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THE IMPROVEMENT OF EDUCATIONAL
QUALITY ACT OF 1962

HEARINGS
BEFORE THE
SELECT SUBCOMMITTEE ON EDUCATION
OF THE
COMMITTEE ON EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES
EIGHTY-SEVENTH CONGRESS
SECOND SESSION
ON
H.R. 10145
A BILL TO IMPROVE THE QUALITY OF ELEMENTARY AND
SECONDARY EDUCATION

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HEARINGS HELD IN WASHINGTON, D.C., MARCH 1, 2, 5, AND 7, 1962

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THE IMPROVEMENT OF EDUCATIONAL QUALITY ACT OF 1962

THURSDAY, MARCH 1, 1962

HOUSE OF REPRESENTATIVES,
SELECT SUBCOMMITTEE ON EDUCATION
OF THE COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The committee met at 10 a.m., pursuant to notice, in room 429, Old House Office Building, Hon. Frank Thompson (chairman of the subcommittee) presiding.

Present: Representatives Thompson, Martin, and Pucinski.

Also present: John D. Hawke, Jr., subcommittee counsel, and Carla Otten, assistant clerk.

Mr. THOMPSON. The subcommittee will be in order.

The select subcommittee is meeting this morning to begin its hearings on the bill H.R. 10145, The Improvement of Educational Quality Act of 1962. Without objection, the bill will be printed in the record at this point.

A BILL To improve the quality of elementary and secondary education

[H.R. 10145, 87th Cong., 2d sess.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Improvement of Educational Quality Act of 1962."

TITLE I—IMPROVEMENT OF QUALITY OF TEACHING IN ELEMENTARY AND SECONDARY SCHOOLS

INSTITUTES FOR ADVANCED STUDY FOR TEACHERS

SEC. 101. The Commissioner is authorized to arrange, through grants or contracts, with colleges and universities for the operation by them of short-term or regular session institutes for advanced study, including study in the use of new teaching methods and instructional materials, for individuals who are engaged in teaching, or in supervising teachers, in elementary and secondary schools, in subject-matter areas in which he finds that there is a widespread need for improvement in the quality of instruction. In determining the subject-matter areas in which such advanced studies will be provided, the Commissioner shall give preference to subjects which are generally accepted as meeting college entrance requirements, and shall take into consideration the activities, in the area of advanced studies for elementary or secondary school teachers, being supported by the Office of Education, the National Science Foundation, or other agencies or departments under other Federal laws. Each individual (engaged in teaching or in supervising teachers in elementary or secondary schools) who attends an institute operated under the provisions of this section shall be eligible (after application therefor) to receive a stipend as the rate of \$75 per week for the period of his attendance at such institute, and each such individual with one or more dependents shall receive an additional stipend at the rate of \$15 per week for each such dependent for the period of such attendance.

SCHOLARSHIP GRANTS FOR OUTSTANDING TEACHERS IN ELEMENTARY AND SECONDARY SCHOOLS

SEC. 102. (a) The Commissioner is authorized to make scholarship grants for one year of full-time study at colleges or universities to individuals engaged in teaching in elementary or secondary schools who have demonstrated special scholarship ability and aptitude for teaching, and who show promise of being able, through such study, to make significant contributions to improvement in the quality of instruction in elementary and secondary schools. The number of such grants to be made from the sums appropriated under this section for any fiscal year shall be the number, not to exceed two thousand five hundred, specified in the Act appropriating such sums, and the number so specified shall be allocated by the Commissioner among the States, in accordance with his regulations, on the basis of the relative numbers of persons engaged as full-time certified elementary and secondary school teachers in each State in the most recent year for which satisfactory data are available to him, except that the number so allocated to each State for any fiscal year shall be at least ten. Recipients of the grants so allocated to each State shall be selected by a State commission broadly representative of elementary and secondary education, higher education, and the public, and established or designated for the purpose by the Governor of the State; each such commission shall make its selection in accordance with criteria and procedures, consistent with this section, which are developed by it and approved by the Commissioner. Teachers awarded scholarship grants under this section shall pursue full-time courses of study primarily in the subject-matter or content areas in which the recipient teaches or expects to teach. Each such teacher shall receive a stipend, as provided in regulations of the Commissioner, equal to his or her most recent annual salary as an elementary or secondary school teacher, but not to exceed \$5,000, and the college or university which such individual attends shall receive a cost of education allowance of \$500.

PROJECT GRANTS TO STRENGTHEN TEACHER PREPARATION PROGRAMS

SEC. 103. (a) The Commissioner is authorized to make grants to colleges and universities which have programs for the preparation of individuals to teach in elementary and secondary schools, to pay part of the cost of special projects designed to strengthen such programs through improvement of course content and curriculums (including improvements in library resources needed for such programs), improvement of student teaching activities, and improvement of standards for selection of candidates for such programs and standards for continuation in and graduation from such programs. Any grant for any such project made from an appropriation under this section for any fiscal year may include such amounts as the Commissioner determines to be necessary for succeeding fiscal years for completion of the Federal participation in the project as approved by the Commissioner.

(b) No grant shall be made under this section for any project until the Commissioner has obtained the advice and recommendation of persons who are competent to evaluate the project as to its feasibility and its pertinence to the purposes of this section, and as to the adequacy of the resources available to carry out the project.

AUTHORIZATION OF APPROPRIATIONS

SEC. 104. There are hereby authorized to be appropriated for the fiscal year ending June 30, 1963, and for each of the four succeeding fiscal years such sums as may be necessary to carry out the provisions of this title, including sums determined by the Commissioner to be necessary for administrative expenses of scholarship commissions under section 102.

TITLE II—BROADER APPLICATION OF IMPROVED INSTRUCTIONAL PRACTICES

GRANTS TO STATES

SEC. 201. (a) There are hereby authorized to be appropriated \$50,000,000 for the fiscal year ending June 30, 1963, and for each of the four succeeding years, for making grants to State educational agencies under this section to assist in the conduct of pilot, demonstration, or experimental projects of local educational

agencies designed to improve the quality of instruction in public elementary and secondary schools, and to assist in the expansion and improvement of State educational agency activities in developing, evaluating, and promoting the broader application of improved instructional practices in such schools.

(b) (1) From the sums appropriated pursuant to subsection (a) for any fiscal year, the Commissioner shall reserve such amount, but not in excess of 1.6 per centum thereof, as he may determine for allotment among the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, and the Virgin Islands, according to their respective needs. From the remainder of such sums the Commissioner shall allot to each State an amount which bears the same ratio to the amount of such remainder as the population of such State bears to the total of the populations of all the States. The populations of the several States shall be determined by the Commissioner for the most recent year for which satisfactory data are available from the Department of Commerce.

(2) A State's allotment under subsection (a) for the fiscal year ending June 30, 1963, shall, to the extent not reallocated pursuant to this subsection, remain available for payment pursuant to subsection (d) for projects or activities in such State until June 30, 1964.

(3) The amount of any State's allotment under this subsection for any fiscal year which the Commissioner determines will not be required during the period for which such allotment is available for carrying out the State plan (if any) approved under this section shall be available for reallocation from time to time, on such dates during such period as the Commissioner may fix, to other States in proportion to the original allotments to such States under this subsection, but with such adjustments as may be necessary to prevent reallocation to any State of any sum in excess of the amount which the Commissioner estimates it needs and will be able to use for such period for carrying out the State plan. Any amount reallocated to a State under this paragraph during a year shall be deemed part of its allotment under this subsection for such year.

(c) (1) Any State which desires to receive payments under this section shall submit to the Commissioner, through its State educational agency, a State plan which—

(A) provides that the State educational agency will be the sole agency for administering the plan;

(B) sets forth a program under which all funds paid to the State from its allotment under subsection (b), except funds paid pursuant to clause (D) of this paragraph, will be expended solely for pilot, demonstration, or experimental projects of limited duration, submitted by a local educational agency or by other agencies or institutions operating a public elementary or secondary school, and approved by the State educational agency, which are designed to improve the quality and effectiveness of public elementary and secondary education, including but not limited to the following types of programs (and including the acquisition of library and other materials and equipment needed for such programs):

(i) programs to encourage and stimulate educational excellence, including course content and curriculum adaptations and special accelerated programs for exceptionally gifted children;

(ii) projects to improve the effectiveness of public elementary and secondary school teachers through preservice, internship, and inservice programs;

(iii) programs for the improvement of instruction through the more effective utilization of new or improved instructional materials and equipment or through the development of improvements in the design of school facilities;

(iv) programs for developing new types of elementary or secondary instruction or programming;

(v) remedial or special instructional programs or services for pupils having language or other special educational problems;

(vi) programs or services for adapting curriculums to the needs of deprived or disadvantaged pupils; and

(vii) programs for coordinating the school system planning and programs in the area served by the local education agency, with the planning and programs of other public or private nonprofit agencies dealing with problems related to the alleviation of deteriorated or depressed

communities which include such area and of the families and children residing therein;

(C) sets forth the criteria and procedures, consistent with the purposes of this section, on the basis of which projects submitted by local educational agencies or other agencies or institutions under this section will be approved by the State educational agency;

(D) sets forth a program for expansion or improvement of State educational agency supervisory or related activities, including research, development, evaluation, and promotion of improved instructional practices in public elementary and secondary schools and including administration of the State plan, except that not to exceed 10 per centum of a State's allotment under this section for any fiscal year may be expended for such activities;

(E) provides that the State educational agency will make such reports to the Commissioner, in such form and containing such information, as may be reasonably necessary to enable the Commissioner to perform his duties under this section; and

(F) provides for such fiscal control and fund accounting procedures as may be necessary to assure proper disbursement of and accounting for Federal funds paid to the State, and by the State to local educational agencies or other agencies or institutions under this section.

(2) The Commissioner shall approve any State plan and any modification thereof which complies with the provisions of paragraph (1). The Commissioner shall not finally disapprove any State plan submitted under this section, or any modification thereof, without first affording the State educational agency reasonable notice and opportunity for a hearing.

(3) Whenever the Commissioner, after reasonable notice and opportunity for hearing to the State educational agency administering a State plan approved under this section, finds that—

(A) the State plan has been so changed that it no longer complies with the provisions of this section, or

(B) in the administration of the plan there is a failure to comply substantially with any such provisions, the Commissioner shall notify such State agency that no further payments will be made to the State under this section (or, in his discretion, further payments to the State will be limited to projects under or portions of the State plan not affected by such failure), until he is satisfied that there will no longer be any failure to comply. Until he is so satisfied, the Commissioner shall make no further payments to such State under this section (or shall limit payments to projects under or portions of the State plan not affected by such failure).

(4) A State educational agency dissatisfied with a final action of the Commissioner under paragraph (2) or (3) of this subsection may appeal to the United States court of appeals for the circuit in which the State is located, by filing a petition with such court within sixty days after such final action. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Commissioner, or any officer designated by him for that purpose. The Commissioner thereupon shall file in the court the record of the proceedings on which he based his action, as provided in section 2112 of title 28, United States Code. Upon the filing of such petition, the court shall have jurisdiction to affirm the action of the Commissioner or to set it aside, in whole or in part, temporarily or permanently. The findings of the Commissioner as to the facts, if supported by substantial evidence, shall be conclusive, but the court, for good cause shown, may remand the case to the Commissioner to take further evidence, and the Commissioner may thereupon make new or modified findings of fact and may modify his previous action, and shall file in the court the record of the further proceedings. Such new or modified findings of fact shall likewise be conclusive if supported by substantial evidence. The judgment of the court affirming or setting aside, in whole or in part, any action of the Commissioner shall be final, subject to review by the Supreme Court of the United States upon certiorari or certification as provided in section 1254 of title 28, United States Code.

(d) From a State's allotment for a fiscal year under subsection (b), the Commissioner shall from time to time pay to such State an amount equal to one-half of the expenditures for projects described in subsection (c) (1) (B) and for State educational agency activities described in subsection (c) (1) (D) which are carried out under its approved State plan, except that from a State's allotment for the fiscal year ending June 30, 1963, he shall pay with respect to

expenditures for State educational agency activities described in subsection (c) (1) (D) an amount equal to such expenditures.

AMENDMENTS TO COOPERATIVE RESEARCH ACT

SEC. 202. The first section of the Act of July 26, 1954, entitled "An Act to authorize cooperative research in education" (68 Stat. 533, 20 U.S.C. 331) is amended to read as follows:

"(a) In order to enable the Office of Education more effectively to accomplish the purposes and to perform the duties for which it was originally established, the Commissioner of Education is authorized to enter into contracts or jointly financed cooperative arrangements with, or make grants to, public or nonprofit private universities, colleges, and other organizations with research or professional training facilities, State educational agencies, and, with the concurrence of the appropriate State educational agency, local educational agencies, for the conduct of research, surveys, and demonstrations in the field of education, including grants to public or nonprofit private universities, colleges, and other organizations with educational research facilities to pay part of the costs of the establishment and operation, when appropriate in cooperation with State and local educational agencies, of centers for the conduct of programs of research, development, evaluation and demonstration of improved instructional practices and materials in elementary and secondary schools."

DEFINITIONS

SEC. 301. As used in this Act—

(a) The term "State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, and the Virgin Islands, except that as used in section 201(b)(1) such term does not include the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, or the Virgin Islands.

(b) The term "Commissioner" means the Commissioner of Education.

(c) The term "Secretary" means the Secretary of Health, Education, and Welfare.

(d) The term "State educational agency" means the State board of education or other agency or officer primarily responsible for the State supervision of public elementary and secondary schools, or, if there is no such officer or agency, an officer or agency designated by the Governor or by State law.

(e) The term "elementary school" means a school which provides elementary education, as determined under State law.

(f) The term "secondary school" means a school which provides secondary education, as determined under State law, except that it does not include any education provided beyond grade 12.

(g) The term "local educational agency" means a board of education or other legally constituted local school authority having administrative control and direction of public elementary or secondary schools in a city, county, township, school district, or political subdivision in a State.

PAYMENTS

SEC. 302. Payments under this Act to any individual to a State educational agency, State commission, institution of higher education, or any other organization, pursuant to a grant or contract, may be made in advance or by way of reimbursement, in such installments and at such times as may reasonably be required for expenditure by the recipients thereof, and, in the case of grants, with necessary adjustments on account of overpayments or underpayments.

DELEGATION OF AUTHORITY

SEC. 303. The Commissioner is authorized to delegate any of his functions under this Act, except the making of regulations, to any officer or employee of the Office of Education.

FEDERAL CONTROL OF EDUCATION PROHIBITED

SEC. 304. Nothing contained in this Act shall be construed to authorize any department, agency, officer, or employee of the United States to exercise any direction, supervision, or control over the curriculum, program of instruction, administration, or personnel of any educational institution or school system.

Mr. THOMPSON. Our first witness is Hon. Abraham Ribicoff, Secretary of Health, Education, and Welfare. With him at the table is Hon. Sterling M. McMurrin, the U.S. Commissioner of Education.

Mr. Secretary and Mr. McMurrin, please proceed as you wish.

STATEMENT OF ABRAHAM RIBICOFF, SECRETARY OF HEALTH, EDUCATION, AND WELFARE

Mr. RIBICOFF. One of the problems I have, Mr. Chairman, the Ways and Means Committee is sitting now marking up the general welfare revision reform bill. Of course I told them that I had had this date so after I am through and before Dr. McMurrin makes his statement, if it is permissible to leave to go over to the Ways and Means Committee, I would be most appreciative.

Mr. THOMPSON. Indeed. We are grateful you are here. As a matter of fact, Mr. Secretary, you may proceed in any way you please.

Mr. RIBICOFF. I would like to read the statement because I have gone into the general philosophy very fully.

Mr. Chairman, members of the committee, I am pleased to appear today in support of H.R. 10145, introduced by Mr. Thompson, the chairman of your subcommittee. The bill, entitled "The Improvement of Educational Quality Act of 1962," carries out the recommendations of the President in his education message of February 6, 1962.

The greatest resource of this Nation is its young people who represent the leadership of the future. Fundamental to the assumption of leadership by these young people is the opportunity for an education of sufficient rigor and quality to enable them to meet the tremendous responsibilities to be placed on their shoulders. The creation of a high standard of excellence in education is essential to national survival. The day is past when even one of our classrooms should be staffed by an underpaid or undertrained teacher.

The teacher in the classroom is the basic element in the educational process, and we owe to our children as well as to our teachers the obligation of supplying every possible resource to enable the teacher to conduct a class in a professional, competent, and well-informed manner. This goal is attainable within this decade if we make the best use of all our knowledge and resources.

The bill before you is intended to bring about an improvement in the quality of education at the elementary and secondary level and to do this under the traditional structure of State and local school agencies. As President Kennedy said in his February message on education:

This tradition assures our educational system of the freedom, diversity, and the vitality necessary to serve our free society fully.

The profession of teaching is a high calling—one which should attract the finest minds and the firmest purpose. It is challenging and demanding, exciting, and rewarding; yet we find many of our most promising people turning to other professions or leaving the teaching profession in a few short years. Those who remain—and there are tens of thousands of dedicated, able teachers who have remained—do so at the expense of financial security, professional status, and real opportunity for growth and learning.

Last year, 120,000 teachers left teaching for various reasons. Only 102,000 college graduates entered the profession. We were unable to replace with college graduates all the teachers who left. In addition, we need 35,000 teachers this year to accommodate the growth in student enrollment. We need an additional 30,000 to relieve overcrowded classrooms.

We have, presently teaching, 90,000 teachers who do not meet the State certification requirements. Many teachers today are caught between incomes which do not permit them to improve their professional qualifications on the one hand and increasing demands for better knowledge and preparation in subject areas on the other. Teachers should be able to afford to improve their knowledge as information changes and new discoveries are made.

MR. THOMPSON. Mr. Secretary, of those 90,000 full-time teachers, might there be more teachers on a substitute or part-time basis?

MR. RIBICOFF. What we have in mind are the full-time teachers, and there are substitutes.

MR. THOMPSON. You mean holding substandard certificates?

MR. RIBICOFF. That is right, not holding proper certificates. Yet because there is a shortage of teachers, the school systems are required to have them teach our youngsters across the Nation.

The teacher should have recognized professional status as one of the most valuable members of the community. This is not true today. A student who graduated last year, after 4 years of college in a scientific curriculum, could start work with an average salary of \$6,240 a year. If he spent the same 4 years learning to be a teacher, his starting salary would average \$4,100. The average salary for all teachers with a bachelor's degree last year was \$4,215; for all scientists with a bachelor's degree, \$9,000.

The increasing demands for education make it essential that we attract many more people into the teaching profession, that we do everything we can to retain our present teachers, and that we help the State and local systems improve the quality of their instruction.

In 1950, our school-age population was 30.5 million; in 1960, 44 million, an increase of 13.5 million. By 1980, there will be 67.5 million school-age children, or an increase of 37 million during the 30-year period—an average of more than a million each year. These children are entitled to the best education we can give them. Because of the increasing complexity of our world, this education must be better than we had and better than we are now giving. We cannot afford less.

Title I of H.R. 10145 is designed to improve the quality of instruction in elementary and secondary schools. There are great variations in professional preparation, knowledge of subjects taught, experience, and opportunity for professional improvement and advancement among our 1.5 million teachers. The knowledge, competence, enthusiasm, and wisdom of the classroom teacher determine the success or failure of everything attempted by our schools. Title I would authorize three practical 5-year programs—institutes, awards, and project grants—to strengthen the initial preparation of teachers and to help our teachers prepare themselves to do a better job in the classroom.

Regarding institutes for advanced study for teachers, section 101 of the bill would authorize the Commissioner of Education to arrange with colleges and universities for subject-matter institutes for teachers

and supervisors of subjects in which he finds that there is a general need for improved quality of instruction. These institutes would be concentrated upon the subjects generally accepted as meeting college entrance requirements. Participants would receive a stipend of \$75 per week, plus \$15 per week for each dependent, during the period of attendance.

These institutes will provide in other basic curriculum areas the same kind of opportunity for improvement that has been so successfully provided in mathematics, science, and foreign languages through institutes arranged by the National Science Foundation and the Office of Education. These programs have improved instruction to such an extent that the relative neglect of these subjects has been dramatically reversed in a few short years. But mathematics, science, and foreign language do not encompass a complete educational program. Instruction in English, in history, and social sciences is essential to the attainment of the skills and knowledge required by today's youth. The requirements for subject-area competence are as important to teachers of these subjects as they are to the teachers of science and mathematics, and the intellectual disciplines and learning effort are no less.

Awards for outstanding teachers: The second program under title I is perhaps the most exciting and offers great potential for improving the quality of instruction and recognizing the great contribution to society of the many outstanding teachers now in our schools.

Section 102 of the bill would permit the Commissioner to make awards to 2,500 teachers each year to permit them to undertake a year of full-time study in the subjects they teach. The recipients would be selected by State commissions designated by the Governors. Each recipient would receive a stipend equal to his salary but not to exceed \$5,000 a year. The college or university attended would receive a \$500 cost-of-education grant. Awards would be allotted among the States on the basis of the relative numbers of certified teachers, with no State receiving less than 10.

These awards would provide valuable recognition for outstanding teachers. As stated by President Kennedy:

Many elementary and secondary school teachers would profit from a full year of full-time study in their subject-matter fields. Very few can afford to do so. Yet the benefits of such a year could be shared by outstanding teachers with others in their schools and school systems as well as with countless students. We should begin to make such opportunities available to the elementary and secondary school teachers of this country and thereby accord to this profession the support, prestige, and recognition it deserves.

We believe that the awards provided in this bill would stimulate additional private, State, and local grants for this purpose. The 12,500 teachers receiving awards under the bill during the next 5 years would, during their teaching careers, share the benefits of their study with several million students in thousands of schools across the Nation and thus help to raise the quality of education.

Project grants to strengthen teacher preparation programs: The first two programs, which I have just described, are designed to improve the quality of instruction by giving opportunities for professional improvement to teachers already in the profession. The third program would attack the problem of assuring a continuous entry into the profession of qualified, well-prepared teachers and would make it possible for our colleges to attract into teacher-preparation programs students showing promise and intellectual capacity.

Section 103 of the bill authorizes the Commissioner to make grants to colleges and universities for projects to strengthen their programs of teacher education. With today's emphasis on excellence in education and subject-area competence, many institutions that prepare teachers find themselves unprepared to meet the challenge. Institutions which traditionally emphasized teaching now find it necessary to provide facilities and instruction in subject areas which require additional faculty and library facilities and new curriculums to prepare teacher candidates properly.

As these institutions seek out new faculty and new programs, most of them need to strengthen their library programs. More than half of the 4-year academic institutions in the Nation today have library collections of less than 50,000 volumes. The Federal grant would cover part of the cost of improving course content and curriculum (including related improvements in library resources), better student teaching activities, and improved standards for selection of teaching candidates and for their continuation in teacher-education programs. Without financial help, most colleges will not have the resources available to make necessary improvements.

We believe that there is a direct relationship between the quality and intellectual content of teacher education and the quality of students attracted to a career in teaching. There is evidence that teaching as a profession is not attracting a proportionate share of our most able college students and that many able and dedicated teachers suffer from inadequate academic preparation. While we recognize that inadequate salaries for teachers is a major factor in this situation, we believe that improvements in teacher education can significantly improve the status of the profession. This proposal would encourage and help colleges and universities to make desired improvements.

Title II is concerned with the broad application of improved instructional practices in elementary and secondary schools. American industry spends billions of dollars each year in research and development and in the application of new knowledge to technology. Although the needs of education and industry differ substantially, it is alarming that less than one-half of 1 percent of educational expenditures are for research and development. Moreover, the widespread application of the findings of educational research has been painfully slow.

Grants to States: Title II would authorize the appropriation of \$50 million for each of 5 years for grants to State education agencies to help finance pilot, demonstration, or experimental projects designed by local school districts. These projects would help greatly to improve the quality and effectiveness of instruction in public elementary and secondary schools.

Mr. THOMPSON. Mr. Secretary, title II is very much like the title which we had in the President's general aid bill, or H.R. 7300, early in the game last year.

Mr. RIBICOFF. Correct.

Mr. THOMPSON. Is it your opinion that it is so constructed that the several States would have virtually complete control over the programs?

Mr. RIBICOFF. That is right. It is conceived that within the general purposes of the bill as outlined each State would make its own

determination as to what pilot demonstration or experimental projects their local school district would desire.

The local school district would not apply to us, but would apply to the State agency. The State agency would then make the allocation for what it considered the overall needs of the State within various fields; and we have been very careful to leave this authority to the State to pick its own projects within the general broad outlines of the purposes of the bill, Mr. Chairman.

Mr. THOMPSON. In other words, Mr. Secretary, what we have tried to do is to avoid any possible means by which it could be construed that this is money to be used to break down existing school systems in the manner of their operation.

Mr. RIBICOFF. That is correct. As a matter of fact, I would like this as money to be used to strengthen existing school systems. Frankly, I have always felt that this provision is one that provides one of the greatest hopes for the future of education. I felt this way last year, and I feel doubly so this year, Mr. Chairman, because there is much that is needed to improve our educational system.

Each State has different problems. The gentleman from Nebraska represents a State with a great shift in rural population. The shift of the people moving out of the farms into the city has left many rural school areas stripped down with not enough students in some districts to give them the proper type of education that they deserve. This is a problem that I have discovered in my conversation with many people interested in education from the agricultural areas.

Now, in contrast to that, we have the great problems of our large cities, so well described by Dr. Conant in "Slums and Suburbs," in which there is such a great influx of ill-prepared youngsters with many behavior problems, many social economic problems. Our large cities have a completely different problem.

Now, we do not want to tell the State of Nebraska what programs it should undertake to try to solve some of its rural problems; we do not want to tell the State of New York what it should do to try to solve the problems of the large number of youngsters in the slum areas of New York. Rather, within the allocation that we give New York and we give Nebraska, Nebraska will decide what experiments it wants to make to solve its problems, and New York or New Jersey will make the decisions to solve its problems.

We have been very, very careful in designing this provision, Mr. Chairman, to reserve the power in the State because we believe that out of the experience of the various States, and we would hope that each State would try to take a different piece of this problem, that the rest of the Nation would be able to learn from the experiments that are being carried on in the various States in our Nation. This we believe would strengthen our whole education system.

What Nebraska would do in rural education, upstate New York could very well emulate. And what New York might do in Harlem could be emulated in Los Angeles or Detroit. I think that right here we have one of the greatest tools to improve education in America, Mr. Chairman.

Mr. THOMPSON. I quite agree, Mr. Secretary. I interrupted you at that point in the hope that you would do exactly what you did, to emphasize the States' rights aspect of this section, its real purpose, and to do away with any suggestion that this might be some devious

means by which to enforce a Supreme Court decision or something of that nature.

Mr. RIBICOFF. Just to give you some examples of a possible application of this title, I have listed a few:

Experimental programs for highly gifted pupils, making use of such innovations as seminars, adaptations of the tutorial system, and organized acceleration in courses or subjects.

Projects for pupils having special language or adjustment problems, with development of materials and improved methods of teaching English to non-English-speaking pupils. This is a problem in many places. I mean instruction, let's say, of Mexicans in California or Puerto Ricans in New York or other sections where these children come into our school district and you are trying to teach them in English when they do not understand English. You can see how important a program like this would be in sections like that.

Mr. THOMPSON. In this connection, Mr. Secretary, there was discussed at some length the other day in hearings on Mr. Perkins' bill, the Adult Basic Education Act, the effort on behalf of the people of Miami and the parochial schools, or the bishop of Miami, to teach English to the many Cuban refugees there.

If, Mr. Secretary, the State of Florida's laws contain no prohibitions, could the moneys, the experiments envisioned in this title, be channeled to such projects in your estimation?

Mr. RIBICOFF. Under the Cooperative Research Act amendments, a university conducting a research and development center could use funds to support the type of experimental program you have described.

Mr. THOMPSON. That was my interpretation, and that is why I framed my question "if there were no prohibition."

Mr. RIBICOFF. Title II also amends the Cooperative Research Act to give a new and vital dimension to educational research and development. The amended act would authorize grants to colleges, universities, and other nonprofit organizations to pay part of the costs of centers for research, development evaluation, and demonstration of improved instructional practices and materials in the schools, where appropriate centers would be conducted in cooperation with State and local educational agencies. We believe that this expanded research and development activity, together with the special project grants described above, would be a most effective means of bringing about widespread application of better practices in education.

We estimate that appropriations for this bill would be \$120 million for the first year, ranging up to \$164 million in the fifth year. This is a modest cost in terms of the far-reaching objectives of the bill.

Each provision of H.R. 10145 complements the others and is also related to existing public and private programs in education. The bill pinpoints the basic requirements for improving the quality of education and proposes an effective means of meeting these requirements.

Let me emphasize that this bill is not a substitute for any other education proposal of this administration. We have made a number of proposals, all of which are of great importance. We earnestly support a broad program of funds for school construction and teachers' salaries. We want support for our colleges and college students. We want aid to the medical schools and their students. We want to

do something about adult illiteracy. And in this bill I present to you today, we are seeking a fifth part of the President's education program—a measure to improve the quality of education in this country.

All parts of this program are important. The measure before you today is among the least expensive of the proposals, but I deeply believe that its ultimate impact can be as significant as anything we have proposed. It represents a new and needed approach, an effort to do something for our teachers and for the quality of teaching in our schools.

Mr. Chairman, millions of the children in our Nation have only a theoretical chance to acquire an education commensurate with their potential ability and to lead useful and happy lives. Many come to our schools from a social and cultural environment in which the desire for knowledge was never kindled. Many others of high ability and motivation do not find intellectual challenge in the school and become bored, dispirited, and even delinquent.

To help correct these conditions in the schools—to create a desire for knowledge where it never existed and to engage the best ability of every student—requires extraordinary effort by skilled administrators, teachers, and counselors. All too often, our schools are unable to accomplish these objectives.

Recently, I had the opportunity to visit a school in New York City in which these problems are being overcome through a special program called Higher Horizons. The children are given special remedial instruction to overcome language and academic deficiencies. They are introduced to the world of art and culture. They have the benefit of skilled teachers and counselors. Academic standards are high. These students are above average in their neat appearance, behavior, and desire for intellectual achievement. Yet, these youngsters come from an environment characterized by unemployment, broken homes, delinquency, illiteracy, violent crime, and cultural poverty. In a very real sense, their school is saving their lives.

This contribution to our society is beyond measure. It can be duplicated in thousands of schools, serving every kind of area with respect to the whole range of educational needs.

The purpose of this bill is to launch a concerted national effort to assure that our schools offer a real opportunity for a first-class education for all our children. Federal action can be decisive in stimulating State and local leadership and accelerating progress in education.

While we cannot command intellectual excellence, we can and must encourage it in every appropriate way. H.R. 10145 provides an appropriate way to do this, and I strongly urge that it be enacted.

Mr. THOMPSON. Thank you, Mr. Secretary, for, as usual, a splendid statement. I do not know of anyone in the time that I have been here, including this administration and the last, who has worked harder and more constructively for the things he believes in than you have.

Unfortunately, I do not know of any one who has had worse luck with his proposals. I admire very greatly your adherence to your proposals and to those of the President and your wonderful advocacy of them.

Mr. RIBICOFF. I would say this, Mr. Chairman. You know, I have been in Government for a long time and I have learned that two of the necessary qualities are patience and persistence. I have learned

that you do not get discouraged over setbacks. We are trying to embark on new fields, many of them old ideas but breaking new ground legislatively.

It is a long, hard road which requires education, may I say respectfully education of Congress as well as education of the people at home, and I have tried to press these measures to the best of my ability. I have not just sat in Washington to do so, but I have tried to light as many fires as I can across the length and breadth of this country, to talk and explain and argue and to goad and to be a bur under people's saddles.

I do feel that ultimately these matters in the field of education are so vital and so important for the survival of our Nation that this Nation in the very near future will wake up to its basic responsibility because education is power.

Mr. THOMPSON. My next question to you was going to be this: Having in mind we are discussing a bill which I introduced and which I am very much for—I would not have introduced it otherwise—why is it the Federal Government's responsibility to embark on a program such as this?

Mr. RIBICOFF. Well, I would say this, Mr. Chairman. Education in my mind is one of the greatest sources of national power. If you analyze the drive in the Soviet Union and Communist China today, their emphasis is based on education, education for the use of the State, a recognition that educated people in all fields and to the general wealth and power of a nation.

We have a wonderful education system, but we have had it so long that I think we take it for granted. Much can be done to improve education; much can be done to improve the quality of education. Much must be done to improve the quality of education.

Now, it is not enough for us to say, you of New Jersey or I from the State of Connecticut, that we are satisfied with our educational systems in our States. They are good ones; we spend a lot of money and, therefore, let us just worry about New Jersey and Connecticut. I do not believe that to be the case at all. I am personally just as much interested in the child in Mississippi or South Dakota getting a good education as I am a child in any other place in our Nation because we must improve the quality of education and we must increase education opportunities.

This world is advancing so rapidly and what the world needs to know is so much greater than it has been in the past that we will be selling our Nation short if we do not do everything we possibly can to improve education.

Now, we have problems on the States and localities. One of the greatest problems in our localities and States and towns of today is that they do not have the means to give the type of educational system many of their children deserve. I do believe that the national resources, the national wealth must always be used for the general welfare of all our people. For the life of me, I cannot help but feel that there is no greater national resource than an educated people.

Mr. THOMPSON. In terms not only of the national defense, but in terms of the common good, I would say.

Mr. RIBICOFF. That is right.

Mr. THOMPSON. By the most conservative estimates of the Bureau of the Census, the mobility of the American population goes to as

much as 20 percent a year. That is the conservative side. In other words, 20 percent of the people who live in America move each year, whether it be across the street, around the block or to another State. There is an enormous migration east and west. I quite agree that this is a national responsibility.

Mr. Secretary, you would not be surprised, would you, to learn that the Federal Government spends in excess of \$3 million a year, through the various departments and agencies, on education?

Mr. RIBICOFF. No, I am not surprised at all. As a matter of fact, I knew this long before I took this job. In reading up on the background, there was an excellent survey made by the Library of Congress known as the Quattlebaum report, which was made 2 or 3 years ago, which outlined in detail Federal expenditures. There is a very large commitment financially in education by the Federal Government that runs through practically every department of our Government.

Mr. THOMPSON. There has been some suggestion within this committee that some of its members were startled to know that the Government spent as much as—the figure of \$2 billion was used.

I was astounded that anyone would be shocked by learning this. There have been proposals that all education legislation be stalled or held pending a study to determine how much is being spent.

I hope that my colleagues in the course of that study will read the Quattlebaum report and in the meantime that we can get on with not the statistics of what we are spending and from where, but to programs such as this and the adult basic education program, which we know, notwithstanding whatever is being spent today, are aimed at problems that must be remedied.

Mr. Martin, do you have questions for the Secretary?

Mr. MARTIN. Yes, just one or two.

It has always been my contention that educational systems were not built of brick and mortar, but rather with the quality of the instructors that we had in those institutions. This bill, I believe, begins to get at that problem. Perhaps, this is out of your scope, but many States, in fact I believe most States probably in the Union, have regulations that require that teachers in the public schools, elementary and secondary school level, receive a certain number of hours of training in the field of education; in other words, how to teach.

As a result of that regulation, many of our teachers, for instance, in the field of English or science or in history or other subjects, do not have sufficient hours in the particular subject in which they are going to teach. Therefore, to my mind, some of them are not properly prepared to teach their subject.

Now do you have any comments, Mr. Secretary, on that?

Mr. RIBICOFF. Yes. As a matter of fact, we are very well aware of this and this is one of the weaknesses that this bill seeks to correct.

If you took a teacher such as you described from any State, they could apply to one of the summer institutes, whether it be English or history or the social sciences, to improve the depth of knowledge of the subject matter. The question of these 2,500 fellowships is definitely addressed to subject matter, not method. To me, method is important, but certainly what good is method if you do not have the depth of understanding, the knowledge to teach with the method you know? I think, always, subject matter is the most important.

I agree with you that the key to the entire educational system is a teacher, an inspiring, dedicated, and knowledgeable teacher, and a willing and able pupil, and not a fancy schoolhouse, is the key to an education.

Mr. MARTIN. Many of your graduates with A.B. degrees from some of our finest colleges in the country are not eligible to teach in the public schools; they can teach in private schools in which the requirement is not necessary to have so many hours of courses in the field of education.

Yet, they have had far more hours in their particular subject matter in which they are interested and to my mind they are much better qualified to teach than those coming out of teachers' colleges.

I am not condemning teachers' colleges, but because of their requirements.

Mr. THOMPSON. Will the gentleman yield?

Mr. MARTIN. Yes.

Mr. THOMPSON. I think the Secretary and Dr. McMurrin will agree that there has been a rather happy turn in the structure of teacher education recently. For instance, New Jersey has abandoned the use of the phrase "New Jersey State Teachers College," and is now making them liberal arts colleges, still with emphasis on enough education.

