. How widespread are these facilities? What would it cost to make such lifesaving techniques available to all Americans, instead of the fortunate few?

Answer. (See letter from Secretary Cohen, previous page.)

Question 4. What needs to be done to modernize the hospital plant of the inner-core of the Nation's cities?

Answer. The pressing need at this time is a substantial increase in the amount of capital funds available for the replacement or remodeling of outmoded and inefficient hospital facilities. The State Hill-Burton Agencies now estimate that out of a total of approximately 795,000 existing general hospital beds, nearly 263,000 are in need of modernization. In addition it is estimated that another 175,000 such beds will become obsolete during the next ten years.

The estimated cost of modernizing those acute care hospitals already in need is \$8 billion dollars at present prices. The need over the next ten years will raise the cost to \$13 billion. To the extent that such modernization is delayed these costs will increase at an average of 4-5 percent annually due to increased construction costs.

An expanded health facilities modernization program including grants, direct loans, and loan guarantees with interest subsidization is urgently needed to help deal with this problem. This need was reflected in the Senate action in the last Congress which was subsequently modified in the Senate-House conference. It is anticipated that early hearings will be held in the incoming Congress covering all of these alternative approaches to easing the current pressure on the Nation's facilities.

Question 5. Can you in some way qualify the lack of hospital facilities in the Nations rural areas?

Answer. While future population growth in some rural areas will undoubtedly require the construction of some additional acute general bed capacity in rural areas, the needs of these areas for additional capacity have been largely met during the 22 years of the Hill-Burton program. There will, however, be an increasing need for the modernization of rural facilities inasmuch as some of these have now been in existence for many years and because advances in technique in the delivery of health care services often require construction changes to increase the efficiency of existing facilities. Organized ambulatory care facilities in rural hospitals (except emergency services) are practically non-existent. The needs for long-term or extended care facilities in rural areas have not been met.

Question 6. Where do private hospitals get their capital funds that they do not raise from donation drive endowments?

Answer. Private hospitals generally obtain capital funds (other than donations and endowments) from lending institutions, Federal grants (nonprofit insti-

tutions only), funded depreciation, plus some State or local government grants. A study reported by Blue Cross Association in 1967 showed that voluntary nonprofit hospitals having recent construction obtained their funds thusly: Hill-Burton, 19.2 percent; long-term borrowing, 21.0 percent; bonded indebtedness by taxing agency, 3.2 percent; hospital reserves, 11.1 percent; and contributions plus "other", 45.5 percent.

For voluntary nonprofit general hospital construction projects aided by Hill-Burton during fiscal years 1964-66, the applicant's resource came from: cash and securities (some endowments and previous donations), 31.1 percent; mortgage loan, 29.2 percent; bonds, 2.8 percent; pledges and gifts, 13.8 percent; and other (e.g. unsecured loans, tax levies, sale of real estate), 23.1 percent.

It should be emphasized that endowment income is not a major source of hospital funding. A select few private hospitals, mostly on the East Coast, enjoy endowments, but this is not true in most parts of the country.

Question 7. Hospital charges have risen rapidly during the past few years. Does this mean that hospitals are becoming self-sustaining?

Answer. On the contrary. Increased charges by hospitals have been in response to already increased costs and have lagged behind costs rather than anticipating them. According to the American Hospital Association, patient revenue for all registered community hospitals in 1967 amounted to \$8.6 billion, equal to only 98 percent of total expense. Even for a few hospitals where patient revenue may equal or exceed total expense for a given year, the depreciation allowance included in total expense generally covers only original cost rather than current replacement cost. Because their charges have lagged behind costs and also due to such problems as slow reimbursement by third party payers, hospitals have increasingly had to resort to borrowing and public subsidies. Furthermore, reluctance to pass along some costs to patients has been one factor in causing some hospitals to discontinue hospital schools of nursing.

Hospitals must still cover bad debts and "charity" work through charges to paying patients, although the magnitude of this problem is being reduced as health insurance is improved in quality of coverage and as medicare and medicaid are applied.

Question 8. Is it your judgment that hospital charges could not support revenue bond issues, secured solely by hospital user charges?

Answer. In most instances, no. First, for the reasons discussed in the answer to question 7. The second reason is that revenue bonds secured solely by hospital user charges are feasible only when a hospital can manage to fund depreciation to the level required by the debt servicing. It is generally agreed by hospital finance experts that most hospitals, the funding of depreciation is not practical.

To even qualify for revenue bond issues, hospitals would have to show experience for an extended period of revenue generation above expenses. This most hospitals have not been able to do.

Question 9. Can you describe the recent development of neighborhood centers for health services? How many are there of such centers and how many more do you think are needed?

Answer. The grants to provide comprehensive health services for the poor, funded through the Division of Comprehensive Health Planning, Community Health Service, HSMHA, are placing special emphasis on achieving maximum coordination and utilization of existing Federal, State, and community resources, both public and private, to provide the three components common to the health needs of the communities: professional and subprofessional staffing, training of subprofessionals or health aides, and establishment of facilities.

The projects are also designed to assure the active participation of the residents of the areas served; provide or coordinate education, training, and employment opportunities for low-income areas residents; and encourage the participation of private medical, dental, pharmaceutical, and other health service providers.

At the present time, the Division of Comprehensive Health Planning is funding 11 grants to provide comprehensive health services for the poor, two of these are jointly funded with OEO. It is hoped that funds will be available for approximately 6 more in the next 6 months.

OEO has awarded 48 grants for these kinds of services. It has been estimated that by 1973 there will be a need for 620 centers to serve the total projected concentrated low-income population. There is no assurance that funds will be available for all of these centers, however.

B. QUESTIONS AND ANSWERS ON EDUCATIONAL FACILITIES

Question 1. In reading the newspapers regarding the educational crisis in some of the Nation's largest cities one is struck by the reports that many of the school buildings now being used are 50 years or older. What would you propose be done with these outdated facilities?

Answer. The presumption is made that because a school building is 50 years or older it is an outdated facility. This does not take into consideration the possible modernization programs which may have been carried out over a period of years. Each facility regardless of age should be evaluated as to its structural and educational condition. This evaluation must be carried out by educators, architects and engineers.

Experience has shown that in some instances older buildings can be successfully remodeled and modernized at a fraction of the cost of new structures. In other instances, facilities constructed to accommodate educational programs offered in former years are not adaptable to changes that will provide the types of learning spaces and the flexibility of space that is required for contemporary educational programs.

A rule-of-thumb formula that is generally accepted by school facility planners for purposes of determining the economic feasibility of renovating and remodeling old school buildings is that if the cost of remodeling and upgrading the old structure is 50 percent of the cost of providing new facilities, then the old structure should be abandoned. This formula, however, is but a part of the total evaluation. Some other factors requiring careful study and evaluation in order to determine the feasibility of remodeling old school facilities are:

1. Community patterns, aspirations, and goals
2. Esthetics—harmonious setting
3. Structural soundness—safety
4. Site adequacy
 - (a) Location with respect to population served
 - (b) Site
 - (c) Exposure—noise, traffic, air pollution, etc.
 - (d) Accessibility
5. Pupil capacity (when remodeled)
6. Probable educational adequacy
7. Estimated useful life of remodeled structure
8. Future needs (space, flexibility, program, enrollment, etc.)

Valid decisions about what to do about old school buildings can be made only if these factors and elements are carefully weighed and then equated to long range goals for education in the community.

Question 2. Can you describe some of the newer techniques employed by educators to accelerate and intensify the learning process of children such as educational TV, teaching machines, audio aids for language training? Are these facilities available in rural schools and in schools located in urban poverty areas or are they just available in the wealthy suburban schools?

Answer. It has become quite apparent that hardware (television, teaching machines, etc.) has been developed to a much greater degree because of commercial interest than has the software technology. Consequently, there is a great deal of evidence in various forms, that hardware alone or with standard software, will not improve the learning process. Undoubtedly, one of the greatest needs of the nation is that of developing new curriculums, instructional systems, etc., which are designed to accomplish particular educational purposes and may be utilized with hardware that is currently available. There are many small pieces of software now available. But because of the massive amounts of funds that would need to be available in relation to that which is available through Federal R&D dollars, our knowhow is not being utilized to develop and test complete instructional systems that would bring about substantial learning in elementary and secondary schools.

In addition, there are two other major problems which inhibit the spread of the new educational technology. Both problems center around money, that is, money which can be utilized to properly disseminate what is already known and developed. Also, much additional funding is needed in order to substantially upgrade those institutions which train teachers. Most institutions that train teachers (Liberal arts and state institutions), do not adequately train the prospective teachers to utilize either the new curricula or hardware.

Information responding directly to the questions posed is given below, along with illustrative examples of the uses being made of newer technology.

I. NEWER TECHNIQUES EMPLOYED TO ACCELERATE THE LEARNING OF CHILDREN

A. Software-Oriented Techniques

1. *Learning by Discovery*.—This technique leads the student into discovering the basic principles for himself through inductive reasoning. The teacher provides guidance but does not give the information itself to the student. Examples of this technique's utilization are:

(a) A Development project, "Development of a Comprehensive Curriculum Model for Social Studies, Grades 1-8, Inclusive of Procedures for Implementation and Dissemination" at San Francisco State College, which is using learning by discovery to lead students inductively through detailed learning experiences step-by-step and in a cumulative sequence.

(b) The Madison Project, a large-scale development effort, in mathematics being conducted jointly by Syracuse University and Webster College. This project, which has been active for a number of years and continues into the future, is developing curricula which show mathematics as a process rather than facts and create actual classroom experiences for school children instead of relying on textbooks or guidelines.

2. *Individually Prescribed Instruction (IPI)*.—This is a technique which provides for assessment of each student's progress in a particular subject matter so that appropriate decisions can be made in keeping with his achievement, capabilities, and interests. Such a technique could be controlled by computer (computer-managed instruction), but usually is not. This technique is being used, for example, in the following settings:

(a) The Pittsburgh Learning R&D Center, under the direction of Robert Glaser, has been working with IPI under test conditions at the Oakland School in Pittsburgh.

(b) Research for Better Schools, Inc., the Regional Educational Laboratory in Philadelphia, Pennsylvania, is in the process of field testing, monitoring and further developing the IPI system developed by Glaser. In connection with this work approximately 100 schools are using IPI. RBS is also involved in training teachers and administrators in IPI methods and is developing a prototype automated learning-management system for IPI.

B. Hardware-Oriented Techniques

1. *Computer-Assisted Instruction (CAI)*.—This technique involves direct student participation with a computer system. Instructional materials are stored in the computer system. This technique takes a great deal of hardware but at present lacks adequate software. Two examples of CAI are:

(a) The Stanford University CAI Project which has been testing CAI in a disadvantaged area of Palo Alto, California, and in rural areas of Kentucky and Mississippi.

(b) The New York City School system which operates approximately 1,000 terminals.

2. *Controlled Environment*.—This technique, which was developed by O. K. Moore, has the student sitting in a sound-proof carrel and receiving his information and directions through earphones, from T.V. sets, and through printed material from a computer. This technique has been used successfully in teaching preschool children to read (*the Talking Typewriter*). However, it is in very limited use. At most there are several hundred machines in use. Each machine costs \$40,000.

3. *Teaching Machines*.—The teaching machine also provides for active participation by the student and for immediate reinforcement after each response. There are several different types of teaching machines. These are:

(a) Programed textbooks;

(b) Simple manually operated teaching machines;

(c) Electrically-operated teaching machines employing 35 mm projection techniques;

(d) Electrically operated machines which employ a variety of media such as film, filmstrip, synchronized tape recorders, or written text, allowing a variety of presentations and responses.

Evidence indicates that this technique is as good as traditional methods of teaching but not better. Teaching machines are widely available but little used due to a lack of adequate software.

4. *Educational Television.*—This technique is widely available to urban and rural areas and has several different types of uses. Some examples are:

(a) Cooperative Educational Television systems

(1) The Eastern Educational Network which involves cooperation between 20 areas where Educational Television stations are located. This Network which ranges south from Maine to Washington, D.C., and west to Pittsburgh, Pennsylvania, provides a system through which affiliated stations exchange educational programs.

(2) The National Center for School and College Television at Indiana University, which provides national distribution for for instructional programs.

(3) The Great Plains ITV at the University of Nebraska which is a distribution center successful enough to become self-supporting and expand from a regional to a national base.

(4) Low-power (2,500 megahertz cycle) T.V. which is for restricted use in school systems which do not have easy access to ETV stations. The school system obtains a license to operate point to point telecasts to schools within the one system. There are approximately fifty such systems in operation, a number of which are to be found in rural area.