There have been too many doctor of education degrees granted on such ponderous subjects as "How To Fix the Zippers on 6-Year-Old's Snowsuits," and "The Structure of the Maintenance Crews of the Albany, N.Y., School System," and so on.

They are getting away from that a lot, I think, methodology, in other words.

Secretary RIBICOFF. What we are trying to do, too, in part of this bill is to strengthen our colleges and universities in the country. This is what we try to do. To go deeper into this, I have always felt that one of the great weaknesses in our educational system is the fact that our best faculties at many of our universities are not allocated or assigned to the teacher's college.

There are too many universities that have their weakest program in the teachers' college branch. I would say this should be one of the strongest departments. I have long advocated that our great universities should have a lot of crossbreeding, that in their teachers' college branches of the university they should take some of the most outstanding members of the faculties of arts and sciences in the graduate field and bring them over into the teachers' college, where those who are going to teach can be exposed to the teaching of the greatest professors at all these universities.

I do believe there is more and more realization of this in our colleges and universities and we are trying to encourage by this bill just such improvements as both you gentlemen are talking about. I believe both of you are of the same mind as Dr. McMurrin, and myself, on this.

Basically, like you say, we have a problem. Basically we, in this Department, cannot tell the States and the localities what to do and we do not want to. Ours is a problem of education, Dr. McMurrin and I have very few moments to ourselves. When we are not up on the Hill and doing the work in our Departments, both of us undertake very extensive speaking engagements around the country to try to provoke the thinking that you gentlemen are talking about.

We get brickbats for our efforts and labors, but we do believe it is worth while.

Mr. MARTIN. I notice in your statement your attention to the fact that English was extremely important.

Secretary RIBICOFF. Very important.

Mr. MARTIN. If a person could not write and express himself correctly in correct English, that he was at a great loss.

Secretary RIBICOFF. That is one of the great neglected subjects. How can you be an educated man if you cannot use the language of your country? There is no question that there are great deficiencies in the teaching of English.

Mr. MARTIN. No question.

Secretary RIBICOFF. We have been emphasizing sciences; we are very anxious to emphasize our own tongue, our own language, how to use it in all respects.

Mr. MARTIN. I have applications for jobs from young college graduates with an A.B. degree, and in writing out their letter of application they did not even spell some of the words correctly, and lacked completely any knowledge of punctuation, and their phraseology was extremely bad. Yet, they were graduates of some of our colleges.

Mr. THOMPSON. Mr. Secretary, thank you very much. We know you have other commitments and we are grateful to you for coming here.

Secretary RIBICOFF. Should your committee desire me to return at any time during the proceedings, I am available at your call.

Mr. THOMPSON. Thank you, sir.

Dr. McMurrin, I see that you have your defensive linebackers with you, all of whom are familiar to us and are most welcome. Please feel free to proceed as you wish with your statement. Would you prefer not to be interrupted in the course of your statement?

Dr. McMURRIN. Whatever you would prefer, or other members of the committee, Mr. Chairman. The statement describes in somewhat more detail some of the things that Mr. Ribicoff has presented to you and, I am very pleased to say, gets at some of the issues that you gentlemen have already raised in some detail.

Mr. THOMPSON. It might be helpful if you do not mind then, in order that we do not forget a question during the remainder of your statement, if we could interrupt.

Dr. McMURRIN. Whatever you prefer sir.

STATEMENT OF STERLING M. McMURRIN, U.S. COMMISSIONER OF EDUCATION; ACCOMPANIED BY CHARLES RADCLIFFE, CHIEF, LEGISLATIVE SECTION; RALPH C. FLYNT, ASSISTANT COMMISSIONER (RESEARCH); AND PETER P. MUIRHEAD, ASSISTANT COMMISSIONER (LEGISLATIVE AND PROGRAM DEVELOPMENT), OFFICE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Dr. McMURRIN. Mr. Chairman, Mr. Martin, it is a pleasure to appear here today in support of H.R. 10145, and to join Secretary Ribicoff in urging enactment of this bill. The Secretary has made an excellent statement of the educational needs to which this bill is addressed, and of the practical means provided by the bill to meet those needs.

My purpose is to develop for the subcommittee a more detailed exposition of H.R. 10145. Before doing so, however, I would like to express my personal enthusiasm for the central purpose of this legislation and for the type of programs that it would authorize. Genuine excellence in our educational system must not be considered a distant goal. It should be, rather, the constant driving purpose of all who play a part in determining the quality of education.

There cannot be a unifying sense of purpose in education if we shrink from the hard judgments of the nature of our national situation and of the character of our education. We must now be willing to meet head on the sobering fact that our Nation is in deadly peril and its security and survival depend in considerable measure on the quantity and quality of our education.

Quite apart from the direct threat to our national security, we are confronted with enormous domestic problems arising from the acceleration of major social processes. Forces such as the dramatic progress of technology, increasing industrialization, and the dislocations, strains, and tensions of our awkward pattern of urbanization, all make increasingly large demands upon our educational establishment.

In this situation, Mr. Chairman, we must carefully—and coldly—assess education in terms both of its impact upon the individual and its relevance to personal, community, and national needs. It is true that our educational attainments have been highly commendable and have provided a foundation for our society and a guarantee of its values.

But I believe it is also true that we have failed to adequately exploit our full potential for the achievement of the proper ends of education, and that we must now assure the effective deployment and application of our educational effort.

The quality of our educational enterprise is not to be measured simply by examples of excellence. It must be measured across the board by the opportunity it affords students in every type of community, in all sections of the country, from every social and cultural background, to develop their highest intellectual capacities. The blunt truth is that by this standard of measure the quality of American education falls dangerously short of the requirements of these times.

The most critical qualitative area is elementary and secondary education. It is the most critical because, if for no other reason, it is the most important. The first 12 grades are the entirety of formal education for millions of children, and they are the foundation of education for all. Talent undiscovered and unnurtured at this level is nearly always lost. Inadequate instruction at this level cannot be fully compensated for at higher levels.

The Federal Government can make a major, perhaps decisive, contribution to the accomplishment of sharp and specific improvements in the quality of American elementary and secondary education. Financial assistance and the stimulation of Federal support is urgently needed in two basic areas: better preparation of present and future teachers, and the wide application of improved instructional practices in the schools.

H.R. 10145 is squarely addressed to these needs. Secretary Ribicoff has outlined the provisions of the bill. In the matter of teacher

preparation, the bill provides for three programs: Subject-matter institutes, scholarships, and grants to colleges to strengthen teacher education.

For the improvement of instructional practices, it has three aspects: State leadership, local projects, and Cooperative Research Act amendments—all providing for programs of development, evaluation, and demonstration of quality teaching in the schools.

While the separate parts stand alone serving different objectives, they also form an interrelated pattern influencing both the preparation of the teacher and the practice of his profession.

In the final analysis, Mr. Chairman and members of the committee, the quality of our schools must depend upon the quality of our teachers. Our major task is to bring to the classroom the large number of teachers of high qualification that are necessary to the full success of the educational enterprise.

It is deplorable that the American people have all too often overlooked their many highly competent teachers and have considered teaching—especially in elementary and secondary schools—to be a vocation appropriate for persons of second- or third-rate ability. They have accordingly rewarded them with third- or fourth-rate salaries.

It is not surprising, therefore, that many of our teachers are less able and competent than their profession should demand. Our objective must be to assure that all our teachers are comparable to our present top 10 percent, and to make teaching competitive with medicine, law, engineering, business, or government in its attraction for brilliant minds.

MR. THOMPSON. I might interrupt you at this point, doctor, to state my agreement with that statement and to emphasize that this bill is not a teacher-salary bill.

DR. McMURRIN. Quite true, sir.

MR. THOMPSON. Teachers' salaries were covered in the bill H.R. 7300, and the Senate passed it.

DR. McMURRIN. Quite true.

We are caught in a vicious circle to the extent that low salaries do not attract a sufficient share of high competence to teaching and those who pay teachers' salaries often use the general level of competency as an argument against higher salaries.

My point in referring to salaries here, Mr. Chairman, is to point out that in the long run teachers' salaries will not rise adequately unless the competence of teachers rises more rapidly than it now is.

Salary scales have been rising in recent years, albeit neither fast enough nor far enough. This bill attacks the problem at the other part of the circle, at the point of teacher competence.

Our immediate concern is to improve the competency of the teacher who is now in the classroom—and particularly of those who deal with the basic subjects that are the foundation of learning. The need is easily demonstrated. It is most serious with regard to instruction in English.

I am very pleased, Mr. Martin, that we have selected as an example of the problem the very field in which you have already indicated a clear interest.

The study of the English language is the gateway to every field of knowledge. Yet today there is both a shortage of English teachers

and a growing number of English teachers whose preparation to teach the subject is woefully inadequate.

In 1960 the number of persons graduated by our Nation's colleges prepared to teach high-school English was 12 percent less than the number graduated in 1950. The demand for qualified high-school English teachers is estimated to be 27 percent greater than the supply.

One consequence is that 40 to 60 percent of the English in our public junior and senior high schools is being taught by teachers who lack even the minimal academic requirements for a major in English.

One result is statistically measurable. Seventy percent of our colleges and universities feel compelled to give remedial courses in English, at an annual cost of about \$10 million.

I might say, Mr. Chairman, that these remedial courses are courses in English at a subcollege level, the kind of English that students should have learned in high school; often in junior high school.

Mr. THOMPSON. I wish I had had one when I was a freshman in college; I would not have so much difficulty with the foreign languages. It was not until I was halfway through my first year of college French that I realized I did not know what a verb was, and I am not sure that I have found out since.

Dr. McMURRIN. This is understandable when we consider—I am referring, of course to my statement, Mr. Chairman, and not yours—that in 1960 some 150,000 students failed their college entrance examinations in English.

The teacher in the elementary school who gives instruction in the fundamental skills of language must understand both language and literature and how to teach reading, writing, and other skills of language. But the extent to which the elementary school teacher is capable of doing this is revealed by these facts.

May I say, Mr. Chairman and members of the committee, that most of the data I am presenting in the matter of English is taken from a publication entitled "The National Interest and the Teaching of English," published by the National Council of Teachers of English, which is made up of large numbers of teachers of English in both the secondary schools and colleges and universities.

This data is primarily for the year 1959. We do have indication that, generally speaking, the situation is now somewhat improved, but the improvement is only slight in terms of the total problem.

One-fourth of elementary teachers are not college graduates, and about 200,000 have completed not more than 2 years of college. Seven States certify elementary teachers who do not possess a bachelor's degree and 19 States do not specify any requirement in English for elementary certification.

Less than one-third of the colleges require prospective elementary school teachers to complete a teaching major outside of education. A little over one-half of the colleges do not require prospective elementary-school teachers to complete more than 6 semester-hours in English beyond the freshman level—the equivalent of 1 year's course in language or literature. The mean national average is only 8 semester hours.

Fewer than one-third of the colleges require prospective elementary school teachers to study American or English literature. Only 5.3 percent of the colleges require prospective elementary school teachers to complete a course on the English language. Moreover, 61.5 per-

cent of the colleges do not require future elementary teachers to study grammar usage at all.

We have less complete information but a comparable concern for other basic subjects. For example, in one northern State a recent study revealed that of the 315 teachers assigned to teach world history in the public high schools, less than half had studied modern European history and less than 10 percent had studied Far Eastern history.

In the same State, 55 percent of the social science teachers had not majored in the social sciences in college. Indeed, 20 percent had majored in physical education. In another northern State, one-fourth of the high school economics courses are taught by teachers who had no college course of any kind in economics.

It would be unfair to single out these States simply because particular studies of this problem have been conducted there. There are notable exceptions, but this situation is far too common.

Now it is obvious that many changes must be made to reverse this condition, and that these changes cannot be required by the Federal Government. Colleges and schools of education must raise standards; State education certification requirements must be revised in some instances; and State and local school systems must share responsibility.

However, by means of the subject matter institutes proposed in this bill, the Federal Government can provide the most immediate and effective method of improving the competency of a significant number of teachers. The splendid success of the institutes in modern foreign languages, mathematics, and the physical sciences, financed by the Office of Education and the National Science Foundation, can and should be duplicated in other basic subjects.

One hundred and seventy thousand elementary and secondary teachers have had the benefits of these programs, and they should be continued. But while \$22.5 million in Federal funds alone is being spent this year for institutes for science and mathematics teachers, we know of only \$7,000 in private funds available for similar training for history teachers.

In my opinion there is neither an educational nor a national policy justification for this discrepancy. The existing Federal programs result from a correct appraisal by the Congress of the needs and deficiencies of instruction in subjects directly and immediately affecting national security.

Mr. THOMPSON. I have felt strongly about this since the executive session in this committee when we drafted the National Defense Education Act. Sputnik caused a hysteria that resulted in a bill designed to create instant scientists, mathematicians, and modern foreign language students, but no regard was given to the humanities or the arts and sciences, or indeed to English, the basic tool for understanding of any of these things.

For a variety of reasons we failed to remedy that end of it. I think that last year we finally did get agreement in our amended NDEA bill to abolish the preference clause in the lone section in which this appears; but I am delighted to say that in this proposal the emphasis is on English, the social sciences, and other basic subjects.

Dr. McMURRIN. We very much agree with your viewpoints, Mr. Chairman, on this matter. The same needs exist in other basic subjects, which together with science, mathematics, and foreign languages are the foundation of a liberal education.

I suggest that, particularly in regard to elementary and secondary education, even a very narrow concept of the national security interest does not justify this distinction. We must recognize that the strength of our Nation depends upon high achievement in the social sciences, the humanities, and the fine arts, as well as in the physical sciences. Certainly the generality of our scientists agree with this view.

Subject matter institutes conducted by universities offer an expeditious means of upgrading the knowledge and skills of large numbers of teachers. However, the institutes should not be considered a substitute for advanced study in any subject. Many of our best teachers could profit greatly from a year of full-time study in the fields they teach.

This need has long been recognized by higher education with respect to their own faculty, and it is clearly recognized in elementary and secondary education. Many local school systems grant their teachers leave for a year of study, and some continue to pay part of the teacher's salary.

At least one private program, the John Hay fellowships, provides scholarships for a very few high school teachers (75 this year) for a year of full-time study in the humanities. This program has proved to be of very great worth for its participants and their schools.

Mr. THOMPSON. Doctor, in this legislation there is a ceiling of \$5,000 for the teachers involved or selected. This is fine except in the instance where a teacher has family responsibilities and where the school system, despite the fact that he or she has been given one of these awards, is not going to continue his pay.

In other words, I think that when we get to marking this bill up we should give consideration to the existing income of the teacher and not ask as a reward that where the school system would not continue paying them that they make a sacrifice.

Dr. McMURRIN. The proposal in the bill, sir, is certainly very modest in the matter of compensation. Quite obviously many teachers who might otherwise qualify might be deprived of the opportunity because of the inability to subsist on this amount of money.

Mr. THOMPSON. I would expect that most school systems would be so delighted to have one of their teachers selected that they would continue the teacher's salary, but there is no guarantee of this. I think that we might provide that where there is not a continuation of income that these awards reimburse them to the extent that they would earn in that time at their jobs.

Dr. McMURRIN. Yes. I might say, sir, that the experience of the program I have mentioned, the John Hay fellowships, bears out your view that school systems and the schools, themselves, have great enthusiasm for this kind of program and, generally speaking, have not only cooperated but have seen great benefits to the entire school program resulting from the work of the teachers who have been on the fellowships.

We believe that the authorization of 2,500 scholarships annually, awarded to teachers of demonstrated ability, would emphasize the value of such study and would encourage the development of similar programs by other public and private agencies.

Those teachers who have a year of full-time study would have a profound effect on improved instruction, not only in their own class-

rooms, but in the entire school and school system in which they teach. Also, it would have a profound effect upon teachers in every State as an expression of national encouragement of good teaching.

In addition to the educational benefits of these scholarships, it should be noted that many of the recipients would qualify for salary increases under State law as a result of their studies. However, the salutary effect of such a Federal program for the morale of all teachers would be one of its major benefits.

We have compiled a preliminary table showing the number of scholarships that would be awarded annually in each State. Mr. Chairman, I would appreciate having this made a part of the record and included in my statement at this point.

Mr. THOMPSON. Without objection, it is so ordered.

(The document referred to follows:)

Distribution of 2,500 scholarship grants for outstanding teachers under the provisions of H.R. 10145 (Feb. 7, 1962), title I, improvement of quality of teaching in elementary and secondary schools

State allocation of scholarships		State allocation of scholarships	
50 States, District of Co-		Montana.....	11
lumbia, American Sa-		Nebraska.....	23
moa, Guam, Puerto		Nevada.....	10
Rico and Virgin Islands..	2, 500	New Hampshire.....	10
		New Jersey.....	80
50 States and District of		New Mexico.....	14
Columbia.....	2, 436	New York.....	226
		North Carolina.....	58
Alabama.....	42	North Dakota.....	12
Alaska.....	10	Ohio.....	128
Arizona.....	19	Oklahoma.....	31
Arkansas.....	23	Oregon.....	27
California.....	194	Pennsylvania.....	138
Colorado.....	27	Rhode Island.....	11
Connecticut.....	35	South Carolina.....	32
Delaware.....	10	South Dakota.....	12
Florida.....	60	Tennessee.....	44
Georgia.....	51	Texas.....	129
Hawaii.....	10	Utah.....	13
Idaho.....	10	Vermont.....	10
Illinois.....	142	Virginia.....	51
Indiana.....	60	Washington.....	41
Iowa.....	48	West Virginia.....	26
Kansas.....	36	Wisconsin.....	57
Kentucky.....	40	Wyoming.....	10
Louisiana.....	45	District of Columbia.....	10
Maine.....	15		
Maryland.....	41	American Samoa.....	10
Massachusetts.....	66	Canal Zone.....	10
Michigan.....	107	Guam.....	10
Minnesota.....	50	Puerto Rico.....	24
Mississippi.....	28	Virgin Islands.....	10
Missouri.....	53		

We have been considering the needs of the more than 1,600,000 teachers who are now at work in our public and private elementary and secondary schools. In the final analysis, however, the place to establish the competency of teachers is in their initial preparation for teaching. Our elementary and secondary schoolteachers are prepared in some 1,200 institutions, ranging from a few remaining 2-year "normal schools" to the schools of education of our large universities.

Nowhere can so much be done to improve education as in these

institutions. The quality of teacher education should be the most pressing concern of every college and university board, president, and faculty. With such a variety of institutions and programs, it is not possible here to present an analysis of the weaknesses and strengths of teacher education.

It is sufficient to say that there is widespread concern—both within and outside professional education—for improving the standards, intellectual content, and organization of education courses and curricula.

Personally, I am not primarily concerned with the debate as to how much time should or should not be devoted to professional education courses. Assuming optimum limits, the real problem is the quality and relevance of the entire curriculum.

Although the universities have left much to be desired in their efforts to guarantee the quality of their programs in education, much is being done today to correct the errors of the past. In an increasing number of institutions, effective steps are being taken to bridge the artificial gulf between professional education and the larger academic community, and to place the prospective teacher squarely in the mainstream of liberal education. But far more remains to be done.

A great impediment to further progress is lack of funds, because the task of effecting genuine improvement in long-established programs usually requires major administrative and educational surgery. In the universities, the problem is to integrate the education program with the general liberal arts program; in liberal arts colleges the solution is often to add a fifth year of professional education and practice teaching; in the teachers' colleges the trend is toward a complete reorientation of the institution to the liberal arts subjects.

These are difficult tasks. They cannot be accomplished through casual effort, but require a concerted commitment of all available resources. They involve problems with facilities, libraries, faculties, course content, and curriculums.

May I say parenthetically, Mr. Chairman, that my own experience in matters of this kind in universities has indicated that the average well-established university in this country, to say nothing of those that are having very serious economic problems, operates on a very narrow margin in its budget. To introduce a program that is new, to make a genuine, high-level, and full study of a problem, very often is almost impossible due to lack of funds because of the fact that the total budget is generally committed to the operation of the university on a status quo basis.

Some might wonder why these things cannot be done without a Federal subvention. The plain facts are that the average university, the average college, simply cannot find money to do new things in the way in which they must be done if they are going to bear long-range and very positive consequences.

The project grants provision in title I of H.R. 10145 is designed to assist in making these changes. It would also aid institutions to develop new and expert services required to raise the standards of selection of teaching candidates, and to provide adequate supervision of and to develop better programs in the very important area of practice teaching.

The character and extent of each project would vary with the needs of the institution, in accordance with plans and proposals worked out

and submitted by the institution. The Commission, as required in the bill, would not approve a proposal until it had been evaluated by persons outside the Government competent to pass judgment on its merit.

Mr. Chairman, I wish to emphasize as strongly as possible the urgent need for this provision. Without Federal assistance and the initiative and impetus generated thereby, most institutions will be unable to make the necessary improvements in teacher education within the foreseeable future.

We simply cannot afford to continue in the future as we have done in the past. At whatever level he teaches, the teacher should be, above all else, an educated man. It is beyond argument that he must know the subject he teaches, and in this respect the present condition of education in many fields is deplorable.

I would agree entirely with the observation that Mr. Martin has made in relation to the Secretary's testimony. The teacher must be thoroughly competent as a professional teacher. But beyond the mastery of his specialized subject matter and high competence in the art of teaching, the teacher must have a genuine liberal education.

Nothing less will guarantee the quality of instruction that our schools must have if they are to perform the primary task of extending knowledge and preserving and enhancing the basic principles of the American way of life.

The effectiveness of even the very best teacher is largely impaired in a school or school system which is not organized and equipped to employ the best educational practices and to deal with the many difficult problems of education. In very many school systems, available financial resources are exhausted in carrying out the existing program, and experimentation and improvement is impossible to undertake. All too many other schools are being overwhelmed by special educational problems.

Among the greatest needs in our schools are effective programs for exceptionally gifted children, cultural deprived children, and those having language and other adjustment difficulties. It is usually very expensive to cope with these problems. School systems in our large metropolitan areas, in isolated rural areas, and in economically depressed areas are, therefore, encountering enormous difficulty in solving them. Such problems as these are of grave national concern, and they can be solved through assistance from State and Federal sources.

In our 40 largest cities, 18 had a decline in population between 1950 and 1960, yet all except 1 had an increase in public school attendance, ranging from 0.16 percent in Buffalo to 181.8 percent in Phoenix. In the surrounding suburbs public school enrollments in the decade frequently increased by several hundred percent, and taxable wealth per pupil in these areas has very often declined over the same period.

The growth and immigration in such areas is often characterized by rapidly increasing numbers of culturally deprived children and children with language problems. A great many of the children are from Negro families arriving from rural areas of the South.

But many others are from families moving from the Appalachian Mountains to midwestern and eastern cities; Latin American families moving into the cities of the Southwest and California; Puerto Rican families moving into New York and other eastern cities.

At the present time, it is estimated that one child out of three in the public schools of the 14 largest cities has a cultural background so meager or so different from other urban children that he is severely handicapped in school.

Among such children, as compared to other pupils, absence and tardiness is twice as high; being overage in grade is 11 times more common; elementary school failure rates are six times greater; voluntary dropouts are over three times greater; and the median eighth grade reading and arithmetic achievement levels are several grades lower.

Equally severe educational handicaps—if of a different cause or character—are imposed on children in economically depressed areas and in sparsely populated rural areas in which the maintenance of very small schools are necessary. If not overcome, these conditions will result in an appalling loss of precious human resources in a few years' time; to say nothing of the injustice done to the individuals involved.

This bill would authorize \$50 million for each of 5 years to help the States and local school districts to establish projects in the schools designed to overcome such problems. We have prepared a table, Mr. Chairman, showing the annual distribution of these project funds by State, and I would like to have it placed in the record at this point.

Mr. THOMPSON. Without objection, it is so ordered.

(The document referred to follows:)

Distribution of \$50,000,000 under the provisions of H.R. 10145, title II, broad application of improved instructional practices

State allotment		State allotment	
50 States, District of Columbia, American Samoa, Guam, Puerto Rico, and Virgin Islands.....	\$50,000,000	Missouri.....	\$1,185,205
50 States and District of Columbia.....	49,200,000	Montana.....	185,132
Alabama.....	896,279	Nebraska.....	387,220
Alaska.....	62,052	Nevada.....	78,270
Arizona.....	357,267	New Hampshire.....	166,518
Arkansas.....	490,090	New Jersey.....	1,664,513
California.....	4,312,251	New Mexico.....	260,927
Colorado.....	481,222	New York.....	4,604,477
Connecticut.....	695,579	North Carolina.....	1,250,049
Delaware.....	122,447	North Dakota.....	173,521
Florida.....	1,358,535	Ohio.....	2,663,095
Georgia.....	1,081,853	Oklahoma.....	638,800
Hawaii.....	173,610	Oregon.....	485,266
Idaho.....	183,054	Pennsylvania.....	3,105,638
Illinois.....	2,765,917	Rhode Island.....	235,813
Indiana.....	1,279,226	South Carolina.....	653,700
Iowa.....	756,572	South Dakota.....	186,709
Kansas.....	597,735	Tennessee.....	978,684
Kentucky.....	833,564	Texas.....	2,628,328
Louisiana.....	893,613	Utah.....	244,357
Maine.....	265,932	Vermont.....	106,970
Maryland.....	850,720	Virginia.....	1,088,392
Massachusetts.....	1,412,590	Washington.....	782,822
Michigan.....	2,146,410	West Virginia.....	510,434
Minnesota.....	936,645	Wisconsin.....	1,084,229
Mississippi.....	597,606	Wyoming.....	90,559
		District of Columbia.....	209,603
		American Samoa.....	800,000
		Canal Zone.....	
		Guam.....	
		Puerto Rico.....	
		Virgin Islands.....	

Dr. McMURRIN. A state could reserve up to 10 percent of its annual allotment to expand or improve the State educational agency's supervisory and related services, including research, development, evaluation, and promotion of improved instructional practices in the public schools.

May I point out, Mr. Chairman and members of the committee, that though the provision provides for the employment of these funds in the public schools, there is no question whatsoever but that private schools, as well as public schools, would greatly be benefited by such operation.

We have seen instances of things going on in the public schools that were obviously followed very closely by the private schools and in which the private schools benefit.

This is an extremely important provision, because educational leadership at the State level has become a critical necessity. Historically, many State departments of education have discharged their responsibility largely through systems of reporting, accounting, and routine inspection. Too often, their actual leadership role has been nominal.

For example, the State supervisors have an important leadership role in education, but generally they have been so few in number that they have been seriously handicapped in covering broad areas of the curriculums often assigned to them. As recently as 1959, in the entire Nation, there were exactly 13 full-time State supervisors in mathematics, the physical sciences, and modern foreign languages. Today, as a result of congressional action in enacting the National Defense Education Act, there are 145 full-time and 407 part-time State supervisors in these subjects.

However, only 10 States have supervisors of English instruction, and 10 have supervisors for the social sciences. There are only 53 State supervisors who cover elementary studies as a whole.

Mr. THOMPSON. This is testimony to the fact that the States will use Federal funds for these purposes if they are made available, is it not?

Dr. McMURRIN. It certainly is, Mr. Chairman. You have here an indication of the very large consequences that have resulted from, in this instance, a comparatively small outlay of funds under the National Defense Education Act.

I would say that the consequences of this investment for education in the country are immeasurable.

With the help of strengthened State leadership, and with additional financial assistance, local school districts, teachers, and school administrators can develop the practices and program in the schools that assure a high quality educational opportunity for every student.

Secretary Ribicoff made reference to one such effort in New York that has great promise, the Higher Horizons program. In every part of the country, imaginative and competent school administrators, public officials, and educators are at work on similar projects addressed to a variety of problems. In many instances they have had notable success, but from the standpoint of the total national problems, this is only a beginning. The assistance provided by this bill would swell that beginning into a major effort—with the prospect of a national breakthrough.

The kinds of special projects that would be possible under this bill are so numerous that one can only describe the program by example. Let us consider the needs of the exceptionally gifted student. The failure to provide adequate instruction for such children is one of the most unfortunate features of most of our public schools.

A 1958 survey in Illinois showed that only 23 percent of the exceptionally able students were receiving special educational attention. It is estimated that as many as 42 percent of our gifted students are not making the progress in school of which they are capable.

Mr. THOMPSON. May I ask this: Would this section 201 of the bill cover projects to improve guidance and counseling services, or such things as psychological testing?

Dr. McMURRIN. This type of improvement is already provided for, Mr. Chairman, in as you know, title IV of the NDEA; and the work in this field is eminently successful.

A few States and a number of local school systems are making an effort to provide these students with instruction commensurate with their ability. The legislatures of Georgia, Illinois, and North Carolina, for instance, have recently appropriated funds for experimental and pilot programs for the gifted. Twelve Florida counties have initiated an experimental program involving 3,270 gifted children. These are simply examples.

There are a variety of programs for the gifted in some of our best schools. In the elementary schools of Los Angeles and Denver, consultants help the teacher to provide special materials and projects for gifted pupils. In the schools of Palo Alto, Calif., gifted students are allowed to move through the regular curriculum as fast as they can, and then are permitted to take additional subjects or advanced courses.

In Evanston, Ill., there are special "honors" classes, in which subjects are studied on a level of greater depth and difficulty. In the elementary schools of Miami, Fla., gifted children spend half the school day with the regular schedule and the other half with special teachers.

Similar examples are found in other schools. These programs work and they are needed in every school. But expense is the common denominator of each. The California pilot study on special programs for the gifted concluded that, over and above normal annual expenditures, amounts from \$119.40 per elementary pupil to \$269 per secondary pupil were required for such provisions as identifying the gifted child, curriculum adaptations, equipment, and personnel. A complete statewide program in California would incur these costs for an estimated 60,000 to 90,000 exceptionally gifted children in that State.

However, even a lesser effort would be enormously helpful. Many of our gifted students are never even identified in the schools. This is particularly true of culturally deprived children, but it is also the case with children from more favorable backgrounds. The development and application of techniques to identify talent is needed in all our schools.

Finally, H.R. 10145 would make certain amendments in the Cooperative Research Act to permit a wider and more effective application of the act to the research and development needs of education. At present, we are able to contract with institutions of higher education and State education agencies for specific surveys, demonstrations, or research projects. The contract device in itself is limiting, and we

cannot support continued, multipurpose projects, although this broader activity is more productive of both basic knowledge and its practical applications.

Essentially, the bill would authorize the Commissioner to support by contract or grant the individual project, and to make grants to pay part of the costs of educational research and development centers. The authority for the latter would be extended to include research, demonstrations, or survey projects submitted by nonprofit organizations and by local educational agencies.

The centers would be established and operated by colleges, universities, or other nonprofit organizations. They would be operated in close cooperation with State and local education agencies, where appropriate. The centers would be involved in a continuing process of developing new or improved instructional practices and materials and in the evaluation and demonstration of these in participating elementary and secondary schools.

It is anticipated that through this device of an educational research and development center it will be possible to combine the resources of several institutions of higher education with appropriate State authorities and selected school districts to successfully pursue research, experimentation, and demonstration on major basic and continuing educational problems.

The centers would be concerned with bringing together research findings in the behavioral and social sciences that have significance for education, conducting new educational research, and with the practical application of the findings. It is in the area of application that education lags so far behind medicine, agriculture, and industry.

New knowledge and ideas are of little use on library shelves. They must be applied, the applications must be evaluated, and the validated results must be made available for use in the schools. Such use would be made possible by the State grants provision of this bill.

The many facets of the task of improving the quality of instruction in our schools cannot be fully described in a brief statement such as this. For example, Mr. Chairman, there is the matter of inadequate or nonexistent school library services. The evidence of this inadequacy is shocking.

The bill provides for library resources incident to the special projects authorized in titles I and II. This is an essential provision, as it is impossible to have good instruction without supporting library materials and services.

I am confident that we can have high-quality education for all our children. It will require the determination to use every resource that can profitably and reasonably be applied to the improvement of education. The gravest consequences would result from our failure in this task.

H.R. 10145 proposes an appropriate and effective utilization of Federal resources to assist in the most critical tasks of educational improvement. I urge, sir, that it be enacted.

Mr. THOMPSON. Thank you, Doctor.

Mr. Pucinski?

Mr. PUCINSKI. Dr. McMurrin, I want to congratulate you for your very fine statement here this morning. I think you have certainly covered the whole field.

Dr. McMURRIN. Thank you.

Mr. PUCINSKI. You have pointed up the many problems that confront the Nation in trying to improve the quality of education. Would you say that there is any merit to a statement frequently heard that the people of America are in somewhat of a revolt against supporting educational programs because they are concerned about the lack of quality in education in so many instances?

Dr. McMURRIN. I think there is some merit in this complaint, Mr. Pucinski. I certainly do not believe that our educational establishment as a whole should be judged in this way. I believe there are enough instances of failure in education all along the line to warrant this kind of public concern.

Mr. PUCINSKI. I would agree with you that it would be very unfair to blanketly indict the whole educational profession because some excellent work is being done and you have cited some of the examples in your testimony. I do get a great deal of mail, I am sure other Members do, from parents who are extremely concerned about the quality of education. I wonder if we have not been so obsessed in recent years with the salary structures and brick and mortar phases of education that we have neglected to some extent a careful analysis of what is happening to quality?

Dr. McMURRIN. I certainly would agree that we have neglected the problem of quality. We, of course, have, as you well know, Mr. Pucinski, the problem of how we are going to get highly qualified, highly educated people into the teaching profession if we don't do anything about salaries.

It is, as I have indicated, a kind of vicious circle and we believe that whereas the general aid bill cuts through at the point of salary this bill cuts through at the point of the raising of the competence of teachers to make more of them qualified for better salaries.

Mr. PUCINSKI. Doctor, the Secretary made a statement here that we have 120,000 teachers leaving the profession for various reasons every year.

Dr. McMURRIN. Yes.

Mr. PUCINSKI. Has your Department made any study of what type of teachers are leaving the profession? I would suspect, and I wonder if you can either show me where I am wrong or perhaps confirm the statement, that it is the most qualified teacher who is leaving the profession because private industry offers her so many more economic advantages. Would there be any merit to that statement?

Dr. McMURRIN. I am afraid that your statement is all too true, Mr. Pucinski. We see every year large numbers of the highest qualified people leaving the profession, largely for financial reasons; that is quite true.

Mr. PUCINSKI. Then, Doctor, if that is true, and tragic as it may be, because many of these teachers are trained in our State teachers colleges at various advantages in the cost of tuition, we do in effect provide many facilities for training teachers only to see these teachers then leave the profession. If that is true, as you have stated, is there not then the danger that these 2,500 teachers that we would help with this Federal assistance ultimately would find their way into private industry? What safeguards have we provided here to make sure that these teachers will then remain in the teaching profession, if any?

Dr. McMURRIN. We don't have Federal safeguards on this matter, Mr. Pucinski. We would recognize, of course, that it is customary in matters of this kind for States or for institutions or school districts to make such grants to teachers only where there is quite clear evidence that this person expects to continue in the profession and certainly that he would return to the profession after his year of study.

Mr. PUCINSKI. This could be a criteria for the selection of these teachers?

Dr. McMURRIN. We certainly would assume that this kind of criteria would enter into the picture of the State's plan.

Mr. PUCINSKI. Would you have any estimate or any opinion how many of the teachers that have been helped through the NDEA, although the program is relatively new, I don't know whether we could find the figures, how many college students have been helped through the NDEA to get a college education for the purpose of teaching have left the teaching profession?

Mr. MUIRHEAD. We do not have evidence on that, Mr. Pucinski, because the program is not quite old enough.

Mr. PUCINSKI. I didn't think you would have.

Dr. McMURRIN. May I say, Mr. Pucinski, that I think you will find that the experience of the National Science Foundation for instance in its academic year institute program in providing instruction in mathematics and sciences for the past several years has been that a very, very small number of these highly qualified teachers have thus far left the teaching profession. This has been going on for something like 5 years.

The language program under NDEA has had the same experience; that is, the people that are highly motivated in the profession of a genuine love for teaching and who are identified in part as people who expect to continue in the profession are the ones that are normally given the grants.

Mr. PUCINSKI. Doctor, the other titles of this bill provide for project grants and other research. In view of the fact that you have 1,600,000 teachers in America today and this scholarship program would only be made available to 2,500 teachers which is really an infinitesimal part of the overall faculty in the country, would there be any merit to the theory that perhaps this money might be more wisely spent in developing the projects, the direction? You said in your testimony that many of the ideas developed in the various schools have been picked up by other schools and used very effectively.

Dr. McMURRIN. Yes.

Mr. PUCINSKI. Are we wise then in allocating any of this money for such a small number of teachers when perhaps that same amount of money could be used much more effectively in developing more research in the art of teaching?

Dr. McMURRIN. This, Mr. Pucinski, is a problem to which we gave great consideration. The decision to establish in the provisions of the bill what you might regard, in terms of the total number of teachers in the Nation, as a token program of scholarships, was made on the basis of the experience in the field of education of the very large influence that token programs have actually had, not only with respect to the teachers who were involved, because they are small in number, but on faculties in general and on the quality of instruction.

I have in mind a program, for instance, of the Ford Foundation which had to do with faculty from universities, making provision for advanced study, through grants from the Fund for the Advancement of Education to carefully selected faculty members. On the whole a very few but carefully selected university faculty members have had an enormous influence, we believe, in stimulating an interest in other teachers in taking a year off to advance their studies and to upgrade their knowledge, and in stimulating other agencies to make possible this kind of activity on the part of teachers.

The John Hay fellowship program is another example of such a program for secondary schoolteachers. We propose a program that would serve as a symbol and a stimulus. We believe that it would actually have results that would be far more extensive than would appear on the surface. Certainly, if this were not the case, the program would not be justified if it could affect only 2,500 teachers. We believe that the effect will eventually be to produce a large-scale operation of this kind financed from various sources, and to produce a genuine interest in the schools and in the faculties in the improvement of the education of those who are already teachers.

Mr. PUCINSKI. Doctor, in your testimony you cited very excellent examples of work being done at the local level, both for gifted students and for various other youngsters. I was wondering if as long as we are discussing quality of education whether one of the problems is not that too many local school boards have not discharged sufficiently their responsibility in insisting on a higher quality of education? You have areas in the country where there are funds and you have areas where they are running a fine school system as far as number of students in the classrooms, the number of classrooms, the number of teachers; yet you don't have the type of quality education that you have in other communities.

Is there a relationship in your judgment as Commissioner of Education between the understanding of the problem by the local school board members and the quality of education as produced in that community?

Dr. McMURRIN. I think there is a very definite relationship here, Mr. Pucinski. If I may, I would like to say that in my opinion the point that you are making can be extended somewhat more broadly. That is, it seems to me that the American schools have been offering the kind of education that the American people have asked for. If we have shortcomings in our schools, I believe this is something that we must lay at the door of all of our people and not simply at the door of the schools; the teachers, administrators, or even school boards.

The American public has asked for the kind of education that we have been receiving and I believe very frankly, sir, that we have actually been getting a better brand of education than we have been paying for. Now the American people are asking for a higher quality education. I think without any question the American schools at all levels are moving in the direction of providing the higher quality education. What is needed here is the kind of stimulus and assistance at crucial points that will enable them to do this.

Mr. PUCINSKI. Doctor, I think there is a great deal of merit in this bill. There are many things in here that certainly help improve the quality of education. I wonder, if you are not already doing it,

if we should not provide you with funds to establish a closer liaison between the Department of Education and the most effective techniques being developed throughout the country in education and the individual school board members of the 35,000 school districts in this country.

I get the impression that many school boards are complete captives of the local school superintendent and the school authorities, being just ordinary citizens from the community, not being versed in the subject of education other than whatever education they might have obtained along the way. I think that many school boards are actually beguiled by local school administrators and it would seem to me that perhaps we can improve the quality of education if we furnish these individual school board members a greater degree of material on this whole subject of education independent of their own local influences in their own local school boards.

I was wondering if you are doing that now and, if you are not doing that, whether we could not either in this bill or someplace else provide you with some funds and some assistance to deal directly with the school board members? I think then you would have a greater degree of pressure from local school board members on their school authorities to improve the quality of education.

Dr. McMURRIN. I think there is very much evidence to support your point, Mr. Pucinski, and that it has great merit. If I interpret your position correctly, I believe that the provision that we have already placed in the bill to enable us to establish regional research and demonstration centers will effectively do the very kind of thing you are referring to; where the Federal Government would on a matching basis provide funds that would permit the establishment of really high-level educational research and development centers that would reach right down into the schools and bring the schools and the standards of the schools, their techniques, the kind of things that they are doing into a close conjunction with the best thinking and the best practices that can possibly be identified.

Mr. PUCINSKI. Are you now doing any of this work in the Department of Education?

Dr. McMURRIN. We are, of course, funding educational research and the dissemination of the results of educational research, but we are not doing this thing that you are describing as effectively as it should be done and certainly not as effectively as it could be done if we could support the establishment of these regional centers.

You understand that if such regional centers were established the work in them would not be directed nor would that work be done by officials of the Federal Government. It is simply that the Office of Education would administer the funds to see that they were placed in those institutions that are best qualified to proceed to tie the resources of the universities and colleges up with the State school agencies and with the schools to enable this large process to be handled effectively.

Mr. PUCINSKI. Doctor, is this material you are now developing ever made available? Is it ever mailed to the individual school board members?

Dr. McMURRIN. Yes, it is. Perhaps Mr. Flynt would comment on that, Mr. Pucinski. It lies in his field.

Mr. FLYNT. We maintain close relationship with the school board association and a good deal of the mailings go to chairmen of school boards and of course the material reaches the offices of the superintendent. I believe, Mr. Pucinski, it is generally shared with the school board.

We have mailing lists of the school boards but this would greatly enhance our ability to give the type of demonstration that a school board member could see. It would be very much as the Agricultural Extension Service experimental farm and prototype program that you can invite a layman to look at. He understands it when he sees it rather than reading about it.

Mr. PUCINSKI. Thank you very much, Doctor.

Dr. McMURRIN. May I say, Mr. Pucinski, that we have recently been giving much attention to the very point of the effectiveness of school boards and the problem of school boards being kept up to date on the large issues in education. I quite agree that the Office of Education no doubt could do very much more than we are now doing to disseminate information in forms that would be attractive to people in the school boards and keep them informed.

We face, of course, the problem that we are simply interested in disseminating information and calling attention to the findings of educational research people in the various fields of education. We are not interested at all in causing members of school boards to suppose we are trying to tell them what to do. This can be for us a rather delicate problem as you know.

Mr. PUCINSKI. May I ask one more question, Mr. Chairman.

I think you put your finger on a very serious problem here, the great conflict of whether or not Federal assistance automatically means Federal controls. It seems to me though that the whole question of quality in education, to a great extent, rests with the standards of the local school board. I at one time gave serious consideration to the idea that if local communities would pay the transportation, perhaps our State Department ought to make available counterpart funds to any school board which wants to visit some other country where they have good educational standards, to broaden the horizons of local school board members so when they return they can compare their own standards with what they have seen someplace else.

We have a lot of money in counterpart funds and I think it could be put to good use in this way. Do you think there is any merit in a suggestion like that?

Dr. McMURRIN. I think there is a great merit to that. I think it is helpful to see how other people do things, in order to improve your own operation.

Mr. PUCINSKI. Thank you very much.

Mr. THOMPSON. Mr. Martin?

Mr. MARTIN. Yes. As I read this bill this applies to teachers in all elementary and secondary schools, both public and private: is that correct?

Dr. McMURRIN. One provision of the bill applies to public and that is the grants to the States. The other provisions of the bill would apply to public and private teachers. The private teachers would be eligible for scholarships and for attendance at institutes, private institutions could be a part of the regional research center operations, and so on.

Mr. MARTIN. Would this conform with President Kennedy's pronouncements in regard to this subject about the general Federal aid to education?

Dr. McMURRIN. Yes. We believe that this would conform, sir, and this is the judgment of our legal counsel.

Mr. MARTIN. Would there be any suggestions for these 2,500 teachers on these fellowships or requirements as to what subjects they should take at their college or university?

Dr. McMURRIN. I am glad you raised this question, Mr. Martin. These teachers would be required to study the subject that they teach.

Mr. MARTIN. Fine, I am glad of that. I would not want them to go back and take more courses in education and how to teach, when they have already had too many of them, at least many of the teachers have.

Dr. McMURRIN. You are quite right. We agree 100 percent with you on that.

Mr. MARTIN. In this bill I realize that it confines itself to teachers in the secondary and elementary school level but I believe we also need some assistance with some of our teachers, not all of them but with some of our teachers at institutions of higher learning, that they are not properly qualified to teach their subjects at the level at which they are teaching. Do you think there would be any merit in such a program?

Dr. McMURRIN. Certainly I believe there is merit, sir. In the NDEA amendments we did ask for funds that would make this possible. I call your attention to the fact that this bill, though not providing funds for further study by college teachers, would provide funds for the upgrading of the whole instructional operation of a teacher's college or school of education.

We believe that through this technique very great improvement can be effected in large numbers of our teacher's colleges, though there is not here money provided for study by the teacher. Certainly this is necessary in university faculties as you have indicated.

Mr. MARTIN. The point I am getting at is that a student for instance at the college level is somewhat handicapped by the nature of the background of education and the knowledge of his teacher at the college level. I think that we have some college teachers that are not properly qualified to be teaching.

Dr. McMURRIN. This is all too true. Of course, we do have at the present time the situation in which a larger number of college teachers and certainly a much larger percentage of college teachers under existing circumstances are able to obtain leaves of absence through sabbatical and other arrangements and receive either full- or part-time compensation during that period to advance their study.

In other words, the college and university teachers are in better circumstances to undertake further study than are the secondary and elementary teachers.

Mr. MARTIN. Isn't that a rather small percentage, however, of the total number of colleges and universities?

Dr. McMURRIN. It is a small percentage that makes provisions for sabbatical with full pay. A larger number give three-quarters or part-time pay, some will give a leave of absence and some no leave of absence whatsoever.

Mr. THOMPSON. Thank you very much, Doctor.

Mr. PUCINSKI. What is the culturally deprived child?

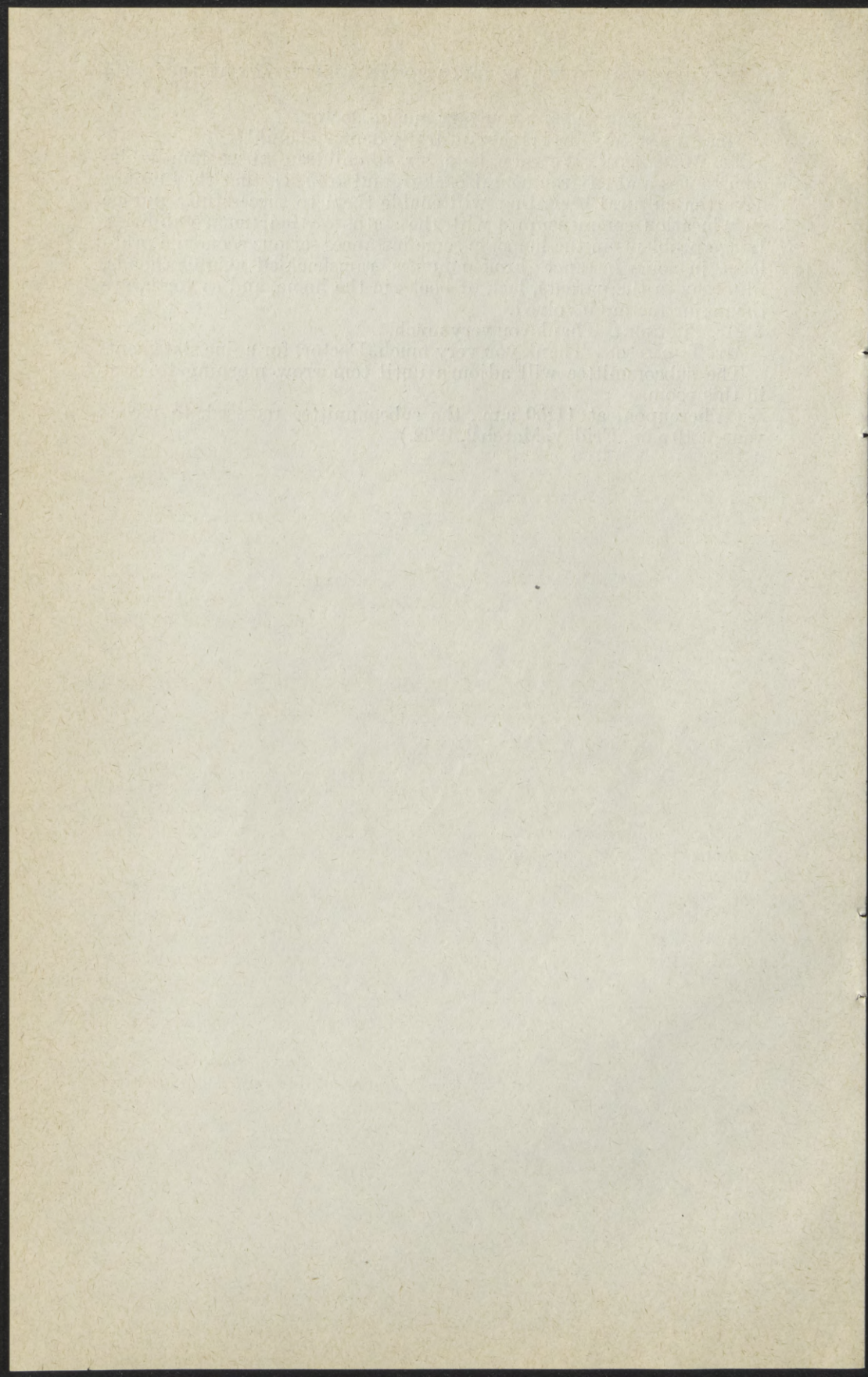
Dr. McMURRIN. We refer here, sir, to children whose family circumstances and environmental background are such that they do not have the cultural basis that will enable them to successfully pursue an education commensurate with the status of their native abilities. Large problems in the home, in some instances serious economic problems, in some instances broken homes, ramshackled neighborhoods, illiteracy in the parents, lack of books in the home, and so forth, are the major factors involved.

Mr. PUCINSKI. Thank you very much.

Mr. THOMPSON. Thank you very much, Doctor, for a fine statement.

The subcommittee will adjourn until tomorrow morning to meet in this room.

(Whereupon, at 11:50 a.m., the subcommittee recessed, to reconvene at 10 a.m., Friday, March 2, 1962.)



THE IMPROVEMENT OF EDUCATIONAL QUALITY ACT OF 1962

FRIDAY, MARCH 2, 1962

HOUSE OF REPRESENTATIVES,
SELECT SUBCOMMITTEE ON EDUCATION
OF THE COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met at 10:20 a.m., pursuant to adjournment, in room 429, Old House Office Building, Hon. Frank Thompson (chairman of the subcommittee) presiding.

Present: Representatives Thompson, Pucinski, Bruce, and Griffin.

Also present: John D. Hawke, Jr., subcommittee counsel, and Carla Otten, assistant clerk.

Mr. THOMPSON. The committee will be in order.

Our first witness this morning is Dr. Edgar Fuller, executive secretary, Council of Chief State School Officers, an old friend of ours and a frequent visitor in these precincts.

STATEMENT OF EDGAR FULLER, EXECUTIVE SECRETARY, COUNCIL OF CHIEF STATE SCHOOL OFFICERS

Dr. FULLER. Mr. Chairman and members of the select subcommittee, I might say first it is always a pleasure, Mr. Thompson, to appear where you preside and to talk in these "precincts." These precincts have had a lot of talk about these subjects in recent years. We hope to continue to have these talks until we arrive at some conclusions that are more fundamentally in line with what is needed than we have yet been able to obtain.

My name is Edgar Fuller. I am executive secretary of the Council of Chief State School Officers, an independent educational organization with a full-time staff of three persons here in Washington. We represent the State superintendents and State commissioners of education of the 50 States, and the chief school officers of Puerto Rico, Guam, Canal Zone, American Samoa, and the Virgin Islands. It is a pleasure to appear before your subcommittee, Mr. Chairman, and I appreciate the opportunity very much.

Mr. Chairman, the suggestions we have to make in regard to H.R. 10145 are based on adopted council policies unless stated otherwise. These policies are quite complete, with the principles most applicable to the legislation adopted as recently as November 1961. At that time the council adopted, without dissenting vote, the following policy on special aids to education:

SPECIAL AIDS

The council believes that the interests of American public elementary and secondary education will be served best by permanent, broad-purpose Federal financial support rather than by limited, emergency Federal aid for special purposes. The council opposes as a permanent policy the acceptance of the special-aids approach, except as provided for below.

Special aids to education shall be opposed unless all three of the following criteria are present:

- (a) The educational need is important.
- (b) This need will not, as a practical matter, be met by general Federal support legislation.
- (c) Passage of the special aid authorization will not interfere substantially with the passage of more general Federal support legislation.

Specifically, I also discussed the provisions of this bill with approximately 18 chief State school officers in Atlantic City on February 19, 1962. As we move from one provision to another, I shall comment about what the attitudes of these chief State school officers appeared to be on the several provisions.

Title I—Improvement of quality of teaching in elementary and secondary schools: Section 101 provides Federal funds for institutes for advanced study for teachers. We believe this provision meets the standards set by the council's quoted policy for support of special aids to education, since the results sought would not ordinarily be achieved under general Federal financial support of education. On this ground, then, the council would favor section 101 of the bill.

On other grounds, however, we would suggest some changes in it. Section 101 is written in language almost completely discretionary, with the U.S. Commissioner of Education exercising the discretion. For his protection from pressure groups, and because we believe education is so much a State and local function that no Federal official should exercise such complete discretion in regard to it, we suggest that an advisory committee be established to share responsibility with him.

We believe there should be statutory guidelines to insure that the subject matter areas from which the teachers would come would not be too restricted. Perhaps some percentage of the grants made for the country as a whole, such as 15 or 20 percent, should be established as a maximum for any subject-matter field. This would insure better balance and tend to prevent discrimination among certain classes of teachers who teach important but less advertised subjects.

We would also favor a provision that the Commissioner shall give preference to subjects generally accepted as meeting graduation requirements of accredited high schools rather than as in the present bill, preference to subjects generally accepted as meeting college entrance requirements.

The real difference here is not great, except as the words may be interpreted, since college entrance requirements have no uniformity whatever. Any graduate of an accredited high school may choose among many colleges, but college entrance requirements may be thought of in ways unfair to large regions of the country. To adopt the normal college entrance requirements of some groups of colleges may be peculiar and irrelevant to the subject matter that needs to be given in some teacher institutes in other colleges and in other regions of the country.

Section 102 of title I provides for scholarship grants for outstanding teachers in elementary and secondary schools. We have two reservations in regard to this—although in general we do support it—one is that the chief educational officer of the State, rather than the Governor of the State, should be responsible for establishing whatever selection committee may be established under its terms.

Our second reservation is the payment of a gratuity of \$500 to the institution that receives each scholar. This goes to all kinds of institutions and is merged into their operating funds. The council's policies do not favor the payment of tax funds to church-controlled institutions for these purposes.

Section 103 of title I authorizes project grants to strengthen teacher preparation programs. This is a rather vague section in which the Commissioner is authorized to make grants of unstated size for unstated periods of years to pay part of the cost for special projects designed to strengthen teacher education programs through improvement of course content and curriculums, and in other ways.

The entire program is discretionary with the Commissioner, except that no project may be granted until it has been evaluated and recommended by persons who are competent to do so. The evaluators would be persons the Commissioner believes are competent to evaluate the project. We believe there should be an advisory group established by statute.

We believe this section vests too much educational discretion in a single Federal officer. This viewpoint is entirely without reference to the Commissioner who is now in office, for whom we have the highest respect, but is based on the general principle that in a field so important as public elementary and secondary education such discretion should not be granted to any Federal official without more definite guidelines by Congress.

Title II would authorize \$50 million for each of the next 5 years—

* * * for making grants to State educational agencies * * * to assist in the conduct of pilot, demonstration, or experimental projects of local education agencies designed to improve the quality of instruction in public elementary and secondary schools, and to assist in the expansion and improvement of State educational agency activities in developing, evaluating, and promoting the broader application of improved instructional practices of such schools.

Each State education agency would be required to submit a State plan, to be approved by the U.S. Commissioner of Education. Mr. Chairman, this is a type of special aid which allows a large amount of State and local leeway in the details of what is done, but at the same time leaves a Federal hand rather heavily and expensively on the entire operation.

Title II seeks results similar to those sought by title III of H.R. 10180, the so-called bipartisan Bailey bill. It is also somewhat similar to section 109 of the bill passed by the Senate last year. It was the unanimous opinion of the chief State school officers at Atlantic City on February 19 that this legislation should be a part of the Bailey general Federal support bill, and should not be passed as a special aid law.

As a part of the Bailey bill, it would balance the influence of the State aid systems by providing projects for urban areas. It falls within the ban on special aids adopted in the resolution in Baltimore,

in the opinion of the chief State school officers, because it would interfere with the passage of broad general support legislation.

I am certain, Mr. Chairman, that the differences between title II of H.R. 10145 and title III of H.R. 10180 can be ironed out so that the purposes of both can be met as a part of the broader legislation. Secretary Ribicoff reaffirmed his belief in a broad public school bill before this subcommittee yesterday. In H.R. 10180 we have a bill that commands the most powerful State support any similar bill has ever enjoyed. We recommend it to your consideration, along with H.R. 10145.

Thank you.

Mr. THOMPSON. Thank you very much, Dr. Fuller.

Dr. FULLER. I might say further that this testimony is rather brief and not documented especially because on Tuesday and Wednesday we did present this much testimony [indicating statement] on essentially the same subject, and we hope that this will get printed and distributed in the Congress and that it will be taken into account by Secretary Ribicoff and by Commissioner McMurrin, by Mr. Powell, and by the numerous committees of the House Committee on Education and Labor whenever there is any legislation that affects either the State educational agencies or the public elementary and secondary schools of the country.

Mr. THOMPSON. I have seen that statement, Dr. Fuller, which some people measure by inches and others by pounds.

Dr. FULLER. That is right. We prefer pounds.

Mr. THOMPSON. Thank you for your statement which, as usual, is helpful. I will not take time to analyze the criticisms in it, except to say to you that we certainly will look them over in the marking up process. I am struck by the constructive nature of your suggestions.

There is one in particular that seems to me to be—and the only one I would really take issue with—a very narrow and picayune construction, in my opinion. That is your reservation about the allowance to the institution receiving a scholar on the grounds that the Council's policy does not favor payment of tax funds to church-controlled institutions.

In view of the fact that these are institutions of higher learning, and further in view of the fact that the national policy on this question has never encompassed higher education—indeed, in many ways it has helped higher education, even through church-related schools, such as in the National Defense Education Act—it just seems to me as through this goes a long, long way to find something critical on that basis.

I do not mean to nitpick with you. I happen not to agree with this. A tremendous proportion of the Nation's colleges and universities have at least a nominal connection with one denomination or the other. Some are very strong and others are not. And without those institutions such a thing as higher education in the United States would not be possible.

On the other hand, we do have a national commitment to a system of public schools, and it is on this ground that differences arise. So that I hope you will not pursue this type of argument too far.

Although I had the pleasure of being at the convention in Atlantic City in February, I was not aware that it took specific action with relation to bills. Apparently it did. Is that right?

Dr. FULLER. I referred only to our own organization. For the members who were there we had a board of directors meeting and others were invited in. There were 22 of them, I think.

Mr. THOMPSON. I see. And it was on that basis that you apparently endorsed Mr. Bailey's bill 10180?

Dr. FULLER. It was not on that basis. We have in writing from 51 of the 55 chief State school officers a complete unequivocal endorsement of 10180.

Mr. THOMPSON. I see.

Dr. FULLER. On national policy, when you mention, Mr. Thompson, the national policy in regard to this payment to church-controlled colleges and universities, you must be referring to the Washington policy when you say "national," because I have copies here of 50 State constitutions, and almost every one of them denies any State tax dollar for that purpose in the constitution of the State.

And also, so far as our organization is concerned, its policy covers all levels of education equally and is opposed to any tax funds for church-controlled institutions. So when you say "policy in education" or "national policy" in education, it seems to me that it depends upon how seriously you take the 10th amendment to the Federal Constitution which left education among the powers reserved to the States. The State constitutions are practically unanimous in this in the opposite direction from that which you stated. The chief State school officers are practically unanimous in the opposite direction from the way you state it.

So the national policy in education, I think, has to be construed. You have to determine what is the national policy in education under our system of State and local autonomy and the 10th amendment to the Federal Constitution. So I think we are certainly not going to be together on this issue if the Congress continues to vote public tax funds to sectarian controlled institutions at any level. You will find that the State tax dollar is not permitted to be used that way, the local tax dollar is not permitted to be used that way; it is only the Federal tax dollar that is being used that way. And from our point of view it is against the national policy in education.

Mr. THOMPSON. And the only manner in which it is being used that way is in higher education. Is that not so?

Dr. FULLER. With some other exceptions which have not yet been tested in the Supreme Court for constitutionality. There are a few other exceptions.

However, I think this might be a good point to bring out what I believe you have mentioned before from time to time, and bring it up in connection with the extensive evidence and testimony that we have submitted on a bill closely related to the one before this subcommittee.

In States where the State constitution, the State laws, and the State public policy in education permit pupil transportation as an auxiliary service, where private school pupils may ride public school buses to their own private schools, this is done under the State constitution, and the State laws, and the State policies in a technical sense as a part of the public school purpose in about 16 States in

varying degrees. This is a fact. In three States the supplying of textbooks in secular institutions at public expense is permitted.

Mr. THOMPSON. The transportation question was discussed and decided in the *Everson* case, in which the Supreme Court set forth its opinion.

Now back to this \$500. This is not a grant to an institution in the sense that it is to be used for any purpose. Actually it is just part of the cost to the institution of maintaining the particular scholar.

It might be that, in order to satisfy objections such as yours, some device should be found whereby, since this is at the higher educational level, the total amount goes to the scholar and he gives the college or university \$500 more.

Not only in a program like this, but in the higher education bill and other programs, we can scholarship the colleges and universities right out of business, and unless there is some cost-of-education granted going to the college for its purposes, you are asking the college teacher to subsidize scholarships.

A great many colleges and universities today will not accept scholarship money unless with the understanding that a certain part of it is to be left with the institution for the cost of having the youngster who is going to get the remainder come in. And this is only reasonable and only fair.

It might well be there is a constitutional question involved here. I think it is a very narrow one.

Mr. Pucinski.

Mr. PUCINSKI. Dr. Fuller, it is always a pleasure to have you before our committee if for no other reason than you and I violently disagree in our views.

Dr. FULLER. Not violently, but quite completely.

Mr. PUCINSKI. You mention on page 2, "we suggest changes in section 101 to protect this program from pressure groups."

Dr. FULLER. Yes.

Mr. PUCINSKI. I wonder if you could identify some of these pressure groups.

Dr. FULLER. Yes. I think I used the term there in a rather broad sense. I think that the subject matter teachers in most subject matter fields tend to be promoting their own stuff, so to speak. I was a college president once, and I know that in the faculty there was competition between this department and that department and the other department to get more personnel, to get higher salaries, to get more laboratory assistance, to get the nicest rooms, to get the cleanest chalk boards, and all of the rest. There are people who are all out for educational television. There are other people who are all out, and are promoted through commercial sources, for audio visual aids, and the increase in audio visual aid use.

Mathematics, science, modern foreign languages were the fair-haired boys among the academic subjects of the National Defense Education Act. Now, according to Commissioner McMurrin's testimony yesterday, it is English.

In a statement 2 years ago the chief State school officers, not unanimously by any means, but by a majority, thought that the NDEA ought to be broadened from science, mathematics, and modern foreign

languages to include five other subjects: English, geography, history, government, and economics.

Mr. PUCINSKI. Would you not draw a line between these people coming before Congress, or going before a school superintendent in this instance, and providing a very worthy service of guidance on the basis of their experience, which is a necessary element of all legislative process, and actual pressure, as you describe it?

Let me say, in connection with that question, do you not think it is perfectly proper for the teachers who are concerned with the fact we are not teaching enough math in American schools to let their views be known to proper authorities? Is this bad or evil?

Dr. FULLER. No; it is not. But as I said in the testimony—let us go back to illustrate again—science, mathematics, and modern foreign languages. These were picked by the Congress as subjects to emphasize. I have no quarrel with that. We worked very hard ourselves to promote title III of the National Defense Education Act.

Mr. THOMPSON. I have a quarrel with it, but the view that a minority of us on this committee took was not listened to. I would not have, and will not if the opportunity ever presents itself again, allow preferences. I think even the suggestion of expanding them by five is not enough. Where is the law? Where is music? Where are any other number of things? The National Defense Education Act is, was, and will be, unless it is properly amended, a gimmick. It was a sputnik bill.

Dr. FULLER. I agree—

Mr. THOMPSON. Everyone around here wanted to make instant scientists, instant mathematicians, and instant language students.

Therefore, that preference clause was put in, and it is absurd, because the youngster who gets preference because of his talent in any one of these subjects can go on and study anything he pleases once he gets the loan. So it is meaningless.

Dr. FULLER. I agree with you completely. I have no quarrel with it only in general. After the Congress enacted it, we cooperated fully in trying to make it work—but the bill that is favored by the chief State school officers and will be favored, I predict, more and more by educators throughout the country, is one along the lines of H.R. 10180, which lets the State and the locality define the things that are most needed in the State and local school systems. I do not see how anyone in Washington, D.C., could do that.

Mr. PUCINSKI. Through the school superintendent?

Dr. FULLER. The funds would go from the Federal Government to the State agency and then to the local agency, and there would be autonomy at the local level to determine the uses to which the funds are put, the things for which they are most needed.

In one school, I agree entirely, it might be one subject. In another school it might be an entirely different grade level and different range of subjects. And this is fundamental. And my agreement with you, Mr. Thompson, could not be more profound and thorough than it is in this field. I think the Congress has no business picking out subjects under our educational system. I think it is outside of its proper field when it picks out subjects for the elementary and secondary schools and says, "You shall teach this." How can they tell what the

needs are in 40,000 school districts? That is the reason we favor the Bailey proposal.

Mr. PUCINSKI. My question was in regard to this particular bill. Congress was not, at least in this bill, the author is not, proposing that Congress is going to specify the subjects that merit these scholarships. This is given to the U.S. Commissioner of Education. And your objection to that proposal is that he will be subject to pressure groups.

It is rather interesting to hear you make that observation. It is interesting to see that the educators among themselves are fighting for some position of prominence and expressing fear of other pressure groups within the educational system. This is what I gather from your statement here.

Dr. FULLER. This leaves to one person, who is a Federal official—

Mr. PUCINSKI. Yes.

Dr. FULLER (continuing). To choose, if he wanted to do so, to emphasize the teachers of one subject to the exclusion of all other subjects. And it seems to me that we ought to insure that there would not be that much personal discretion in any Federal official in regard to public elementary and secondary education in the United States.

Mr. PUCINSKI. So your suggestion is the creation of an advisory committee?

Dr. FULLER. I think an advisory committee would be advisable, and I also suggested some limitation on overenthusiasm for one subject, for the teachers of one subject. I read the Commissioner's testimony of yesterday, and I think his emphasis, quite properly, is on English. But English was not heard you see, in 1958. If it had been heard as strongly then as it is being heard now, through its newly organized channels, it might have been in the National Defense Education Act and maybe mathematics would have been left out, or something else.

I think we ought not to place in any individual Federal officer for education the right to have all of these teacher grants in one or two subjects. I think they ought to be spread out by statutory guidelines that would, first, insure a spread over more than one or two subjects; and, secondly—and I mean this literally—protect the Commissioner in the exercise of his discretion against overwhelming pressures from the subject matter people in the field.

Mr. PUCINSKI. I certainly want to congratulate you for your candor on this subject, and perhaps maybe we ought to start with Congress not listening to any more of these pressure groups in education and write our own bill. I think maybe that is where we have been getting into problems. We have been listening to these very pressure groups, and they have done a good job of completely confusing legislation, and are doing a good job, I think, of actually killing the legislation. So I am grateful to you for your views.

On page 4, carrying on the conversation started by the chairman here, do the public schools hire teachers who are trained and graduated from church-affiliated colleges?

Dr. FULLER. Oh, yes.

Mr. PUCINSKI. Would you estimate how many of the 1½ million public school teachers today have received their education and qualifications for the teaching profession in church-related colleges?

Dr. FULLER. If you take out those that are not operated, owned, and controlled by denominations, you have the remainder, including such institutions as Harvard, and Chicago, and Stanford, and Columbia, and large institutions that are privately operated but not controlled by any particular church. You have to draw that line. If you draw that line, about 10 percent are really church controlled, owned, and church related, something in that order. And perhaps a somewhat smaller proportion of the teachers they train go into public school teaching than come from the other institutions, the public institutions, and the nondenominational private institutions. I would say it would be under 10 percent, surely.

Mr. PUCINSKI. I have seen figures that about 600 of the Nation's universities have absolutely no affiliation with any religious groups, about 1,300 have some form of relationship with religious groups. Would that figure sound reasonably correct to you?

Dr. FULLER. No; it does not. The 600-plus are the strictly public ones. Many of the others, including most of the largest of the others, are not church controlled and church related, but are private nondenominational.

I have run down those statistics. I would say that most of the teachers are prepared, the largest number, first, in the large public institutions; the second largest number in the State colleges and those that have grown up from teachers colleges, or remained teachers colleges in a few instances; the third largest number from the nondenominational private universities; the small liberal arts colleges which are church related or independent train a relatively small proportion of the total number of teachers prepared in the United States.

Mr. PUCINSKI. Using your figure of 10 percent, we would then estimate that roughly some 150,000 teachers teaching in public schools now received their preparation and education in a church-related college?

Dr. FULLER. I think you would have to take away from that the number who went into teaching in the private colleges and private schools.

Mr. PUCINSKI. I am using your figure.

Dr. FULLER. I said less than 10 percent.

Mr. PUCINSKI. How many do you think there are?

Dr. FULLER. It is a guessing game.

Mr. PUCINSKI. Let's guess.

Dr. FULLER. I could not be precise. I would say that maybe 5 or 6 or 7 percent would be closer.

Mr. PUCINSKI. Somewhere around a hundred thousand?

Dr. FULLER. Perhaps, I do not know, no more than that.

Mr. PUCINSKI. Is there any evidence before your organization that any one of these teachers who received their education at church-related colleges has in any way not maintained the absolute standards set by all of the other teachers in the country?

Dr. FULLER. I do not believe there is any division on such lines, because the State agencies that I have the honor to represent do certificate their teachers as individuals, and those who meet the requirements do, and those who don't, don't. And there are about 90,000 teaching now who don't, and are teaching on emergency certificates.

Mr. PUCINSKI. Is there any evidence that you have been able to deduce that these teachers who have received their education in a church-related college and are now teaching in public schools have carried on particular views or theories into their educational process other than those being practiced by all the other teachers?

Dr. FULLER. None whatever.

Mr. PUCINSKI. Then I cannot for the life of me understand why you make the suggestion here that we not give a scholarship and a stipend to a young woman or young man who wants to pursue his studies in a church-related school.

Dr. FULLER. I am not suggesting any such thing, and my objection was not to that at all. The stipend to the individual is not objected to here.

Mr. PUCINSKI. To the school.

Dr. FULLER. It is the payment to the general operating fund of the school, which cannot be earmarked and applied directly to a particular scholar here any more than in title II of the higher education bill passed by the Senate. We opposed that there, we still oppose that, we hope it does not become law. We will oppose that at least until there are changes in the State constitutions and the policies of the States in education.

Mr. PUCINSKI. I am still completely at a loss to understand your position, because you just got through saying that the teacher who graduates from a church-related college takes the same position and carries on the same activities and meets the same standards as all of the other teachers in our public schools. Why?

Dr. FULLER. We have no objection to the scholarships.

Mr. PUCINSKI. Why are you now saying we cannot give that particular school the \$500 additional supplemental payment for the scholarship?

Dr. FULLER. We have no objection to giving that particular teacher the scholarship or the fellowship to be used, as under the second GI bill of rights, in any institution in which they choose to enroll. We do object to payment to institutions as institutions.

Mr. PUCINSKI. You do not object, though, to the \$500 payment to any other institution not related to any church organization, do you?

Dr. FULLER. We believe public tax funds can be used for public institutions of education at any level without objection.

Mr. PUCINSKI. Let me see if I understand your position correctly. You have no objection to the provision of this bill that would give a \$500 additional supplemental payment to the university or college to which a student under this scholarship program goes for additional work, as long as that school is a publicly owned or nonchurch related institution of higher learning; is this correct?

Dr. FULLER. That is correct.

Mr. PUCINSKI. You have no objection to that?

Dr. FULLER. That is right.

Mr. PUCINSKI. But you do object to the payment of \$500 to a church-related university?

Dr. FULLER. We do object to the payment of tax funds to church-controlled elementary, secondary, and higher institutions at the local level, at the State level, and at the National level. And this is the law and the policy and the constitutions of the States, and the break-

through is primarily here at the national level, what breakthrough there is.

Mr. PUCINSKI. And with that view notwithstanding, I am correct in my understanding you to have said earlier that the teachers graduating from the church-related schools take their place in the public school system as teachers with no prejudice, and their standards are equal to, or the same as, the standards of all of the other public school teachers?

Dr. FULLER. And they receive the same fellowships and scholarships to prepare to do so.

Mr. PUCINSKI. Thank you very much.

Mr. THOMPSON. Mr. Bruce?

Mr. BRUCE. Dr. Fuller, I would just like to make one observation. I am delighted to have the chance to see you face to face, because I thought I had had the privilege once before several years ago, and I found there is an imposter who has been representing himself as you. And this is a fact.