(b) The Television for Preschool Children program being developed by National Educational Television, Inc., with support being provided by the Office of Education, the Office of Economic Opportunity, the Ford Foundation, and the Carnegie Corporation of New York. One-hundred thirty hour-long shows involving films, cartoons, etc., which entertain while teaching will be broadcast over several commercial stations as well as over 100 educational television channels in the development and field testing stage. This project is being designed to prepare the deprived child, in his own home, for the school experience. The materials will also be available on a continuing basis for millions of children in Head Start and other preschool programs sponsored by local, State or Federal agencies.

Evidence indicates that educational television is as good as traditional methods of teaching but no better. It is better than poorly qualified teachers.

II. AVAILABILITY OF FACILITIES TO URBAN AND RURAL AREAS

All of the previously discussed educational techniques are available to all types of school districts. However, since most of the new procedures are quite costly, only a limited number of students are presently using them.

Both because of the higher concentration of students which reduces per pupil cost and because of the greater available resources there is a tendency for these newer techniques to be more widely used in urban and suburban areas. Educational television is the most widely used of the newer techniques for both urban and rural school districts.

Many of the newer techniques are used, at least on an experimental basis in ghetto schools, but no grouping of school districts—rural, suburban, urban, or ghetto—can be considered as utilizing fully these newer approaches to teaching.

Question 3. The Nation's colleges and universities are now experiencing the effects of the post war rise in the birth rate. What are the educational institutions doing in terms of additional facilities to meet the tremendous increase in enrollments?

Answer. In 1959 the opening fall enrollment for institutions of higher education was 2,658,000 (full-time equivalent)—a 60 percent increase from 1946. The opening fall enrollment in 1969 was 5,830,000—over twice the 1959 enrollment. In 1959, there was 404,400,000 gross square feet of space available or an average of 152 square feet per full-time equivalent student. In the period from 1959 through 1969, institutions will have added 326,979,000 gross square feet (in addition to replacement of temporary and condemned buildings). However, the 1969 level of 731,379,000 square feet provides only an average of 126 square feet per student. Obviously, in spite of phenomenal efforts by institutions of higher education, the need for additional facilities has not been met. In order to bring the space level to standards accepted as minimal, another 179,421,000 square feet should be available this year. At current costs, such a building program would approximate \$5.6 billion. Projections indicate that this gap will not be closed in the next decade. Rather, without significant additional assistance, it will be fortunate if the gap does not widen.

Question 4. As may be recalled, the materials prepared by your department in describing the national needs and prospective capital outlays over the next decade for various educational categories were relatively sparse. Could you submit now detailed figures on such needs and capital outlays for the years 1968 through 1975 for such categories as public elementary and secondary school facilities, non-public elementary and secondary school facilities, vocational school facilities and academic facilities for higher education.

Answer. The latest available projections of public educational facilities needs cover a five year period, 1968 through 1972. We have not projected needs beyond this period in anticipation of a more meaningful national data base being available one or two years after the 1970 Census. Projections of non-public elementary, secondary and vocational school facilities are not available. Neither have we projected the dollar values of educational facilities needs because of the wide variations in construction cost in different geographic areas. Such variations tend to impair the usefulness of projected capital outlays. Moreover, the changing proportions of higher education facilities in terms of science buildings, libraries, lecture halls, etc., further complicate projections of needed capital outlays.

TABLE 1.—FACILITIES AVAILABLE AND FACILITIES NEEDED FOR CURRENT BACKLOG, 1967-68

	Total			Urban			Suburban			Rural		
	Total	Elementary	Secondary	Total	Elementary	Secondary	Total	Elementary	Secondary	Total	Elementary	Secondary
I. BASE YEAR—FACILITIES AVAILABLE (CLASSROOMS)												
Total.....	1,709,000	1,085,000	624,000	564,000	358,100	205,800	547,000	347,300	199,700	598,000	379,700	218,300
Disadvantaged.....	264,000	167,600	96,400	87,100	55,300	31,800	84,500	53,700	30,800	92,400	58,700	33,700
Handicapped.....	219,000	139,100	79,900	72,300	43,900	26,000	70,100	44,500	23,500	76,400	48,700	29,000
Vocational.....	149,000	93,000	49,000	46,200	28,200	16,200	13,700	13,700	13,700	17,200	17,200	17,200
General.....	1,177,000	778,300	398,700	388,400	256,900	131,500	376,700	249,100	127,600	412,000	272,300	139,400
II. FACILITIES NEEDED TO ELIMINATE CURRENT BACKLOG												
Total.....	519,300	177,100	242,200	161,200	74,700	86,600	138,800	70,800	68,000	219,300	131,600	87,700
To achieve median 27/27.....	98,300	58,800	39,500	40,700	21,400	19,300	28,300	18,100	10,200	29,300	18,300	10,000
To eliminate makeshift.....	40,000	27,000	13,000	14,300	9,700	4,700	12,800	8,600	4,200	12,900	8,700	4,200
To improve program 25/20.....	187,000	61,300	125,700	70,100	19,400	50,700	61,100	19,600	41,500	55,800	22,300	33,500
To replace 4 or more defects.....	194,000	130,000	64,000	36,100	24,200	11,900	36,600	24,500	12,100	121,300	81,300	40,000
III. BACKLOG												
Total.....	519,300	277,100	242,200	161,200	74,700	86,600	138,800	70,800	68,000	219,300	131,600	87,700
Disadvantaged.....	85,500	44,300	41,200	26,700	12,000	14,700	22,900	11,300	11,600	36,000	21,100	14,900
Handicapped.....	99,400	58,200	41,200	39,400	15,700	14,700	26,400	14,900	11,600	42,500	27,600	14,900
Vocational.....	21,800	13,800	21,800	7,800	7,800	7,800	6,100	6,100	6,100	7,900	7,900	7,900
General.....	312,600	174,600	138,000	96,300	47,000	49,400	83,400	44,600	38,700	132,900	82,900	50,000

Note: Detail may not add due to rounding.

TABLE 2.—STUDENT STATIONS NEEDED TO OVERCOME UNSATISFACTORY FACILITIES AND ACCOMMODATE GROWTH BY LEVEL, REGION, AND TYPE, 1967-68 TO 1972-73
 [In thousands]

Year	Urban					Suburban					Rural					
	Total	Pre-school	Elementary	Secondary	Total	Pre-school	Elementary	Secondary	Total	Pre-school	Elementary	Secondary	Total	Pre-school	Elementary	Secondary
1968-69																
Total	1,457	426	378	653	321	155	-----	166	958	152	378	428	178	119	-----	59
Disadvantaged	302	151	56	95	79	55	-----	24	172	54	56	62	51	42	-----	9
Handicapped	138	35	38	65	29	13	-----	16	93	12	38	43	16	10	-----	6
Vocational	52	-----	-----	52	13	-----	13	34	34	-----	-----	34	5	-----	-----	5
General	965	240	284	441	200	87	-----	113	659	86	284	289	106	67	-----	39
1969-70																
Total	1,307	395	298	614	311	142	-----	169	860	150	298	412	136	103	-----	33
Disadvantaged	320	189	43	88	93	69	-----	24	173	70	43	60	54	50	-----	4
Handicapped	91	30	-----	61	28	11	-----	17	82	11	30	41	11	8	-----	3
Vocational	78	-----	30	48	13	-----	13	33	33	-----	-----	33	2	-----	-----	2
General	818	176	225	417	177	62	-----	115	572	69	225	278	69	45	-----	24
1970-71																
Total	1,284	422	259	603	339	152	-----	187	846	171	259	416	99	99	-----	-----
Disadvantaged	369	244	38	87	114	87	-----	27	195	97	38	60	60	60	-----	-----
Handicapped	116	30	25	61	30	11	-----	19	80	13	25	42	6	6	-----	-----
Vocational	48	-----	-----	48	15	-----	15	33	33	-----	-----	33	3	-----	-----	-----
General	751	148	196	407	180	54	-----	126	538	61	196	281	33	33	-----	-----
1971-72																
Total	1,227	447	145	635	387	164	-----	223	746	189	145	412	94	94	-----	-----
Disadvantaged	409	295	21	93	141	108	-----	33	202	121	21	60	66	66	-----	-----
Handicapped	108	30	15	63	33	11	-----	22	99	13	15	41	6	6	-----	-----
Vocational	51	-----	-----	51	18	-----	18	33	33	-----	-----	33	2	-----	-----	-----
General	659	122	109	428	195	45	-----	150	442	55	109	278	22	22	-----	-----
1972-73																
Total	1,404	475	143	786	552	176	-----	376	766	213	143	410	86	86	-----	-----
Disadvantaged	483	350	20	113	184	130	-----	54	229	150	20	59	70	70	-----	-----
Handicapped	123	30	14	79	49	11	-----	38	69	14	14	41	5	5	-----	-----
Vocational	63	-----	-----	63	30	-----	30	33	33	-----	-----	33	3	-----	-----	-----
General	735	95	109	531	289	35	-----	294	435	49	109	277	11	11	-----	-----

Note: Detail may not add due to rounding.

TABLE 3.—CLASSROOMS NEEDED TO OVERCOME UNSATISFACTORY FACILITIES AND ACCOMMODATE GROWTH BY LEVEL, REGION, AND TYPE, 1968-69 TO 1972-73

Year	Total						Urban			Suburban			Rural			
	Total	Pre-school	Elementary	Secondary	Total	Pre-school	Elementary	Secondary	Total	Pre-school	Elementary	Secondary	Total	Pre-school	Elementary	Secondary
1968-69																
Total	76,950	20,650	18,000	38,300	17,230	7,530	9,700	50,440	7,340	18,000	25,100	9,280	5,780	3,500		
Disadvantaged	16,650	7,550	2,800	6,300	4,350	2,750	1,600	9,600	2,700	2,800	4,100	2,700	2,100	600		
Handicapped	13,800	3,500	3,800	6,500	2,900	1,300	1,900	3,000	1,200	3,800	4,300	1,600	1,100	300		
Vocational	3,500			3,500												
General	43,000	9,600	11,400	22,000	9,880	3,480	5,600	29,240	3,440	11,400	14,400	4,680	2,680	2,000		
1969-70																
Total	69,790	19,490	14,200	36,100	17,030	7,030	10,000	45,760	7,360	14,200	24,200	7,000	5,100	1,900		
Disadvantaged	17,550	9,450	2,200	5,900	5,050	3,450	1,600	9,700	3,500	2,200	4,000	2,800	2,500	300		
Handicapped	12,100	3,000	3,000	6,100	2,800	1,100	1,700	3,200	1,100	3,000	3,100	1,100	800	300		
Vocational	3,200			3,200												
General	36,940	7,040	9,000	20,900	8,280	2,480	5,800	25,660	2,760	9,000	13,900	3,000	1,800	1,200		
1970-71																
Total	68,640	21,120	12,120	35,400	18,610	7,610	11,000	45,110	8,590	12,120	24,400	4,920	4,920			
Disadvantaged	19,900	12,200	1,900	5,300	6,150	4,350	1,800	10,750	4,850	1,900	4,000	3,000	3,000			
Handicapped	11,600	3,000	2,500	6,100	3,000	1,100	1,900	8,000	1,300	2,500	4,200	600	600			
Vocational	3,200			3,200			1,000									
General	33,948	5,920	7,720	20,300	8,460	2,160	6,300	24,160	2,440	7,720	14,600	1,320	1,320			
1971-72																
Total	66,830	22,630	6,900	37,300	21,400	8,300	13,100	40,650	9,550	6,900	24,200	4,780	4,780			
Disadvantaged	21,950	14,750	1,000	6,200	7,600	5,400	2,200	11,050	6,050	1,000	4,000	3,300	3,300			
Handicapped	10,800	3,000	1,500	6,300	3,300	1,100	2,200	6,900	1,300	1,500	4,100	600	600			
Vocational	3,400			3,400			1,200									
General	30,680	4,880	4,400	21,400	9,300	1,800	7,500	20,500	2,200	4,400	13,900	880	880			
1972-73																
Total	77,200	24,300	6,800	46,100	31,100	9,000	22,100	41,660	10,869	6,800	24,000	4,440	4,440			
Disadvantaged	26,000	17,500	1,000	7,500	10,100	6,500	3,600	12,400	7,500	1,000	3,900	3,500	3,500			
Handicapped	12,300	3,000	1,400	7,900	4,900	1,100	2,800	6,900	1,400	1,400	4,100	500	500			
Vocational	4,200			4,200			2,000									
General	34,700	3,800	4,400	26,500	14,100	1,400	12,700	20,160	1,960	4,400	13,800	440	440			

Note: Detail may not add due to rounding.