You appeared in Indianapolis several years ago at an educational convention as a speaker. I was in the news media at that time, and a gentleman came in and presented himself to me as you. We talked for about an hour and when he went out of there I thought either I was sick or he was, and it was not you at all. So I just draw your attention to the fact that there is somebody that is representing himself as you who has some very peculiar ideas.

Dr. FULLER. I would like to multiply my hands and my influence, because I am sincere in what I say, but I did not know I had an alter ego going around helping me in reverse, so to speak.

Mr. BRUCE. You would not be proud of him. He was really expressing very strange thoughts, and I am delighted to see you. I have had a rather reserved opinion as far as you are concerned. I have seen your name time and time again, and on the plane the other day I picked up, I believe, a Masonic magazine with an article you had written for them.

Dr. FULLER. I never wrote one for a Masonic magazine.

Mr. BRUCE. Are you sure?

Dr. FULLER. I am sure. It must be another Fuller boy, I guess.

Mr. BRUCE. Your name and your title was on it. I have it in my office.

Dr. FULLER. Was it a quotation from "State Constitutions," by any chance? That has been picked up.

Mr. BRUCE. No. It was dealing with patriotism and Americanism and this type of thing.

Dr. FULLER. I believe in it thoroughly, but I have not written anything on that subject for many years.

Mr. BRUCE. I will get it to you before you leave. I have it down in my office.

Dr. FULLER. There must be some other Fullers. I do know a couple of "E. Fullers," but I did not know any of them were writing things like that.

Mr. BRUCE. If I recall correctly, this one lists your title as it is listed here. It is an excellent article, by the way. I was quite pleased.

Mr. THOMPSON. Maybe an alter ego is not so bad after all.

Dr. FULLER. Maybe I will claim it. No, I do not recognize it. I have not done anything like that.

Mr. BRUCE. On page 3 of your testimony, would you elaborate just a little bit on the second full paragraph where you are raising a question as to the phraseology of the bill and suggesting the change to "generally accepted as meeting graduation requirements of accredited high schools"? Is there really any greater degree of uniformity across the country of high school accreditation than there is in the college entrance?

Dr. FULLER. I think that is a rather important difference in the approach. Let me say this: A graduate of a high school in the United States can always enter a college. There is an almost complete range of institutions when you count the junior colleges, more than 2,000 of them, and a graduate of a high school, even an unaccredited high school, can get his chance in college in the United States.

When you say "graduation from an accredited high school," then almost certainly in any State in any part of the country a graduate could enter the State university, or some of the public institutions in that State, and probably some private institutions in that State; and he can probably go across State lines.

But when you say the words "college entrance requirements," you strike up some images that are very different from region to region. College entrance requirements are a big bogeyman in the mind of parents, ambitious parents particularly, of students who want to go on to certain colleges and universities. And we have a great political furor going on all the time about this matter of college entrance requirements.

Now we have all kinds of institutions. Some set very high standards. Others, in certain parts of the country, have great favoritism for requiring 2 or 3 years or 4 years of language, or perhaps Latin, requiring 4 years of English in high school before the student can enter college instead of 2 years of English or 3 as may be required in other States.

So college entrance requirements, to be interpreted by a single Federal official as here, is the sort of thing we prefer to avoid. This concept is not universal, is not regionally applicable in the same way, and does not strike up the same images in the minds of people, particularly parents of high school students. It does not have the broad universality of application that would be had here if you could say "graduates of an accredited high school." I think the latter is generic, the other is special. And I think that although, as I said in the testimony, there may not be too much real difference in fact, I think it is better to put it on the broad democratic base of graduation from an accredited high school rather than college entrance requirements, which in the Ivy League are one thing, which in the State universities are something else, and which in the small liberal arts colleges are something else again. There is less uniformity, less universality, more restriction, more room for doubt, more room for misunderstanding if you use college entrance requirements than if you use graduation from an accredited high school.

I would not shed any blood over that argument, but I still think fundamentally this would be a little sounder in its approach if it did that.

Mr. BRUCE. Thank you.

On page 5 you refer to the objection, apparently, that each State education agency would be required to submit a State plan, and the grounds of your objection are twofold, as I interpret your testimony: one, that you have a concern about what you call a heavy Federal hand; and, secondly, the cost.

I would like to have you expand a bit on the first. What do you mean?

Dr. FULLER. Heavy Federal hand?

Mr. BRUCE. Yes.

Dr. FULLER. Well, I come back to the perfect coincidence with Frank Thompson, the chairman here, as it relates to the paperwork.

When you have Federal funds which are distributed for specific subjects or specific purposes, and then you have State plans which are required of the State educational agency which lay out blueprints of how the State department of education proposes to administer these funds to local school districts, you have a local-State-Federal network of paper.

There are two ideas, it seems to me, that are important.

In the first place, as far as our organization is concerned, we want to respect State and local autonomy in education. We do not want Federal control of education. Even if it is not Federal control in a strict sense, we do not want too much Federal interference and paperwork. We do not want too much discretion in a Federal official. When you have this network of paper, this Federal-State-local network of paper on the basis of statutes which provide specifics, you have a Federal buildup, like that in the Office of Education in the staff under the National Defense Education Act, for instance. A whole series of special aids have built up a staff beyond anything that could be justified in terms of the educational results in the classrooms where the children and teachers are. So we like title III of the Bailey bill better. It has a State allocation. The checks are written from Washington and there is not any Federal discretion. The discretion is placed at the State level in regard to projects which come from the city under much the same terms as in this current bill.

Mr. BRUCE. Have you had a chance to have experience with it to see whether or not it would not be involved in the same type of thing that you are concerned with in this phrase?

Dr. FULLER. There simply are no State plans authorized in the law.

Mr. BRUCE. But you still are going to have to fill out the forms and meet the requirements.

Dr. FULLER. There would be no Federal forms, no Federal forms for reporting.

Mr. BRUCE. You do not think they would develop?

Dr. FULLER. I know they would not under the bill unless it is amended to provide for them, because they are not there.

Mr. BRUCE. It would just be money we ladled out, and you could apply it as you wanted.

Dr. FULLER. It would be allocated on the formula to the States. The States would receive the project from the local community. They would approve those projects, and certify them to the Federal Government.

Mr. BRUCE. The State would?

Dr. FULLER. That is right. In other words, that is what we really believe, in State and local autonomy in education, is that the important decisions on details not be made for 40,000 school districts in Washington.

Mr. BRUCE. But they will vary, will they not, from State to State rather strongly?

Dr. FULLER. They would vary according to conditions there, sir. I think they should vary. I think that is the reason why we do not like to put things in a Federal straitjacket. Things are very different in Arizona than they are in Massachusetts.

Mr. BRUCE. I agree with you.

Dr. FULLER. Or in Illinois than they are in Alabama.

Mr. BRUCE. I am just raising the question of whether you can, in practicality, maintain that local autonomy that you are talking about with Federal funds, and whether it is justifiable to do so from funds that are coming from the Federal level; whether, when you are spending funds at the Federal level, you do not require a certain uniformity of operation. Certainly, if we ladled funds out from the Federal level to the States on highways, where one could make a two-lane and another a four-lane highway without meeting specifications, we would have kind of a hodgepodge, would we not?

Dr. FULLER. A four-lane highway in California is quite similar to a four-lane highway in Florida or somewhere else.

Mr. BRUCE. The needs are not entirely the same. Many times you do see four-lane highways where you wonder why.

Dr. FULLER. I would be the first to deplore the excessive regulations in any field, but I would be one of the first to admit that in the field of highways, where it takes about so much cement and about so much strength to permit the interstate trucks to travel over it and use it without breaking it down, a Federal regulation might be justified.

But in education, dealing with 40 million youngsters and a million and a half teachers in all of the grades, subjects, grade levels, and all of the imponderables, the immeasurables, the person-to-person contacts there, and the method of learning itself, which is not as measurable as cement—in these instances we just simply cannot have educational direction from Washington. Federal control of education is anathema to us. We do not like it at all.

Mr. BRUCE. The only question I raise is if you are not dealing in a theory rather than a practical matter.

Dr. FULLER. No, we are dealing with practice. The State agencies themselves, Mr. Bruce, are increasingly on a service and assistance basis rather than an inspection and control basis to local communities.

Mr. BRUCE. My only observation is that you are dealing, in your thought here, with a different type of Federal bureau than what I have seen in a year or a little better so far. I think it is a nice idea to believe that you are going to get a Federal aid-to-education program without Federal guidelines, as you refer to them. But I question seriously whether you are going to be able to stop it there. It grows like Topsy.

Dr. FULLER. As far as I can judge, from working in all of the States, if you were to ask American citizens throughout the country, citizens in all classifications, you would not find two out of a hundred who will not say that they are against Federal control of education.

Mr. BRUCE. Oh, absolutely.

Dr. FULLER. And Congressmen stand up on the floor of the House here and say they are against Federal control of education, and then they vote for bills that are just full of it.

Mr. BRUCE. I am strongly opposed to it.

Dr. FULLER. And they have done it repeatedly.

Mr. THOMPSON. That is when the bill benefits their district.

Mr. BRUCE. I think you will find my votes pretty consistent on that matter.

Dr. FULLER. I hope so, and I certainly agree with your viewpoint.

Mr. BRUCE. The only place where we differ is whether or not you can achieve what you are talking about, which is a Federal aid, and stay free of Federal control. It is a nice theory, but I am not at all convinced it is a practical theory, that it will work that way.

Dr. FULLER. May I have just another moment, Mr. Chairman?

Mr. THOMPSON. Yes.

Dr. FULLER. The way the Federal funds are used ought to be the way in which they will do the most good for education. We believe that it is not only desirable that there not be Federal control, but we believe these Federal funds will do a great deal more good for education in the place where they are needed the most without Federal controls than with attempted Federal controls. We think beneficial Federal control of education is physically impossible in 40,000 school districts.

We would say it can be done without Federal control. You have an equalization pattern from the Federal to the State agency. Then you have State aid systems with $5\frac{1}{2}$ billion, nearly \$6 billion worth of State funds now distributed in foundation programs from the States to 35,000 or 40,000 local school districts. A tremendous fund, almost \$6 billion a year. And these pay 40 percent of the total cost of public education. And in that distribution the equalization to the point of greatest need may be as high as 50 to 1 in favor of the poor districts as against the wealthy districts. And then again, within the district itself, you have equalization between the wealthy community on the one side of the county and the shantytown, or the manufacturing town with a large school population on the other side of the county. You may have 10 or 20 or 30 or 50 to 1 equalization within the district, within the State, and some equalization from the Federal Government to the State.

Now when you put these all together, there is no physical possibility for anybody in Washington to see what these needs are in 40,000 districts and allocate those funds.

Mr. BRUCE. I agree.

Dr. FULLER. With the wisdom that can be exercised with the States and localities.

Mr. BRUCE. But it does not always follow that the practicality of their ability to do it out of Washington is the guideline of the attempt to try to do it out of Washington. I will not pursue it any further.

Dr. FULLER. We will cooperate with you completely in preventing any attempts to do it out of Washington.

Mr. BRUCE. It is rather difficult once it is started, however.

Mr. THOMPSON. Doctor, Mr. Pucinski has one more question.

Mr. PUCINSKI. Doctor, this bill is fundamentally designed to help improve the quality of American education. Now yesterday I asked Dr. McMurrin if there was any merit to the expression you frequently hear—the American people are in revolt against the educators for the lack of quality in the educational process. And this has been frequently cited as the reason for the defeat of local school bond issues in many parts of the country.

I wonder if you could tell me what your organization is doing to improve the quality of American education. You are the State administrators of the educational facilities.

Dr. FULLER. First, let me say I think the American public is not in revolt, generally speaking.

Secondly, I would say that education is better now than it has been heretofore. It is of a higher quality in every way that I know anything about. We do not have as many weak spots as we had 10 years ago or 5 years ago, and we are educating at a much higher level.

So I will not accept the premise that the American public is in revolt about the quality of education, because the quality of education is being improved.

What do we do at the State level? I just mentioned just \$6 billion a year which goes to State aid on an equalization basis according to the greatest need to the local classrooms where the children and teachers are.

What do we do on the State level? We exercise leadership there in all aspects of education. The State departments of education are more effective than they have ever been in the history of the country, by far, in improving education.

Mr. PUCINSKI. When these deans of colleges and universities come in and say the youngsters that are coming in from the secondary level are unable to qualify for admission to college, you feel they are not being fair to your system?

Dr. FULLER. The deans of colleges and universities have always lamented that fact—the high school teacher laments the fact that the youngster out of grade school does not know his arithmetic. And the eighth grade teacher laments the fact he did not get it in the seventh grade. And they finally deplore the parents, and the parents lay it on the grandparents.

This is endemic; it has always been true. It is less true today, less true today in the United States with regard to education than it was 10 years ago, or 20 years ago, or 30 years ago.

In fact, we have all kinds of compliments from college presidents, deans, on the quality of the students they are getting. They are getting a better quality of student than they ever got before out of high school.

Mr. THOMPSON. Thank you, Dr. Fuller. We will hear from those deans in a few minutes.

Dr. FULLER. I hope they do not say I am wrong.

Mr. THOMPSON. We have the good fortune to have a number of distinguished witnesses who have taken this legislative proposal and have divided it up among them in its various parts. Now the House is not in session this afternoon and, therefore, we can sit. It might be quite impossible for us to finish by noon, or we could go to 12:30. It might also be necessary to come back this afternoon for a brief time to finish.

Are there any of the proposed witnesses who would not be able to return this afternoon?

Dr. STILES. We have four, I think, Mr. Chairman, who could not return this afternoon. I believe the others could.

Mr. THOMPSON. Why do we not start with the four then?

Dr. STILES. Dr. Keppel will be first, Mr. Straubel second, Dean Engbretson third, and I will be fourth.

Mr. THOMPSON. Why do you not come up at once, the four of you?

Dr. STILES. Fine.

For the afternoon session Dr. Carson Maguire of the University of Texas will serve in Dean Temple's place as kind of chairman and coordinator of the group.

Mr. THOMPSON. Will you identify yourselves for the members and the reporter? We will appreciate it.

Dr. STILES. This is Dean Engbretson. Mr. Straubel is next. This is Dean Keppel from Harvard University, and I am Dean Stiles from the University of Wisconsin. Dean Keppel will present his statement first.

Mr. THOMPSON. You may proceed.

Dr. KEPPEL. I am also acting as messenger, if I may, sir, from the commissioner of education of Massachusetts, Mr. Kiernan, who regretted he could not accept your kind invitation to testify because of other engagements. He asked me to bring down, however, a document, which I will present for the record, if I may, in which he says:

I am asking that Dean Keppel will record my most enthusiastic endorsement for H.R. 10145. In addition, the Commonwealth's board of education reviewed the provisions of H.R. 10145 at yesterday's meeting, and the nine members wished to be recorded as proponents.

I wonder if I may offer that.

Mr. THOMPSON. Without objection, the statement which you brought down on his behalf will be entered in the record at this point before your testimony.

Dr. KEPPEL. Thank you, sir.

(The letter and statement follow:)

THE COMMONWEALTH OF MASSACHUSETTS,
DEPARTMENT OF EDUCATION,
Boston, February 28, 1962.

HON. FRANK THOMPSON, Jr.,
Chairman, Select Subcommittee on Education, House of Representatives,
Washington, D.C.

DEAR REPRESENTATIVE THOMPSON: I wish to acknowledge your letter of February 23 with reference to the administration's proposed legislation to improve the quality of elementary and secondary education.

Unfortunately the hearing dates on H.R. 10145 already are committed so that a personal appearance is not feasible. It is my understanding, however, that Dean Francis Keppel of Harvard will testify on March 2 and I am asking that he record my most enthusiastic endorsement for this proposal. In addition, the Commonwealth's board of education reviewed the provisions of H.R. 10145 at yesterday's meeting and the nine members wish to be recorded as proponents.

By way of a brief background on the Commonwealth's interest in this legislation, Dean Keppel and I were privileged to discuss just such a project with the Honorable Sterling McMurrin, U.S. Commissioner of Education. Dr. McMurrin was most receptive to the idea and encouraged us to submit a tentative plan for possible implementation in Massachusetts and throughout the Nation. The enclosed copy of "A Proposal to the United States Commissioner of Education" (August 8, 1961) describes our original thinking. I have enclosed also two other publications touching on the need for programs such as those envisioned under the Improvement of Educational Quality Act of 1962.

First, in my brief introductory statement for the annual report of the department of education, you will find a section entitled "The New In Education" (pp. 5-8). The participation of the four partners, viz the State department of education, the local school systems, the universities, and the U.S. Office of Education is covered in the last paragraph of this section.

The second publication deals with the need for establishing adequate programs for gifted children and is entitled "The Education of Academically Talented Pupils." To launch projects of this dimension, a broader tax base is necessary and the support of the Federal Government is required. The \$50 million for the fiscal year ending June 30, 1963, and for each of the 4 succeeding years as proposed in title II will meet this need.

Therefore, we earnestly solicit the support of the Select Committee on Education in seeking favorable action on this measure during the 2d session of the 87th Congress.

Yours very sincerely,

OWEN B. KIERNAN,
Commissioner of Education.

A PROPOSAL TO THE U.S. COMMISSIONER OF EDUCATION BY OWEN B. KIERNAN, COMMISSIONER OF EDUCATION OF MASSACHUSETTS, AND FRANCIS KEPPEL, DEAN, HARVARD GRADUATE SCHOOL OF EDUCATION

The American people seem to be prepared to improve the quality of their schools. This is shown by the lively interest of the public in all sorts of plans for educational reform, and in the grave concern expressed as to whether American education is good enough to meet both foreign and domestic challenges. There is a willingness to consider new ideas accompanied by an understandable wish to be sure that the new is indeed better than the old.

These public views are reflected, of course, in the attitudes of many school boards and in the professional staffs of the schools. It is possible to experiment in ways that might have been impossible because of parental views only a few years ago. The trouble has been that the schools do not have available the specialized staffs to conduct such experiments in the style or at the depth that is needed. The result has been a great flurry of activity but not much solid evidence on what new program or technique produces what results. There is, in fact, some danger that the public may become disillusioned if too many new ideas are launched with a blast of trumpets and then die with barely a whimper. This suggests that something should be done fairly soon lest the advantage of public concern become a liability rather than an asset.

Recent years have also shown a marked change in university attitudes toward elementary and secondary schools. The deplorable habit of leaving such matters, a bit disdainfully, to the schools of education is now happily under review. And quite a number of the schools of education are embarked on a vigorous effort to forge firm links with the intellectual life of the university as a whole. Furthermore, there have been established, largely through the support of private foundations, the beginnings of joint programs of research and development between public school systems and universities. Such centers may now be found, for example, at Chicago, Harvard, Stanford, and Wisconsin, to mention a few of the larger efforts.

These efforts, however, are new and not wholly clear in their purpose or established in their procedures. They lack, perhaps above all, a proper relation to national needs on the one hand and to school practice on the other. There is no way for these centers to help in assessing the value of their programs of research and development on a wider scene than their own operations. They lack any effective way to check their results against those of other centers, and they suffer from being at the mercy of local fashion and the perils of too little support for too many ideas.

Finally, and perhaps most important of all, the Federal and State Governments have entered the scene of research and development and are prepared to give the leadership that is needed. We need not comment on the role of the U.S. Office of Education and its several research programs except to emphasize that the cooperative research program has already brought some excellent research programs into universities and that the National Defense Education Act has made possible important efforts in the development of educational ideas through the State departments of education. We are particularly impressed with the potential role of these departments both in spreading good and tested practices, and in helping to stop the shoddy and the wasteful. Neither the public nor

the Federal Government nor the educators have any desire to centralize our educational affairs, yet all are aware that a host of separate school systems works against the rapid spread of good ideas and hence against efforts to raise standards. The State department of education is the instrument designed by law and by position to fill this gap. To take our own State as an example, the department has direct access to school systems enrolling approximately 1 million students and staffed by 38,000 teachers. Every type of school system is represented in the Massachusetts structure, ranging from large city schools to small towns and regional districts. No university center in collaboration with only a few school systems for purposes of research and development could possibly be in touch with so wide a sample of problems and needs. On the other hand, the Office of Education in Washington can scarcely handle the research problems of 50 diverse States even if it wanted to.

From these considerations we conclude that what is needed is a coordination of interests and efforts. Research and development projects are most successfully pursued when all of those segments of society directly concerned and interested work in collaboration. Problems in education require the attention of the school systems themselves, of the State departments of education, of Federal agencies which have particular concern with problems of education, of university faculties which, through training in the disciplines, have a particular capacity to study problems in education, and private foundations which, to an important extent, are in a position to indicate and to help to finance new directions in education. None of these segments working in isolation can effectively undertake programs for research and development.

We therefore suggest that a series of "field stations," not unlike those in agriculture, be established across the Nation. It would seem to us sensible to have each of these centers closely associated with the State department of education, with at least one university faculty, and with two or more schools which could, in effect, serve as laboratories. We would see these centers of research and development as serving the following functions:

1. The conduct of programs of research and development on a variety of topics affecting the schools, ranging from the testing of new curriculums to the testing of new equipment for use in the schools, from new techniques of teaching to new personnel arrangements. Each center should have available the active help of scholars and scientists on university faculties to assure quality in all curricular matters, and to bring the power of the most dependable research techniques to bear. Similarly the school systems should have a strong voice in the choice of programs to be undertaken and a hand in the testing of ideas in their buildings. The State department of education, of course, should be represented in the governing body of the center. It should have available personnel in the staff of the center who would both be fully informed on the strengths and weaknesses of the programs under research and development and be able to relate these programs to the varying needs of the schools of the State. The similarity here with agricultural extension agents is to us an interesting part of the plan, and a hopeful one. This may be the best way to encourage the spread of good ideas and to control the danger of fads.

2. To serve as a channel of communications between the Federal Government, the State departments, the universities, and the school systems, as well as with private foundations and other segments of the society with an interest in ways to raise quality in the schools. This would make it possible for ideas from one part of the country to be tested in another, and would serve as a way to speed up the process, which now seems to be agonizingly slow, of transferring plan to reality in educational reform.

We suggest that at the start there be established a limited number of centers. Our experience, though admittedly limited in time and extent, warns against too rapid a buildup. First-rate research personnel in the social sciences are hard to find, often unused to such an idea, and not necessarily enthusiastic about education as a field for their efforts. Scholars and scientists have much to learn about schools and young children, and school systems do not find research and development easy to absorb in the daily schedule. Formal relationships between State departments, universities, and school systems are easier to recommend than to put into effect. But enough has already been done to persuade us that the idea is practicable and worth pushing. What it needs is leadership, and for this we turn to you and to your office.

**STATEMENT OF DEAN FRANCIS KEPPEL, SCHOOL OF EDUCATION,
HARVARD UNIVERSITY**

Dr. KEPPEL. If I may, sir, I would like to bring the committee's attention to section 103. It is not first in order of printing, but I think there is a certain logic to having it first in our presentation. It is the section that deals with the question of the recruiting and preparation of teachers, new teachers, to enter the schools.

As you know, existing institutes in science and mathematics and other fields have done a great deal to improve the quality of teachers now in service. But so far there has not been an adequate program, in my judgment, to improve the quality of recruiting and training of those entering the service.

This program, I think, is naturally to be divided into three parts:

The need of improving the recruiting mechanism among young men and women, either at the end of the secondary school or during college, to enter teaching.

The second is the nature of their training.

Obviously, the third is their placement into positions where they can teach effectively.

In my judgment, section 103 hits at all three of these.

In a formal statement, which I think is too long to read, Mr. Chairman, I have tried to put into a little more detail those aspects of section 103 that seem to be of particular importance. Clearly a few should be mentioned here.

First, to recruit young men and women for teaching as a career is an enterprise that puts one into competition with other walks of life. I, at least in my job, am thoroughly dissatisfied with our ability to recruit competitively with business, law, medicine, and the like. This requires both recruiting mechanisms and scholarships, and I believe section 103 gives at least a start in this direction.

Secondly, the training program obviously requires—and here I may be in some disagreement with Mr. Fuller—obviously requires vigorous training in the subjects in which the teachers are engaged, and this requires, on the whole, more support of teacher training programs from the side of the professors in the arts, the social sciences, and the scientists who do the instructing.

It seems to me, sir, that section 103 proposes a start in this area, and it may well be—I am probably prejudiced—it may well be the most, certainly the most, important parts of H.R. 10145.

Thank you, sir.

Mr. THOMPSON. Thank you, dean.

(Dean Keppel's prepared statement follows:)

STATEMENT OF DEAN FRANCIS KEPPEL, HARVARD GRADUATE SCHOOL OF EDUCATION

Mr. Chairman, section 103 of H.R. 10145, to improve the quality of elementary and secondary education, deals directly with one of the most pressing problems facing American schools—how to insure that those entering teaching are well chosen and well prepared.

Through support of academic year and summer institutes, the Government has made possible considerable progress in raising the quality of teachers already in service. A good example is the program of academic year institutes for secondary-school teachers of science and mathematics, sponsored by the National Science Foundation. However, until steps are taken to make sure that beginning teachers are of first-rate quality, the inservice institutes will of necessity have to devote a disproportionate amount of their time to remedial work.

Section 103 recognizes this is a basic fact in any effort to improve the quality of American education.

In my view there are three distinct requirements that must be placed on programs designed to solve this problem: First, it is absolutely necessary that they develop the mechanisms necessary to recruit able young men and women. Second, the training must be rigorous and designed to meet the particular demands that are put on teachers. Third, there must be assurance that these men and women find positions in the American educational system where they can be used most effectively.

RECRUITMENT

In comparison to the quality of those entering medicine, law, business, and other professions, the quality of students, particularly of men, entering teaching has been depressingly low. However, we have evidence that this situation can be changed (and in fact has been changed in a few places) if the following steps are taken:

(a) There must be support for staff members on university and college faculties to go into the field and talk with students about the possibilities of careers in education. Most young people, uncommitted to a vocation, do not realize that to an ever-increasing extent there are careers in education leading to increasing responsibility and higher pay. The case for a career in education is not as obvious as in some other professions, hence a special effort is needed to "tell the story."

(b) Of particular importance is the need for scholarship support for prospective teachers. Consider either the valedictorian of the high school class or the honors graduate from a good college; he is, at graduation, faced with a variety of possibilities in industry, law, medicine, business, and other fields, all of which beckon him into their training programs with at least adequate financial support. Schoolteaching falls far behind in this race, for historically our teacher training programs have not had sufficient financial support to bargain effectively for the strongest students. Experience at any institution has shown that frequently the very best young people, who have not yet made a commitment to a career, can in fact be recruited into education if support is available to them while they are taking their undergraduate or graduate training.

The teaching profession is strenuous and often frustrating. At the moment it offers lower remuneration and less prestige than many of the professions with which it must compete for high quality personnel. To expect a young person to enter the profession at a considerable financial sacrifice during his years of training is frequently too much.

Page 5, lines 1-4 of H.R. 10145 make possible needed steps to this end.

TRAINING

Three elements are required to assure that training programs are both rigorous and appropriate to the task.

(a) A student preparing to become a teacher must have a thorough grasp of the subject he is to teach. This means, for example, that an undergraduate or a graduate student who plans to be a teacher of history or social studies must follow much the same pattern that is required of his colleagues who are preparing to be on the staff of colleges and universities. Support is needed to assure that teacher training programs have available the time and attention of leading professors in scholarly disciplines; for example, the attention of a top mathematician in the university toward the problems of mathematics in schools, the attention of a top linguist in a university toward the problems of teaching a language, etc. Such attention demands not only the selflessness of the scholars involved, but also the financial means to obtain their time.

(b) Teachers in preparation need the direct assistance of those scholars who are working on problems of teaching and learning. The training program must therefore include faculty whose training is in the "behavioral" sciences, particularly psychology, and who are concerned at both the theoretical and applied levels with problems of learning and instruction.

(c) A training program must provide direct practical experience for the future teachers. It is not possible through lectures and reading assignments to prepare a student to meet the problems he will face when he enters the classroom. From experience we know that it is not only possible but

highly desirable to develop a cooperative relationship between teacher training programs and school systems which provide internships. Page 4, line 18, through page 5, line 1, make a direct contribution to this need.

An analogy might be useful at this point. It seems to me that the requirements for the preparation of teachers are not unlike those for the preparation of medical doctors. Medical students must receive a portion of their training from scholars in particular disciplines such as biophysics and physiology. The training they receive from these men serves somewhat the same purpose as does the training the fledgling teacher of history or social studies receives from the historian. The medical student, like the student in education, must also receive training from staff concerned with the application of the medical sciences to clinical practice; and certainly the medical profession has long since reached the conclusion that a new doctor can only be prepared to face the problems of everyday practice by serving a supervised internship in a teaching hospital.

PLACEMENT

It is of little use to attract and train very able people if we make no effort to insure that their talents are brought to bear in the most efficient ways we can devise. Hence support is needed for placement staff who are thoroughly familiar with the qualities of the teachers completing the training program and equally familiar with the needs of the school systems throughout the country for personnel. Only through this pairing of supply and demand can we hope to assure that our recruitment and training efforts will afford a maximum return.

Section 103 of H.R. 10145 does in fact make possible support where it is needed if the teacher training programs in this country are to meet the urgent need for an increasing supply of teachers of good quality. The bill may well become a landmark in the history of American education. I urge its favorable consideration by the committee.

Mr. THOMPSON. I think we will go on unless there are questions.

Dr. STILES. Perhaps if we could all present short statements, we could then all respond to questions.

Mr. THOMPSON. I think that would be best.

Dr. STILES. Mr. James Straubel, the executive secretary for the Space Education Foundation of the Air Force Association will present a statement from that association supporting research and development in education, which this bill, 10145, purports to provide.

STATEMENT OF JAMES STRAUBEL, EXECUTIVE DIRECTOR, SPACE EDUCATION FOUNDATION, AIR FORCE ASSOCIATION, WASHINGTON, D.C.

Mr. STRAUBEL. Mr. Chairman, I am here at the request of my board of trustees. I guess I am the only one that is not a dean in this group. I would appreciate being handled accordingly because I am strictly a layman.

We have been, in our organization, engaged in a phase of education. Not the formal side you are used to, but we think we have been filling a gap, if not a vacuum, in the last few years in presenting seminars on space technology and its impact on society to educators in various spots across the country. We found a terrific vacuum.

In the process of our board's interest and being briefed on advanced thinking on education, we received a routine briefing on research and development and found it was more on the lack of it. We could not believe quite what we heard.

I was asked to make a further study before the board and, as a result of what little I have learned, I have presented my story back, and they asked, if possible, if I could appear before a group such as this to present our side of it.

I think you should know who we are.

We are in our seventh year. We are an affiliate of the Air Force Association, our parent organization. We are a nonprofit group devoted exclusively to space age education.

We are governed by a board of trustees separate from the Air Force Association, a board which brings together 40 men, including businessmen, scientists, civic leaders, educators, all in pursuit, as I have said, of this common goal.

To give you an idea of the quality of our membership—and quality is the keyword here today—the chairman of our foundation is Dr. W. Randolph Lovelace of Albuquerque, N. Mex. He serves the Government in a consulting capacity as chairman of the Life Sciences Committee and chairman of the astronaut research program for the National Aeronautics and Space Administration. He was very instrumental in the Mercury program.

Our foundation trustees include Dr. Lawrence Derthick, the past U.S. Commissioner of Education; on the business side, Mr. Floyd Odum, well-known Wall Street financier; Dr. Edward Teller, noted nuclear physicist; Dr. Robert Stearns, former president of the University of Colorado; Prof. John C. Cooper, Princeton, N.J., noted authority on space law; Dr. Russel V. Lee, president of the Palo Alto Medical Research Foundation.

Over the last few years activities of the foundation include sponsorship of space age seminars for educators at elementary, secondary, and college level. More than a dozen of these seminars will be held this year, all with the cooperation of State departments of education. Each year the foundation sponsors a national space age symposium for educators from throughout the country. We work closely, in a sponsoring role, with the Arnold Air Society, an honorary organization of ROTC cadets on 167 college campuses.

We are, primarily, an organization of laymen—not a professional education society. Our interest in a vigorous research effort for education, and our support of an adequate cooperative research program within the school system, can be stated in rather simple terms.

We believe that in this age of fast-moving technology, big money investments must be measured against the proportion of total expenditures allocated for research and development. We believe that big business, by both success and failure, has proved the need for a substantial R. & D. investment. We believe the Nation's education program must be measured in the same terms.

I think it can be stated in rather simple terms.

The aerospace industry invests some 17 percent of its total annual expenditure on research and development. The Department of Defense invests some 14 percent of all military funds for research and development. We would feel less secure if this trend were not to continue.

The Public Health Service of the Department of Health, Education, and Welfare invests some 44 percent of its total annual expenditure on research and development. We welcome this record. The Department of Agriculture spends some 3 percent of its total on R. & D. This is nothing to be proud of, but it is three times the Federal allocation for educational research.

Figures made available to us by the U.S. Office of Education reveal that of a total expenditure of \$548,400,000 in fiscal year 1961, only \$5,700,000 was expended for research and development. Thus, the Government is spending only 1 percent of the education appropriation on research and development—this means that only 1 percent of Federal education funds are being spent on research and development, only 1 percent to explore new and better ways of teaching our youth about this increasingly complex world.

We realize, and have had some practical experience in the fact, that research and development is not easy to pinpoint on the balance sheet, that a portion of so-called maintenance and operations money, as we would speak of it in the aerospace business, often is expended for research and development—in the military, in industry and, presumably, in education. So if the figures I have cited are not all inclusive, they represent the relative position of research and development in our Federal expenditures on education. Our interest here is in a relative position rather than in absolutes. Therefore, we are shocked at the figures I have given.

As I say, we were shocked as an organization when we heard the low percentage that is going into research and development in our questioning, and more shocked when we find some of the relative figures as far as Government expenditures are concerned.

Further while no reliable figures are available on this, we have every reason to believe that the total expenditure of the Nation on education research—taking Federal, State, and local school funds into consideration—is far less than 1 percent of the Nation's total expenditure on education of all types.

We have heard figures as low as one-tenth of 1 percent.

Mr. THOMPSON. I think that is so. I think that the Federal figure would be about one-tenth of 1 percent when you consider the other educational programs not administered through the Department of Health, Education, and Welfare.

Mr. STRAUBEL. This reminds us, as it did at the time in the meetings I have held since, yesterday before another committee, listening this morning as I did to the problems involved in getting quality—it reminds us so much of shortly after World War II when the military had been going along traditionally for years putting very little of its money into research and development, and in the Air Force it called for a major breakthrough, something more than just an evolutionary phase. Dr. Von Karman, an eminent statesman, really, in his field in astronautics and aeronautical sciences, was brought in at the height of the war, an unprecedented thing, to study it, and we have never yet come up to the 20 percent he recommended that should be plowed into research and development if we were to keep pace.

I heard the same stories then: we are doing a better job than we did last year or than we did 5 or 10 years ago. That is an old saw around Washington. If we are not doing better, we ought to get out of the business. But are we doing good enough? Are we meeting the challenges of the times? Are we meeting the Russian challenge in education? Those are the things that interest us, not are we doing better than a few years ago. We hope to God we are doing better. Are we doing what we should be doing?

We are very conscious of the aerospace industry's transformation and have seen them go from the top to close to the bottom because they have not plowed money into futures. We think from this experience we can expect, unfortunately, the same sort of dire consequences in the education field. We are not trying to draw the analogy too close, but we think there is something here worth your consideration.

Even if our Nation were not challenged by aggressive communism, as it is, the need would still exist to improve our research and development position in education. The scientific revolution alone would be ample justification. With Russia's cold war challenge a cold fact for our era, with education a vital factor in this conflict—it is on the frontlines—the need for adequate educational research is all the more apparent.

We cannot long progress, as a Nation, in the scientific revolution, in the cold war, without educational research and development to pave the way, to chart the future. We cannot get the quality that we deserve in this country without investing very heavily in it to bring us abreast of the state of the art, as we would say.

Our organization is committed to the point that in modern society all elements of national power are built on a foundation of not only dedicated but educated people. That is more true today than ever before.

The educational requirements of the Air Force are staggering long range. I do not see how they are ever going to meet them with what they have to work with.

It is against this background we appear before you today and urge, not specifics in bills, but that a new look be taken at the research and development side of education.

Thank you.

Mr. THOMPSON. Thank you very much.

(Mr. Straubel's prepared statement follows:)

REMARKS OF JAMES H. STRAUBEL, EXECUTIVE SECRETARY, AEROSPACE EDUCATION FOUNDATION

Mr. Chairman, members of the committee, my name is James H. Straubel. I appear before you in my capacity as executive secretary of the Aerospace Education Foundation, an affiliate of the Air Force Association.

The Aerospace Education Foundation, now in its seventh year, is a nonprofit organization devoted exclusively to space age understanding—to the impact of space technology on modern society.