TABLE 4.—NUMBER OF SQUARE FEET NEEDED TO OVERCOME UNSATISFACTORY FACILITIES AND ACCOMMODATE GROWTH BY LEVEL, REGION, AND TYPE, 1967-68 TO 1973-73
 [In thousands]

Year	Total						Urban			Suburban			Rural			
	Total	Pre-school	Elementary	Secondary	Total	Pre-school	Elementary	Secondary	Total	Pre-school	Elementary	Secondary	Total	Pre-school	Elementary	Secondary
1967-68	938,000	25,560	423,800	514,200	302,700	8,300	115,000	187,700	252,400	9,120	108,800	143,600	382,900	7,140	200,000	182,900
1968-69	113,360	23,700	22,700	65,300	23,900	8,520	16,600	16,600	74,620	9,000	22,700	42,800	13,040	5,180	-----	3,900
1969-70	103,000	23,320	17,900	61,400	23,820	3,820	18,700	16,900	68,100	10,260	17,900	41,200	9,480	5,940	-----	3,300
1970-71	101,120	23,320	13,500	60,300	27,820	3,840	22,300	22,300	67,360	11,340	13,500	41,600	5,940	5,640	-----	-----
1971-72	99,020	26,820	8,700	63,500	32,140	10,360	37,600	37,600	61,240	12,780	8,700	41,200	5,640	5,160	-----	-----
1972-73	115,700	28,500	8,600	78,600	48,160	10,360	37,600	37,600	62,380	12,780	8,600	41,000	5,160	5,160	-----	-----

Note: Detail may not add due to rounding.

TABLE 5.—PUBLIC 2-YEAR COLLEGES AND TECHNICAL INSTITUTES, PROJECTED TOTAL ENROLLMENTS, SQUARE FEET AVAILABLE AND NEEDED

[In thousands]

Year	Student enrollment ¹	Enrollment increment	Area increment ²	Total gross area needs ³	Estimated gross area available ³
(1)	(2)	(3)	(4)	(5)	(6)
1967-68.....	1,092	—	42,788	131,040	88,252
1968-69.....	1,176	84	10,080	141,120	97,208
1969-70.....	1,224	48	5,760	146,880	105,587
1970-71.....	1,290	66	7,920	154,800	114,195
1971-72.....	1,357	67	8,040	162,840	121,077
1972-73.....	1,429	72	8,640	171,480	127,994

¹ FTE degree credit plus 2-year terminal students, tables 6 and 9, "Projections of Educational Statistics to 1976-77."

² Based on conservative instructional facility planning standard of 120 square feet per junior college student.

³ Based on gross available area per DCF (interim assessment) for fiscal year 1967—multiplied by ratio of junior college enrollment (sec. (a)) to total FTE enrollment per DCF (interim assessment)—corrected by 80 percent to show ratio of area available to junior college students relative to all other students (viz 120 to 150), adjusted by 15 percent to allow for facilities unsatisfactory and not suited for rehabilitation.

Note: Detail may not add due to rounding.

TABLE 6.—PUBLIC 2-YEAR COLLEGES AND TECHNICAL INSTITUTES, GROSS SQUARE FEET NEEDS DISTRIBUTED BY ASSUMED PROPORTIONS ASSIGNABLE TO RURAL, SUBURBAN, AND URBAN AREAS FOR ACADEMIC YEARS 1968-73

[Assumes 15 percent of area gap rural area; 40-percent suburban; 45-percent urban]

Year	Additional gross square feet needed (thousands)			
	Total ¹	Rural	Suburban	Urban
(1)	(2)	(3)	(4)	(5)
1967-68.....	42,788	6,418	17,115	19,255
1968-69.....	10,080	1,512	4,032	4,536
1969-70.....	5,760	864	2,304	2,592
1970-71.....	7,920	1,188	3,168	3,564
1971-72.....	8,040	1,206	3,216	3,618
1972-73.....	8,640	1,296	3,456	3,888

¹ Values taken from table 5, col. 4.

Note: Detail may not add due to rounding.

TABLE 7.—Higher educational facilities needed in gross square feet—Graduate and undergraduate, 1968-72 (excludes 2-year institutions)

1968.....	49,200,000
1969.....	45,600,000
1970.....	15,450,000
1971.....	30,150,000
1972.....	38,700,000

Question 5. What role, if any, should the Federal Government play in helping to pay for the needed capital plant for public and private, elementary and secondary institutions?

Answer. We are unable to provide an answer to this question at this time. While proposals in this area have been considered for some time, no proposal to date has resolved the two major problems which must be handled if any such proposal is to be equitable and have any real chance of acceptance. These two problems, aside from the greatest current problem, namely, the large sums of money which would be involved, are as follows:

Any proposal to be viable would have to consider private as well as public support, a fact recognized in the question. This raises a constitutional question of separation of church and State which is not easily solved. Present Federal programs have used the approach of providing direct benefits or services to the student rather than the institution and this procedure would appear to be supportable constitutionally. The construction of a building, however, would seem to be much too tangible a benefit to the institution on short and long range terms

to fall under the "child benefit" or "public trust" theories. Interest subsidies, because of the large amounts involved, would probably fall in the same category.

A second problem concerns the development of an equitable distribution formula. A good construction proposal should not reward those districts which, though fiscally able, have put off construction until a Federal program is created. On the other hand, we cannot pick up the cost of all past construction. In other words, good measures of effort are needed. A related problem would be whether Federal funds should be used only for new construction or for debt service as well. These somewhat technical problems are not insoluble, but we do need better data on effort if we are to find a truly equitable solution.

Until the budgetary, constitutional, and technical problems are resolved, the Department is not in a position to issue proposals for Congressional consideration.

Question 6. To the best of your knowledge, are school districts and other local governments experiencing any difficulties in borrowing in the tax exempt municipal securities market?

Answer. Generally, the less affluent districts are experiencing difficulties in borrowing at reasonable interest rates. The cost of borrowing at any given point in time is related to the bond rating of the school district or municipality and to general financial market conditions. Some school districts are unable to borrow funds for the construction of educational facilities because of strict debt limitations imposed by some States. Thus, high interest cost coupled with debt limitations serve to prevent necessary growth and upgrading of the educational facilities plant of numerous jurisdictions.

At present, many school districts and other local public bodies are having problems in borrowing in the tax exempt municipal securities market. That is due to many factors:

1. The fears of inflation have lessened the attractiveness of all long-term and medium term bonds. Pension funds, trusts, and wealthy individuals who would normally keep large holdings of municipal bonds are reducing somewhat their holdings of municipals, and placing more of their monies in equities.

2. The danger of a change in the price of gold has also tended to make bonds less attractive investments, since they are payable in X number of years in a stated number of dollars. Certain stocks, on the other hand, would rise if the value of the dollar is lowered, and the holders of such stocks would be protected from such a happening. Many investors realize the necessity of preparing for such a contingency.

3. As tax exempt bond interest rates have continued to rise in Wall Street, along with interest costs of other fixed-rate obligations, the prices of tax exempt bonds have been steadily drifting downwards, sometimes with little, if any, support.

4. In this serious bond market situation, which has now prevailed and worsened, over a period of several years, with variations in degree of seriousness during that period, the school district or the local government with marginal credit is naturally the hardest hit, and is apt to find little or no market for its obligations. However, many large public bodies whose credit is good, have also had problems in marketing long-term bonds, and have gone heavily into the sale of their short-term notes to the commercial banks. The banks have continued to be willing to take the short-term obligations of the public bodies with good credit, since they are tax exempt, and carry exceedingly high interest rates in the present market. The commercial banks have been particularly desirous of accumulating short-term tax exempt notes in this period when their earnings are high. The banks, however, are now extremely leary of middle-term municipal bonds which they previously accumulated in volume, since they took large losses on their municipal bond portfolios in 1967, and probably have similar losses to show on their bond inventory for 1968.

As a general rule, most school district bonds and local government bonds do well in normal markets, and are easily absorbed by the financial community. We have found that very few school districts were unable to market their bonds in earlier periods, though many such districts did not secure the prices for their bonds that their financial statements warranted. However, in the last two or three years, the entire municipal bond market has been faced with a series of unending crisis situations, and most investment bankers think it will be difficult for Wall Street to absorb the supply of municipal bonds which must come to market in the next few years.

Question 7. What would you propose be done to reduce the borrowing costs for educational facilities? Would a combination of a Federal guaranty of debt service plus interest reduction payments equal to one third of the interest cost on school bonds, where the interest income is taxable, be helpful to lower the borrowing costs for the smaller school districts?

Answer. One means of reducing borrowing cost, particularly to the less affluent districts and municipalities, is the establishment of State school building authorities. This technique also represents one solution to the strict debt limitation problem imposed by some States because the authority would finance the construction of educational facilities and then lease them to the district. Such authorities issue revenue bonds which would be redeemed from lease rentals obtained from the school districts. Title to the school building passes to the district when the bonds are redeemed.

It is interesting to note that at least one study indicated that interests costs of building authority bonds are higher than the average interest cost of bonds sold by individual school districts carrying the full faith and credit of the local governments. Thus, interest cost reductions could be realized if building authorities would be authorized to issue general obligation bonds, but if this were done the building authorities' obligations would no longer be exempt from debt limitations.

A Federal guarantee of school building authority obligations would achieve more than the State full faith and credit and result in lower interest rates.

A Federal guaranty of debt service would help to lower the borrowing costs for the smaller school districts. Interest reduction payments equal to one-third of the interest cost on school bonds would also help them immensely. However, if Federal assistance in the form of interest reduction payments, plus a Federal guaranty, would be coupled with the removal of the tax exemption from the federally guaranteed school district bonds, it is likely that the net result would not be helpful to school districts.

Marginal school district bond issues are now sold to a very small and narrow group of investors who are in the market for tax exempt municipal bonds. It is likely that these same investors would not be attracted to school district bonds, federally guaranteed, issued without the tax exemption. Investors purchasing school district bonds are buying them because they want their money invested in tax exempt obligations of public bodies. Those investors are endeavoring to reduce their Federal tax payments; they will not be willing to invest the same monies in taxable government guaranteed school district bonds as a substitute for non-guaranteed tax exempt obligations. A whole new market would have to be developed for a new type of municipal bond which is a Federal Government guaranteed obligation but does not carry tax exemption.

The present market for Federal guaranteed (non-municipal) obligations is a different, but also a limited market. The principal investors in government guaranteed participations and similar type obligations are commercial banks and other financial institutions. They purchase large blocks of readily marketable top quality government guaranteed participation certificates, etc., which can be obtained in blocks of \$1 million, \$5 million, \$10 million, and up, are all of a like kind and quality, and are quoted and traded daily in an enormous annual turnover of such securities. Little school district bond issues of \$50,000 to \$1,000,000 in size, and each carrying 10 to 30 different maturities, would not be much in demand by these large institutions. It would be too troublesome for them to purchase small odd-sized blocks of bonds of varying maturities of unknown-name school districts. The investor prejudice against little known places and small bond issues of odd amounts is well-known to investment bankers. So also is the problem of small, obscure school districts bringing their bonds to market. The problems are complex, and the interjection of the Federal guaranty will not cure them.

The principal unfavorable factor that will underlie the creation of such a new type of local government obligation is that it will make the school district bond less attractive to investors than the present tax exempt school district bond. This would restrict the marketability of such bonds, and anything that restricts the marketability of school district bonds, which have always been less attractive to many investors than large issues of general market municipals (which are traded everyday, and for which immediate quotations are available), should not be encouraged.

The high borrowing costs of marginal credit school districts could also be reduced if a Federal corporation were created to purchase their bonds, or if an existing Federal department, such as the Department of Health, Education, and Welfare, were authorized to purchase \$100 to \$300 million annually of bonds of

such marginal school districts. Such a measure would improve the attractiveness of school district obligations generally since Federal commitments for loans to the marginal districts would serve to reduce the pressure on the market; or, in Wall Street terminology, the "load balance", in favor of the school bond dealers would be improved. The school district bond market would be freed from a large portion of the annual volume of financing that it must now absorb. Technical market statistics would be then more favorable to the remainder of the annual volume of school bonds which would come to market.

Question 8. Do private schools and colleges raise money in the capital market through borrowing? Can you furnish to the Committee a tabulation of such borrowing during the past decade? What is the outlook for such financing?

Answer. Private institutions of higher education face considerable difficulty in raising money in the capital market through borrowing. Prime sources of funds are tuition, annual giving, and the Federal Government. While borrowing from the Federal Government under the College Housing Program and the Higher Education Facilities Act has done much to establish a viable market for bonds and notes of private institutions, a number of factors have thwarted any real success. The most obvious factor is the competition for extremely limited funds with public tax-free issues. Not only is the total financing limited, but the market conditions tend to make private borrowings of a short term and to require extreme security (e.g., mortgage on an entire campus and pledge of tuition income).

Private secondary schools are able to raise monies by direct borrowing from the banks in their local and regional centers, and from insurance companies, but only those schools with good to high credit ratings are so fortunate. Many private schools have the utmost difficulty in finding funds to finance the construction of housing and academic facilities. These schools, taken as a group, have little or no access to the bond markets. An exception to this is those private schools which are sponsored by an order or a religious institution with very good credit and a strong financial statement. Such institutions are able to raise funds for their long term needs through the religious order or entity which is responsible for their existence. The religious entity sells its own bonds through an investment banking house which specializes in such obligations.

Many private colleges raise construction funds and also operating capital through loans from their local commercial banks, and also from banks in their regional urban center. Some private colleges are able to place mortgages on their properties with major insurance companies, but in the main private colleges are unable to sell their own bond issues in the bond market. However, the new state authorities which have recently been created in the northeastern and the middle atlantic states, and in Ohio, sell their own bonds, which are tax exempt, and make the proceeds available to the particular private college which is then being financed. These are construction bond issues. They make it possible for the private college to obtain a long-term loan at a favorable interest rate. The tax-free authority's bond issue is backed by the credit of the private college; and it also offers as security a mortgage on buildings constructed with the proceeds, plus rental leases on the structures which leases run between the authority and the college.

The attached article in *American Education* for October, 1968, discusses these new state authorities for the private colleges and names all of them.

The outlook for this kind of financing for the private college in those states where such authorities have been created is favorable. However, this financing is available only for the well-known college with good financial standing.

Such State authorities will not be helpful to the private college with marginal credit, or good to fair credit, since only the credit of the college, and its mortgages and leases, are behind the tax exempt bond issues which the state authority sells for the private college.

A tabulation of such financing by private schools and colleges over the past decade cannot be furnished the committee, since such figures are not now available.

STATES AID PRIVATE COLLEGE BUILDING

More than one harassed, private-college budget planner has been known to sigh when departing a long, involved meeting, "Oh, for the good old days when things were cheap and a dollar was worth something." But even his colonial counterparts had to scrounge for construction money.

The University of Pennsylvania is a good example. From the earliest days Benjamin Franklin and his fellow trustees were forced to run lotteries to raise

funds: The 1750 treasurer's accounts are burdened with payments for bricks, lumber, plaster, and such homey items of that day as "drink for the brick-layers" and "provisions at raising of the belfry." Although enterprising fund raisers went as far afield as Scotland and the West Indies to solicit contributions, in 1762 the university's expenses were running 700 pounds more than income.

The 228-year-old institution has relied primarily on gifts and government grants in spending well over \$151 million on construction. Even with its huge expenditure for construction over the centuries, the University of Pennsylvania had never done any large-scale financing on the bond market. Tax-free bond issues were not available to private universities. For the first time this July, \$56 million of such tax-free bonds were issued on behalf of the University of Pennsylvania; this was possible because of the creation of the Pennsylvania Higher Education Facilities Authority.

While authorities in several States have been issuing bonds to finance construction for public institutions of higher learning for many years, little had been done until recently to aid private colleges and universities in similar ventures.

In 1965 Connecticut passed the first bill to form the Connecticut Health and Educational Facilities Authority, enabling the sale of a tax-free authority bond issue backed by the credit of a private institution. The advantages are long-term loans at lower interest rates. The authority's bonds are sold to investors—insurance companies, pension trusts, and individuals. As security it offers a mortgage on buildings constructed with proceeds, plus rental leases on the structures to the institution.

By July of this year three such private-college authority ventures were underway—the one in Pennsylvania, and one each in Connecticut and Rhode Island—and the Ohio authority was becoming operative.

Connecticut's first issue was \$4.1 million for the University of Hartford, a privately endowed, nonsectarian college. In the private bond market the university would probably have been forced to borrow at very high interest rates for a short term. Using the authority's credit and power to issue tax-exempt bonds, the bonds were sold at interest rates of 4.9 percent, 5.75 percent, and six percent. Through a lease arrangement the university operates the project, built by the authority on land deeded by the school, with eventual reversion rights. Originally created to finance college construction, the act was broadened in 1967 to include hospital assistance.

The Rhode Island Educational Building Corporation sold \$13 million of higher education facility bonds in March 1968 for Brown University. Proceeds, payable from rentals to be received under a lease arrangement with the school, will pay for construction of an office building and other facilities. The bonds looked so good to major investors that they were sold at five percent and 5.25 percent interest rates—excellent in the present bond market.

The Penn issue was the first for the Pennsylvania authority. The high credit of the university and the fact that its alumni include leading executives of many important financial institutions in the Commonwealth made such a sizable initial marketing feasible. The project includes the addition of 5,100 housing units; these will more than double overall housing capacity and increase graduate and professional housing fivefold.

Four authorities—New Jersey, Massachusetts, Vermont, and one in New York—have the power to finance both private and public colleges. The New Jersey and Massachusetts authorities have just been established and are not yet operating; the Vermont Educational Building Financing Agency was created in 1966 but apparently has not yet sold any bonds.

The New York State Dormitory Authority has issued more than \$725 million of bonds since its establishment in 1944. Originally created to provide dormitories for the teachers colleges, a 1955 law extended financing to private schools. The authority can provide dormitories and related facilities for lease to the State University of New York and can also provide academic and research facilities and housing for the private colleges. As of August 1, 1968, it had \$403 million of notes and bonds outstanding for the private schools, \$304 million for the State University.

In the area of public colleges seven State authorities are financing public-college construction. These States include Alabama, Georgia, Illinois, New York, Pennsylvania, Tennessee, and Wisconsin.

Under title III of the Higher Education Act of 1963, as amended, the Office of Education assists these authorities by loans and grants committed directly to the school involved. New York University, the New School for Social Research, and Ithaca College are examples of private colleges for which the Commissioner of Education has recently purchased bonds from the New York State Dormitory Authority for academic facilities; bonds are also sold on Wall Street.

APPENDIX II

The material appearing in this appendix was supplied by Assistant Secretary Mackey of the office of the Secretary of Transportation, responding to questions from Chairman Patman.

Question 1.—"At one time we were led to believe that the National Highway System would be completed by 1972. What accounts for the extension of the completion date? Are there any additions? Can you furnish to the Committee the revised estimate costs by calendar year and the indicated sources of financing for the years 1969-1975?"

Response.—The original estimated completion date for the 41,000-mile National System of Interstate and Defense highways was established in the Federal-Aid Highway Act of 1956, the basic legislation under which we are still operating. However, over the last dozen years our concepts of the purposes and functions of the Interstate system have changed. Changes in law or practice have resulted in better and safer design provisions, which are tied into more reliable traffic estimates. Individual routes and projects today incorporate additional features which reflect our increased awareness of and attention to the requirements of specific site conditions and local goals and plans. These features, coupled with significant increases in construction, right-of-way and engineering costs over the same period, have been reflected in our periodic estimates of the cost of completing the Interstate system. The most recent of these estimates, submitted to Congress in January of this year, identified total system costs of \$56.5 billion, including a Federal share amounting to \$50.64 billion. As you know, the Interstate program is financed on a pay-as-you-build basis, using revenues accruing to the Highway Trust Fund. A comparison of the rising cost of completing the system and anticipated Trust Fund receipts indicated that the previous 1972 target date for completing the system was not achievable.

The Federal-aid Highway Act of 1968 provided for a 1,500-mile expansion the Interstate system. A list of the routes which have been added to the system as a result of this provision is appended, including an estimate of the cost of that addition.

Also enclosed is a table showing the most recent estimate of funds required to complete the Interstate system, as well as a brief analysis of the causes for the increased cost of the system since the 1958 estimate. An updated estimate will be submitted in 1970, as required by law. Annual Interstate authorizations through Fiscal Year 1974 were contained in the Federal-aid Highway Act of 1968, although the program is at present financed only through the first quarter of Fiscal Year 1973. Under current legislation the Highway Trust Fund expires on September 30, 1972.

Question 2.—"During previous hearings on municipal facilities reference was made to bond defaults of which the two largest are the West Virginia Turnpike and the Calumet Skway in Illinois. What, if anything, could your Department do to correct these two defaults? Could they have been averted?"

Response.—The present plan for correcting the default of the West Virginia Turnpike is as follows:

- A. The Turnpike is to go into voluntary bankruptcy.
- B. The State Road Commission will issue special obligation bonds to be exchanged for the present turnpike bonds. The present bondholders, based on the consent of the holders of two-thirds of the outstanding bonds, will relinquish all claims on unpaid interest.
- C. Upon the issuance of the special obligation bonds, the collection of tolls would cease and the road would be maintained by the Road Commission.
- D. The \$133 million worth of bonds issued by the Road Commission will not be full faith bonds, but will be backed by some \$96.3 million in Federal securities purchased from Federal National Mortgage Association with \$81 million of Federal funds and \$15.3 million of State funds.

E. Since the Turnpike is on the Interstate System and only a two-lane highway, the State would then proceed to add the necessary lanes to bring it to Interstate standards.

There appears to be no way that the default of the West Virginia Turnpike bonds could have been averted other than not constructing the road. The construction of the road as a toll facility followed a favorable feasibility report of projected earnings based on estimates of future traffic which have never been realized.

With respect to the Calumet Skyway default, there has been no agreement for Departmental participation in any corrective proposal.

Here again, it is difficult to say how the default could have been avoided. Actual traffic volumes have been in the vicinity of one-half of the previous estimates, perhaps reflecting the relative ease with which the Calumet Skyway can be bypassed by motorists familiar with alternate routes serving Chicago from the south and east.

1,500-MILE INCREMENT—RECOMMENDED ROUTES BY STATES, DEC. 14, 1968

State	Route	Length subtotal (miles)	Length (miles)	Cost sub-total (millions)	Total cost (millions)
Alabama	Huntsville, spur from I-65	5.5	19.2	220.2	\$22.9
Arizona	Phoenix, Papago Freeway, phase I	1.6	4.9	19.0	79.8
California	San Diego to Colton (San Bernardino-Riverside)	24.8	109.6	31.2	251.4
	San Francisco, spur to International Airport	5.6		70.0	
	Denver, belt, southwest quadrant	6.1	30.4	19.3	89.3
Colorado	Denver, extend I-80S to I-70	44.5	50.6	29.0	158.0
Connecticut	Hartford, extend belt I-291 to I-84			129.0	
	Connecticut portion of Hartford-Providence route				
Florida	St. Petersburg to Miami				
Georgia	Columbus, spur from I-85				
Illinois	Springfield via Decatur to Champaign				
Indiana	Evansville, spur from I-64				
Iowa	I-80 via Cedar Rapids to Waterloo	74.3	74.8	123.9	126.9
	Iowa portion of Sioux City-South Sioux City spur	.5		3.0	
Kansas	New Orleans, south belt		19.6		52.1
Louisiana	Providence belt, northeast quadrant		30.0		220.0
Massachusetts	Providence belt, southeast quadrant (to Rhode Island State line)	14.3	15.8	44.3	47.4
Michigan	Marshall via Lansing to Flint		96.0		104.4
Minnesota	Radial to I-494 in Minneapolis	1.5	9.4	29.0	29.0
Missouri	Missouri portion of Kansas City west belt		26.0	14.9	54.0
	Kansas City north belt to Kansas City International Airport	9.0		39.1	
Nebraska	Nebraska portion of Sioux City-South Sioux City spur	17.0			
New York	Binghamton to Schenectady		1.9		7.8
North Carolina	North Carolina portion of Charlotte-Columbia route	9.1	130.0	0	210.0
	Durham via Raleigh to Smithfield	58.1	67.2	81.6	81.6
Ohio	Dayton, extension of I-675 belt				
Oklahoma	Oklahoma City, belt southwest quadrant		3.5		7.3
Oregon	Portland connector		9.3		14.9
Rhode Island	Rhode Island portion of Hartford-Providence route	20.7	1.1		11.0
	Providence belt, southeast quadrant to Massachusetts State line	12.2	32.9	61.3	168.8
South Carolina	South Carolina portion of Charlotte-Columbia route			107.5	
Texas	Fort Worth belt, northwest quadrant	13.5	75.0		65.0
	Amarillo to Lubbock	125.0	138.5	22.0	65.1
Virginia	Norfolk, west belt (extension of I-64)		9.2		120.0
Washington	Tri-Cities spur		28.0		23.0
Wisconsin	Milwaukee to Green Bay		104.8		92.5
Total			1,472.5		2,428.8