The foundation is governed by a board of trustees, separate from the Air Force Association, a board which brings together leading educators, scientists, and businessmen in pursuit of a common goal. The chairman of the foundation is Dr. W. Randolph Lovelace II, of Albuquerque, N. Mex., director of the Lovelace Foundation and chairman of the Life Sciences Committee and the astronaut research program for the National Aeronautics and Space Administration.

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We are, primarily, an organization of laymen—not a professional education society. Our interest in a vigorous research effort for education, and our support of an adequate cooperative research program within the school system, can be stated in rather simple terms.

We believe that in this age of fast-moving technology, big money investments must be measured against the proportion of total expenditures allocated to research and development. We believe that big business, by both success and failure, has proved the need for a substantial R. & D. investment. We believe the Nation's education program must be measured in the same terms.

The aerospace industry invests some 17 percent of its total annual expenditure on research and development. The Department of Defense invests some 14 percent of all military funds for R. & D. We would feel less secure if this trend were not to continue.

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Figures made available to us by the U.S. Office of Education reveal that of a total expenditure of \$548,400,000 in fiscal year 1961, only \$5,700,000 was expended for research and development. Thus, the Government is spending only 1 percent of the education appropriation on research and development—only 1 percent of the total to explore new and better ways of teaching our youth about this increasingly complex world.

We realize that research and development is not easy to pinpoint on the balance sheet, that a portion of so-called maintenance and operations money often is expended for research and development—in the military, in industry, and, presumably, in education. So if the figures I have cited are not all-inclusive, they represent the relative position of research and development in our Federal expenditures on education. Our interest here is in a relative position rather than in absolutes. Therefore, we are shocked at the figures I have given.

Further, while no reliable figures are available, we have every reason to believe that the total expenditure of the Nation on education research—taking Federal, State, and local school funds into consideration—is far less than 1 percent of the Nation's total expenditure on education of all types.

Just as the business world has learned, from hard experience, the dire consequences of underinvesting in research and development, so we can expect dire consequences from this sad experience in education.

Even if our nation were not challenged by aggressive communism, as it is, the need would still exist to improve our research and development position in education. The scientific revolution alone would be ample justification. With Russia's cold war challenge a cold fact of our era—with education a vital factor in this conflict—the need for adequate educational research is all the more apparent.

We cannot long progress, as a nation, in the scientific revolution, in the cold war, without educational research and development to pave the way, to chart the future. From a business standpoint we need this research investment to protect our huge operational and maintenance investment on all fronts—for all elements of national power and welfare are built on a foundation of dedicated and educated people.

Against this background, the Aerospace Education Foundation respectfully urges congressional action to improve the quality of our schools through expanded research and development, and thus insure full utilization of the Nation's vital manpower resources.

Dr. STILES. Dean Engbretson from Terre Haute State College, Indiana.

STATEMENT OF WILLIAM ENGBRETSON, DEAN, INDIANA STATE COLLEGE, TERRE HAUTE, IND.

Dr. ENGBRETSON. Lindley, I will correct that because of a new title. Indiana State College at Terre Haute, Ind.

Gentlemen, at the request of the deans of education of the four State institutions of higher education in Indiana, Dean Harold Shane

of Indiana University, Dr. Dan Cooper of Purdue University, and Dean Earl Johnson of Ball State Teachers College, I represent this group.

Speaking specifically to title I, section 101:

The institute program for advanced study for teachers proposed in the Educational Quality Act of 1962 (H.R. 10145)—deserves your complete support. Many of our teachers diligently study and work toward advanced competence and knowledge in our graduate and undergraduate schools. Many still lack the breadth of training and modern up-to-date knowledge in vital areas of instruction for children and youth that more intensive study can impart. Daily we grapple with the problems of who make the best teachers and what knowledge and skills teachers must hold (and impart) to children to enable them to learn effectively. Yet, children are our most precious resource and many teachers as yet are unable to update their education sufficiently.

I would like to be somewhat specific on this point.

In Indiana, for example, the State department of public instruction in its last available figures reported 35,851 full-time teachers in the fall of 1960. Of these, 90.5 percent had at least 4 years or more of training but the remaining 9.5 percent did not hold the bachelors degree. Specifically, 3,412 full-time elementary teachers and 103 secondard teachers held no degree. At the same time the percentage of teachers in Indiana who hold a degree increases 2.5 to 3 percent each year or two, depending on if you are relating this to elementary teachers or secondary. We are a little stronger, in this respect, in secondary. Our requirements are a little bit more rigorous.

About two-thirds of our teachers in 1960 did not hold an advanced degree, either master or higher degree.

Approximately 22,000 teachers in Indiana could be stimulated further toward the necessary advanced study if the institute program becomes an actuality.

Experience with teachers' institutes for science, mathematics, foreign languages, and guidance and counseling has certainly more than justified your excellent support in the past. As a former administrator of National Science Foundation institutes for mathematics and science teachers in another State, I can personally attest to the achievement of desired results.

Now building upon those past experiences and recognizing finally the vital role taken by elementary and secondary classroom teachers in such curricular areas as the humanities, social sciences, and English and the related language arts, the institute program proposed can provide vitally needed aid and stimulus.

Teachers in our part of the country work hard at their calling. But often financial and other circumstances combine to keep them from availing themselves of the opportunities for advanced study that exist in colleges and universities like ours. At the same time we constantly learn more about how to gear our teachings to all children regardless of their innate abilities, about how to bring to bear in the classroom the benefits of modern teaching devices—TV, teaching machines, programed textbooks, and the like. Research benefits us in new knowledge of structural linguistics and the reading process, we are beginning to analyze the internal consistency and logic of the language teachers should use, the semantics of verbal

teaching are becoming understood. In other words, we are coming to some better understanding of the specifics of what goes on in classrooms.

Yet, these are the newer conceptions that need to be brought to classroom teachers, need to be brought to them very soon, I think, even as we have updated the science and mathematics of teachers through NSF Institutes.

Gentlemen, children are not ball bearings. We cannot punch them out of presses rounded, polished, and measured micrometrically to be identical—and we do not want to do this either. We must provide each of the Nation's classrooms with the finest possible teacher with the highest level education. The institute program proposed will help all of us work toward this goal. Frankly, your support is vital if we are to keep a balanced curricular diet for children—and for teachers. I know we need scientists, technicians, engineers—but we also need humane, intelligent, creative well-educated classroom teachers in all areas of instruction.

The colleges and universities of the country struggle to do this job now.

In Indiana we are requiring 5 years of study for permanent teachers. This means a full year's work beyond the baccalaureate degree. You know as well as I the difficulties of going to college nights, Saturdays, and summers for anywhere from 2 to 5 years on a salary that is only barely adequate for 9 or 10 months a year, and this is the state in which many of our teachers find themselves.

If we are to attract and retain quality teachers we must do everything possible to encourage their continued study and dedication to the education of children. I do not think there is anything more important than this.

The public and private colleges that produce the bulk of the teachers in the Nation will make every effort to continue to improve their programs and their products with your aid. And our children will benefit—I repeat, children are our most precious resource.

Thank you.

STATEMENT OF LINDLEY J. STILES, SCHOOL OF EDUCATION, UNIVERSITY OF WISCONSIN

Dr. STILES. I am Dean Stiles from the University of Wisconsin in Madison.

We come today to support a proposal to make available Federal funds for a program of research and development to improve the quality of schools at the elementary and secondary levels, and to improve the quality of teachers prepared for those schools.

This group here speaks for some 350 people like us throughout the country with whom we are in correspondence, and they speak for others in their own States who support this legislation, Mr. Chairman. We commend you on the legislation, you and this committee. We think it is good, solid, sound legislation, and we would like to emphasize the point that this is an investment in research and development to improve the quality of schools. It is not general aid to education. And any discussion about substituting general aid for this particular bill is irrelevant because general aid will not do what this bill proposes to do.

This bill we support. We support the provisions in it throughout. We call attention particularly to the point that, though some people question whether or not research in education will improve schools, we have now had sufficient experience with the cooperative research program of the U.S. Office of Education to prove beyond a doubt that systematic research on educational questions can discover new knowledge which can be translated into improved programs of education for boys and girls in schools.

My formal statement supports the portion of the act beginning on page 14, line 13, section 202, which deals with some amendments to the Cooperative Research Act of the U.S. Office of Education, which we have advocated and which we believe will improve the functioning of that act.

It also includes a rather extended statement which will be filed, with your permission, which documents, I think beyond question, the value of educational research.

This statement was written before your act was written, Mr. Chairman, and I think you will find considerable agreement between what I have called the next step in expanding the research and development effort, the next step being taken—basic knowledge, field testing it, and putting it to demonstrations so school people can see how to put it to work, and then translating it into school programs.

Your bill, H.R. 10145, provides for all of these steps, and it adds the additional dimension of the improvement of the quality of education of teachers. We think this is one of the finest forward thrusts that has come to education in this country in this century.

We believe sincerely that research is the key to school improvement, and I close by saying we can do nothing but applaud and compliment the vision of those who drew up this bill and who have the courage to support it, because in this kind of an investment in research and development we see the future of a real quality program for schools.

As one dean of a school of education, I must say I am anything but content with the quality of education. I think you will forgive me if I say, too, I think we can point with a great deal of assurance at the great forward thrusts toward quality that have been made in our schools during the past few years, that have come because the Federal Government took an interest and made an investment in research and program improvement.

Thank you very much.

Mr. THOMPSON. Thank you. I am really quite overwhelmed by the unanimity and by the support.

I might suggest that somewhere along the line the constituent members of your organization and those with whom they are in contact might do well, if they agree with this point of view, to let their Representatives and Senators know about it.

Is any one of you afraid of anything in this bill in terms of it bringing Federal controls into your institutions?

Dr. KEPPEL. Mr. Chairman, I at least am not certain. I represent a private university which now, as a university, has in its annual expenditures roughly 25 percent—I would say roughly 25 percent—of expenditures are from Federal sources in support of scientific research and a variety of other areas.

I think perhaps it is not immodest of me to say that Harvard University rather prides itself upon independence, and I could quote the president, Mr. Pusey, to the effect that the partnership of this private university with the Federal Government has been to the benefit of the university. It is not for us to say how much it has been to the Federal Government's benefit.

Mr. PUCINSKI. And, of course, to the country.

Dr. KEPPEL. Thank you, sir.

The way in which this bill is drawn up, sir, seems to me to provide the necessary safeguards both as to quality, which, after all, is the purpose of the bill, and as to the necessary freedom of the institutions in the United States, which I, of course, regard, and I know you do, sir, as essential for the freedom of our society.

I flatly am not worried on this point, sir.

Mr. THOMPSON. I am delighted to hear that.

Of course, two of you at least are from land-grant colleges, and this is what—the 100th anniversary of the Morrill Act, I believe.

Dr. STILES. We have had long experience, Mr. Chairman, with the use of Federal money to improve State universities, land-grant institutions, and we think this is a matter that can be controlled, can be lived with. We think it has been lived with.

We at the University of Wisconsin pride ourselves, too, in our independence and the freedom of our great institution. We might say we walk in the steps of Harvard, if Frank will permit.

Dr. KEPPEL. I will be happy, sir.

Mr. THOMPSON. They would say the same thing.

Dr. STILES. I am sure they would. And we have the utmost confidence that the Federal Government belongs to us, as well as the State government belongs to us, and we think that the problem of balances between the decisionmaking processes is something with which we have to live, but with which we can live successfully.

Mr. THOMPSON. I am glad to hear you say that. I certainly do not believe that the Federal Government ought to control education throughout the United States in any manner.

Dr. Fuller made an interesting statement that it is physically impossible. If that is the case, I cannot understand why he is worried so much about it. I do not think the fear the people seem to express of the Federal Government reflects an understanding of what the Federal Government is. I think rather it proves that educational quality ought to be improved because, after all, the Federal Government is even more a part of our everyday lives than is any other government.

Mr. GRIFFIN. You are finding agreement with us.

Mr. THOMPSON. Certainly I am finding agreement. And at least in this branch we can be turned out more frequently than the mayors of most towns and the members of school boards and so on.

Dr. Engbretson, I have one question of you.

Twenty-five hundred of these scholarships is a very modest number. It has a terminal date of 5 years. I would expect, as with most other programs, if it is a success it would be continued.

Your State's allocation is a minimum of 60 teachers to be selected. Do you think that the prestige factor, the opportunities, the distinction of having been selected one of these, even if there are only 60, will be helpful throughout the State?

Dr. ENGBRETSON. My response to that would be "Yes." Yes, it gives some specific attention to the necessity for teachers. We have done this in several other kinds of ways.

I would like to point out, too, Congressman, that our college is not a land-grant college. We do not have the funds federally that the land-grant universities do.

Mr. THOMPSON. You are a State university?

Dr. ENGBRETSON. We are a State college, a former State normal school, and then State teachers college, and now a regional multi-purpose State college.

We have had, and I think our teachers have profited a great deal from, National Science Foundation institutes. We have had these on our campus for the past 2 years.

Our sister institution, De Pauw University, only 35 miles away, has National Science Foundation institutes and does a very commendable job of advanced studies in these areas.

I am sure that my colleagues in the State and in the other States also feel that we can do the best we know how to improve what we do in the other areas for quality education for children.

Mr. THOMPSON. In the drafting process, I asked the Department and the Secretary and the people from the executive branch responsible for this drafting job if we could not have more than 2,500. It seemed impossible to them that there be more than that.

Along this line, someone pointed out to me the exact number of national merit scholarships. I have forgotten what the number is, but it is extremely modest compared to the number of youngsters graduating from high school. And yet it is an exciting enough program so that youngsters whose parents have enough money to send them to college, and therefore if they win they get only a certificate, still compete for the prestige factor. It is a private program, and it has been extremely successful.

But I think that the analogy can be drawn between the interest which it arouses and the interest which a program such as this will arouse among the teachers.

Mr. Pucinski?

Mr. PUCINSKI. I think our staff ought to be commended, Mr. Chairman, for inviting these four excellent witnesses before the committee. I think their testimony this morning has been very helpful in helping us understand the need for this legislation.

I wonder if either of you gentlemen would care to comment on this question: Is there a quality gap in our secondary and elementary school system?

Dr. KEPPEL. Mr. Chairman, my answer is, yes, there is a gap. There are a number of reasons for it. I hope it will not take me more than a few minutes.

Mr. PUCINSKI. That is quite all right.

Dr. KEPPEL. I think I could summarize them under the head of "a change of responsibility on the schools in the last 15 or 20 years."

Their position in our society, I think, has been increased in importance because we see more clearly in the international sphere the necessity of a higher quality education for the Air Force, for every other part of our enterprise.

So that the job is different and more important and requires higher quality.

But then, second, in these recent years, particularly since the depression, I think it is fair to say the schools have not been able to compete successfully with other walks of American life for able personnel who make a career of it. This is not for lack of trying. Obviously, we have all tried like the deuce.

But the fact is that, if you take tests of academic knowledge, Mr. Chairman—and those are the ones I think are the most dependable—academic knowledge of the teaching personnel and compare them, let us say, to men going into engineering, law, medicine, and so forth, the gap exists between those other professions and the quality of those entering elementary and secondary teaching. This is a statement of fact. I wish it were not true, sir, but I think I have to say that it represents—I guess I could say I will leave you out—a failure on the part of those who have been at this for the last 15 years. But there is a gap, sir. There is no use denying it.

Dr. STILES. I support this. I support the statement Mr. Straubel made, that if we are better—and of course we are, but we are not good enough.

The new knowledge that is coming to us is so tremendously important to us today that teachers are not abreast of this new knowledge and if they are not abreast of it, they cannot teach it.

For example, last year alone 17 new nations were born in Africa. Many teachers teaching geography today do it as though those nations had never come into existence. So the children that come out of their classrooms will have the gap of which you speak, and only a program such as we are supporting here today, and such as you are holding a hearing on, this bill, has any chance of bringing us abreast of the quality level that must be achieved.

Mr. THOMPSON. If I might interrupt my colleague, I think substantiation of the point he is making is evidenced by the evolution of the institution Dr. Engbretson represents. It was a normal school, it was a teachers college, with probably much emphasis on methodology, and now it has a broader scope.

Dr. ENGBRETSON. Absolutely.

Mr. THOMPSON. We are doing that in New Jersey, too. A better rounded, more thoroughly civilized, if I may use that phrase, and educated product is coming out of these type institutions.

Dr. ENGBRETSON. Congressman, the so-called emphasis on methodology has been pretty grossly misplaced in our society in recent years. There was a time in the development of normal schools where this was true, but this is generally not true in the United States, despite the fact that articles in leading magazines continue to state this.

Mr. THOMPSON. I think there are all sorts of distortions. I have read Dr. Dewey's book twice, and I cannot see that he is responsible for anything that is attributed to him these days.

Mr. STRAUBEL. Mr. Chairman, I can speak of one side of the gap, and I suppose I should hesitate in this company here. But I spent many hours on, not a gap, but a vacuum in the general science courses. In the seminars that we have conducted, where we have access to people with knowledge of space technology, the questions that we get formally from the floor and in discussions afterward, not from just the average teacher but from the heads of departments, administrators—it is unbelievable that we could have a man orbit the earth, that

we are that far advanced on the scientific side and, as a man up in Newton, Mass., said, we are still dealing with stuffed birds in the general science courses.

Due to one of our seminars, he said, "I am throwing them out and starting over."

Take a good look at the program in Pennsylvania which they have credited to meetings we have held, where they instituted, first, what they call an earth-and-space-science course and have thrown out the old general science course. A pioneering effort. Yet it is not taking hold because of this lack of quality. They had no textbooks to start with, only a few years ago. There is not a solid textbook today. Sure, it is better than it was 2 years ago, but as far as we can tell across the country, we are just away behind.

I do not mean just for breeding more scientists. The superintendent of schools in Massachusetts issued a statement and said that thousands of our young people are pouring out of our schools without any real knowledge of what space technology is doing to us. At long range we are concerned about—we are deliberately breeding a scientific elite, that the day is going to come when only a few people can understand what it really going on, because the science is snowballing. We are on the threshold of a new idea.

Mr. THOMPSON. That is one of the fears I was expressing about the emphasis in the NDEA.

Mr. PUCINSKI. In trying to again see the full meaning of what we are trying to do here, I wonder if I could get an expression from either one of you. It is my understanding that the average American youngster spends about 16,000 hours of classroom instruction during his 12 years of education at the lower level. I wondered if whether or not today, with the tremendous growth of the society in which we live, in the complexity of this society, we can continue to follow the old methods that we used in the limited time that we have this child available for education. I wonder whether the purpose of this legislation is not to try and urge more effective techniques that will do the same job we have tried to do for many, many years, but to make room for additional studies that are required in this complex society.

Dr. Stiles mentioned the 17 new stations that were born last year, and somewhere in this schedule we have to make room to provide for some education about these nations.

And then the fantastic growth of space exploration. We have to make room somewhere in this limited 16,000 hours for that.

Do I understand, then, that the purpose of this legislation is to help the educators develop these techniques?

Dr. STILES. You are right, sir. We have to design a program of education that is adapted and suitable to the space age. And that means we have to teach more of the proper contents.

Mr. PUCINSKI. In the same period of time?

Dr. STILES. In less time. And make it function better in the lives of children. And this means the redesigning of the educational program, the curriculum, bringing the curriculum abreast of the kind of knowledge that Mr. Straubel describes in the field of science so well, bringing the methods of instruction abreast of the latest we know, the adaptation of all of the latest techniques and devices, instruments of

communication, for the instructional process. And that means researching learning itself so we can improve it.

Mr. PUCINSKI. Dr. Stiles, or any of you gentlemen, can you do this job alone now, can you still do it alone? Or have we reached that point where, because of the economic problems involved, you feel you cannot do the job of research on new techniques without some assistance?

Dr. STILES. We cannot do this job without the kind of help of which we speak today. We have been begging for help. We have all the foundations, we are hounding them for help to help us research these problems.

I think it is astounding that the Ford Foundation alone spends more money to improve our schools than the whole government operation at the Federal level invests in school improvement. Also this is a great credit to the Ford Foundation, but it is a shame on us as citizens of this country. We simply have to have this kind of help for research and development or the job will not be done.

Mr. PUCINSKI. Thank you very much.

I just want to make this observation on your testimony, Mr. Straubel. I think you really pinpointed the problem here, in addition to the fine testimony of the other gentlemen. I am impressed by the fact that we have no compunction in Congress in appropriating some \$600 million for research on cancer, cardiac, leukemia, all of the other diseases that beset our society, and there has never been any question about this. Congress approves these funds and approves them with enthusiasm because we know we have got to find the answers, and we have made great progress.

Yet, it would seem somewhat disturbing to me to see that we should get ourselves involved in any serious debate on trying to follow this same concept and trying to find methods to develop the minds of young American people.

I think your testimony, Mr. Straubel, certainly zeroed in on this thing very effectively.

Mr. STRAUBEL. Thank you.

Mr. PUCINSKI. Thank you for your very effective presentation.

Mr. THOMPSON. That is a very excellent statement, Mr. Pucinski. As a matter of fact, the Ford Foundation is not at all unlike the Federal Government: It is a kind of bureaucracy, and the money comes from the very same place.

Mr. Griffin?

Mr. GRIFFIN. Mr. Straubel, you referred to the need to concentrate on education in math, science, and so forth, I assume that you are familiar with the National Defense Education Act, passed in 1958, which did authorize the establishment of institutes and otherwise emphasized the importance of teaching science and mathematics. I know you are familiar with that program.

Mr. STRAUBEL. Yes, sir.

Mr. GRIFFIN. The passage of that act indicated, I believe, that Congress in general was convinced then of a direct relationship between our defense needs and the need for more and better teaching in the fields of math and science.

Dean Stiles, you were very careful to point out that the bill before us for consideration, H.R. 10145, is not a general Federal aid program.

I do not know whether you meant by that statement to indicate you would be against a general Federal aid program, but you wanted us to take note of this fact.

I am leading up to a question to which I would appreciate a capsule answer from each of you, because you are experts in the field of education and you must have given a lot of thought to it. None of us are against the improvement of education. It seems to me the question is, how much do we rearrange the lines of responsibility for education? Should we diffuse the responsibility? Should we overlap? In other words, what should be the Federal role in education? Where would you draw the line?

Would you come before Congress and support every bill for education that has a paragraph in it—"there shall be no Federal control"? Or do you see some logical line of delineation as between the role of the Federal Government and the role of State government in the field of education?

If you could give me some capsule answers to that, it will be very helpful in helping to evaluate this particular bill. I wonder who would like to be first.

Dr. STILES. I think the first step the Federal Government ought to take to improve schools—and I see the Federal role as a supporting role—the first step ought to be to provide funds to help programs in research and development.

Mr. GRIFFIN. What is the last step?

Dr. STILES. General Federal aid as differentiated from research and development on bases such as these.

This is a noncontroversial program. The private universities, the parochial universities, the church universities, the church schools support this program. Research funds ought to flow to researchers wherever they are, in public or in private institutions, to tackle the problems of education which beset our Nation.

The results of research ought to flow to public and private schools, wherever those schools may be, to help them improve the quality of education.

So this is not a debatable or controversial issue on the grounds of the church-state issue. It is not a debatable issue on the grounds of race either. It is not a debatable issue or controversial issue on the grounds of control of education, local control, though some would like to make it so.

It is not a debatable issue on the grounds of the latter, local control, because you cannot have control and have research. The researcher must be a free person to carry on research. You make funds available to buy his time, to free his time, to give him the equipment, to give him the assistance he needs to study a problem. So I differentiate between this and general aid because this is noncontroversial. General aid gets into controversy when you start it.

Mr. GRIFFIN. You may find this is more controversial than you think.

Dr. STILES. It can be made so if it is not clearly understood.

Let me say one other point. You asked me what order of priority. I think by all means the Federal Government ought to invest in research and development to strengthen the quality of education before it invests money in what is general.

Mr. GRIFFIN. Thank you, Dean. I realize I have asked a difficult question, and you do not have much time to give it thought. But it must be question which you have considered many times before. In Congress, at least, we are confronted with this issue all of the time.

Dr. STILES. We do too.

Mr. GRIFFIN. With all due respect, Dean, I do not feel you have given an answer that is very helpful concerning the Federal role in education. Never mind the first step. What is the last step?

Dr. KEPPEL. I will take a try at it, if I may, recognizing I am talking only for myself and that I have not thought about it as much as you probably have.

First, I think I would like to use three criteria, and the first one is rather like Mr. Stiles, that, if the Federal Government invests, it does it in a way that has a kind of chain reaction effect, maximum influence, in the sense that each \$1 brings in a lot more.

The second criteria I think I would like to suggest to you, sir, is that I think there is a role for the Federal Government in what might be called providing equality, or a rough equality, of opportunity in the various parts of the United States for children being educated.

The simple fact of the matter is that we do not have equality of opportunity in some parts of our great cities, as we know, strategically in some States where the difference in fiscal and personnel support in education is very wide between the States.

That, I would suggest, is the second criteria.

I do not think I have put them in the right order, and I will put them back into order later, if I may.

The third one is unbalance, and I continue with the testimony I gave before. The quality gap Mr. Pucinski spoke to is, I think, in order of importance, the greatest. It is a real struggle in my conscience to decide whether the quality gap or the equality of opportunity, which is a deep American principle, is the greater of the responsibilities.

But I think I would come first to the quality gap, second to providing through Federal means—this is my personal view, sir—some effort to get equality of opportunity for the children by means of programs where for every Federal dollar you get more locally.

This does suggest an order and a limitation in my judgment on what the Federal Government should try to do. I do not see any sense to having the Federal Government providing anything like the majority of funds necessary for public schools throughout the United States. I do see a proper role in quality and equality, in that order.

Mr. GRIFFIN. That is very interesting. I appreciate your answer. Do either of you other two gentlemen have a comment?

Mr. STRAUBEL. You used the National Defense Education Act. The example I am most familiar with, the only pioneering effort we have seen—and I think this has been borne out by people who are very close to it—is in the State of Pennsylvania. That effort of throwing out the outmoded general science course and instituting a new course from the ground up called earth and space science, with emphasis on space science, would not have taken place, I know, without National Defense Education Act money.

First, you had to have a pioneer stimulated. We are proud he was stimulated at one of our annual meetings. It was not so much what he heard, but what he saw. He had never seen a missile close

up, he had never seen a space capsule. As he pointed out later, "It was a brand new world when I entered your exhibit hall. I decided to do something about it. Why should not my young people learn about this?"

Mr. GRIFFIN. I agree with that.

Mr. STRAUBEL. I think the example is good. I think you will not find the State of Pennsylvania is suffering from Federal control. I followed his course along from the bottom up. I have seen him go into the elementary school. I do not think you sacrifice control. What you have done is with Federal money pushed this over the hump and made it possible for him to take on something new and meet the challenge.

Mr. GRIFFIN. But what I am asking is this: If you were sitting up here, as a Member of Congress, and saw the succession of bills to aid education of every kind and description coming through, would you reject any of them? Do you have some philosophy? I realize, Mr. Straubel, that you are not an educator, you are a citizen looking at this from a layman's point of view. But from your point of view, what are the limits of the Federal responsibility? Are there any? Or do we pass all of the bills that are introduced? This is a little bit of a problem, is it not?

Mr. STRAUBEL. It seems to me it is the Federal responsibility for new knowledge. You cannot escape that. I think you can probably project ahead. The job is so great in just the one area I have mentioned.

I hear these rash statements about what 8 out of 10 people think, and so forth. I travel too much. I talk to a lot of people as a layman, and the rest of the time I am as busy as I can be in PTA work at Fairfax, Va., which is about as small as you can get around here. I do not think the average person you talk to, the symbol of the man in the street, is at all as interested as to whether it is Federal control or whether his child is keeping up with the times. When you find the teachers stop discussion of flight in orbit because they cannot answer the children's questions, they cannot keep up with the newspapers, or the 12-year-old is ahead of the teacher these days in space technology, then I think the Federal Government has got a responsibility to sort of pave the way.

You have paved the way in my one example, but you did not go beyond and tell Dr. Boehm in Pennsylvania how to teach and get all mixed up in district politics. You pushed him over the hump into a whole new field. I think that was a proper role. I cannot tell you exactly where you stop. I am not in that business.

Mr. GRIFFIN. I think there is another way to phrase the question—or put the question. In the workings of a business, some logical lines of organization and responsibility are important. Who is going to be responsible for what and to what extent. Whether it is a business organization or education, if we go off in hodgepodge fashion in all directions and recognize no particular lines of responsibility, I think we can actually and seriously harm the effort. I question whether we want to attack the problem in that manner.

In my own mind, for example, I would be frank to say that I have looked with more favor upon a greater Federal role in the field of higher education than I have in the field of elementary and secondary

education. I could provide a number of reasons why I have come to that conclusion. Is that the right line? If not, I am probing and trying to find the right line. Where are the proper lines of organization and responsibility in education?

Mr. PUCINSKI. Will the gentleman yield?

Mr. GRIFFIN. Yes.

Mr. PUCINSKI. Would the gentleman feel the same way, then, about the vast appropriations that we have been making, and are making now, in the field of medical research?

Mr. GRIFFIN. I am asking questions. I do not have all the answers. I will be free to admit that.

Would you like to add anything further, Mr. Straubel?

Mr. STRAUBEL. The Federal Government certainly should have an interest for, what I would call, for want of a better phrase, national power, survival, and everything else.

Mr. GRIFFIN. Survival, defense. Obviously this is an area of Federal responsibility; there is no question about that.

Mr. STRAUBEL. This goes beyond that even, but take that as a first step.

Mr. GRIFFIN. Does the whole field of education then become a Federal responsibility because there is a Federal responsibility for defense?

Mr. STRAUBEL. If there is a national need, and I think there is a national need, established for scientists and engineers, and I think beyond that there is a national need for enlightened citizenry, Mr. Griffin, upon what is taking place around it.

There are two issues. Let's take them in turn.

If there is a national need for scientists and engineers to stay alive and compete in a cold war with an aggressive enemy, I should think the Federal Government has to accept a responsibility.

You mention higher education versus the other. If, for example, as we have seen, and surveys indicate, these young people we want in this business are making up their mind early in life, then you cannot avoid a responsibility in the elementary and secondary school system, it seems to me.

Mr. GRIFFIN. Then it seems to me you see no particular line, no end to the Federal role in this field.

Mr. STRAUBEL. The research and development is what I am addressing myself to now, the obtaining of new knowledge which is so badly needed. I do not think you have much to worry about.

Mr. GRIFFIN. Do you have any comment, Dr. Engbretson?

Dr. ENGBRETSON. I have quite a few things I would like to add, and time does not permit of it. You have asked some very basic and searching questions, and I am sure I do not have all the answers to all of them, or maybe even to some of them.

As a former teacher of history, I am convinced I do not. But the very questions you have asked are not permitting of clear-cut either-or answers.

We have a propensity for thinking in terms of dichotomies that have to be black or white, and it is not that simple.

I have been trying to mull this through in my own mind. I am not clear where I stand, and I am thinking for myself, personally on some of these issues. But I feel education is so vital to our exist-

ence that it has got to have better support nationally in the United States of America than it has had thus far.

The issue, for example, of local and State autonomy with respect to education essentially is fictional. You cannot sit on a local board of education without reading the newspapers and watching television and knowing what goes on in the world, and this has an impact on the judgment you might make about your own local school. It contagates itself even further as we move into, for example, larger and larger organized districts. Our county has moved to a complete county consolidated unit. This is happening all over the State. The State judgments that are made are affected by the national position. It seems to me that we cannot make a decision, really, on what we will do in the first grade of the Meadow School without considering these broader issues constantly.

So where the end is I do not know, but I do know this, that the teacher in the classroom is still going to be the person that predicts the way the curriculum materials will be used with the children. This is primary with me. That is why I am in my calling and why I work at it, and I think it is important.

If we can get support to do a better job, I am willing to go wherever we can get support. We think we do a pretty creditable job now.

I would probably draw the line, in my own thinking, at the establishment of prescribed national curriculum in any area of instruction. That does not mean we cannot communicate about national needs in all areas.

If our Federal Government moved in a direction and gave all of its support to one area of the curriculum, the very ponderous weight of this pushes it in that direction all over the country. I think perhaps in this respect the role of the Federal Government is to give support until we obtain a degree of working toward the equality of opportunity Mr. Keppel spoke of.

MR. GRIFFIN. I want to thank each of you for trying to provide an answer to this very difficult question. I feel rather strongly that one of the greatest needs we have is to get organized as far as the responsibilities of Government in education are concerned. One of the best things we could do, in my opinion, would be to have some kind of a declaration of national policy spelling out and declaring what the Federal responsibility in education is, so that the States and local districts will know what their responsibilities are. I believe we could concentrate the Federal effort in areas where there is a logical and rational basis for Federal support.

This underlying philosophical problem is bothering many people, I think. Until there is some resolution, I believe bills to provide Federal aid to education will suffer.

I do not want to take all of the time from my colleague, the gentleman from Indiana.

MR. BRUCE. I would simply like to thank all of the gentlemen for their testimony. I am sure we all share in a great concern about how we are going to meet this challenge in the field of education as well as many other areas here in the sixties and beyond.

Now there has been a dramatic change in our entire environment. We may not agree, perhaps, on the method, on the approach that

really effectively answers this problem without, perhaps, destroying some other things that are equally of great value.

I have a very brief question I would like to ask of Dean Keppel. I believe you stated that 25 percent of the funds being used at Harvard were Federal funds.

Dr. KEPPEL. Yes, sir.

Mr. BRUCE. Do you recall a statement recently by Dr. Pusey?

Dr. KEPPEL. Yes.

Mr. BRUCE. Wherein he expressed, as I recall, grave concern about the growing dependency of Harvard upon Federal funds for its program, and he called upon a renewed interest of nongovernmental sources to provide these funds. Why do you believe he expressed this concern about the growing dependency of Harvard on Federal funds?

Dr. KEPPEL. Mr. Pusey's statement, sir, was a substantial one, and the introductory part of it spoke in, if I may use the word, satisfied terms about the relationship between this private university and the Federal Government.

Mr. BRUCE. That is right.

Dr. KEPPEL. He expressed what I think is sensible for a university president to express, concern that the development of this relationship in the future might take place without careful analysis step by step, of university people simply standing there with their hands out, which he thought would obviously be unwise as any relationship between any institutions.

Mr. BRUCE. This possibility was on his mind?

Dr. KEPPEL. Of course, it is on all of our minds. Then I will have to say, sir, because of the way Harvard is run—the deans have to balance their own budgets. Encouragement of private philanthropy is something I spend a lot of my time doing, partly because I have to balance my budget, and partly because it seems to me the American way of doing these things. What I think Mr. Pusey was trying to point to was there are areas in which the Federal Government is essential. We could do no research in the physical sciences today without it; the costs are too great for private sources.

While he wished obviously to continue that relationship, he did not wish to see it take a form in which private and individual support would wither away. That, I think, was the nature of his concern.

Mr. BRUCE. He did rather strongly say that he was concerned—

Dr. KEPPEL. Oh, yes, indeed.

Mr. BRUCE. About Harvard becoming so dependent upon Federal funds that it could dry up some of the sources.

Dr. KEPPEL. If Harvard handled its affairs so that happened, I think he and the rest of us would feel we had mishandled our affairs. I do not think that coin has a reverse side. It does not mean it should not have relation to the Federal Government. It is a question of balance.

Mr. BRUCE. I do not think he even intimated that. But he did raise the question very forcefully.

Dr. KEPPEL. Yes, and I certainly worry about it.

Mr. BRUCE. That the tendency was there of becoming more and more dependent, and he felt this was a dangerous thing as far as a continued growth of this percentage was concerned in relationship to expenditures at Harvard.

Dr. KEPPEL. It gets even more technical, sir, because it gets into what areas do you get this support. We, for example, do not put the salary of any professor against Government funds. This is our notion of how to keep independent.

Mr. BRUCE. Thank you very much.

Mr. PUCINSKI (presiding). I wonder if any one of you would care to comment on one final aspect of this bill and this testimony. I am under the impression that right after the war, in many of our educational institutions across the country, we went through the noble experiment of, for the lack of a better word, what was described as progressive education. And they were teaching youngsters to adjust themselves to the community, but they were denying that intellectual curiosity development, the intellectual curiosity which is the foundation of education, I would think. I notice throughout the country that system is now being abandoned and they are returning to more tested means of education.

I would guess that that error created the problems it did because the ideas and the formulas were adopted on a sort of a helter-skelter program. Somebody had a good idea and they threw it in.

I would rather imagine that this legislation, if enacted by Congress, would give us an opportunity for the development of a more orderly and more thoroughly tested technique of improving our educational plant institutions.

Am I correct in that assumption?

Dr. STILES. I agree completely. This is the cause we plead. Let's build educational programs on established knowledge derived from research rather than on somebody's theory that has not been tested out, or what somebody does over in the neighboring community, or what somebody espouses. We want to give education a research base. This bill will start us in that direction.