1968 INTERSTATE SYSTEM COST ESTIMATE

Increases due to	Millions of dollars
1. Additions and improvements:	
Mileage adjustments and additions.....	1,085
Additional interchanges and separation structures.....	990
Additional lanes.....	675
Heavier pavement.....	1,245
Landscape features.....	555
Safety features.....	1,530
Subtotal.....	<u>\$6,080</u>
2. Price increases:	
Rights-of-way.....	890
Preliminary engineering.....	385
Construction.....	1,875
Subtotal.....	<u>3,150</u>
3. Research and administration.....	
	470
Total.....	<u><u>\$9,700</u></u>
1965 estimate.....	\$46,800
1968 estimate.....	\$56,500

RELATIONSHIP OF 1955, 1958, 1961, 1965, AND 1968 INTERSTATE SYSTEM COST ESTIMATES

	Estimated costs (billions)		
	Total	Federal share	State share
Original estimate.....	\$27.6	\$25.0	\$2.6
1958 estimate:			
Increased traffic.....	1.3	1.2	.1
Increased local needs.....	3.8	3.4	.4
Price increases.....	4.1	3.6	.5
Miscellaneous.....	.8	.7	.1
Subtotal.....	37.6	33.9	3.7
1961 estimate:			
Added 1,452 miles to system.....	1.6	1.5	.1
Estimated cost, 1,000 miles.....	1.1	1.0	.1
Contingencies.....	.7	.6	.1
Planning and research.....	.6	.5	.1
Administration.....	.4	.4	.0
Unit price reduction.....	-1.0	-.9	-.1
Subtotal.....	41.0	37.0	4.0
1965 estimate:			
Mileage adjustments.....	.94	.81	.13
Increased traffic.....	.68	.58	.10
Design year change.....	.34	.29	.05
Higher standards.....	.44	.38	.06
Price increases.....	2.00	1.71	.29
Miscellaneous.....	1.20	1.03	.17
Research and administration.....	.20	.20	.00
Subtotal.....	46.8	42.0	4.8
1968 estimate:			
Mileage adjustments.....	1.08	.95	.13
Higher standards.....	1.25	1.11	.14
Increased traffic.....	1.66	1.47	.19
Landscape features.....	.56	.50	.06
Safety features.....	1.53	1.35	.18
Price increases.....	3.15	2.79	.36
Research and administration.....	.47	.47	.00
Total.....	<u>56.5</u>	<u>50.64</u>	<u>5.86</u>

Question 3.—"We understand that much of future highway construction will take place within the boundaries of cities. How does this affect clearance and construction costs?"

Response.—The costs of providing adequate highway facilities in urban areas are much greater than rural highway costs, especially in terms of added design features, higher unit right-of-way costs and scarcity of certain construction materials. The actual magnitude of urban-rural cost differences varies widely. The

1970 and 1972 National Highway Needs Reports will provide estimates of urban and rural area costs.

Question 4.—"With inauguration of airplanes seating 345 passengers or more scheduled for 1970, will the Nation's airports be able to accommodate these larger planes and their heavier passenger load?"

Response.—The Nation's airlines are of the view that the airports can be made ready to accommodate the Boeing 747. Pan American takes deliveries beginning late in 1969, to be followed by TWA in early 1970 and United initiating service in May 1970. The airlines are entering critical stages in determining types of ground handling equipment for giant jets. Several airlines have contracted for advanced design boarding devices to accommodate the B-747 at airports in high density traffic cities such as Los Angeles, San Francisco, and New York. Boeing has disseminated design information necessary for the airline and airport managements evaluation of existing facilities and for design of more advanced supporting equipment and ground facilities. Existing parking aprons will accommodate the B-747, either at existing gates or at more remote locations. Unloading devices and servicing equipment exist which will handle passengers, cargo and servicing but not necessarily in the most expeditious manner. Advanced boarding devices and servicing equipment mated to the B-747 is what is being undertaken at this time. Such devices will operate directly from new terminals now being planned for construction or at retrofit terminals at either the front or rear doors. Estimates of deplaning time are about seven minutes for the more sophisticated designs, which is comparable to the time for unloading the B-707 from one exit.

Question 5.—"What do such enlargements mean in terms of capital requirements for airports, landing equipment, terminal buildings and hangars?"

Response.—Increased capital requirements for new airports and approach and landing equipment due strictly to the introduction of the B-747 should not be great. In fact, the introduction of large capacity subsonic aircraft should ease landing area congestion by absorption of passenger and cargo demand with lower or at least decreasing growth rate of operations. Capital requirements for aircraft servicing equipment will be staggering. Typical estimates for advanced design passenger handling systems are as follows:

- Boarding bridge over wing: approximately \$300,000 each.
- People pod lounges: approximately \$200,000 each.
- Mobile escalators: \$70,000-100,000 each.
- Mobile elevator units: \$30,000-50,000 each.
- Mobile stair units: \$20,000-30,000 each.

Requirements for additions to terminals vary greatly from minimal developments of a single existing gate using one to three of the above-listed facilities to construction of expanded wing terminal facilities to accommodate up to 5 each B-747. Estimates of total capital requirements have not been tabulated. Ground servicing equipment for these new aircraft will require considerable investment. One airline estimates that each B-747 will be surrounded by approximately 76 separate units, costing a total of \$776,000. The airlines are planning to construct new hangar facilities at their major maintenance bases also. A typical estimate for a hangar to house up to 4 airplanes is \$10 million and one of the big four air carriers plans to build at seven different large-hub airports. Estimates of total capital requirements have not been tabulated.

Question 6.—"What is your current assessment of intercity rail passenger transportation? Is it practical to think of intercity passenger trains as a substitute or supplement for airplane travel for short trips of under 300 miles?"

Response.—Present intercity service does not fulfill the needs or desires of the travelling public, as reflected by the rapid decline in traffic. The physical plant (stations and passenger equipment) is essentially unattractive and technologically obsolete and little emphasis has been placed by management on merchandising and promotion.

It may well be practical to consider the train as a supplement to air carriers in some 200-300 mile markets. Where air congestion is especially heavy, rail may prove a substitute for air travel and could relieve some highway congestion. This would be particularly true in densely populated corridors.

In those cases where other rail systems outside the United States have instituted modernized and properly merchandised short-to-medium-haul services, the results, measured in passengers carried, have been good to excellent. The financial verdict is not conclusive, but indications are that some measure of public financial support would be necessary since deficits still exist.

Question 7.—"What, if anything, is being done to modernize railroad passenger stations? Can you trace for the Committee developments during the past eight years and prospects for the years 1969-1975 in terms of capacity changes and capital costs?"

Response.—Few, if any, new railroad stations have been built in the past decade except when supported by public funds. For example, Milwaukee, Wisconsin; Savannah, Georgia; Charlotte, North Carolina; Syracuse, New York have new stations built because highway programs necessitated elimination of existing facilities. Penn Station was modernized because of a real estate project.

It can be expected that any future activity to modernize stations in the future will also result from external factors not related to passenger service. There are no prospects of capital investment by railroads in such long-term projects as stations when no investment is being made in locomotives and cars.

It should be noted that, because of changes in urban development, most existing railroad stations are poorly located. Except for the largest metropolitan areas, station modernization means new stations in new locations.

Question 8.—"Would traffic congestion in larger cities during rush hours be reduced, if there were offstreet bus terminals to serve long distance and suburban buses? What would be the capital cost for such bus terminals for cities with populations over 50,000?"

Response.—Viewed strictly in terms of the resulting effective increase in street capacity at peak hours, the provision of off-street terminals for inter-city and suburban buses would have only minor and localized impact. It should be noted that such terminals would have no impact whatever on the impedances to traffic flows that are generated by intra-city buses picking up and discharging passengers in the curb lane. Investment in downtown terminals for suburban express buses could be justified in relation to peak hour congestion problems, however, as integral parts of high-quality transit systems expressly designed to induce greater transit usage among suburban commuters. It should be noted, however, that such an increase in transit usage need not necessarily result in reduced congestion on the street-and-highway network, simply because the increase in highway capacity generated by the switch of significant numbers of commuters from auto to transit may well be taken up by other users. What could result, however, would be a higher level of service for commuters. This result would not, of course, be attributable to a terminal per se but rather to an entire system of which a terminal would be only one component.

As yet, no very good way has been developed to provide an estimate of the cost of such terminals in cities over 50,000. A "terminal" can be anything from a simple shelter with a single curbside loading area to an extremely elaborate structure. What would actually be required in any particular situation would depend on the number of routes served by the terminal and the peak-hour frequency of service on those routes. Thus, the investment in the structure could run anywhere from a few hundred thousand dollars or less, to several million dollars.

Question 9.—"What is being done to modernize the Nation's marine port facilities? Can you give us a picture of developments since 1960 and prospects for the years 1969-1975 in terms of capacity and capital costs?"

Response.—The largest portion of port improvement has come from the non-Federal sector, with the exception of Federally-financed channel improvements by the Corps of Engineers. Major port improvements within the past two years (1966-1968) have been primarily related to container ports and terminals. The terminal facilities are either renovated break-bulk piers or new facilities. Containerization has also been influential in encouraging port management to adopt modern management techniques dependent on computer technology. The increase in managerial sophistication has required a general up-grading of port administration staff.

With the steady trends towards large deadweight, deep-draft bulk carriers extensive studies on the design and development of offshore cargo handling facilities have been implemented. One such facility is located at the entrance to Delaware Bay.

With regard to developments since 1960, Chapter 15 of Volume 1 of the December 1966 report of your Subcommittee on the subject of State and Local Public

Facility Needs and Financing deals with this matter at some length. The 1968 Port Development Expenditure Survey of the Maritime Administration and the American Association of Port Authorities presents a more current review. Essentially, the major developments since 1960 center on two facets of marine transportation, containerized cargo and bulk petroleum shipments. In both of these areas the growth has been rapid, each requiring large capital investments. During the two decades following World War II (1946-1965) approximately \$1.8 billion were invested in U.S. coastal ports with an average annual rate of \$121,468,000. Total expenditures in Great Lakes ports during the same period were \$250,728,00 with an average annual rate of \$11,994,000.

Concerning the prospects of port capacity and capital costs for 1969-1975, your Committee's December 1966 report at p. 339 presents a forecast of number and capital requirements for port terminal facilities to 1975. By that year there is expected to be a 30% increase in port terminal costs from \$112.0 million in 1966 to \$145.8 million in 1975, a 3% average annual growth rate. These forecasts can be considered as reflecting the present investment trend in container and offshore terminals, since their planning would have been started prior to the preparation of the forecast. What is needed today is a questionnaire survey of all ports to up-date our knowledge of port capacity and capital investment. We would be pleased to undertake such an effort in cooperation with the American Association of Port Authorities if the Committee so desires.

The Federal Government has been active in other areas to promote port development. For example, on June 26, 1968, the Department of the Army submitted to Congress proposed legislation to authorize a Nationwide study of deep-draft ports and the preparation of harbor plans. Under this legislation, the Department of Transportation would be authorized to carry out a Nationwide study of deep-draft ports in the United States, its territories and possessions and the relationship of such ports to the development and improvement of coordinated transportation for the Nation, and the Secretary of the Army would be authorized to prepare plans for improving and expanding the Nation's deep-draft harbors.

Clearly, this proposal represents a much-needed effort on the part of the Federal government as is more fully described in the June 1968 study of the Corps of Engineers, *Harbor and Port Development: A Problem and an Opportunity*. For its part, the Department of Transportation recognizes its responsibility to develop and propose sound standards, criteria, and concepts for rational Federal transportation investment. Ports and harbors, which are so obviously a fundamental part of an integrated and balanced national and international transportation system, constitute a major area deserving of in-depth consideration and analysis in such a context. We believe the Department of Transportation is perhaps the only agency in the Federal government capable of undertaking this effort. We would welcome the full cooperation of all concerned, including, in particular, that of the port authorities, in this important area.

Question 10.—"Can you summarize the outlook for urban mass transit in terms of number of municipal systems passenger capacity and capital costs, recent and prospective for the years 1969-1975?"