Mr. PUCINSKI. Most of your testimony today has been confined to this whole concept of developing new and improved and better techniques. I am almost tempted not to ask this question, but I really think we should have an answer to it. However, I do not want to give the impression I am trying to weaken the bill. That is not my intention.

If in the opinion of this committee and the Congress the successful passage of this bill were to hinge on that provision setting up the scholarships for the teachers, would we be doing great violence to the basic purpose of this legislation if the Congress decided to omit that particular provision and concentrate more on the other aspects of this bill to provide funds for greater research and developing techniques for education?

Who would care to venture an opinion on that, if anyone?

Dr. ENGBRETSON. My answer would be "No."

Mr. PUCINSKI. We would not be doing great violence to the bill?

Dr. ENGBRETSON. Yes.

Mr. PUCINSKI. If we kept the research provisions, but for budgetary or other reasons decided to omit that title dealing with the 2,500 scholarships.

Mr. STRAUBEL. What you are saying, I assume, is that it might come to a point where there was a choice.

Mr. PUCINSKI. I hope we do not come to that consideration.

Mr. STRAUBEL. If the choice would be, and you are projecting the possibility, between the provision for the scholarships and the broad research and development provisions, I cannot imagine any other answer but we have got to take the research and development.

Mr. PUCINSKI. That would be your answer, too, Dr. Keppel?

Dr. KEPPEL. That would be my judgment, sir. I think the relationship between the research and development and section 103 is a little closer. That is where you get new people into the profession. But I think I would put them, therefore, in that order, with the 2,500 scholarships at the bottom of a priority list, hoping to have it in.

Mr. PUCINSKI. You see, we have a million and a half teachers in the country today. This would provide for 2,500 scholarships a year, or 12,500 over a 5-year period, which actually then represents just a drop in the bucket when you consider the million and a half teachers who, I am sure, would want to avail themselves of this opportunity. Therefore, it would seem to me also that if the bill were to be jeopardized by that provision, then perhaps we ought to give consideration to dropping that provision and moving along with the research and development aspects of the bill.

Gentlemen, we are very, very grateful for taking time out of your very busy schedules to share with us your good judgment. I cannot think of anyone who is better qualified to discuss this subject than you gentlemen.

I am sure you have made a very great contribution toward a better understanding of this legislation, and we thank you for being here.

The committee will recess now until 2 o'clock, and this afternoon we are going to resume, I believe—

Dr. STILES. Dr. Carson Maguire will present the group to you this afternoon. May we express our appreciation to them for letting us come on this morning.

Mr. PUCINSKI. Thank you very much.

The subcommittee will stand in recess until 2 o'clock.

(The following statement by Dr. Stiles was submitted for the record:)

STATEMENT BY LINDLEY J. STILES, DEAN, SCHOOL OF EDUCATION, UNIVERSITY OF WISCONSIN

The program of educational research and development provided for in H.R. 10145 is essential to the achievement of quality in elementary and secondary schools in the United States. All of its provisions are herein supported. Particular attention is given, however, to the amendments to the Cooperative Research Act, section 202, beginning on line 14, page 13.

Attached is a statement that appraises in some detail the contributions and next steps for the cooperative research program of the U.S. Office of Education. The evidence clearly substantiates the value of basic educational research now going forward and underscores the need for the type of expansion of the program that the total Quality Act (H.R. 10145) provides. This bill, in effect, incorporates the existing and successful cooperative research program—established as 68 Stat. 533, 20 U.S.C. 331 on July 26, 1954—into a more extensive program of research and development. Such a unification of all educational research, field testing, demonstration, improvement of teacher education, retraining of teachers, and updating of school programs into a single research and development service administered by the U.S. Office of Education, in partnership with State departments of public instruction, local school systems as well as colleges and universities, is sound legislation.

The amendments to the cooperative research statutes themselves are both needed and desirable from the point of view of those who have participated in this program at the State, local, and institutional levels. First of all, it is urgent to provide the Commissioner of Education with authority to make grants to support educational research and development projects, as well as to enter into contracts. Grant authority will permit sustaining support for promising research on a systematic basis. It will make possible support for field testing and demonstration projects as well as long-term comprehensive programs of research that are difficult to support under contract. The result will be more orderly and more beneficial research. Agencies and institutions cooperating in research programs will be able to plan their programs without having to depend upon fragmentary support.

The provision to permit local school systems to enter into contracts with or to receive grants from the cooperative research program will make available resources for basic and applied research that have previously gone largely untapped. The cooperation of local elementary and secondary schools is particularly vital to the conducting of field tests and demonstrations; it is often essential also to provide the laboratory conditions necessary for basic research.

The cooperative research program of the U.S. Office of Education represents the greatest single thrust toward quality in elementary and secondary schools that has come in this century in the opinion of this witness. Research is the key to school improvement. This legislation is soundly conceived: it comes at a time when schools desperately need this kind of research help, and the assistance provided to strengthen the preparation of teachers, if they are to achieve the standards of quality that are demanded of a space age. Passage and implementation of H.R. 10145 has greater potentialities for the improvement of schools, for the achievement of a balanced excellence in education far beyond the magnitude of the costs involved. Such action should properly be viewed as an investment in quality education rather than direct aid to schools.

THE COOPERATIVE RESEARCH PROGRAM: CONTRIBUTIONS AND NEXT STEPS TO IMPROVE SCHOOLS

(By Lindley J. Stiles, dean, School of Education, University of Wisconsin)

Research, both basic and applied, is the key to school improvement. Awareness of this fact led the 83d Congress, in 1954, to pass Public Law 531 which authorized the Commissioner of Education "to enter into contracts and jointly financed cooperative arrangements with universities and colleges and State educational agencies for the conduct of research, surveys, and demonstrations in the field of education." The first appropriation, almost a million dollars, was made under this law for fiscal 1957. The following year the budget was increased to \$2.3 million. For fiscal 1962, it was raised from \$3.4 million to \$5 million.

These appropriations for what has come to be called the cooperative research program of the Office of Education, small as they have been compared to the \$160 million appropriated for research in agriculture and almost half a billion allocated for health research last year, have laid the foundation for a nationwide push toward quality in elementary and secondary schools. The cooperative research program has soundly demonstrated the value of basic research as the foundation of school improvement. It now stands ready to move ahead to accelerate basic research and to translate research discoveries into educational programs.

CONTRIBUTIONS OF COOPERATIVE RESEARCH ¹

The value of the basic research that has been conducted under the cooperative research program is illustrated by the following brief descriptions of sample investigations. Those presented were selected to illustrate the range of questions being studied, the kind of basic knowledge being discovered, the potential impact the results hold for improved quality of education and the need to expand the cooperative research programs to provide for field testing, demonstration and implementation in schools.

¹ Appreciation is expressed to Dr. David Clark, formerly Director, Cooperative Research Branch, U.S. Office of Education, now assistant dean, College of Education, Ohio State University, and to Dr. Francis A. J. Ianni, Acting Director, Cooperative Research Branch, Office of Education, for assistance provided with this section.

1. What is the nature of creative ability (the kind possessed by the "creative genius")? How may such talents be identified and developed through education? Cooperative research projects at the Universities of Chicago and Minnesota have documented the significant fact that creative ability and measured intelligence (IQ) are not identical. This discovery may well change educational procedures from kindergarten through graduate schools. In the past, and still in most situations, schools have operated on the assumption that the child with the high intelligence rating would also be the most creative. Some individuals do possess both kinds of abilities; some do not. The latter group may be ignored by teachers or excluded from educational opportunities that would ripen their creative powers into peak performances.

A second outcome of these investigations, equally important as the first, has been the development of substantial evidence that creative ability, unlike intelligence which remains relatively constant, can be developed, extended, and improved. The implications of this possibility for school programs are obvious.

The next steps for research on creative ability are to discover the kinds of factors that make for creativity in a person, in any field, and to design educational programs and procedures that produce maximum development. When such knowledge is available, schools and teachers can be geared to the discovery and development of creativity. Achievement of this objective is of paramount importance to the Nation as well as to the individuals whose potential creative talents are currently being ignored.

2. What is teaching competence? How do different types of teachers affect the learning of students? How may good teachers be developed? A number of the cooperative research projects have attacked the basic question: What is a good teacher? Essentially they have sought to test whether commonly held assumptions about teacher competence are valid. For example, two such beliefs are (a) that children in a given class will react to a particular teacher in much the same way, even though variations from child to child will exist; and (b) the competent teacher may be described by a fairly definite pattern of behaviors that are valid for most teaching situations. A cooperative research project at Brooklyn College proved that the impact of the teacher on students is determined by the teacher's approach and professional personality on the one hand and by the feelings and levels of intelligence of learners on the other. In short, all children do not react similarly to a particular teacher as had been assumed and the behavior that makes a teacher competent will vary with different types of students.

Of the three types of teacher behavior studied—classified as turbulent, self-controlled, and fearful—the self-controlled type of teacher achieved the most uniform learning gains with children of different personality types and levels of ability. Yet 46 percent of the teachers in this experiment were classified as fearful which proved to be the least effective kind of teacher.

Next steps in this research relate to selection of persons to prepare for teaching, teacher education itself, and the possibility that teachers of the fearful type—of which there apparently are many now in teaching—can change their personality structure.

3. Can elementary school children learn elements of the basic structure of higher mathematics (algebra)? If so, will early emphasis on algebraic concepts improve the learning of mathematics? Traditionally schools have taught arithmetic to elementary school children with the study of concepts of higher mathematical structure being assigned to the high school curriculum. A recently completed cooperative research study at the University of California at Los Angeles demonstrated that young children (first graders) can double their rate of mastery of mathematics if it is taught in relation to basic algebraic structures. Next steps in this project involve the development of curricular materials for the first three elementary school grades that will teach children to view mathematics as a logical system of relationships rather than a series of unrelated concepts. These materials will then be introduced into a demonstration project, authorized under the cooperative research program, to help schools across the Nation learn how to use the new mathematics program.

It is believed that this type of instruction in mathematics will promote broad transfer of learning skills to other subjects of the school curriculum. Further research will test whether pupils who develop an understanding of mathematical structure demonstrate logical thinking in other types of learning.

4. What is the effect of size of school organization on student learning? Educators have long advocated the consolidation of small school districts into larger units of school organization. Most of the reasons given have dealt with such

factors as school costs, school facilities, class size, quality of teachers, libraries, pupil activities, and supplementary services. The presumption underlying the arguments for larger school districts has been that they would increase student learning, but no proof was available.

A study at the University of Wisconsin, which in recent years has been supported by the cooperative research program, is comparing the effect of five nonreorganized and five reorganized school districts on student learning on such factors as (a) educational opportunities provided, (b) educational achievement of pupils, (c) educational costs, and (d) the effect on community social and economic processes. Measurements have been or will be taken of pupils in both the nonreorganized and reorganized schools at grades 1, 6, 9, and 12. Although the final phase of the study has yet to be completed, the following results of the first three measuring points, grades 1, 6, and 9 are available:

(a) The children in communities with reorganized schools have more educational opportunities. Examples of the opportunities that are available to a larger degree in the reorganized communities are (1) library facilities, (2) more general and special supervisors, (3) more help for exceptional children (bright as well as handicapped), (4) broader curriculum, (5) more curriculum materials, (6) fewer grades in each classroom, and (7) a more complete inservice training program for teachers.

(b) Despite the fact that children in both types of districts were comparable in achievement and intelligence at first grade, by sixth grade the children in the reorganized districts had significantly outperformed the children in the nonreorganized school districts on 21 of 22 measures of achievement in reading, arithmetic, geography, and science.

(c) Reorganized schools cost more because they provide more and better services. In terms of the achievement gain of pupils, a unit cost analysis would show the nonreorganized schools to be more expensive.

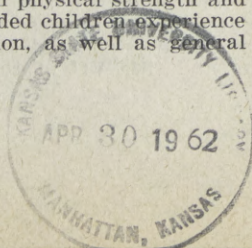
(d) Reorganized schools have little effect upon community social and economic processes.

Although this study has a number of years to run before final results will be available, it already has shown the positive impact of reorganized schools on student achievement at the elementary school level. A related experiment is now in progress to measure the effect of four different ways of reporting this study to citizens. One involves television reports, another films, the third printed material, and a fourth personal presentations. The purpose of this reporting project, which is also supported by the cooperative research program, is to discover the most effective and efficient ways of putting knowledge discovered through educational research to work to improve schools.

5. Which children are mentally retarded? How may they be identified? Can some children so classified be improved educationally to the point that they can lead normal lives? These and other questions have been the basis for cooperative research projects since the program was first initiated in 1957. Already significant knowledge breakthroughs are being made that will give many children, heretofore classified as mentally retarded, a better chance to lead normal lives, at substantial financial savings. For example, new evidence produced by cooperative research projects suggests that some of the children that have been labeled as "mentally retarded" may, in reality, merely be the products of retarded homes. Experiments have proved that some such children can often be taught to read at an early age. The apparent retardation results, preliminary studies indicate, from a family environment that provides no stimulation for young minds; where the home lacks books, magazines, and newspapers; where adult conversation is meager and devoid of substance and parental instruction minimum.

The next research steps on this problem involve the verification of which children are actually retarded and which merely are undernourished intellectually to a point that they appear retarded. Boston University is currently testing experimentally a large number of children to improve identification techniques.

Other research on mental retardation is concerned with programs of instruction that will raise certain mental retardates educationally to a point that they can benefit from programs of "special education" in school instead of having to be institutionalized. One study has already documented the fact that mentally retarded youngsters suffer parallel deficiencies in physical strength and agility. Another identified the disabilities mentally retarded children experience in such intellectual tasks as reasoning, insight, perception, as well as general mental responsiveness.



6. How may the rate of learning of the blind be increased? A cooperative research project at the University of Louisville has proved that the rate of learning of blind children can be increased fourfold (from 60 to 240 words per minute) by improving the listening comprehension of such students. Before this important discovery, the blind have been limited to receiving information at frustratingly slow rates of speed through braille and ordinary voice recordings. This research demonstrated that by the use of "compressed speech" recordings the rate of listening—and, consequently, of learning—could be dramatically increased. Further research, now underway, offers hope that soon the blind can be trained to digest material at rates comparable to those who see.

7. What are the causes of juvenile delinquency? How may they be corrected? Juvenile delinquency has typically been attributed to such general factors as slums, poverty, broken homes, and mental deficiency. Studies supported by the cooperative research program have produced evidence that specific types of delinquency, as is true of types of disease, each of which has a cause, are also attributable to specific causes. For example, a study of repeated acts of delinquency among low-ability boys, aged 14 and younger, conducted in Detroit, revealed that "indifference toward school and parents who excused such behavior" was the single factor that distinguished "repeater" delinquents from "nonrepeaters." "Slovenly personal habits and residence in rundown rooming houses or housing projects" proved to be a single cause of "repeater" delinquency in a group of above-average boys. The importance of such a discovery lies in the mandate their results provide for making systematic diagnoses and prescriptions for specific types of juvenile delinquency instead of blaming all types on general causes.

8. What is the impact of home and school environment upon adolescent motivation to learn? One cooperative research study, conducted in 10 rural and 10 urban high schools, in and near Chicago, identified the impact that adolescent climates, in school and community, have on motivation to learn. The results support the conclusion that academic achievement is often thwarted, in both boys and girls, by the requirements adolescents establish for acceptance in peer groups. Further research on this problem needs to be done to discover how to change adolescent social climates to make them support the achievement of educational excellence as a respected goal among youth.

9. What are reliable standards for the identification and development of academic abilities? To provide detailed and long-range standards for the identification and development of academic abilities and other talents in young people, the cooperative research program is sponsoring, with assistance from the National Institute of Mental Health and the Office of Naval Research, a nationwide study of the aptitudes and abilities of high school students. In this Project Talent, which was initiated in 1960, 450,000 high school students, from 1,000 high schools representative of all States and classified according to size of senior class and holding power of the schools, have been given comprehensive tests that measure all aspects of ability and achievement. Information about student interests, activities, and home backgrounds are also being obtained as well as characteristics of the schools they attend, including for the latter such factors as curriculum, size of classes, training of teachers, and counseling services.

Complete analyses of the data from Project Talent will provide new guides for the discovery and development of talent in high school youth. They will also establish new standards for measuring the achievement and progress of pupils. The data provided will make it possible for standardized tests to be developed that provide greater comparability of scores. Already the Armed Forces are keying some of their tests to the benchmarks this project is making available.

This study illustrates the type of data collecting that is necessary to provide a national comparison of school achievement. Without the resources of the cooperative research program such an up-to-date picture of the Nation's talent resources would not be possible to obtain.

10. How may results of educational research be evaluated and translated into the bloodstream of school programs? School improvement requires both basic research and programs of application to translate research results into schools. As research studies increase in number, the need to assemble, evaluate, and to make available established knowledge is increased. The cooperative research program and title VII of the National Defense Education Act have jointly

supported two projects at the Center for Documentation and Communication Research at Western Reserve University. One has aimed at providing a detailed analysis of educational research results with selective distribution of pertinent discoveries. The objective is to develop a stockpiling system for basic educational research discoveries to make them readily available for application to specific educational problems. A second type of project is concerned more directly with evaluating the type of research results that should be stockpiled and with estimating the cost involved in maintaining such a system. Clearly what is being attempted here is exploratory. The aim is to demonstrate the most economical and efficient means of supplying up-to-date and valid research results to those engaged in improving the Nation's system of education.

These are brief descriptions of selected examples of the 445 cooperative research investigations that have been jointly sponsored with 110 colleges and universities, 17 State departments of public instruction in 40 States, Washington, D.C., Guam, and Puerto Rico, since the program started in 1957. The overall quality of the projects supported is partially indicated by the fact that the advisory committee, composed of outstanding experts on educational research who evaluate each proposal, recommended for contracting less than one-third of all proposals submitted. The most persuasive evidence, however, that these investments in educational research have been sound and productive is found in the breakthroughs that are being achieved in the discovery of new, pertinent knowledge about learning and school problems on which better quality programs of education can be developed. The rate of discovery of new knowledge through educational research, in relationship to the amount invested and number of research projects, is believed to run well ahead of new knowledge discovery rates in other fields.

NEXT STEPS TO IMPROVE THE QUALITY OF SCHOOLS

Beginning in a small way as it did, in a field in which scientific research had been badly neglected, the cooperative research program is rapidly becoming a major force for educational excellence in the United States. Its projects are seeking answers to a wide range of critical questions that confront schools. They are being directed by competent researchers, including in increasing numbers investigators from such fields as sociology, anthropology, psychology, political science, economics, the arts, English, foreign languages, and the sciences as well as from education itself. Equally important to the enlistment of the efforts of established researchers is the role the cooperative research program is playing in recruiting and training young research workers, a function that needs to be expanded through a fellowship program.

Improvements in the quality of educational research are being made by the leadership provided by the cooperative research program. Staff members conduct and organize seminars, on both regional and national bases, to identify critical research problems and to refine research designs, procedures, and instrumentalizations. Consultation is being provided to individual researchers and to institutions to improve the quality of research proposals, designs, and procedures. Such assistance is particularly valuable to smaller institutions whose resources for educational research are yet to be tapped. Outstanding research scholars have been commissioned through cooperative research contracts to systematically analyze educational research procedures as applied to particular problem areas and to suggest improvements that have greater promise. Finally, results of research are being distributed widely through the publications of the Office of Education, in research papers presented at meetings of various educational organizations, and through the professional periodicals.

The value of the cooperative research program, to date, rests primarily in the support it has provided for basic research. With no stockpile of knowledge on which to draw, it is essential that this type of discovery be continued and expanded as rapidly as possible. Educational programs will be no better than the basic knowledge from which they are created. As discoveries are achieved through basic research, the next steps involve the organization of programs of field testing and development to translate knowledge into efficient and workable educational programs and practices. Project English, recently announced by Commissioner McMurrin, is a good example of a developmental project. As is the case in other fields, often basic and developmental research proceed hand in hand as a part of the same project since any type of application always raises new problems that must be solved to permit further progress.

The final phase of a comprehensive program of educational research, that Congress authorized under the cooperative research program, provides for the transfer of the refined results of developmental projects to all schools. This last effort involves the school by school reorganization of curriculums, the updating of the preparation of teachers, the tooling-up of instructional resources, and the development of systems of quality control to guarantee that outcomes sought will be achieved.

The cooperative research program has successfully inaugurated the first phase of its mission—that of stimulating sound basic research efforts. It is moving into field testing and demonstration operations out of which will come direct nationwide improvements in schools. Advancement of the programs through these successive stages will require substantially greater appropriations from the 87th Congress. For example, about \$10.75 million (\$20.47 million on a full-funding basis) will be needed in fiscal 1963 to finance approved basic research projects and to initiate a fellowship program for young researchers. The amount of \$120 million will be required to establish a program of field testing and demonstration in all subject fields that are not now supported adequately by the National Science Foundation, to develop a quality program of teacher education for the Nation (including the inservice improvement of teachers), and to provide regional research centers that tap the resources of schools, State departments and colleges and universities to study school problems peculiar to each section of the country.

The amount needed to finance a comprehensive program of research and development aimed at increasing the quality of schools is justified by the success of the first phase of the program. It must be provided if schools are to be improved. At present, expenditures for educational research, both basic and applied, from all sources including the contributions of philanthropic foundations,² are less than one-half of 1 percent of the annual operating budget for education in the United States. This level of investment must be compared with the 5 to 15 percent of annual operating budgets that business and industry finds it necessary to invest in research to keep solvent and abreast of the times. For education to do the same, it must substantially increase its investments in educational research and development.

Not all the funds needed for educational research and development will come from the Federal Government. Local school systems, State governments, business and industry and philanthropic foundations will bear their share of the research costs. Experience with the cooperative research program so far indicates that for every dollar of Federal money invested in research, \$4 to \$6 from local and other sources are being made available. The cooperative research program, being the partnership that it is with the State departments of public instruction, local schools, and institutions of higher learning, provides leadership and stimulation for greater investments in research by all other agencies.

The promise of excellence in education rests on the willingness of the Nation to support a comprehensive program of educational research and development to improve schools. Authority for such a program is already established in the original legislation that created the cooperative research program in the Office of Education. Although this basic legislation needs now to be amended to permit grants for research as well as contracts, a change being sought by the leaders in the program, it exists as the major vehicle through which the Federal Government, State agencies, local schools, colleges and universities may jointly achieve quality objectives for schools.

(Whereupon, at 12:35 p.m., the subcommittee recessed, to reconvene at 2 p.m. the same day, March 2, 1962.)

AFTER RECESS

(The subcommittee reconvened at 2 p.m., Representative Frank Thompson, Jr., chairman of the subcommittee, presiding.)

Mr. THOMPSON. The subcommittee will be in order.

² The Ford Foundation actually invests more each year to improve schools than does the Federal Government.

I ask unanimous consent that two letters, one from Alan Waterman, Director of the National Science Foundation, and one from Dr. Eugene Wilson, of Amherst College, be admitted to the record.

Without objection, it is so ordered.

(The letters referred to follow:)

NATIONAL SCIENCE FOUNDATION,
OFFICE OF THE DIRECTOR,
Washington, D.C., March 1, 1962.

HON. FRANK THOMPSON, JR.,
Chairman, Select Subcommittee on Education, Committee on Education and Labor, House of Representatives, Washington, D.C.

MY DEAR MR. THOMPSON: This is in reply to your letter of February 23, 1962, regarding the forthcoming hearings of the Select Subcommittee on Education of the Committee on Education and Labor relating to H.R. 10145, the administration's proposed legislation to improve the quality of elementary and secondary education.

We are happy to be able to present our views on this legislation and feel we can appropriately do so by way of written communication without the need for personal appearance. It is our general view that the proposed legislation would be of considerable assistance in furthering the progress of education in the United States and we recommend its enactment.

With regard to section 101 of title I, authorizing institutes for advanced study for teachers in elementary and secondary schools in subject matter areas, as you undoubtedly know, since 1953 the National Science Foundation has been supporting a program of institutes for high school teachers of science and mathematics. We estimate that in fiscal year 1962 the Foundation will obligate approximately \$23 million for summer institutes for such teachers. At the secondary school level the Foundation is also supporting in-service institutes for about 13,000 participants and academic year institutes for approximately 1,700 teachers this fiscal year. We feel that all these programs are making a very substantial contribution toward improving the subject matter training of secondary-school teachers of science and mathematics.

We feel that extension of the institute concept to areas of education other than science and mathematics and foreign languages (as presently authorized under the National Defense Education Act) would be of great assistance in improving the quality of education in such areas and we are therefore strongly in favor of such activities.

We would also like to mention particularly section 202 of H.R. 10145, which would amend the act of July 26, 1954, relating to cooperative research activities by the Office of Education. We believe that the authority which would be provided by section 202 of the bill would be of significant assistance to the Office of Education in the carrying out of educational research activities and would enable it to support endeavors which would be of considerable benefit to all areas of education in the United States.

Thank you for giving us an opportunity to comment on the bill.

Sincerely yours,

ALAN T. WATERMAN, *Director.*

AMHERST COLLEGE,
Amherst, Mass., February 28, 1962.

HON. FRANK THOMPSON, JR.,
House of Representatives, Washington, D.C.

MY DEAR MR. THOMPSON: I have just read with great interest bill H.R. 10145, which you have introduced in the House of Representatives.

In my mind this is one of the most exciting suggestions for improving education I have heard about in my 22 years of college work.

For 16 years I have been in admission work and this work takes me about the country where I visit 50 to 100 high schools a year. In these high schools I have a chance to talk to principals, counselors, and teachers. I have met with many teacher groups and am now chairman of the National Association of Secondary-School Principals' Committee on School-College Relations.

I think no one will argue against the statement that the heart of all education in America is the army of teachers in elementary and secondary schools. About one out of five of these, as you know, have not met full certification stand-

ards for teaching or have not had 4 years of college work. Furthermore, teachers who have met all certification requirements typically carry 5 courses a day, 5 days a week, and the number of pupils under their care numbers 150 to 250 in these five classes.

Your bill will make every teacher who participates in your scholarships and institutes a better teacher, not only better in terms of knowing more about his subject, but also a teacher with higher horizons and expectations because of his special study under your program.

I have had a chance to talk to teachers who have participated in the John Hay fellowships for 4 weeks in the summer and I know what this brief period of special study has done for these teachers and how it has revitalized their teaching methods.

I have just returned from the annual meeting of the National Association of Secondary-School Principals in St. Louis and I had a chance to talk to principals who had had teachers in this John Hay fellowship program. I heard these men report of the new enthusiasm and dedication brought back to the school by teachers who had benefited from these 4-week programs.

In my opinion, no more important proposal has been presented to Congress for the revitalization of our basic educational work than your bill. I want to do everything I can to promote its passage and I hope you will feel free to call on me for any assistance you think I may give.

Good luck to you.

Sincerely yours,

EUGENE S. WILSON, *Dean of Admission.*

Mr. THOMPSON. Gentlemen, would you please identify yourselves for the record, and then proceed as you wish?

Mr. McGUIRE. I believe we would like to begin with Dr. Flanders, Mr. Chairman, who has to catch a plane at 3:30.

STATEMENT OF DR. NED FLANDERS, PROFESSOR OF EDUCATIONAL RESEARCH, UNIVERSITY OF MICHIGAN

Dr. FLANDERS. Thank you, Mr. Chairman.

I would like to make some general remarks concerning this bill that is before this committee, as a person whose job it is to conduct research in public school systems and in the University of Michigan, and as a person who consults with school districts and with other educators in the design of educational research.

My general reactions to the bill are that it will stimulate educational research which is desperately needed.

The amount of research that has been going on in the last 100 years should give the Federal Government cause to be concerned and to ask the question:

Have the States and local school districts made wise choices in the allocation of funds for educational research? I view it as a function of the Federal Government to take those steps that seem wise to stimulate educational research throughout the United States.

I sat on a school board for 3 years as well as having been a professor of education, and I know the kind of decisions that in every monthly meeting are decided by the school board. I know that they are, rightly or wrongly, seeing themselves as vulnerable in the expenditure of funds that, in the very least, seem out of precedence or reason, or any kind of innovation seems to be a high risk.

The research provisions of this particular bill will stimulate, in my opinion, increased research activities, and the increased local responsibility for further educational research activities.

I make the same distinction that has already been made at these hearings, between general aid to education and stimulating or a cloud-

seeding effect in which a little bit of Federal money spent wisely will stimulate a great increase in the research activities at the various States.

Let me give a specific example. We have, in the State of Michigan, just created a Michigan Council for Educational Research. This has a constitution. It will have an executive secretary who will be an assistant superintendent of instruction for the entire State of Michigan.

Thus, we have already laid the groundwork in the State of Michigan for the utilization of funds that are provided in this bill, and, should it be passed, when this kind of money comes to the State of Michigan there will be an existing organization already established that can coordinate the activities of the State department and of the various local school districts in a cooperative effort to implement these funds.

For example, within the constitution itself we have provisions for a committee to coordinate research activities throughout the State, to provide consultant help, to disseminate research information, to demonstrate the application of research principles at the local school district level, to help secure financial aid for additional research and demonstration, and to advise the State department on policies concerning educational research.

I submit that if this bill is passed, the growth and effectiveness of the Michigan Research Council will be accelerated far beyond its growth that would occur without the support that could be provided for a bill such as the one being considered here today.

I would like also to talk a little bit about the problems of improving instruction in order to increase the quality of education in our public schools.

In my own research, which includes the analysis of teacher behavior in the classroom, we are beginning to find evidence that the improvement of classroom instruction is not likely to occur merely by reading or understanding or having greater knowledge of the art of teaching.

We have some evidence to suggest that poor quality teachers are aware of certain principles of teaching, and they are aware of certain aspects of the material that they are supposed to teach.

Their problem is that they do not know how to apply what they know as well as a high quality teacher does.

I should like to point out for the record that these 2,500 teachers who may receive scholarships are going to go back to their own school district with increased knowledge, more enthusiasm, and the prestige that will come from having been identified with this kind of scholarship program.

In my opinion, these teachers are going to infect their fellow teachers with an attitude for improvement, very much like missiles will spread through a kindergarten.

In this particular way, I feel that it is this master teacher and his ability to help his fellow teacher apply information that is going to help pay off in the long run.

Therefore, I see the provisions, however small they may be, as worth carrying out and worth supporting.

In concluding, I would like to react to some of the questions that were raised this morning, particularly by Congressman Griffin. I

spent a Fulbright research year in New Zealand, which is a country with a centralized system of education. It is a country in which one man is responsible for all educational policies. He is directly below Cabinet rank.

I have seen what is supposed to be the vicious Federal control of education in action. In my opinion, the centralized system of education in New Zealand has been far more effective in creating equality of educational opportunity in the Commonwealth.

I know that in 1959 in the State of Minnesota the lowest per capita cost of a student being educated in that State was \$208, and the highest was \$556. The money expended for the education of a single pupil in all other school districts was between these two extreme figures.

That kind of disparity of educational opportunity does not exist in New Zealand.

On the other hand, New Zealand is doing the very best job it can do to throw off the centralized control that grew out of the old school inspectors system, and the teachers union, so to speak, is rebelling, and have successfully thrown off this yoke.

So I would make this comment, concerning where you draw the line in terms of Federal control. In New Zealand, they are keeping certain advantages of centralization, such as equality of educational opportunity, and very slowly shifting other aspects of their program so that it becomes decentralized and falls under local control.

I would call to your attention that in the last 30 years there have been certain steps taken by the Federal Government to centralize some functions of education which, in my opinion, need to be centralized. Among those would be the increased equality of educational opportunity for boys and girls throughout our 50 States.

In concluding, I can only say this, that I have met at Atlantic City 2 weeks ago, and at another convention in Chicago 3 weeks ago, a great many men who are the top people, in my opinion, in the field of educational research.

These were the meetings of the American Educational Research Association and the meetings in Chicago for teacher education.

At these meetings I heard a great deal of excited interest in the very act that we are here discussing, the increased quality of education. I talked with a number of people about this, and of the possibilities that we might testify before you.

Every person that I talked to showed a great deal of interest and excitement in it. It seems to be an area long neglected, into which the Federal Government should rightfully move. I heard no one disparage it or detract from its central purpose.

In my opinion, there will be a great deal of support for this bill should it be passed by this Congress.

Thank you very much.

Mr. THOMPSON. Thank you. I think to a very large extent one draws the line requested by our colleague, Mr. Griffin, at the point where he, himself, as an individual would draw it, and it varies.

I, for one, am not afraid of Federal control of education, and I think to a very large extent it is just a bugaboo. There are some things—there are certain things, that are sacred in this institution, and elsewhere: mother, the flag, the family dog, local control of education, to name just a few.

These visions are always conjured up at an appropriation time. I am glad you have said what you said. I have never seen a place where I would draw the line yet, because in my opinion, my colleague, Mr. Pucinski's feeling that local boards, the district boards of education, are concerning themselves with quality education, is erroneous.

In the first place, with all due respect to them, in my area, at least, without identifying any of them, they run for office. I do not know how many of them have any real educational background themselves, and I do not know but a handful who have any real qualifications to sit as a school board.

Dr. FLANDERS. I find in my contacts with the school board that I am impressed by their dedication and their interest in running a good school system. But I also perceive a group of people who are up to their necks trying to keep the on-going program alive, trying to raise bond funds for the construction of school buildings, and problems of this sort. Neither the school board nor the superintendent, nor the faculty at the present time, of these various school districts, seem to have the money, space, and time to do research.

Research for the improvement of instruction and the increased quality of education in the United States takes money, space, and time.

If a school district can see a successful project next door to it which was stimulated by Federal money, in my opinion, they will be better prepared that following month to allocate funds in their own district so that the other district won't get ahead of them.

I would like to submit my additional written document, if I may, for the record.

Mr. THOMPSON. Without objection, it will be admitted into the record.

(Prepared statement of Dr. Ned Flanders follows:)

STATEMENT OF NED A. FLANDERS, PROFESSOR OF EDUCATIONAL RESEARCH,
UNIVERSITY OF MICHIGAN

Gentlemen, one of the reasons that I may have been invited to come here today is that I have been systematically observing teachers for the last 5 years, directly concerned with the undergraduate students who want to become teachers, and in contact with experienced teachers who would like to improve their classroom instruction each summer. Naturally, I have some convictions about the current quality of our education and how it can be improved.

It is too bad that you cannot pass the one obvious act which, in one blow, would double the quality of education at no cost to the Government and taxpayers. All this Congress need do is pass a law which prohibits attractive, intelligent females between the ages of 20 and 25 from marriage and pregnancy. Among our most intelligent education students, four out of five females, and one out of two males, will not be in classrooms 3 years after graduation. We lose the women to men and the men to industry.

Let me speak directly to the provisions proposed by the President to improve the quality of education.

First, scholarships and full year institutes.—Scholarships are proposed "for excellent teachers" not for the average or below average. This is a wise choice. It is the excellent teacher who suffers most from lack of time, not the average or below average. Time is needed just to think about how to improve, to mobilize enthusiasm, to be stimulated; it is also needed to develop and construct new instructional materials, more interesting ways to present subject matter; finally it is needed because teacher preparation is hurried and the excellent teacher had too little time to broaden and sharpen his general education.

The provision of funds to create these institutes at universities and colleges is an essential companion action to the scholarship proposal because education faculties are barely able to keep up with the production of teachers.

What will happen to an excellent teacher who attends such an institute on a scholarship? He will learn more about his subject matter, he will discuss and evaluate new teaching techniques, he will be brought up to date on learning machines and new educational media, and he will set higher standards for his own professional performance.

What will happen when he returns to the classroom? He is quite likely to return a more enthusiastic, professional, and vigorous teacher who is in a far better position than anyone else to infect his fellow teachers with a renewed interest in teaching much like a fresh case of measles spreads through a kindergarten.

Why should the Federal Government pay for this? I believe it the fastest method of increasing local responsibility. State departments and boards of education are too vulnerable to risk much capital on even reasonably innovations, but the moment a decision to improve instruction is based on precedents such as this Federal program would create, more and more school districts would take action. I would expect a widespread constructive fallout to result from this kind of Federal program that would stimulate local responsibility.

Second, the amendments to the Cooperative Research Act.—No proposals that I can remember during the last 15 years have stimulated more excitement and interest among educators. The whole idea of demonstrations, of bringing research into local school districts, of creating centers of innovation and evaluation, is an imaginative and bold step in a new direction long neglected. These proposals may provide the first, practical meeting place for the theorists up on cloud nine and the practitioners whose vision is often blurred by the dust of hard work.

Last week I consulted with a teacher of language skills and English from a nearby junior high school. In cooperation with other teachers, consultants, and our university faculty, he produced a sound proposal to evaluate a language laboratory. He could not submit this proposal under the existing cooperative research program; the only way it could be considered would be for the State department or the university to take it over and submit the proposal as its own. The proposed amendments would permit this outstanding young teacher to submit his own proposal for competitive funding.