Response.—In 1966 there were 1,134 public and private transit companies operating in urban areas. There were 57,690 miles of transit routes, including 843 miles of rapid transit systems in New York, Chicago, Boston, Philadelphia, and Cleveland. The following facts show the trends that have taken place in the mass transit industry between 1935 and 1965:

[In millions]

	1935	1945	1955	1965
Total passengers carried.....	12,226	23,254	11,529	8,25
Revenue passengers carried.....	9,782	18,982	9,189	6,79
Operating revenue.....	\$681	\$1,380	\$1,426	\$1,44
Net revenue (pretax).....	\$146	\$313	\$149	\$7

In relative terms, of course, the decline has been even greater. During this same period, the following has been the trend in automobile transportation:

	[Millions]			
	1935	1945	1955	1965
Automobile registrations.....	23	26	52	75
Vehicle-miles traveled.....	208,000	200,000	500,000	709,000

One estimate of future mass transit requirements and capital costs was made by the Urban Planning Division of the Bureau of Public Roads. The level of service to be provided was measured in terms of "car-miles" to be operated in the target year, 1977. It was felt that this measure was a suitable common denominator among the various forms of mass transportation (bus, rapid rail, and commuter rail) to show the magnitude of the total public transportation system that should be provided in urban areas. Estimates were made on the basis of actual and extrapolated data obtained from urban transportation studies throughout the nation. The following table summarizes those estimates:

ESTIMATES OF CAR MILES OF PUBLIC TRANSPORTATION SERVICE

Population group estimate for 1977 (thousands)	Number of urbanized areas (estimates)	[Millions]					
		Bus		Rapid rail		Commuter rail	
		1968	1977	1968	1977	1968	1977
1,000-plus.....	27	465	782	558	1,002	103	103
500 to 1,000.....	33	174	310	.....	.....	.....	.....
250 to 500.....	39	208	310	.....	.....	.....	.....
100 to 250.....	88	180	204	.....	.....	.....	.....
50 to 100.....	75	192	248	.....	.....	.....	.....
Total.....	262	1,219	1,854	558	1,002	103	103

The total cost for construction and equipment to provide the level of service for mass transit described above for 1977 was estimated to be about \$18 billion. The total cost was distributed as follows: \$13.4 billion for rail rapid transit, \$2.9 billion for buses, and \$1.7 billion for improvements to existing commuter rail systems.

An earlier estimate of mass transit needs was made in your Subcommittee's December 1966 report. This estimate totaled about \$10 billion, including \$8.7 billion for rail and \$1.3 billion for bus facilities.

The basic difference between the two estimates may be described as follows: The Bureau of Public Roads' study is more recent in time and somewhat more comprehensive in scope. Its estimates were made in 1968 while the Subcommittee's were made in 1966 based on 1964 data. The BPR study assumed that by 1977 there will be 27 urban areas with rail rapid transit, whereas the Subcommittee report saw rail transit needs only for 11 urban areas. The BPR study looked to more comprehensive and more expensive bus systems while it would appear that the 1966 report probably underestimated the bus figures relative to actual needs.

Question 11.—"What is happening to offstreet parking facilities for automobiles? Have they made any dent in city traffic congestion? Can you trace recent construction activity and prospective capital outlays for the years 1969-1975?"

Response.—In general, we believe that the number of offstreet parking spaces is increasing, as more cities impose restrictions on curb parking to increase highway capacity and improve safety. Trends in the number of such spaces available cannot be accurately estimated because of the large number of temporary offstreet lots and the relatively unregulated nature of privately-owned parking operations.

Two recent, only partially successful attempts to identify trends in offstreet parking supply are:

1. "Decades of Building in Critical Areas of American Cities," Lloyd M. Braff, International Downtown Executives Association, 1964.
2. Parking in the United States—"A Survey of Local Government Action," International Municipal Parking Congress, prepared for the National League of Cities.

With regard to the fringe area parking facility program authorized by the Federal-aid Highway Act of 1968, we cannot accurately evaluate its probable costs and effectiveness until we have had experiences with specific projects.

Question 12.—"To what extent are transportation facilities being financed by borrowing in the tax exempt municipal securities market?"

Response. It is our understanding that the majority of funds required by municipalities (state, city, county and townships) beyond funds supplied through Federal-aid programs are financed through the sale of long-term tax exempt securities. The following is a brief summary of the extent that selected transportation facilities are being financed through issuance of such securities:

Urban Mass Transit.—Program grants of approximately \$500 million have been made to the end of 1968 matched by at least \$250 million in municipal participation. Of the municipal participation, about \$200 million have been financed through issuance of tax exempt bonds.

Highways.—Total long-term debt for highway purposes outstanding at the end of 1968 was \$17.4 billion. This is expected to be increased by \$800 million in 1969, with the total outstanding debt reaching \$18.2 billion at the end of 1969. Highway obligations of the States will account for \$13.3 billion of this total with the remaining \$4.9 million being obligations of cities, counties, and township governments. We understand that this total long-term debt is in tax-exempt securities.

Airports.—Outstanding long-term debt obligations of about \$625 million have been issued by 26 municipalities for airport construction and modernization, all of which is represented by tax-exempt securities.

Water facilities.—Approximately 55 percent of capital expenditures for port facilities are financed through issuance of municipal tax-exempt securities. The remainder of such capital requirements are raised through port revenues, taxes, and other borrowings.

Question 13.—"Have there been any delays or postponements occasioned by rising interest rates?"

Response.—There have been delays because of rising interest rates. A few recent examples include:

A. *West Virginia.*—Recently the State attempted to market a \$20 million bond issue (part of the \$200 million authorization enacted in 1964) with an interest ceiling of 4½ percent. No bid for purchase was received for this issue. The bonds were rated by Moody's as "A", which were drawing in excess of 4½ percent at that time. The maximum interest rate is set by the legislature each time a new issue is to be sold. The Governor has stated that he has no alternative but to ask the legislature to raise the interest rate ceiling.

B. *Oklahoma.*—The 1968 State legislature enacted a bill to raise the permissible interest rate from five to six percent on future Oklahoma toll road bonds. Authority to issue toll road bonds was approved prior to 1968, but the bonds could not be marketed at the five percent ceiling. Governor Bartlett contended that the interest rate must be raised if any future toll road bonds are to be sold.

C. *Florida.*—The 1968 Florida legislature approved a bill that increases the authorized interest rate on bonds issued by the Tampa-Hillsborough County Expressway Authority to six percent. The Authority is now accepting bids for \$46 million in bonds.

In another case the Florida Turnpike Authority desired to issue bonds to finance a toll road from Orlando to Cape Kennedy. The Turnpike Authority is limited to five percent on its bonds and experts say in today's market, bonds at or below five percent will not sell. However, the Florida Road Department will pick up the project since its ceiling is six percent. The bonds are secured with project tolls and gas tax revenues and are to be marketed shortly.

Question 14.—"Highways are largely financed by either excise taxes on gasoline or by tolls, both of which may be characterized as user charges. Can similar types of user charges be developed to help finance the capital requirements for airports, marine port facilities, train and bus terminals and urban mass transit?"

Response.—The status of future possibilities of user charges for the capital costs of these transportation facilities are set forth below:

Airports.—The Department of Transportation proposed legislation during the second session of the 90th Congress to increase airway user charges so that the users of the airway system would pay a greater and fairer share of

the costs. Other Department legislative proposals (H.R. 17418 and S. 3645) also included provisions relating to airport development which would have encouraged greater user financing of such development. Unfortunately, the Congress took no final action on the latter proposals and the former were not introduced. We continue to believe that both are sound in concept.

Marine Port Facilities.—Marine port facilities are generally financed by State and local governmental bodies, although some port facilities—such as terminal buildings—are sometimes financed by private enterprise, e.g., shipping companies. The charges paid to the State and local governmental bodies for the use of the port facilities such as piers, may be used to finance, in part, the capital cost of these facilities. Higher charges by the State and local bodies might be possible in order to finance a larger share of the capital cost by the users.

Inter-city Train and Bus Facilities.—These facilities are normally financed by the railroad and bus companies, and the costs are therefore normally passed on to the user in the form of fares and to a limited extent through leases to concessionaires.

Urban Mass Transportation.—Since 1964, limited amounts of Federal grants have been available to help finance some capital costs of urban mass transportation systems. In some localities State and local governments also help finance the capital costs of mass transportation systems, particularly expensive rapid rail transit systems. However, mass transit is completely self-financed in many cases, particularly bus systems in medium-size cities. Even in cities with rapid rail systems, user revenues may support some capital costs. The Department is exploring additional possibilities for having beneficiaries of mass transportation help finance the capital costs of the systems to a greater extent.

Question 15.—“Have you ever conducted any studies on comparative costs for different categories of public transportation? If so, what were the findings?”

Response.—The Department of Transportation completed in October 1968 a staff study entitled “Urban Commutation Alternatives.” This study relied on existing data, particularly traffic and construction data, from the Bureau of Public Roads and some data from the demonstration projects completed under the Mass Transportation Acts of 1964. Two tentative findings seem to be indicated: First, that the quality of transit service is a greater consideration than the level of the fare when comparing its appeal to the use of private automobile for commutation; second, that a well designed transit system could have notable impact on overall highway costs in a metropolitan area and that these savings in the outlay of public funds could be measured systematically. The savings would come from increased capacity of existing highways made possible by the use of transit vehicles.

The Department has also conducted a study entitled “An Evaluation of Free Transit Service” under contract with the Charles River Associates. This study found generally that availability of free transit would not materially affect the scope of economic development or the use of transit by commuters. Again this finding supports the notion that the level of service is the strategic consideration in transit-private automobile comparisons. A third study underway is attempting to measure the impact of rapid transit as a means of airport access. This is a “before and after” study of Cleveland Airport. This study has not yet been completed.

PROJECT SUMMARY

AN EVALUATION OF FREE TRANSIT SERVICE

Contract No. T8-088 (Neg.)

Contractor, Charles River Associates

Purpose of the Study.—This study will examine the economic, social, technological, and financial factors in an evaluation of free transit in metropolitan areas as a policy alternative. The study will include consideration of such diverse factors as: the influence of cost of transportation and quality of service as an incentive to its use, implicit income transfers, changes in transportation cost in money, time and service, congestion, transportation investment, transportation facilities, air pollution, land use, financial instruments, and effect of various levels of subsidy.

Methodology.—The study is based on economic analysis for its findings. It relies heavily on the use of a new and improved method for predicting traffic volumes over a variety of urban transportation systems. In this method, volumes are a function of both travel times and money costs of competing systems. Findings are based on a case study of the Boston area, and on an extension of case study results to the national level.

Summary of Findings.—Because of the limited scope of the contract, the study does not take into account long range benefits which may or may not accrue from the use of free transit. The study does provide estimates of short run shifts in the demand for urban passenger transportation by various modes. It finds that the short run cost of free transit to the public would be about \$2 billion per year. It analyzes the impact of free transit in terms of such issues as accessibility of jobs to inner city residents, revitalizing the downtown and reducing highway congestion, air pollution and parking problems. It discusses administrative and income redistributive considerations and it identifies research needs.

Status of the Project.—Completed August 1968. The report is available through the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151. Report No. PB 179, 845, 172 pages: hard copy \$3.00; microfiche \$0.65.

PROJECT SUMMARY

CLEVELAND AIRPORT/MEDIAN TRAVEL CORRIDOR ACCESS STUDY

Contractor: Regional Planning Commission, Cleveland, Ohio

Purpose of the Study.—Recognizing the extension of the Cleveland Transit System's rapid rail to Hopkins Airport as a unique opportunity to study modal choice as a function of various trip, tripmaker and transportation system characteristics, this study was undertaken. The results of this study will be used by the Federal Government and urban planning agencies in forecasting modal split resulting from alternative transportation system modifications in metropolitan areas. The information gained in this study will also be used in determining the feasibility of rapid rail systems for airport access.

Methodology.—Data is being collected before and after the opening of the rapid rail in order to measure the change in mode choice patterns for access to Hopkins airport resulting from the introduction of the rapid rail service. The before data is being collected during the week of September 8-14, 1968, and the after data is tentatively scheduled to be collected about one year later. The target population being studied include air passengers, airport visitors and airport employees. Modal choice of models will be developed to analyze the use of the rapid rail as a function of time, cost and availability of other modes.

Status of the Project.—Contract was awarded in February 1968 and preliminary results of the before phase should be available about December 1968.

APPENDIX III

(Questions subsequently submitted by Representative Moorhead to the Department of Housing and Urban Development and the Department's responses follow:)

Question 1. Would you say that the Nation's urban water and sewer facility needs are being met by the current volume of construction of such facilities? How effective is the grant program for basic water and sewer facilities in helping to accelerate this type of construction?

Answer. Currently, volumes of construction for water and sewer facilities are falling short of the nation's urban needs. Recent studies show that the national rate of construction must be doubled if the nation's needs are to be met. In meeting this needed increase, the Water and Sewer Facilities Grant program is playing an effective role. Since the enactment of the Program, contract awards for collector sewers have almost doubled (98% increase during the past two calendar years). A significant but not so spectacular increase has also occurred in contract awards for water facilities (a 45% increase during the same time period). Construction under the Program has accounted for approximately 10 to 15 percent of the undertakings during the two-year period. Our Water and Sewer Program is particularly effective in meeting the needs of the smaller low income communities that cannot afford to proceed with the badly needed facilities if limited solely to their own resources.

Question 2. We are all troubled by the malicious mischief committed by youngsters with nothing to do on the streets of our larger cities. To what extent can the open space and neighborhood center financial assistance programs, administered by your department, be used to help alleviate this problem of idle time?

Answer. Local housing authorities have sought to provide job training and employment opportunities for project youth through serving as work sites under the Neighborhood Youth Corps and cooperating with such agencies as Job Corps, VISTA, CAMPS, etc.

During the summer months, local authorities have been encouraged to provide recreation and employment opportunities for the youth of their projects. Programs for younger children involved recreation, arts and crafts, etc. Older children were involved in providing programs for the younger children and in jobs with the Authority itself in regular office and maintenance work or through the modernization program.

The most recent survey of programs operating in public housing was made for the calendar year 1965. At that time the ten top programs operating in public housing were: social activities, 1700 programs; athletic programs, 1546; Boy Scouts, 1322; Family Service Programs, 1309; arts and crafts, 1262; supervised playground activities, 1224; visiting nurses programs, 1203; child service programs, 1076; Golden Age Clubs, 997; and immunization services, 980. The majority of these programs are aimed at the youth of the project. Recent information indicates that this trend is continuing.

The Neighborhood Facilities Program offers opportunities for useful activity for youth in three areas: (a) in the construction of the centers, youth may be employed as apprentices to contractors; (b) in the operation of the centers, youth may be employed as aides in the areas of health, day care, recreation, outreach, community organization, etc.; and (c) in the use of centers, youth may participate in recreation programs, vocational counseling, job training, etc. Over 80 percent of the Neighborhood Facilities projects will offer recreation programs for youth, including swimming pools, game rooms, social halls, basketball courts, and limited playgrounds. Approximately 80 percent serve tenants of public housing; some are built in conjunction with public housing projects.

The Open Space Land Program and the Urban Beautification and Improvement Program are providing substantial assistance for the renovation and development of basic recreation and park facilities in the Nation's inner city neighborhoods. This includes the development of vest-pocket parks as well as upgrading the larger central city park areas. Priority consideration has been given to projects located in low-income, high density areas of central cities which are extremely deficient in recreation and open space facilities.

Through the use of the provisions of the above program, a city can develop a piece of property it already owns, acquire and develop vacant land, or demolish a dilapidated building to create a park. In addition to providing the "bricks and mortar" for park construction, the Department has encouraged cities to employ neighborhood youths in the construction activity. This encouragement has helped unemployed youths learn the skills of masonry and landscaping to obtain permanent jobs.

Question 3. Aside from the Model Cities Program what is the Federal Government doing to achieve better coordination at the local government level in the physical location, and timing of construction, of such essential public facilities as water and sewer projects, school buildings, libraries, hospitals and urban mass transit, as related to residential and commercial structures?

Answer. The Federal Government is ensuring better coordination among public facilities projects and residential and commercial development through four basic approaches: I. planning assistance grants; II. planning requirements; III. studies and demonstration projects; and IV. interagency cooperation.

I. Comprehensive planning.—HUD's Urban Planning Assistance Program (Section 701) supports comprehensive planning in States, metropolitan areas, counties, and small cities. Each planning program is aimed at interrelating the various public facilities and services needs throughout the governmental jurisdiction based on anticipated residential and commercial development. The comprehensive plan, representing the needs in each area, is often the basic instrument for integrating these needs. This statement is the basis for other means of coordination:

(a) *Capital improvements programing.*—HUD strongly emphasizes the use of capital budgeting as a vehicle for a detailed look at the costs, location, and timing for public projects, and their relationship to anticipated development and the fiscal capacity of the government.

(b) *Technical advisory committees.*—In response to HUD guidelines, most metropolitan planning agencies have established technical advisory committees representing officials of various public facilities programs to coordinate their individual project efforts and make an input into the comprehensive planning process. In addition, within the larger cities, Community Renewal Planning studies determine the multiple public service and facilities needs required for urban renewal and the revitalization of residential and commercial areas.

II. Planning requirements:

(a) Approximately 25 Federal grant assistance programs for various public projects including HUD's Open Space and Water and Sewer Program, have requirements that assisted projects be consistent with comprehensive planning—that they be related to other projects and anticipated development.

(b) *Section 204 reviews.*—Approximately 36 Federal grant assistance programs require that designated planning agencies in metropolitan areas review requests for grant assistance and comment on their compatibility with comprehensive planning—that they be related to other projects and to anticipated development. This has served as a tool for bringing about cooperative relationships between planning and project-building agencies in the early stages of public development projects.

III. Studies and demonstration projects:

(a) *Housing studies under 701.*—To help meet the national objectives contained in the 1968 Housing Act for the construction of 26 million new dwelling units by 1978, the Urban Planning Assistance Program is requiring that all assisted agencies address housing problems in their areas with particular attention to the public facilities and services needed to accompany housing.

(b) *New communities.*—As planning for new communities proceeds under Title IV of the 1968 Act, the Urban Planning Assistance Program will support studies and action programs geared to providing necessary transportation, waste treatment, and water supply services for these new developments.

(c) *Transit programs.*—Under the Sections 6 and 9 of the Urban Mass Transit Assistance Programs, grants have been made to communities to link the residential location of job opportunities through improved transit facilities, services, and routing. Cities such as Honolulu; Worcester, Mass.; Newark; Syracuse; Phoenix; Oakland; and Denver have benefitted from these efforts.

IV. Interagency cooperation:

(a) *PARCC.*—The interagency Planning Assistance and Requirements Coordinating Committee (PARCC) has been established to coordinate the various Federal planning assistance and planning requirements programs in order to allow for a closer link at the local level of comprehensive and functional planning with the building of local service facilities.

(b) *Oakland Task Force.*—Five Federal agencies (HUD, HEW, OEO, Labor, and Commerce), under the aegis of the Federal Executive Board, jointly sponsored an in-depth study of Oakland in order to determine how to improve Federal delivery systems for Oakland. This is in prelude to designing better links between the Federal and local efforts for coordinating the physical and human development efforts of that city.

Question 4. Can you give the Committee your current assessment of whether there are likely to be enough college dormitory and dining hall spaces to meet the rapidly increasing enrollments at our colleges and universities?

Answer. A 1966 study sponsored by the American Council on Education estimated that between 142,000 and 160,000 new dormitory spaces would be required to accommodate increased enrollments alone in each of the years 1966-76. When the requirements for married student housing, for housing-related service facilities, for the relief of current overcrowding, and for rehabilitation were considered, the capital outlay for all college housing construction was estimated between \$1.1 billion and \$1.6 billion. Subsequent studies for the years 1966-68 by the Office of Education and by the College and University Business Magazine continue to support these estimates.

At the same time, increasing construction costs and higher market interest rates have eroded the institutions' ability to obtain the financing necessary for housing expansion. These same factors, coupled with a 33½ percent reduction in the funds available annually for College Housing loans in FY 1968 and FY 1969, have resulted in fewer student spaces being financed by the College Housing Program in recent years.

While the size of the housing backlog is not known definitively, there is ample evidence that rising costs have caused the postponement of urgently needed housing construction. Faced with rapidly rising tuition costs, fewer students can afford housing financed at high interest rates. With the College Housing Program funded at the current level of \$200 to \$300 million per year, the private capital market must provide the difference. The ability of the market to respond with three-quarters of a billion dollars annually for college housing construction is open to doubt.

Question 5: Public facilities constitute the necessary infrastructure that makes possible a satisfactory rate of growth in our cities of residential structures and urban renewal. In broad terms can you describe the Nation's housing needs in terms of Federally assisted and unassisted housing, public and private housing, and the related volume of urban renewal?

In the 10-year program which the President submitted to the Congress earlier this year and which was adopted by the Congress in the Housing and Urban Development Act of 1968, the housing requirements of the country are projected as 26 million standard units to be created through new construction or the rehabilitation of substandard units to bring them up to standard—including 6 million Federally-assisted units. The 6 million Federally-assisted units would consist of about 1.5 million public housing units and 4.5 million low- and moderate-income private units enjoying various forms of subsidy.

The related volume of urban renewal really cannot be ascertained since there will be many other programs than simply urban renewal which will be related to the housing production goal—such as the Model Cities program, the New Communities program, the use of Federal surplus lands, and water and sewer facilities that will open up new suburban land for development. The varying proportions and influences of these programs will determine in part how much reliance has to be placed on urban renewal to achieve the housing goal. In any event, the urban renewal requirements for providing sites for assisted housing units in older deteriorated portions of the Nation's cities are well in excess of funds that have been authorized thus far.

APPENDIX IV

(The questions submitted by Chairman Patman to Secretary Udall, referred to in text (page 74), and Secretary Udall's answers follow:)

Question 1. As Chairman of the Water Resources Council, can you describe recent developments, and the prospective outlook for, river basin projects, whether or not they are Federally aided,

Answer. As you know, the Water Resources Council is primarily concerned with planning and coordination of Federal, State, local and nongovernmental water and related land resource developments. This includes the development of coordinated, comprehensive, and joint plans to meet each river basin's water and related land resources needs. These needs are predicated upon balanced economic growth, environmental quality, and the well-being of the people. In this context, future river basin projects are expected to be multiple-purpose in scope and conceived as parts of larger plans.

As shown in the Council's first National Assessment, just published, the need for river basin projects to provide water for domestic, industrial, and power purposes is growing continually. In addition, the Nation's awareness of the quality of its environment indicates continued interest in river basin projects for water quality, outdoor recreation, and fish and wildlife habitat. On the other hand, projects for agricultural water and related land use, and for navigation, are not pressing from a National viewpoint because of economically competitive alternatives; nevertheless, there will be continued need for projects of these types to meet the needs for specific regions.

Question 2. In broad terms can you trace the volume of annual capital outlays for river basin projects for the years since 1960 and future years through 1975?

Answer. The Water Resources Council does not have overall figures on historical or projected capital investments in river basin projects between 1960 and 1975. The Council's first National Assessment contains some partial estimates for particular water uses or control functions. In its next Assessment, the Council hopes to present better information on this subject. The Council's regional framework studies are attempting to provide regional data on future investment requirements for water and related land resources development. At present, these studies are under way in 11 of the 20 major water resource regions of the Nation. The first such study is scheduled to be completed this year and the entire program is scheduled to be finished in 1973, given adequate funding.

Question 3. I understand that your Department recently issued a comprehensive study on the Nation's waste treatment facility needs, would you summarize its findings?

Answer. FWPCA's first study of national requirements and costs (*The Cost of Clean Water*, Vol. I, Summary Report)* indicates that it will require approximately \$26 to \$29 billion over the next five years to meet the State water quality standards set under the Federal Water Pollution Control Act. This total cost estimate requires considerable qualification. First, only a fraction of the stream standards had been approved when the study was made and we, therefore, had to assume treatment levels which the eventual standards would require. Second, we did not have at that time up-to-date inventories of existing municipal treatment facilities and still have no inventory of existing industrial waste treatment and cooling facilities. Finally, the \$26 to \$29 billion figure does not include the cost of controlling stormwater overflows from combined sewers, the cost of land, or the potentially tremendous costs which could be required to control the pollutional effect of such diverse sources as sedimentation and erosion of land, nutrient enrichment of lakes and streams, mine drainage, and others.

*"The Cost of Clean Water", vol. I, Summary Report, Jan. 10, 1968, U.S. Department of Interior, Federal Water Pollution Administration. Copy retained in files of Subcommittee on Economic Progress, Joint Economic Committee.

Briefly, the required total 1969-1973 cash outlays shown by this first study include about \$8.7 billion for building municipal treatment plants and about \$6.7 billion for constructing sanitary sewers. It also includes estimated outlays ranging from \$2.9 to \$5.1 billion for industrial treatment and cooling equipment likely to involve expenditures at a level somewhere below \$2.0 billion. The cost of operating and maintaining these facilities is expected to range from \$5.8 billion to \$6.2 billion—hence, a total estimate ranging from \$26 billion to \$29 billion. These cost estimates, although the most comprehensive available to date are highly tentative. FWPCA will revise and refine the as new information becomes available. An updated version of the study will be forthcoming in January 1969.

Question 4. How successful have the nation's municipalities been in separating storm sewer systems from sanitary sewers? What are the prospects for further efforts in this area?