In Michigan we have formed the statewide Michigan Educational Research Council complete with constitution and executive director. This agency will permit Michigan to take full advantage of these amendments that are being considered. We will be in a good position to stimulate a voluntary cooperation of effort between local and Federal resources. Without the cloud seeding effect of Federal support, our statewide council will take 10 years longer to establish coordination of research and the application of research.

I urge you to give these proposals your strongest approval.

Dr. FLANDERS. Thank you very much for the privilege of being able to come here, and I hope you will excuse me for leaving early.

Mr. McGUIRE. Dr. Lyle Spencer.

STATEMENT OF DR. LYLE SPENCER, PRESIDENT, SCIENCE RESEARCH ASSOCIATES, CHICAGO, ILL.

Dr. SPENCER. Mr. Chairman, I serve as president of Science Research Associates, a Chicago publishing company. My business is devoted in large part to attempting to measure the quality of education in various school systems. You mentioned this morning, Mr. Chairman, your interest in the national merit scholarship program.

This is one of the programs that we conduct. I would like to talk briefly as a businessman rather than as an educator.

My testimony is to the effect that I feel that sensible investments in educational research can do more than any other single method of strengthening the quality of education in our schools.

My feeling is not based on scholarly enthusiasm, but on the fact that I think can be demonstrated in many, many ways, that such research investments will pay for themselves many times over in

educational improvement, and frequently in the saving of taxpayer money.

I would like to list briefly four reasons why I feel that the pace of educational research needs to be stepped up greatly.

The first is that the explosion of knowledge which our country and the world is now experiencing will require a learning revolution to keep pace. As you know, human knowledge is approximately doubling every 10 years. Around the world, 60 million pages of research in all fields of science are published every working day, enough to fill seven complete sets of the "Encyclopedia Britannica."

Up-to-date scientific libraries are doubling in size every 8 years. Although the full implications to our society of this knowledge explosion are not yet even dimly understood, even the obvious results are enough to inspire all.

Just as one illustration, if a young Ph. D. chemist decided today to devote the rest of his life solely to keeping up to new developments in the field of chemistry, each year of monominded effort would find him 9 years behind the times. Even in my own stodgy field of business, every major executive must acquire the equivalent of an additional college education every 10 years just to keep abreast of his competition.

I shudder to think about the vast amount of knowledge you gentlemen in the field of Government must assimilate daily to make responsible decisions about the endless number of bills on which you must vote.

Nor should we assume that this knowledge explosion affects only the professional, managerial, and Government people in our society. In 1959, for the first time in the history of any country, more American workmen wore white collars than blue shirts.

In other words, they depended mainly on trained minds rather than strong backs to earn their living. The trend in this direction gains added momentum year by year.

Even now, the millions of unemployed who currently worry us so much are composed overwhelmingly of people who either have not learned or lack the capacity to learn.

About half the day-to-day decisions an adult must make to be a self-supporting citizen depend upon his knowledge of mathematics and science. Too many millions have not acquired even the rudimentary skills in these areas.

Now, for point 2, why is this knowledge explosion occurring? It is being produced directly by the more than \$14 billion being spent annually on research and development in the United States, plus added billions by other countries.

I have many more examples of these sorts of things, if we had time. They are in my written testimony.

Without understanding exactly why, most citizens have an abiding—indeed almost a naive—faith in the value of research in the hard science fields.

When an Enrico Fermi produces a nuclear chain reaction in a squash court, for example, or a Jonas Salk pours out a new polio vaccine, we taxpayers all understand that such breakthroughs have resulted from careful research financed largely by the Government,

that such research costs major money, and all of us are glad to pay our portion of the bill.

Similarly, in the industrial world, executives consider research and development expenditures an essential cost of doing business. Many companies, especially in the high technology growth fields, devote from 5 to 15 percent of their entire income to research and development. My own company this year is spending 11 percent of its total sales on R. & D.

The dollars-and-cents value of such business investments is beyond question. Cumulatively, they are the main cause of the vital statistic that makes our country's living standard grow and keeps us great—the annual compound 3-percent increase in labor productivity which America has averaged for the last 60 years and more.

Why then, as my point 3, has this idea of large-scale, continuing research permeated so little into the world of education, where the opportunities and needs are equally great, if not greater?

Possibly the need for rapid educational progress based on research has not yet become clear to everyone. Perhaps not enough popular education heroes have so far emerged to fire the popular imagination. Education badly needs its own John Glenn.

Education has also been hindered seriously by a lack of precise measuring tools and learning theory capable of demonstrating objectively what enormous progress can be accomplished.

In any case, educational progress these days is demonstrably being stunted by a lack of research money to finance essential explorations and inventions.

Finally, and point 4, the evidence is dramatic in demonstrating the value of good research to improving education when it gets a chance to show what it can do.

Let me illustrate:

(1) In Miquon, Pa., I recently sat through a reading class in which 7-year-olds were reading "The Wind in the Willows" and other children's books of comparable difficulty.

These normal second-graders had essentially completed the process of "learning to read"—that is—being able to recognize in print most of the words that were already in their speaking vocabularies.

The majority of children have not yet completed this process by the sixth grade. Most adults, on the average, do not read appreciably better than an eighth-grade schoolchild. The Miquon reading process is based upon a carefully researched structural linguistics program.

(2) It is said that parents constitute the greatest untapped source of teaching talent in the country. In Denver, Colo., a large group of enthusiastic parents are learning by television how to teach their own preschool children how to read.

This work, financed by a foundation grant, is supervised by local school people, most of whom are equally enthusiastic about the experiment.

Incidentally, that illustrates another value of research. All of us know a great many things that are not so, and one of the things of education is that parents should not attempt to teach their own children how to read. The evidence is not conclusive here yet, but it looks favorable.

If it should turn out this way, it can have an immense effect in every community.

(3) In Cleveland, Ohio, more than 100,000 students in kindergarten through the sixth grade are being taught modern mathematics by a new method developed through research. This modern mathematics emphasizes self-discovery rather than rote memorization and introduces both the elements of binomial expansion and logic as early as the first grade.

Binomial expansions are part of high school algebra. Logic is not usually taught until college.

Carefully controlled studies show that these young children are joyously learning this modern math—often to the pleased mystification of their parents.

Additionally, these same children rate about half a year ahead of their contemporaries even in learning traditional mathematics besides the new math.

Equally interesting, arithmetic for them, rather than being the least popular subject in the curriculum as it is in most schools, rates as the most popular.

(4) In New York City, at Public School 43 and the George Washington High School, a research project was undertaken a few years ago to determine what sort of improvement could be made among culturally deprived children coming from some of the worst slums of the city.

Children from this type of background produce more than 70 percent of New York City's juvenile delinquency and a high proportion of the early school dropouts who soon become typically chronically unemployed.

Over a period of 4 years, among the children on whom the experiment was conducted, juvenile delinquency was reduced almost to the vanishing point, school dropouts were cut by half, and the proportion going to college more than tripled.

Interestingly enough, such investments can often save taxpayers many times their cost, as in the cases where research can help reduce juvenile delinquency and unemployment.

In conclusion, the initial expenditures recommended by H.R. 10145 are modest, as they should be. Good educational research facilities in the United States are in distressingly short supply, and the first-rate scholars to man these facilities need to be increased greatly in number. Cold-eyed evaluators are required to select only the very best research proposals for financing.

Nevertheless, an explosion of educational knowledge is desperately needed to keep pace with other areas of learning growth. Among other things, we also need a new Darwin to write "Education of the Species" to help the rest of us understand the problem.

Thank you.

Mr. THOMPSON. Thank you, Doctor, that was a fine statement.

(Prepared statement of Dr. Lyle M. Spencer follows:)

STATEMENT BY LYLE M. SPENCER, PRESIDENT, SCIENCE RESEARCH ASSOCIATES, INC., CHICAGO, ILL.

My name is Lyle Spencer. I serve as president of Science Research Associates, a Chicago publishing company.

My purpose here today is to testify in favor of section 202 of the House Resolution 10145, "Improving the Quality of Elementary and Secondary Education," with special reference to increasing research funds available for comparative research and development projects.

It is as a businessman rather than as an educator that I wish to speak to you today. In my judgment, hardminded, sensible investments in educational research can provide the most effective single method of strengthening our schools. Judicious expenditures for this purpose are justified not by idealism or scholarly enthusiasm in my view, but by the fact that they will pay for themselves many times over as educational investments.

It is good business—I might even say imperative business—for American education.

I will list four reasons why the pace of educational research needs to be stepped up greatly.

The first is that the explosion of knowledge which our country and the world is now experiencing will require a learning revolution to keep pace.

As you know, human knowledge is approximately doubling every 10 years. Around the world, 60 million pages of research in the fields of science are published every working day, enough to fill 7 complete sets of the Encyclopedia Britannica. Up-to-date scientific libraries are doubling in size every 8 years.

Although the full implications to society of this knowledge explosion are not yet even dimly understood, even the obvious results already inspire awe. As one illustration, if a young Ph. D. chemist decided today to devote the rest of his life solely to keeping up with new developments in the field of chemistry, each year of monominded effort would find him 9 years farther behind the times. Even in my stodgy field of business, every major executive must acquire the equivalent of an additional college education every 10 years just to keep abreast of his competition.

I shudder to think about the vast amount of knowledge you gentlemen in the field of government must assimilate daily to make responsible decisions about the endless number of bills on which you must vote.

Nor should we assume that this knowledge explosion affects only the professional, managerial, and government people in our society. In 1959, for the first time in the history of any country, more American working men wore white collars than blue shirts. In other words, they depended mainly on trained minds rather than strong backs to earn their living. The trend in this direction gains added momentum year by year.

Even now, the millions of unemployed who currently worry us so much are composed overwhelmingly of people who either have not learned or lack the capacity to learn. About half the day-to-day decisions an adult must make to be a self-supporting and responsible citizen depend upon his knowledge of mathematics and science. Too many millions have not acquired even the most rudimentary skills in these areas.

Now, for point 2, why is this knowledge explosion occurring? It is being produced directly by the more than \$14 billion being spent annually on research and development in the United States, plus added billions by other countries. More than half of this 14 billion has been voted directly by the Congress and is, of course, public money.

In the history of the world, nearly all human progress has resulted from the widespread use of discoveries and inventions—we now call them research findings.

Without understanding exactly why, most citizens have an abiding—indeed almost a naive—faith in the value of research in the hard science fields. When an Enrico Fermi produces a nuclear chain reaction in a squash court, for example, or a Jonas Salk pours out a new polio vaccine, we taxpayers all understand that such breakthroughs have resulted from careful research financed largely by the Government, that such research costs major money, and all of us are glad to pay our portion of the bill.

Similarly, in the industrial world, executives consider research and development expenditures an essential cost of doing business. In fact, the major strategy of competition for most large companies is determined by the quality of their research laboratories. Many companies, especially in the high technology growth fields, devote from 5 to 15 percent of their entire income to research and development. My own company this year is spending 11 percent of its total sales on R. & D.

The dollars-and-cents value of such business investments is beyond question. Cumulatively, they are the main cause of the vital statistic that makes our country's living standard grow and keeps us great—the annual compound 3 percent increase in labor productivity which America has averaged for the last 60 years and more.

Why then, as my point 3, has this idea of large scale, continuing research permeated so little into the world of education, where the opportunities and needs are equally great?

Possibly the need for rapid educational progress based on research has not yet become clear to everyone. In thousands of American towns, the finest and largest building in the community is the local high school. But the quality of education provided in its classrooms is still not a matter that vitally concerns enough local citizens.

Perhaps not enough popular education heroes have so far emerged to fire the popular imagination. There have been no Newtons and Einsteins, let alone folk heroes like Edison and Ford. Mark Hopkins astride a log with a student at the other end provides a nostalgic image of the great educator, but it is not an image that sends brilliant youngsters racing to find their own logs. Education badly needs its own John Glenn.

Education has also been hindered seriously by a lack of precise measuring tools and learning theory capable of demonstrating objectively what enormous progress can be accomplished.

We can watch our own children grow physically, but only indirectly and with great difficulty can we see how their wonderful minds develop. Greatly improved measuring instruments are now being developed to overcome this problem.

In any case, educational progress these days is demonstrably being stunted by a lack of research money to finance essential explorations and inventions.

Although education is a larger American industry than automobiles or utilities—we are spending some \$30 billion a year on our schools—less than one-half of 1 percent of this sum, including all sources of revenue, is spent on research to improve this enormous plant and process. The Ford Foundation alone donates more money to support this noncontroversial educational effort than the Federal Government.

Finally, and point 4, the evidence is dramatic in demonstrating the value of good research to improving education when it gets a chance to show what it can do.

Let me illustrate:

(1) In Miquon, Pa., I recently sat through a reading class in which 7-year-olds were reading "The Wind in the Willows" and other children's books of comparable difficulty. These normal second graders had essentially completed the process of "learning to read"—that is—being able to recognize in print most of the words that were already in their speaking vocabularies. The majority of children have not yet completed this process by the sixth grade, nor have most adults who, on the average, do not read appreciably better than an eighth grade school child. May I add that about 90 percent of everything we ever learn comes from reading. The Miquon reading process is based upon a carefully researched structural linguistics program.

(2) It is said that parents constitute the greatest untapped source of teaching talent in the country. In Denver, Colo., a large group of enthusiastic parents are learning by television how to teach their own preschool children how to read. This work, financed by a foundation research grant, is supervised by local school people, most of whom are equally enthusiastic about the experiment.

This study illustrates another value of research. All of us know a great many things that are not so. Most educators as well as most parents have, previously believed that it was unwise for mothers and fathers to teach reading skills to their own children. While the results of this study are not yet conclusive, it begins to appear that this educational belief is probably not true. If confirmed by further research, this study may have immense value in every community.

(3) In Cleveland, Ohio, more than 100,000 students in kindergarten through the sixth grade are being taught modern mathematics by a new method developed through research. This modern mathematics emphasizes self-discovery rather than rote memorization and introduces both the elements of binomial expansion and logic as early as the first grade. Binomial expansions are part of high school algebra. Logic is not usually taught until college.

Carefully controlled studies show that these young children are joyously learning this modern math—often to the pleased mystification of their parents. Additionally, these same kids rate about half a year ahead of their contemporaries even in learning traditional mathematics. Equally interesting, arithmetic for them, rather than being the least popular subject in the curriculum as it is in most schools, rates as the most popular.

The money for this research project has come mainly from businessmen in Greater Cleveland who have been concerned about the need for students obtaining a better grasp of mathematics.

(4) In scores of colleges last fall, thousands of incoming freshmen were admitted with advanced standing, which in some cases made it possible for them to skip their entire freshman year. Most of these bright, diligent students had begun their college work while still in high school. A well designed research project has again provided a clean solution to an educational controversy which has raged for more than 30 years—whether unusually able students should start to college early or be kept in educational lockstep with their own age group. The early admissions program, which is now growing rapidly, enables outstanding students to progress as fast as their brains and ability will carry them educationally, yet without exposing them to the emotional problems of being thrown too much with older students through rapid promotion.

(5) In New York City, at Public School 43 and the George Washington High School, a research project was undertaken a few years ago to determine what sorts of improvement could be made among culturally deprived children coming from some of the worst slums of the city. Children from this type of background produce more than 70 percent of New York City's juvenile delinquency and a high proportion of the early school dropouts who soon become chronically unemployed.

Over a period of 4 years, among the children on whom the experiment was conducted, juvenile delinquency was reduced almost to the vanishing point, school dropouts were cut by half, and the proportion going to college more than tripled.

Other educational programs based on this research project are now spreading rapidly and may already affect as many as 250,000 children.

Unhappily, there are about 11 million such culturally deprived children who desperately need similar help.

These examples are only a few among many I might use to illustrate the civic income to be derived from blue chip educational research investments.

Interestingly enough, such investments can often save taxpayers many times their cost, as in the cases where research can help reduce juvenile delinquency and unemployment.

The initial expenditures recommended by House Resolution 10145 are modest, as they should be. Good educational research facilities in the United States are in distressingly short supply, and the first-rate scholars to man these facilities need to be increased greatly in number. Cold-eyed evaluators are required to select only the very best research proposals for financing.

Nevertheless, an explosion of educational knowledge is desperately needed to keep pace with other areas of learning growth. Among other things, we also need a new Darwin to write an "Education of the Species" to help the rest of us understand the problem.

Mr. McGUIRE. Dr. McCloskey will be next.

STATEMENT OF DR. GORDON McCLOSKEY, PROFESSOR OF EDUCATION, WASHINGTON STATE UNIVERSITY

Dr. McCLOSKEY. Mr. Chairman, and Mr. Pucinski, it looks as if most of us here today are agreed that research is one major means of increasing the quality of education. I will summarize my remarks by simply citing four examples of research that I think yield immense benefit to the people and to the Nation. It is pretty clear that we need research that will enable teachers to identify and develop all of the capacities of all of the kids.

We especially need much more knowledge about ways to better develop pupils' capacity to reason, to analyze and to invent. We have done pretty well on measuring kids' capacities to memorize and develop those capacities to memorize. But in a world where reasonable size progress is more important than ever, we are sadly lacking on ability among ourselves even to identify these more creative qualities,

and certainly we know very little about how to go about developing them. We also need a lot more knowledge on how to motivate pupils to learn, and, more important in a world of change, to keep on learning.

We know that at the present time, inadequate motivation slows the learning of millions of kids. As other people have noted, we also know that millions of the presently unemployed people are very reluctant to take the retraining they need just to get in a modern occupation.

This is quite largely because we in this business, frankly, have not known how to motivate a long-range abiding interest in lifelong learning. We would like to have ways to go about finding out how we can do this. We need more facts about how to use modern teaching tools effectively.

Mr. Pucinski mentioned this this morning. Specifically, we need a lot more information about what combinations of books, magazines, laboratory equipment, these new teaching machines, and television will yield the best results for various kinds of learning, memorization, analysis, reason.

We do not have this information. But if we are to prepare these kids to make a living in the modern world, and to make their contribution to the kind of a world we are going to have, obviously we need to know how to do this a lot better than we do now.

Another thing we need a lot of information about to raise the quality of schooling is how can we better use school buildings and personnel. We need facts about ways to design schools, ways to group students, ways to combine the talents of teachers, supervisors, and clerical workers, so we get the best result for each of these billions of dollars we are spending.

We want to get good results for each dollar. Certainly, this research will pay great dividends in terms of contribution to the education of the kids, and certainly will make the taxpayers happy.

I have only one other item that I think has not been covered here.

Well, first, obviously, I have selected a few of the many kinds of critical jobs we guys who sit around the educational shops feel we ought to get done, so this is only a sampling.

But I think I would like to assure you gentlemen that the proposal you have under consideration here is designed to stimulate and to co-ordinate the research resources, the latent resources we have out here.

In most of our universities and colleges, and in most of our State departments of education, and in some local school systems, not very many but some, there are well trained research people.

The thing they do not have now is funds which enable them to use some of their own time or to employ assistants or even clerical service to get that research done.

This proposal before you gentlemen here today, I can assure you, will stimulate the use of the big resources we have out there. Any competent educator will tell you gentlemen that we need more trained research workers, and I thoroughly agree with that. But we are not even using the ones we have now. They are sitting around there doing clerical work, and they are sitting around there doing little technical repetitive jobs that any good assistant could do.

I think that one of the main values of the proposal you are considering today is that this will stimulate the manpower that is out here.

It will also stimulate universities and State departments to put some of their money into this kind of thing because they now have a little bit of seed corn here to work with.

Gentlemen, I join my colleagues in thanking you very much for the hours you have given us today.

If I may, I would like to file my statement in the record.

Mr. THOMPSON. Without objection, it is so ordered.

(Prepared statement of Dr. Gordon McCloskey follows:)

STATEMENT OF GORDON MCCLOSKEY, PROFESSOR OF EDUCATION, WASHINGTON STATE UNIVERSITY

Mr. Chairman and subcommittee members, we educators appreciate this opportunity to discuss our Nation's educational research and development needs with your committee.

We speak in the interests of the 51 million children and youth in our schools and colleges, and in the interest of our national progress and prosperity. We know you share our desire to do all that is necessary to develop schools that will make our citizens self-supporting and productive.

In this technological era more young people need to learn more, faster than ever. Their opportunities to earn a living and the prosperity of our country depend on their doing so. Consequently teaching and the organization of our schools must be more effective than ever.

Each year industry spends billions of dollars on research and development because old manufacturing equipment cannot efficiently turn out modern products. For that same reason we need educational research and development that will enable us efficiently to provide the kinds and amounts of education our children and our Nation need. A few examples will indicate the immense benefits we can obtain.

We need research that will enable us to identify and develop all of the capacities of each boy and girl

This will enable teachers to provide each pupil with the kinds of training from which he and the Nation can benefit most. At present we have reasonably good means of developing pupils' capacity to memorize facts. That is fortunate, because each day knowledge becomes more important. But we have only very inadequate knowledge of ways to develop their capacity to analyze, reason, and invent. These latter qualities are of critical importance in our changing technical world. Our Nation's progress and security depend on widespread development of those qualities. That development depends on an expanded program of well-planned research. Until that research is done our schools will not be prepared to fully nurture the many capacities our youth possess.

We need research that will give teachers more knowledge of how to motivate pupils to learn and to keep on learning

Too many pupils now drop out of school. Too many work below their capacities. Too many bright youngsters do not attend college. Too many unemployed adults are unwilling to get the retraining they need to enter modern occupations. Too many small businesses fail because proprietors do not keep informed about new developments. Too many people are poorly informed about the issues and problems that confront governmental committees. Research on how to motivate people to keep learning throughout their lives is critical, because the magnitude and rate of change continually increases. The effectiveness of our entire educational system depends on such research.

We need research which will demonstrate how modern teaching tools can be used most effectively

Technology has made available unprecedented amounts of books, magazines, films, laboratory equipment, teaching machines, and television. What combinations of these instructional tools best provide the various kinds of knowledge and insights pupils need to work and live today and tomorrow? Which can yield the best results for pupils possessing various types of abilities? Fuller, more effective use of modern teaching materials awaits research.

We need research that will show how educational personnel can best be used to provide high-quality education for our increasing numbers of students

You folks know how enrollments are increasing. You are familiar with the teacher shortage. How can we design buildings, group students, and combine the talents of teachers, supervisors, consultants, and clerical workers to get the best results for each dollar we spend? We are making progress, but additional research promises substantial benefits to pupils and to taxpayers.

There is equal need for research in other areas. We will welcome opportunity to discuss these needs.

I can assure that the proposals you are considering provide a systematic and economical plan for pursuing urgent educational research. The proposed regional research centers will provide systematic and efficient means of using research funds. They are designed to stimulate and coordinate the professional and financial efforts of States, universities, and local school systems. Hundreds of competent researchers in universities, State education departments, and city schools have professional capacity and desire to pursue research. Funds recommended by the proposals we are discussing will help them employ the assistants and clerical services they need to utilize their talents. The fact that most of this research will be done in cooperation with teachers and administrators will facilitate rapid application of research findings.

The value of educational research depends largely on means of utilizing its results. Development of our proposed teacher training improvements will prepare more teachers to give more pupils the benefits of old and new knowledge.

Mr. THOMPSON. Mr. McGuire.

STATEMENT OF CARSON MCGUIRE, UNIVERSITY OF TEXAS, AUSTIN, TEX.

Mr. MCGUIRE. Mr. Chairman, and Mr. Pucinski, Mr. Griffin. My responsibility here is that of the behavioral scientists in the fields of both sociology and psychology who did a lot of early work in basic research on human behavior and who worked with industry, with the armed services, with medicine, and who have turned more and more to education as a place which is vital to all of these others.

Secondly, I think I have been selected from the people in the Southwest to come because we have done, with limited funds, some of the pilot things proposed in House bill 10145.

You might want to pick my brains when I am through as to what can be done and what are the costs, even, because I do have some knowledge from having the responsibility for initiating this kind of work and getting it done.

I want to go on three kinds of points: (1) The general picture; (2) the question of scholarship grants; and (3) the research and development centers.

There is no doubt in my mind, nor in the minds of my colleagues in Texas, not only in the university but the ones I have talked to in the State department, and the ones I have talked to quietly in politics, that this kind of investment in the improvement of the quality of education, especially when it is basically research and development work, is something quite apart from any broad-support legislation.

It is seed legislation. It is the leading edge. It is the kind of testing that any—as you were saying—the kind of testing that any business, any arm of the Government, any business would do before it puts large sums of money into a situation.

We are in, if I may use the analogy, the third of the great ages of change. We have gone through the age of the steam engine. I guess we passed very rapidly through the age of the airplane and television.

Now we are in the space age, if you want to call it that. What it means in education is that something has to be done, and this time we have some people with the vision to do it.

What has to be done, as has been pointed out by Dr. Spencer and others, is the complete revitalization of our educational program. Things have to be taught sooner.

Knowledge has to be structured in a way where we get to what Jerry Bruner calls generic learning, getting the principles of things and applying it to others as they come along, rather than memorization.

I am not as pessimistic as many people that we have not found a lot of what is involved. Our major difficulty always has been that we have had a lot of bits and pieces of work, but it has never been put together and tested out in situations where large-scale things can be set up, tested out, and measured.

With the high-speed computer today in our studies, not the project talent, the Pittsburgh-based one, but the one we started in 1957, and with work in mental health and education, we are finding that you can handle and can measure things that nobody ever dreamed of 5 years ago, even.

This can be done. So the kind of things that you are proposing in House bill 10145 would permit us and permit people with ideas to begin to push forward this leading edge.

I do not see where any of the other things that are thrown up should be allowed to interfere with it.

Now to be specific: Since one of the men was not here, they wanted me to talk a bit about scholarship grants for outstanding teachers in elementary and secondary schools. Most certainly the only way we are going to get a new orientation to subject matter fields is to bring some of these people back to places where they are working out a reorganized pattern of understanding what it is.

We are seeing already with some of our special experimental programs that we are changing the ways the potential teachers are thinking. Especially this is happening in the fields where the NDEA and national defense programs have been in effect.

We are going to get a second result. Right now, there are very many changing programs in colleges of education. I suspect Texas is one that is taking the lead, where there will be 18 hours of education as the basis, with a much more concentrated work to get the prospective teacher to realize they are teaching learners something, as well as the equivalent of two majors for the secondary school teachers.

These changing programs will be accelerated by the fact that people will be coming in to work with them, and they will be moving into new patterns entirely, experimental patterns after this.

The important thing is that with a limited number, even 2,500 a year, you are seeding master teachers into school systems. They are going to be models.

The difficulty is, however, in many cases—and this leads me to my third point—all too much of what we do in education is based upon the advice of experts and commonsense views.

As a scientist, I have learned the hard way that nothing studied so far is as simple as experts or commonsense views make them out to be.

Here I would like to enter this long-term support for basic research and education paper, which I have had produced.

Mr. THOMPSON. Without objection, that may go into the record at this point.

(The document referred to follows:)

STATEMENT BY CARSON MCGUIRE, THE UNIVERSITY OF TEXAS, RE LONG-TERM SUPPORT FOR BASIC RESEARCH IN EDUCATION

The comparatively modest amount of funds expended in the cooperative research program to date has pointed out a way of involving some of the finest minds in education and the behavioral sciences in an enterprise most important to the future of the United States. What they are finding out now and can accomplish in the future underlies ways of devising and implementing a new and revitalized pattern of education in this country suitable for the emerging space age. Those of us who have been engaged in projects are beginning to understand what is involved not only in the speeding up but also in the enhancement of the quality of what is taught to whom, when, how, and in what order by school-teachers and by college professors. Nothing studied so far is as simple as experts or commonsense views make matters appear to be.

The relatively few research teams who have managed to gather large pools of data, and who have access to high-speed computers, now realize the complexity of problems to be solved, of implementing proposals, and of testing out results so that large sums of money are not going to be wasted in the educational enterprise. Results attained to date reveal the interplay of many variables to be considered. For example, in the study of giftedness, there are real differences between highly creative (divergent thinking) and highly intelligent (convergent thinking) high school students which pose problems for both parents and teachers (Getzels and Jackson, 1960). There are variations in achievement motivation and the values placed upon competency, all tied in with personality makeup, among boys and girls who do and do not do well academically (Pierce and Bowman, 1960). To encourage learning, something has to be done about adolescent value systems which tend to vary from school to school and which have a strong impact upon the climate of education therein (Coleman, 1961). In addition, we are beginning to uncover the range of ineffectively, borderline, and effectively functioning persons who are entering teacher education and what they might do to children and adolescents in schools (Peck, 1962; Veldman, Peck, and McGuire, 1961). These findings are forcing new selection processes and designs of teacher education, followed by inservice work in school systems, often involving intervention in the lives of prospective teachers to make them more effective persons. In addition, these changes are emphasizing the necessity that teachers-to-be, as well as those in service now, acquire some understanding of the structure of knowledge in their teaching fields and understand the nature of generic learning (finding underlying principles) rather than mere memorization (Bruner, 1960). Many of these complex considerations stand out in bold relief in the human talent project (1957 to date), wherein dimensions or factors in persons are being uncovered and related to various kinds of school achievement and other forms of talented behavior through the junior and senior high school years (Hindsman and Duke, 1960; McGuire, Hindsman, King, and Jennings, 1961; McGuire, 1961 a, b).

EXPANDED SUPPORT FOR RESEARCH AND DEVELOPMENT

Initial appropriations for the cooperative research program have made it impossible up to now to provide long-term support for basic research and development programs. In general, larger research projects have not received support—regardless of their worth—because their budgets have far exceeded the amount of money available. The average research contract has been for 2 years and the mean annual full cost has been close to \$50,000 for a project. Such short-run studies and limited funds do not provide for the longitudinal investigations that are vital to solve the more critical problems confronting education today. Only by piecing together projects, finding various sources of funds, and going to the university for salaries of members of a research team during interim periods between grants have long-term, large-scale undertakings been possible. Otherwise, the really important problems are not attacked and research teams are disbanded. The interested professors go back to classroom teaching, some writing proposals for small-scale problems; the promising young research persons complete their degrees and go off to teach elsewhere, usually

without completing the kinds of apprenticeship which would make them effective for the future; and there is no opportunity to disseminate findings other than in publications which may or may not be read. Ideally, many basic research projects should lead to work with State education agencies and local school systems where natural experiments can be set up and results can be evaluated so as to make wise decisions about quality education and expenditure of funds.

Apart from programmed projects (English, social studies, talent, adult education) with earmarked funds, the cooperative research program should be placed in a position to support at least three types of undertakings. Passage of the Improvement of Educational Quality Act, 1962, with its amendments to the Cooperative Research Act, 1954, and the provision of appropriations on a full funding basis would make this possible. In each type of outright grant or cooperative agreement, only sound projects and qualified research persons would be supported:

(1) Continuation of current project-type, relatively short-term grants based upon worth of the proposal and potential of the investigator to encourage additional persons, especially in smaller colleges and in State agencies, to undertake research and development projects;

(2) Provide additional funds to support relatively narrow-band but long-term projects or research programs in which professors and other qualified individuals in education and the behavioral sciences may become committed when they have demonstrated their worth;

(3) Initiate a limited number of regional centers for research and development in education in universities which already have the basic personnel, facilities, and resources, as well as a willingness to work with and through other universities and colleges, State education agencies in the region, and a number of school systems wherein natural experiments and demonstrations can be carried on and the results evaluated for quality and financial feasibility.

CHARACTERISTICS OF A CENTER

The foregoing recommendations envisage the initial establishment of from four to seven regional centers, supplemented by narrow-band programmatic commitments over a long term at other places, in addition to continued project support of a short-term nature. Success of the nuclear centers would determine whether or not additional regional or satellite centers would be established. To qualify as a potential center, an institution should be required to demonstrate that it has—

(1) Skilled, versatile, knowledgeable students of education and human behavior who can envisage crucial and researchable questions, both basic and relatively practical, sort out the variables, devise reliable and valid measures, and program computers to make statistical (or logical) inferences from data on what is being proposed or tested;

(2) Willingness of persons in a range of disciplines to depart from tradition, search for structure in knowledge, devise ways of motivating and directing the learning of disadvantaged as well as able students, propose rounded programs which employ people in new ways and relationships to students as well as new educational media, and be curious about the human element in the learners and in the instructor;

(3) Flexible instructional settings on and off campus, with radio-television and automated learning facilities, where experimentation can take place—plus the resources to produce quality materials, both technical and programmatic, which can be used experimentally;

(4) Computer facilities which can handle both large-scale problems of data analysis as well as experimental use of the computer in the simulation of learning and behavior under various conditions—plus the necessary programmers and facilities for processing data;

(5) Access to research populations through already established working relationships with school systems and with State education agencies in the region, as well as with other colleges and universities;

(6) Well-developed and flexible graduate programs and personnel policies which would permit the part-time involvement of professors who still carry some instructional responsibilities, appointment of persons from other universities and colleges for periods of time, the apprenticeship of research associates and assistants, and the involvement of fellows in supervised internships and research once they have qualified as doctoral candidates.

ADVANTAGES OF LONG-TERM SUPPORT

Long-term commitments for at least 5 years, renewable each year upon evidence of performance, not only would be necessary to accomplish the ends of the Improvement of Educational Quality Act of 1962 but also insure continuity of personnel, planned use of facilities, and education of future research personnel. At present, for most persons concerned about research in education and related problems of human behavior, the world ends in 1964—for there is no assurance of continuity. Specifically, some of the advantages of long-term support can be anticipated:

(1) Single-variable research findings about learning, communication, and behavior abound, but the results have not been explored, put together, and tested in multivariable setting possible in programmatic research;

(2) Added funds, intelligently allocated to centers and/or to professors in universities where research personnel and facilities are most promising, can step up our attack upon the structure of knowledge in various fields, the redesign of learning opportunities, and the whole problem of what to teach, to whom, how, when, and for what reason;

(3) Practically all Federal, State, and local program, from aerospace developments to the reduction of unemployment (largely disadvantaged, relatively uneducated persons displaced by automation), should benefit from a stepped-up emphasis upon research which is immediately fed back into the educational program and to related public agencies;

(4) Instead of operating upon untested assumptions (which often lead to the adoption of expensive but unproductive proposals), educational processes, the management of learning opportunities for different kinds of young people by teachers, and administrative decisions can be based upon tested knowledge and understanding of the situation;

(5) Programmatic research with assured support permits the involvement and upgrading of faculty personnel who tend to make changes in their teaching as a consequence of their experiences, the orientation of visiting faculty members from other colleges as well as persons from State agencies and local school systems who participate, and a radically different kind of education for graduate students who become research-oriented as well as grounded in subject matter;

(6) Research centers create an opportunity for the interaction of many kinds of educators and behavioral scientists and, more important, the emergent research team usually moves from the laboratory study of exploratory ideas, to testing more complex proposals in settings where most variables are measured, to tryouts in life settings, and back to new exploratory ideas—disseminating their findings at each of the stages to persons who can put them into action.

Admittedly, there are going to be some disappointments. A number of centers and supported narrow-band programmatic commitments are not going to realize the results envisaged. Some persons involved are going to block because of the value currently placed upon the tightly designed, limited variable, laboratory experiment in achieving acceptance for publication. Nevertheless, the co-operative research program already is effecting a change, especially with its monograph series. With models established, we can look forward into the near future when multivariable research upon learning, communication, and behavior not only is most acceptable but also can be linked with dissemination in various ways and the implementation of findings in the educative process as they emerge.

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Mr. McGUIRE. I would like to make a few observations.

Here I have indicated the nature of what has been done so far, on the first page.

In the second page, I have indicated the kinds of expanded support for research and development that can be carried out with what is provided in section 202 of title II, of the amendments to the Cooperative Research Act.

In other words, we can go on to continuing the project-type research which has been supported, up until now, but many of the places will move out of that, opening them up to the smaller colleges, to places that have not been able to get men invested into this sort of work.

Second, we can begin to provide rather narrow band but long-term projects or programs which are interested in particular aspects, all the way from those involving the personality factors such as alienation—this is a combination of anxiety, hostility, pessimism, resentment, and even loneliness—that can take even the brightest kid and make him a pretty dull person to people who are interested in the various aspects of intellectual functioning.

We know there are at least three measurable broad aspects now, convergent thinking, the ability to give the right answer, which is so much emphasized, divergent thinking or creative or originality, coming up with something new, which, by the time too many reach colleges is absolutely stunted under rote memory kind of learning, and, three, what is ability to cope with symbols. These we can measure by combinations.

One of the major difficulties is that we have a part of our disadvantaged population, the ones that are put out of work, that are costing the Federal and the State and the local governments so much money. We do not find this factor in persons appearing until the ninth grade, and only among those lower class, if I may use the term, "youngsters across the track," who stay on in school.

Do they catch up with the advantages that many other youngsters have had who have been read to before they came to school, who got all the kind of things that Dr. Spencer was talking about?

Here we have a deep belief; for example, that putting together some of these things you can make changes in persons. What I believe is that these centers for research and development in education can begin to ferret out what is involved in coping with these disadvantaged youths who are making our unemployed in the automated era, and at the same time they can do the kind of job for accelerating and with greater quality and greater depth in coping with the tremendous

amount of knowledge, so that it is no longer a memorization process, it is an understanding process, getting the principles of things.