Answer. Municipalities have not greatly accelerated efforts to separate storm sewers from sanitary sewers. The high cost of sewer separation is a major deterrent to implementation of such action at the local level. The report "Problems of Combined Sewer Facilities and Overflows, 1967" * prepared by the American Public Works Association, indicates that national costs of separation, including necessary plumbing changes on private property, would cost approximately \$48 billion. The Association also estimated that utilization of alternative corrective measures may result in a reduction in cost to about \$15 billion.

Examples of estimated separation costs for specific metropolitan areas are: Chicago—\$3.3 billion; Cleveland—\$278 million; Boston—\$550 million and San Francisco—\$1.4 billion.

Congressional recognition of the magnitude of the problem resulted in the enactment of the Water Quality Act of 1965 and the Clean Water Restoration Act of 1966 which amended the Federal Water Pollution Control Act to authorize demonstration grant and contract programs in several technical areas. Section 6(a)(1) authorizes the Secretary "... to make grants to any State, municipality, or intermunicipal or interstate agency for the purpose of (1) assisting in the development of any project which will demonstrate a new or improved method of controlling the discharge into any waters of untreated or inadequately treated sewage or other wastes from sewers which carry storm water or both storm water and sewage or other wastes"

The Federal Water Pollution Control Administration, as a part of its research and development programs, has implemented a grant and contract program to carry out the provisions of Section 6(a)(1) which was started early in 1966. Up to the present time (December 12, 1968), sixty-one grant and contract projects have been initiated to find, develop, and demonstrate control and/or treatment methods which may be used by municipalities as alternatives to sewer separation. Twenty-four of the projects are demonstration grants to municipalities involving \$45.2 million in total project costs and supported with \$15.8 million in Federal grants. Total estimated costs for the sixty-one projects amount to \$53.4 million. Total grant and contract support is \$24.0 million.

Construction has been completed or is nearing completion on several major municipal projects, which are now entering the evaluation phase. Evaluation for each project will continue for a one-year period in most instances to gain enough operating experience and data to support conclusions relating to the applicability of the method demonstrated. The first grant evaluations will be available beginning about July 1969.

While it is too early to pass judgment or reach conclusions on any alternative control or treatment method, there are indications that methods will be available within the next few years that can be applied by municipalities to correct combined sewer overflow problems at a cost less than that of sewer separation.

Question 5. Can the types of water and sewer facilities that receive Federal aid under programs administered by your department be financed on a self sustaining basis? That is, are they amenable to user charges in sufficient amounts to support long-term bond issue financing.

Answer. An unqualified answer cannot be given to this question; however, limited and somewhat old data indicate that the charge method is a feasible means of finance and offers excellent prospects for more widespread application.

*"Problems of Combined Sewer Facilities and Overflows 1967", U.S. Department of the Interior, Federal Water Pollution Control Administration. Copy in subcommittee files.

Although user charges are in relatively common use, it is relevant to look at the extent to which they are used to finance sewerage works presently, as compared to costs which must be borne by general sources of revenue. There are indications that service charges are utilized primarily to cover operation and maintenance costs of the system, and that other means of financing capital expenditures are utilized, although these other methods cannot currently be quantified. *City Government Finances in 1964-65*, U.S. Bureau of the Census, indicates the following for the 43 largest cities:

1960 POPULATION

	Total	Over 1,000,000	500,000 to 1,000,000	300,000 to 500,000
Revenues.....	110.3	40.0	43.7	26.2
Total expenditures.....	344.6	128.3	121.6	94.8
Other than capital outlay.....	144.4	36.0	46.4	32.1

Similar figures on state and local finances from *Government Finances*, U.S. Bureau of the Census indicates:

State and local per capita revenues from sewerage:

1964-65	\$2.68
1965-66	2.92

State and local per capita expenditures on sewerage for 1964-65 were \$8.09, of which \$5.71 was for capital outlay and \$2.38 for other; in 1965-66 it was \$8.71, of which \$6.13 was for capital outlay and \$2.57 for other expenses.

It should be noted that all of the revenues designated as sewerage revenues in these reports do not necessarily derive from user charges but may arise from special assessment and other sources.

More specific data yields the following results:

Analysis of eight systems in Pennsylvania for one year indicates that all were operating at a surplus ranging from about 50% over total expenses to about 0.6% including annual state operation and maintenance subsidies of from \$10,000 to \$642. All facilities were financed with revenue bonds. Massachusetts communities having user charges cover operation and maintenance costs only, using general taxes to cover capital costs except for laterals which are financed through special assessments.

A 1953 American Public Works Association Study undertook a detailed analysis of the costs and revenues of 28 cities employing user charges. Charges were adequate to finance all costs in about 70 percent of the cases. The remaining cities could finance about 60 to 90 percent of total costs through revenues. A survey of other reporting cities indicated the use of electric utility revenues to finance sewerage works; tobacco tax revenues and water utility revenues were also used. In one case, excess revenues from the sewerage system were used to finance schools.

In a 1961 survey by the Municipal Finance Officers Association, respondents were asked the extent to which the jurisdiction considered to be self-supporting, with the following response:

Percent self-supporting	Number of units	Percent of units
100 or more.....	116	74
75 to 99.....	16	10
50 to 74.....	17	10
24 to 49.....	3	2
Under 25.....	6	4
Total reporting.....	158	100

The report further points out that looking at the entire 337 local governments responding to the questionnaire, it appears that only 120, or 1/3, definitely reported that they were fully self-supporting for all sewer services. The author of the report indicated that he has reason to doubt that a full accounting would

support even this level of self-financing when the costs of storm water operations are considered. Approximately 33% of 207 governmental units reporting on debt said all outstanding sewer debt was self-supporting and about 28% reported none of the debt to be self-supporting the remainder either having no debt or being partially self-supporting.

Current charges in St. Louis are \$9.00 per year per single family residence plus 16 cents per \$100 of assessed valuation, the former being utilized to pay operation and maintenance and certain pay-as-you-go costs of system expansion and the latter ad valorem tax to retire a \$70 million general obligation issue. It is estimated that to put the system on a completely pay-as-you-go basis would require charges of \$5 per month for residential consumers with a corresponding charge for industry based on size and need. This amount would pay operation and maintenance on the present system, treatment plant operation and leave a balance of \$25 million for new facilities, primarily those associated with their storm water program.

Thus, although a complete analysis is not possible with existing data, it appears that total costs are not now being covered in the aggregate or in a relatively large percentage of systems; where revenue bond financing is practiced it appears that charges more closely approximate actual total costs. However, the extent to which all costs including debt liquidation are self-supporting is sufficient to show that the charge system is a feasible method of finance and offers excellent prospects for expansion.

Current practice in the best cases base costs upon the total cost of debt service, operating, and maintenance costs and regular capital expenditures for expansion of service minus grants received from Federal and other sources. Thus, no matter what modification of charges might be necessary to finance the systems completely from a local point of view, almost all systems will need to revise rates upwards if the Federal and other grants are not deducted from total cost in establishing rates. The extent of upward adjustment is not predictable and will vary considerably among systems.

Current data on the types of governmental units providing sewerage service are not available nor are charge, revenue, and expenditure data. It is not known for example how charges levied against municipalities which are provided service through multi-municipal authorities are passed on to the user of the service; how revenue bond financing impacts the level of charge and self-supporting features of the system; nor can the level of charge necessary to put the system on a self-supporting basis be determined presently.

While the user charge, however, is an effective means of financing offering considerable promise for expanded use, its potential for being the sole financing source for waste facilities must be considered in relation to the massive demands for expenditures for all purposes which confront municipal governments. Ability to finance can only be considered in this larger context.

The FWPCA is currently sponsoring a comprehensive survey of user charges and the revenue relationships being undertaken by the International City Managers Association to provide more up to date information in this area. The results and hopefully some firmer conclusions will be possible during the first half of 1969.

Question 6. Your department prepared a very interesting chapter on State and Federal outdoor recreation facilities. Can you assess for the Committee how well we are doing in meeting the projected needs and capital outlays for outdoor recreation?

Answer. Please see attached table.

REVISED ESTIMATED ANNUAL EXPENDITURES FOR OUTDOOR RECREATION ON FEDERAL AND STATE LANDS
1966-69¹

[In millions of dollars]

	1966	1967	1968	1969
Federal:				
Land and water conservation fund ²	38.3	35.9	48.8	97.7
Other, appropriations, taxes.....	(3)	(3)	4 655.5	4 641.4
Total, Federal.....			704.3	739.1
State:				
Land and water conservation fund ²	82.3	56.5	61.5	45.0
Other, appropriations, taxes.....	327.0	347.0	367.0	387.0
Total, State.....	409.3	403.5	428.5	432.0
Total, Federal and State.....			1,132.8	1,171.1

¹ For comparison with estimates shown in table 3, p. 531—"State and Local Public Facility Needs and Financing" vol. I, December 1966, Joint Economic Committee Report.

² Funds available for obligation.

³ Data comparable to 1968 and 1969 not available.

⁴ Appropriations, as compiled by B.O.R.

Question 7. Has the rising trend of interest rates in the tax exempt municipal securities market caused any reduction in borrowing by State and local governments for needed water and sewer facilities, river basin projects and State outdoor recreation facilities? Explain.

Answer. It is difficult to assess with any degree of reliability, the direct impact of interest rates on particular classes of investments. As factors such as interest rates change, bond financing patterns reflect many adjustments in local governments' current financing picture.

The most recent study of the impact of Federal Reserve monetary policy, which has a decided impact upon borrowing rates was reported in "Monetary Restraint and Borrowing and Capital Spending by Large State and Local Governments in 1966," (*Federal Reserve Bulletin* July, 1968). It concluded that:

"Most of the governments surveyed were able to proceed with their spending plans by falling back on liquid asset holdings or by borrowing short-term or because they routinely borrowed well in advance of actual cash needs. But 1966 followed several years of relatively placid conditions in the capital markets, which afforded State and local governments ample opportunities to build cushions of liquidity. The financial flexibility displayed in 1966, which insulated most spending from interruptions in borrowing plans, might well be lessened over a sustained period of credit restraint."

In terms of interest rate impacts, specifically, the report indicated several ways in which governments might adjust:

- (1) increasing tax rates;
- (2) shift from long-term to short-term borrowing;
- (3) reduce current expenditures, capital outlays or new outlay commitments or draw down liquid assets;
- (4) seek and obtain intergovernmental loans;
- (5) those borrowing in advance could delay borrowing to a date immediately prior to cash disbursements.

The data obtained from their survey (987 respondents) indicates that about 5% had intended to borrow but did not for all reasons. In terms of postponements in utilities investments, about 52% of utilities issues abandoned in 1966 were attributed to high interest rates or 11% of total planned borrowing for all purposes was abandoned in the utilities field *in toto*. High interest rates appeared dominant in causing borrowing abandonments. Thus, the report states, ". . . the probable duration of these interruptions to borrowing plans is of special interest." Based on auxiliary data sources, the study implies that most (84%) of "abandoned" issues were actually postponed until such time or with the expectation that more favorable bonding conditions would develop. And a great majority of governments experiencing a reduction or abandonment in borrowing went ahead with capital outlays in 1966 despite financial difficulties primarily by substituting short-term for long-term borrowing and by drawing upon liquid assets.

FWPCA data related specifically to sewage treatment plant bond issues and contract awards indicated no significant change related to higher interest rates although such figures for sewer construction were not (as has been the case for several years) at the level which appears to be an adequate investment rate. Thus, slack may be taken up in sewer borrowing in order to finance Federally supported treatment plants; however, this is merely speculation. In fact, water and sewer bond sales for 1967 were \$242 million over 1966, the highest over year increase recorded despite increases in the interest rate.

On balance, it appears that gross borrowing by State and local government units was reduced by monetary policy (rising interest rates) but the impact on capital spending was small during 1966 because of alternative financing means. In particular expenditures and bonding in the sewage treatment areas have not been noticeably reduced. However, continued credit tightness may have a cumulative impact on the observed financial flexibility. In any case, other factors besides interest rates affect the rate of borrowing such as the need for compliance with water quality standards, increasing stringency of State regulatory agencies and general public support as well as needed investment in all areas of public goods and services and relative priorities placed upon these by the local community.

In summary, there are no noticeable effects on sewage treatment borrowing and expenditures. The net decrease for all purposes may be due to shifts or deferments from other capital investment areas and the impact may be more pronounced in the future with a continuance of high interest rates.

FWPCA data relate only to water and sewer bond sales so we are unable to comment explicitly on river basin projects and State outdoor recreation facilities. It would be expected, however, that the general patterns developed in the Federal Reserve Bank Study would apply in these areas.