We can invent and find ways that will involve automated learning devices and meet different kinds of media, and go into intervention in the lives of young people so that the kinds of desirable learning will take place much more quickly.

We will have a greater proportion of able people that are going to have the different kind of life we are facing.

On the third page I put forth the result of working with a number of people around the country. Last week I was at the southern regional board working on this with a number of people in that area.

The point is that I think there can be worked out the characteristics of a number of different kinds of centers ranging from one in which the Big Ten colleges will probably cooperate and work effectively, which will take a fairly reasonable budget, but I know those men have been working together and will do it, to other kinds of regional centers that will not cost nearly the sums of money that they might expend.

On the final page I have tried to put forth some of the advantages and a few of the disadvantages of the long-term support. I hope this kind of information may be of value.

If you have any questions to fire, I will enlarge on any part of it.

Mr. THOMPSON. Thank you very much.

The emphasis by the three of you has been on the research aspects. I wonder if you feel as strongly as some of your colleagues expressed this morning in favor of the teaching institutes, the scholarships, and the other aspects of the legislation?

Dr. McCLOSKEY. Mr. Chairman, I certainly feel that all of these aspects are important. For instance, the seed corn idea on the scholarships. If you gentlemen have worked in a public school system, you know that two or three teachers who do know their stuff in their area do exercise leadership a number of ways. They have influence on their colleagues, and pretty soon this thing does spread.

I think the three of us here probably do think that this research is a basis for improving quality, but I think we also have to face the fact that you do have to get this research utilized.

The mechanics in the educational world for doing it maybe are not as good as they ought to be, but they are the ones that we have worked out from experience, that you do have some kind of training ground, you do have some kind of institute, you do have some place where you bring these people together and you get them acquainted with the research that would grow out of this and that has gone before.

Mr. THOMPSON. I think probably the most exciting part about this legislation in the long run is the research possibilities. In the meantime, the other aspects of it would really make available what we now know to more people and use it to our best advantage while we are trying to find out how we can improve it.

Mr. McGUIRE. But we can involve people in the research in setting up some of the centers to where I am sure they will work in the following way:

They will draw in active faculty members that are now teaching, and they are teaching full time. They will learn and get the incentives to find out new things to add to what they are now teaching.

This I have done, and it is going on now with the limited amounts of money we do have, both from Federal and other funds.

Secondly, once they have been through something like these mental health education and human talent research projects, and other things, once they have been through that, they get impatient with what they have been doing, and they change the pattern of teacher education.

I am quite certain that as part and parcel of any change of the teacher education this will come there.

Third, you can't carry on studies unless you can get into contact with live school systems, unless you can involve people like Lee Wilburn, and others from the Texas Education Agency. We will have to multiply them in the State agencies throughout the country. You draw from the teachers themselves, some who are not going to return to the classroom but are going to carry on this sort of work and spread it, say, from one part of a region to another, from what I have called the original centers to the satellite centers.

Dr. SPENCER. We conducted two studies, as I recall, on these summer training institutes, run by the National Science Foundation. I would not want to be responsible for the specifics of this, but my general recollection of our findings were that first of all—and this was largely in the field of teachers of mathematics and physics—they came back from these summer institutes being able to teach modern mathematics and modern physics.

In other words, subject matter that they simply could not have taught before.

Second, their students thought they learned as a result of this, but our impression was that the most important value of these summer training sessions was that they had really become teacher-teachers. They were able to extend their own influence by a factor of 20 or 30 by teaching other teachers in their own schools and their school systems and in surrounding areas.

Dr. McCLOSKEY. This is a major factor in this, Mr. Chairman. That person that comes back from that science institute does a whole lot more to that school staff than just handle the kids he teaches each day. They have curriculum meetings there, they have faculty meetings there, they plan a complete science program there.

This man's contribution goes way beyond.

Mr. THOMPSON. It would be a wonderfully helpful thing.

Mr. Pucinski.

Mr. PUCINSKI. I am very impressed by our three witnesses this afternoon, Mr. Chairman.

I am particularly happy to see Mr. Spencer here. He is from Chicago, the Science Research Associates. They have done some really spectacular work in this entire field of the techniques in research and education procedures. I recall when they first were starting out several years ago.

Dr. SPENCER. You have a long memory, nearly 25 years.

Mr. PUCINSKI. That is when you were first starting out. At that time nobody could quite understand what it was they could do when they began their various research and surveys. They have certainly grown in stature all over the Nation.

We are very grateful to you for your contribution today.

I am particularly impressed with the point that has been made on this scholarship program. I know that there undoubtedly will be considerable discussion and debate on that aspect of this bill.

Dr. McCLOSKEY. We know that, too, sir.

Mr. PUCINSKI. Even this morning there was discussion that if something had to give, this would perhaps be the area to give, on this bill. But I think you have certainly nailed down the need for this particular aspect of the bill. If you are going to develop new techniques, you must have some people around who can then implement them at the local level.

Mr. McGUIRE. And we are research people telling you this.

Mr. PUCINSKI. I think this is perhaps one of the areas or reasons why there has been a quality gap in education, that a great deal of research is being done now. I am sure that neither of you would want to create the impression that this is something completely new and revolutionary and unique.

There is a lot of research being done now by the departments of education and by the universities. But perhaps one of the problems is that you do not have enough teachers in the educational system who are capable of changing old methods, adapting themselves to the new ideas.

You have made a strong case for all provisions of this bill.

Mr. McGUIRE. I want some of those people working with me. They will see what can be done. In fact, in our studies now, in the one on the human talent project, we involve four school staffs in this very way. We got the board of education to pay part of their costs coming to the university and we paid part.

This is the only way you can carry on research and at the same time get it back into the system, feed it back into the system.

Mr. PUCINSKI. I am grateful to you for the contribution you are making already to improving the quality of education. I think the statement was made here, perhaps it was this morning, that this could be one of the most significant pieces of legislature to come out of this Congress.

I am firmly convinced that the American people are very deeply concerned about the quality of education at the elementary and secondary level. I think the American people would be willing to support any effort if it was well thought out, which would help to improve that quality.

When you stop to consider the billions of dollars being spent in America on education, I do not think it is asking too much that the youngsters be given top quality in that education.

I am very grateful to you gentlemen, and I thank you for being here.

Mr. THOMPSON. Thank you, Mr. Pucinski.

Mr. Griffin.

Mr. GRIFFIN. Dr. McGuire, you said that Texas now requires 18 hours of education. How much did Texas require before?

Mr. McGUIRE. Twenty-four.

Mr. GRIFFIN. Your State is coming down, then, and devoting more time to other subjects.

Mr. McGUIRE. Don't mistake me. If you do not delude yourself that a teacher can teach only knowing subject matter—

Mr. GRIFFIN. I do not. I went to a teachers college.

Mr. McGUIRE. I did not. I am a product of the other way and I found out the hard way.

Mr. GRIFFIN. Many believe there is a trend in the other direction, to keep adding to the number of hours required in the areas of education and teacher training.

Mr. McGUIRE. What we are doing is strengthening the number of courses themselves being taught. I can send you the changed ones in about 2 months. The point is you can do more in less time. We are trying to put into action the very things I am talking about, and at the same time to get the departments in the university—because teacher education is not the business of the College of Education in Texas; it is a university thing—to do the same kind of job with what they are doing.

So we have a broad liberal education base, two majors of content, and this work in education which can be much more concentrated, much more sophisticated with the student having not only an educator but a psychologist working with him at the same time. We are doing it in less time; in other words, in a more concentrated dose.

Mr. GRIFFIN. Thank you.

Mr. THOMPSON. That will conclude the hearing for this afternoon. We thank you gentlemen very much for your contributions.

The subcommittee will adjourn until Monday next.

(Whereupon, at 3:18 p.m., the subcommittee recessed to reconvene at 10 a.m., Monday, March 5, 1962.)

THE IMPROVEMENT OF EDUCATIONAL QUALITY ACT OF 1962

MONDAY, MARCH 5, 1962

HOUSE OF REPRESENTATIVES,
SELECT SUBCOMMITTEE ON EDUCATION OF THE
COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to recess, in room 429, Old House Office Building, Hon. Frank Thompson (chairman of the subcommittee) presiding.

Present: Representatives Thompson and Martin.

Also present: Russell Derrickson, staff director; John D. Hawke, Jr., subcommittee counsel; and Carla Otten, assistant clerk.

Mr. THOMPSON. The subcommittee will be in order.

Our first witness today is Mr. Don White, executive vice president of the National Audio-Visual Association.

Mr. White, welcome. You may proceed as you wish, Mr. White.

STATEMENT OF DON WHITE, EXECUTIVE VICE PRESIDENT, NATIONAL AUDIO-VISUAL ASSOCIATION

Mr. WHITE. Thank you, Mr. Chairman. The National Audio-Visual Association is a national organization of companies who distribute and produce audiovisual materials, such as educational films and filmstrips, and audiovisual equipment such as projectors, tape recorders, and language laboratories.

Our membership comprises some 611 companies, including 416 audiovisual dealers who distribute our specialized types of products to schools, colleges, and other users; plus 195 film producers, manufacturers and other suppliers of audiovisual products.

As I know you understand, Mr. Chairman, improving the quality of education has for years been the objective of those of us in the audiovisual field. For this reason we are very much in accord with the purpose of H.R. 10145. We believe this proposed law is a good example of what intelligent leadership can do for the improvement of education, and that it represents an appropriate role for the Federal Government in the educational area.

In this space decade, quality of instruction requires not only a thorough command of subject matter, but also an equally thorough knowledge of the utilization of modern teaching materials and equipment for the proper presentation of subject matter and its assimilation by students. Simple knowledge of a foreign language, for example, no longer qualifies a language teacher to perform high-quality instruction; the now widely proven and accepted audiolingual in-

struction technique requires a knowledge of language laboratory equipment, materials, and operation.

The effective teacher in tomorrow's classroom will have, and must know how to use effectively, a wide variety of teaching machines. The immediacy of this problem makes it particularly important that the "Quality in Education" program include ample provisions for the training of teachers in the utilization of new educational media for the improvement of instruction.

We would, therefore, like to submit the following recommendations concerning the provisions of this legislation:

First, as regards section 101, "Institutes for Advance Study for Teachers." While this section now mentions that these institutions will include study in the use of new teaching methods and instructional materials, the wording as presently written would appear to limit the institutes to subject matter areas. We believe this section should also permit colleges and universities to conduct institutes in the use of new educational media, the purpose being the training of educational media specialists.

The steadily increasing use of audiovisual devices and materials in our schools is resulting in an increasingly urgent need for these media specialists, to work at the school building level. Essentially, they are teachers with special training, who can help and advise other teachers in the utilization of films, slides, tapes, educational television, and the other new tools which are proving so effective in the improvement of instruction.

In order to provide for the training of these specialists, we would like to recommend that on line 6 of page 2, after the word "instruction," the words "or in the use of new educational media for the improvement of instruction." be inserted.

It is my sincere belief that this change, which would simply allow the colleges and universities the option of conducting institutes in the use of new educational media if they elect to do so, would contribute substantially toward the achievement of the overall purpose of H.R. 10145.

Mr. THOMPSON. Of course, that might be a constructive suggestion. We will look into it carefully. First, I am not sure if it were to be adopted it should be adopted to that section.

Second, I am not sure that the interpretation, or your fear of the narrowness of the language is accurate; but we will look into that.

Mr. WHITE. Thank you, sir. I, as you know, have had considerable experience with the Office of Education attorneys in the interpretation of the National Defense Education Act and this is why I lean over backward to provide wording exactly as it should be, rather than leaving it to any doubt.

My second point is concerning the project grants to strengthen teacher education programs. There appear to be two critical needs of teacher education institutions in the new educational media area. If they can be met by means of this legislation, it will contribute greatly to the future improvement of the quality of instruction in our schools.

First, there is a serious need for audiovisual equipment and materials in the teacher education institutions themselves. Title III of the National Defense Education Act is doing an excellent job of providing such equipment and materials to secondary and elementary

schools, but title III matching funds are, of course, not available to institutions of higher education.

I believe it was the basic intent of section 103 to provide grants for the acquisition of such materials and equipment, but in order to make sure there is no question on this point, I would like to recommend that the following wording be inserted in line 23 on page 4, after the word "resources": ", and instructional materials and equipment."

Mr. THOMPSON. You really do not trust those fellows over there?

Mr. WHITE. No, sir. I have had experience with them.

Secondly, "teachers teach as they are taught" is an old adage. The development of the use of new educational media in our schools has been rapid within the past few years. I might add that much of the credit for this should go to your Education Committee here in the House for the forward-looking legislation that you have passed in the National Defense Education Act.

It is unfortunately true, however, that in today's teacher education institutions, all too few members of the instructional staff have adequate training or experience in the utilization of new educational media. We believe it is critically important that provisions be made for such training. We would therefore like to recommend that on line 4 of page 5, after the word "programs" the words ", and the training of the instructional personnel of such colleges or universities in the utilization of new educational media." be inserted.

Mr. THOMPSON. Mr. White, I do not see any reason why the amendments you suggested so far cannot be included. I am sure, if we hope to help the teachers in these institutes, that we want every available latitude given to the institutions, whether it be in the use of instructional material and equipment, or anything else directly relating to their craft or their profession; so I am sympathetic to what you are trying to do here, even if we have to spell it out in A-B-C language for those fellows uptown.

Mr. WHITE. Thank you, sir.

I have one more point, concerning section 202, amendments to the Cooperative Research Act. Education is a \$27-billion-a-year industry which spends about one-tenth of 1 percent of this amount, or \$27 million, annually on research. Some of our growth industries, by comparison, allocate as much as 10 percent of their annual expenditure to R. & D. We believe that this imbalance should be remedied by considerably larger appropriations for educational research and development.

Although title VII of the National Defense Education Act provides funds for a separate program of research and dissemination of information in the use of new educational media, there is an emerging need for such research and dissemination in close conjunction with other and more comprehensive programs of educational improvement. We are glad, therefore, to note that this part of the bill would allow the use of these proposed funds for such research and demonstrations.

One of the most promising possibilities for the improvement of education within the next few years is by means of a wide dissemination of information already known, plus that gained by research, concerning the utilization of new types of instructional materials and equipment.

As a part of the expanded research activities, we would like to recommend that a definite program be established, with ample financing, for the dissemination of such information to teachers, supervisors, school administrators and all others directly involved with the improvement of instruction in our schools.

We hope that the programs established under the proposed legislation will provide for the field demonstration and testing of ideas, materials, equipment, and methods. The agricultural experiment stations, operated for these purposes by the Department of Agriculture, have revolutionized agriculture in our country; a somewhat similar program of research and experimentation, coupled with a strong emphasis on demonstration of the results, might make a similar improvement in our educational system.

Mr. Chairman, I would like to emphasize that the suggestions I have made here would amount only to technical changes in this excellent legislation. I believe the proposed changes are in line with the general purpose of the bill and, if accepted by your subcommittee, they will simply make it possible for the needs I have described to be met by the various institutions on an optional basis, as they may see and define the needs.

In effect, we are simply asking you not to restrict the programs so as withhold from them the right to make these decisions on the basis of their State and local needs.

I believe that the members of our association favor the enactment of H.R. 10145. I hope to be able to transmit to you a resolution on this point following the meeting of our board of directors in Kansas City late this month.

We sincerely trust the bill will receive favorable attention by your subcommittee and by the House of Representatives before the conclusion of the 87th Congress.

Mr. Chairman and members of the subcommittee, I want to thank you for the privilege of appearing before you today. If you have any questions about the matter I have mentioned, I shall be very glad to do my best to answer them.

Mr. THOMPSON. Thank you, Mr. White. I agree that your suggestions are technical amendments and, as I indicated earlier, I see no objection to them at all. As a matter of fact, I think they are constructive and am sympathetic to them.

Tell me who conducts training in the use of existing audio-visual equipment? Do the companies provide this training, or is it done at the college level, or where?

Mr. WHITE. The companies provide this training to a small extent. A lot of it is done by State departments of education and a great deal of it is done by the colleges themselves.

Mr. THOMPSON. There is a lot more to it, is there not, than, for instance, on educational television learning how to get the vertical line straight, and so on?

Mr. WHITE. Yes, sir; there is a lot more to it than that. It has been shown by research that the proper utilization of educational materials greatly increases their value in the classroom and this includes, for example, introducing the audio-visual aid correctly, pointing out things for the students to look for; and then afterward conducting a review and possibly a test on the use of the material.

Mr. THOMPSON. Probably there have been a lot of education degrees granted on such subjects as "How To Put Film in a 35-Millimeter Projector," and things like that; do you not think?

Mr. WHITE. There have not been many degrees on that.

Mr. THOMPSON. There is one on how to fix zippers on playsuits. I am sure that that is what a lot of those fellows must have gotten their degrees in from the way they talk when they appear here.

Mr. WHITE. Your point is well taken.

Mr. THOMPSON. Mr. Martin?

Mr. MARTIN. Mr. White, from your testimony it seems to me that you are advocating that we should conduct further work with these teachers in how to teach, rather than in the subject material, with the introduction of this proposed language?

Mr. WHITE. Yes, sir. I think if you will look at the average high school history teacher, for example, you will find that she really knows a great deal of the history that she needs to know. She knows a lot more than her children do. Perhaps she could learn a lot more about history. This is quite sure.

One thing we know beyond any doubt is that she needs to learn a lot more about how to use modern teaching tools in teaching history. This is definitely a need.

Mr. MARTIN. It seems to me that our greatest weakness in this field is the fact that so many States require such a preponderance of hours in how to teach in their college education, rather than in the subject matter that they are teaching and that the need is further education on the subject that they are teaching.

Let me give an illustration: I know one lady who taught in our high school at home. She was an English teacher, but in addition she was assigned two classes in Latin. The only Latin she had ever had was 2 years in high school. She had not even taken any Latin in college, but yet she was given two classes in Latin to teach in addition to her English work; and she was hired primarily as an English teacher.

I would say that she was not adequately prepared to teach those students Latin at all and that further work in what this bill is getting at in the field of Latin, and further work in her own field of English, would be most helpful to her.

Mr. THOMPSON. Mr. White, you are apt to run into two buzz saws here. Mr. Martin and I feel very strongly, as do a lot of our colleagues, that a great many of our teachers are not properly prepared in the subjects which they teach. We think that too much time is devoted to methodology, or so-called education courses, and that they could be greatly improved; so I feel this way: I feel that certainly no matter how much subject matter one knows, one cannot be expected to teach it unless he or she knows how to teach, so that they might spend less hours and find better teaching methods; in other words, balance the emphasis.

Substantiation at least of our attitude is the transition of the so-called teachers colleges to liberal arts colleges today, indicating that there is a nationwide movement in this regard. They used to be normal schools. Then they became teachers colleges. Now they are becoming liberal arts institutions with a deemphasis on these courses that Mr. Martin and I refer to.

Mr. WHITE. I spent considerable time in a school of education down in Georgia and I would be the last to defend the ordinary education courses as they were given at that time. I do not know what they are today, but I am not trying to argue for an increased number of methods courses. The only thing I am asking is that the States and the colleges be given the option of teaching the use of new educational media if they want to do this.

The present wording does not allow an institute, for example, to concentrate on this new educational media area. This is the only thing we are asking, just the option; not to direct them to do this, but just to give them the right to do it. They might not want to do it for 3 years or 5 years, but eventually we think that they will. We would rather have the legislation worded so they could if they wanted to.

Mr. MARTIN. Your colleges and institutions of the art of learning have that option under their freedom to operate that they have right now. If they feel this equipment is helpful to them, they can purchase it for use in their classes.

Mr. WHITE. Yes, sir, but the point is the wording of this new law which is going to make money available to conduct these institutes, and we are only asking that under that wording they be given this particular option.

Mr. THOMPSON. In other words, you do not think that the freedom of action which we believe exists in this language is there, at least to the extent that the lawyers in HEW would understand it?

Mr. WHITE. That is right. I do not believe it is there.

Mr. THOMPSON. Thank you very much.

Mr. WHITE. Thank you, sir.

Mr. THOMPSON. Our next witness is Dr. Charles R. Keller, director of the John Hay fellowship program.

Dr. Keller, we welcome you and we understand you have no prepared statement. Please feel free to proceed as you wish.

STATEMENT OF DR. CHARLES R. KELLER, DIRECTOR, JOHN HAY FELLOWSHIP PROGRAM

Dr. KELLER. Mr. Chairman and members of the committee, I have a somewhat informally prepared statement that I wrote yesterday, so I will go ahead.

My name is Charles R. Keller. For many years I taught American history at Williams College, in Williamstown, Mass., where I was professor of history and chairman of the history department. During 1955-57 I served as director of the advance placement program, a program which aims to improve education by enabling high schools to offer college-level courses to able students.

Since August 1, 1958, I have been director of the John Hay fellows program and I understand that there have been some references to this program in previous hearings.

Mr. THOMPSON. There have, Doctor; yes.

Dr. KELLER. This program aims to improve public secondary school education, particularly in the humanities, through year fellowships and summer institutes in the humanities.

This year, 74 public senior high school teachers are John Hay fellows and they are studying at 6 selected universities. Next year

we will have 88 year fellows and next July we will have 4 summer institutes in the humanities. To these 4 summer institutes in the humanities will come 170 senior public high school teachers and 70 public school administrators.

The John Hay fellows program is made possible by a grant from the Ford Foundation. May I add that next summer, with money appropriated by the General Assembly of the State of Colorado, a summer institute in the humanities and social studies, modeled on our institutes, will be held for 30 Colorado teachers and 10 administrators at Colorado State University, in Fort Collins, Colo.

Because of my experience with education in general over a long period of years and with summer institutes and year fellowships in recent years, and because I am a spokesman for the humanities wherever I get a chance, I am here to comment on sections 101 and 102 of title I of the bill under consideration.

I want to go on record as stating emphatically that the proposed institutes for advanced study for teachers and scholarship grants for outstanding teachers in elementary and secondary schools are badly needed. We have done the right thing in strengthening mathematics and science. We will make a serious mistake if we do not do as much for the humanities. There is no better way to improve education than through teachers. Certainly teachers of English, history, the social studies, music, art, and the classical languages, who comprise a large portion of the staffs of elementary and secondary schools, have been neglected and have felt neglected; as much as has been done for teachers of mathematics, science, and the modern foreign languages.

Institutes for advance study and scholarship grants, as proposed in the bill, will help present teachers learn more about their subjects, and, along the way, about ways of teaching them. Teachers need to grow in knowledge, and ability, and in self-respect, and they do so as they are recognized and have opportunities to recharge their intellectual batteries.

I would assert, too, that the availability of such opportunities for teachers will, we hope, attract better young people into the teaching profession; and this is very important, too, the recharging of the present ones and the attracting into the profession of more and better teachers.

In the John Hay fellows program we see over and again how much the summer institutes and the year fellowships mean to teachers as individuals, to students, to schools, and to the teaching profession; and we in the John Hay fellows program believe that it is very important, too, to have school administrators to participate with teachers in our summer institutes.

Not far from here, in 1819, Daniel Webster said of Dartmouth College, "Although it is a small college, there are those who love it." We say of the John Hay fellows program, "Although it is a small program, there are those who love it." I am one.

The proposed Federal Government program, on the other hand, would be a large one. It would involve the expenditure of large sums of public money. It could without any question do much to improve the quality of teaching of important subjects in elementary and secondary schools by giving teachers an opportunity to learn more about their subjects and, to go back to that phrase that I frequently use, to recharge their intellectual batteries.

On the basis of experience with year fellowships and summer institutes for the past 5 years, I urge wholeheartedly the support of this program; provided that, and I have four "provided thats": (1) Provided that great care is taken in the selection of teachers who will receive scholarship grants and have opportunities to participate in the institutes for advance study.

With elementary and secondary school teachers in all States eligible to apply, selection will not be easy. Colleges, universities, and the State commissions will be literally overwhelmed with applicants, and special attention must be given to the word "outstanding" in selection of teachers for the year scholarship grants.

(2) Provided that really good programs in subjects are set up for the institutes and that the best college and university teachers are involved as members of the institute faculties. I think this is terribly important.

(3) Provided that recipients of scholarship grants have opportunities to do just the kind of work in their subjects that they need during the scholarship year. The year scholars will, of course, be able to do their work only in universities, not really in colleges. Our experience in the John Hay fellows program shows that the fellows need an adviser at the university and that an adviser cannot handle too many fellows. The universities must treat the year scholars as a special group, not just as ordinary graduate students. This is very important.

(4) Provided that the State commissions are adequately staffed and that these staff members keep in touch with the year scholars during the scholarship year and after they return to their schools. Done effectively, such staff contact and followup work will make the entire venture more worth while and will help to insure that the quality of teaching in the elementary and secondary schools is really improved.

I have one more comment. The bill provides that each teacher awarded a year's scholarship will receive a stipend, and I quote, "equal to his or her most recent annual salary as an elementary or secondary school teacher, but not to exceed \$5,000."

The John Hay fellows program gives each fellow a stipend equal to his salary during the year when he is a fellow; plus travel for the teacher and his family, tuition, and a health fee.

We believe that a high school teacher, especially a married one, cannot really have a fellowship year unless he is given this kind of financial support. We think it better in a quality program to give more money to good teachers and to have perhaps fewer fellowships.

In many States teachers' salaries are greatly in excess—"greatly" is not quite the word.

Mr. THOMPSON. Considerably?

Dr. KELLER. Considerably in excess of \$5,000, especially those of outstanding teachers. Some will say that the schools will make up the difference. Some schools, yes, and next year it is interesting that 49 of our 88 John Hay fellows, or 55 percent, will receive part of their stipends from their schools, but in several instances \$5,000 plus the school's contribution would not equal the teacher's salary.

What about the teachers in schools without the sabbatical pay policies? And what about teachers ineligible for sabbatical leaves? And I might add, what about teachers in some States and some communities where there is actually a law against giving sabbatical leave?

Mr. THOMPSON. Doctor, in your experience how many States have sabbatical leave systems for elementary and secondary school teachers?

Dr. KELLER. My experience is only with the public senior high school teachers. I cannot speak for the elementary schools. It is a minority of schools that have sabbatical pay policies. Many schools cannot afford them. In the State of Arizona, I believe, there is a law prohibiting the giving of sabbatical pay.

We have difficulty with one or two communities that question the legality in the State of Massachusetts, and there has been some question about it in the State of Ohio.

In other words, this is not a fixed policy of sabbatical pay.

Mr. THOMPSON. I would say that there are very, very few school districts in which either elementary or secondary school teachers participating in a program like this could count on a sabbatical.

Dr. KELLER. That is right.

Mr. THOMPSON. And I agree with your comment. We have made reference to it before. I think that the \$5,000 is totally inadequate. The drafters proceed on the assumption that the schools would continue the salaries of these teachers and that they would have sick leave or vacation leave coming.

I do not think that we ought to ask an outstanding teacher to use his or her sick or vacation leave under a program like this.

Dr. KELLER. This is the principle on which we have operated in the John Hay fellows program exactly.

Mr. THOMPSON. I can hear the screams now from some of our dear colleagues on the floor if we were to include mama and the children with the teacher or husband and the children.

Dr. KELLER. We include simply the travel for the family. That is the only place where mama and the children get into the act.

Mr. THOMPSON. It is all right for Congressmen to travel, but not for other people.

Dr. KELLER. I would say this again: It is better to have fewer scholarships with adequate stipends for really good teachers, and, as I have said before, with the staffing adequate to do a contact job and a followup job so that there will be what is intended; namely, the getting of good teachers to know more about their subjects and to go back into their schools in such a way as to improve the quality of teaching in the secondary and elementary schools.

Mr. THOMPSON. Do you not think, Doctor, that if this program is to have the intended impact within a reasonable time that 2,500 is really a very small number, considering the number of teachers?

Dr. KELLER. The answer is yes, it is a small impact. At the same time, I think it is better to be sure that there is quality involved than simply quantity, and I believe very definitely in what I have sometimes referred to as the "ripple theory," that you bring a teacher from a school and then he goes back and the effects of his year are felt by others.

Mr. THOMPSON. I was going to ask you about that next. Others have testified to the effect of it. I do not think there is any question but that this will have a ripple effect and a very fine one, but there are 1,600,000 teachers. There must be many, many more really outstanding teachers than 2,500.

Dr. KELLER. Well, this 2,500 is a year, is it not?

Mr. THOMPSON. Yes, but for a 5-year period.

Dr. KELLER. You would get—

Mr. THOMPSON. 12,500.

Dr. KELLER. That is right. Let me put it this way. The 74 that we have this year as John Hay fellows and the 88 that we have next year are nothing; and yet we know the impact that those teachers have had in their schools.

Therefore, my feeling is it is a good program. If it is really followed up and developed, then it is worthwhile, and I would certainly get the schools into the act every time I could do it.

In other words, we are delighted that we have the schools contributing as much as they are contributing for us.

Mr. THOMPSON. We see the impact here of the American Political Science Association's internship program. They have about 20 a year, or something like that. Too many of them stay around here after their year of internship because they are so top-notch that the members want them on their staff; but those who have gone back have had a terrific impact and a very beneficial one, so much so that other colleges are joining the established program such as Williams has had for some time.

Harvard and Princeton are jumping in this year and a lot of others because they realize the value of this program. I am concerned about reducing the number, but I agree with you; I am really more concerned that the stipend be adequate.

Dr. KELLER. Yes. I am in favor of keeping the number and increasing the stipend.

Mr. THOMPSON. We provide only \$500 per scholar to the university as a cost of educating the fellow or as a contribution toward that. We do not want to scholarship the universities out of business. We could do that very well. It might be that the program should include the free choice of an institution, and then the tuition and other charges at the institution, and a more flexible stipend provision.

Dr. KELLER. I had the question here: What about travel expenses and what about tuition, which is not covered by the educational allowance of \$500. In other words, the tuition at some institutions is as high now as \$1,430. We pay that. For high school teachers to get a salary, even equivalent of the salaries they get now, to move to another place and then to pay their tuition would be a very difficult kind of thing, particularly for many of the married teachers and many of the kinds who are the really outstanding teachers.

This we have seen from our study and our applications over the last 5 years.

Mr. THOMPSON. What are your views, Mr. Martin, with regard to this stipend business?

Mr. MARTIN. Well, I am not sure that I have decided on that. I do have one thing that troubles me a little bit, however, in regard to the recommendation that only the outstanding teachers be selected for this program. I noticed that you emphasized that particular point. If the teacher is an outstanding teacher he or she is probably pretty well qualified with a background of education in the subject that he or she is teaching.

Those who are not outstanding are those who very probably do not have an adequate background of the subject matter that they are teaching, and it seems to me that that is the field that we should be

helping. If we help only the outstanding teachers we are helping those who are pretty well qualified now or they would not be in that category.

Do you have any comments on that?

Dr. KELLER. Yes, I do. I was using the word in the bill, scholarships grants for "outstanding" teachers.

Mr. MARTIN. Yes, I understand that.

Dr. KELLER. This is something that has concerned us in exactly the way that you have indicated, and so what we have done is to view this in this way: That there are some John Hay fellows who will be of the kind who have perhaps been in service for 20 years. They are good teachers, but they have not had really chances to study in recent years, and we give grants to them so that they can go off either in the summer or in the year and have a chance to learn more about their subjects and then go back and make a really significant contribution.

For instance, a chairman of a department going back into a school could do tremendously interesting things in all ways. At the same time, we have looked for promising teachers, so it might be "outstanding and promising teachers," and any time we see a promising teacher we would look with interest upon him too, or upon her.

Mr. THOMPSON. "Outstanding" could be applied to an outstanding teacher of 1 year's experience.

Dr. KELLER. That is right. I use the bill's phrase.

Mr. THOMPSON. Yes; I am not sure it is precise enough, but is it not so that a tremendous amount of new materials and of new knowledge is not available now readily to even the outstanding teachers?

Dr. KELLER. Without any question—the new developments in English, the new developments in history, new kinds of things in music and art, which would be included in this field. So what we try with our very small group is to find those teachers who, when they go back to their schools, will make significant contributions.

We have sometimes had this argued, and this is what universities sometimes will do. I have known one—I will not go into all of them—where they said, "Now, here is a teacher who went to teachers' college and he did a lot of work in education," and, therefore, we should not bring him.

My argument has always been he is just the person we should bring because he has not had a chance perhaps to learn as much about his subject as he might have along the way, but what we really look at is either established quality that we hope can be made more of, quality, and then do good for the individual, for the school, the student, and what have you, when the teacher goes back, or promise, and we have both of them in our group.

For instance, this year we have one lady—I will not mention her name so I can mention her age—who is 55, which is our top.

Mr. THOMPSON. How on earth did you ever find out her age?

Dr. KELLER. Asked for it—just asked. They tell us. She is 55. She is a real quality teacher, and it could be argued that she does not need that year off. I would submit that, in the first place, she should get it as a reward for all the things she has done in her school over the period of years, because I know some of the things that she has done; and, two, she has never really had time off to do study. She has done it always on her own, so she is one.

On the other hand, I could point to a 30-year-old man from a school not far from here, as a matter of fact, who in our opinion is pretty promising, so he is going off next year to do things.

Then when you get to the summer institutes where you spend less money and where it is a shorter time you have that kind of experience also to provide for teachers, and, as a matter of fact, we work our summer institutes and our year fellowships together so that we might very well have a year fellow from a school, and a summer institute participant from a school, and an administrator from a school. That is a very fine combination. This works. We have evidence of that.

Now, when you get into the big quantity, 2,500, and I do not know how many institutes are provided for—I do not think there is any statement about numbers of institutes—the thing that concerns me is how do you keep something of the quality with this impact and the other things when you go into large numbers, and I would hope that very vigorous attempts would be made to do that.

Mr. THOMPSON. Doctor, how long has your program been in effect?

Dr. KELLER. It began in 1952. The first John Hay fellows were 1952–53. At that time the program was operated by the John Hay Whitney Foundation. There were 20 fellows a year. They studied at Yale and Columbia. The program was named after Mr. Whitney's grandfather, who was active down here in Washington not too many years ago as Secretary of State.

It was operated by the John Hay Whitney Foundation for 7 years and there were a total of 128 year fellows under the John Hay Whitney Foundation.

Now the Ford Foundation gives us our grant and, as of next year, we will have a thousand John Hay fellows, year and summer, out in the schools.

Mr. THOMPSON. What type of experience have you had with them not returning to the school system which they left?

Dr. KELLER. The experience has been this: We require an agreement that they will go back for at least a year, and this is terribly important, and so far as I know only one teacher has done what we might call "jump the contract" over the period of time.

The experience is that most of the John Hay fellows are in the schools from which they came. The first group that I helped to admit was 1959–60. My experience is that practically every one of those teachers is in the school from which he came. One of the keys to that is the selection. You see, with our proposal, at least, schools that are interesting to the teacher, schools that be receptive to the use of his increased knowledge and what have you when he goes back, are the kinds of schools that we look for. This is in the nature of a small program, perhaps.

Mr. THOMPSON. Do you require that they do their fellowship year in the subject which they teach?

Dr. KELLER. No.

Mr. THOMPSON. You do not?

Dr. KELLER. The basic nature of the program is unprescribed.

Mr. THOMPSON. What is the experience, however?

Dr. KELLER. Most of them do work in their subjects. Some of them do undergraduate work. They take some of these undergraduate courses that they have never had a chance to take, and some of them

take graduate work. The important thing with us is that we have these six universities.

Mr. THOMPSON. You do not care then, for instance, if it were possible for one of them to take his or her master's degree in that year?

Dr. KELLER. No, we have a requirement of that sort. They are not to be degree candidates. That is the only requirement that we have, really. We have two requirements. One is that they are not to be degree candidates during that year.

Mr. THOMPSON. Why?

Dr. KELLER. They may take some courses for credit or not.

Mr. THOMPSON. Why do you require that? Do you feel that the degree candidate course is too narrow, too specialized?

Dr. KELLER. Yes, sir.

Mr. THOMPSON. In other words, you want them broadened wherever possible?

Dr. KELLER. That is right. We are also interested in this, both in our summer institutes and in our year fellowships: That the teachers do things for the sake of doing them. There is too much of doing things for credit and getting into something or other, and all we know again is the experience over a period of years of how much the teacher says "I was never freer and I never worked harder."

So we have one requirement; they are not to be degree candidates during the year when they are fellows, but they may take courses for credit if they so desire. Most of them do not take very much for credit.

Mr. THOMPSON. In the program set forth in H.R. 10145, the objective of it is to have a beneficial impact on the school systems throughout the United States, and it was our feeling in drafting it that the teacher should be required to study primarily in the subject which he or she teaches.

In a program such as yours, with a broader objective, I can see why you might not require that. I think, however, if we want this to have the effect intended, that we should require them to study primarily in the field in which they teach. Do you think that it too restrictive?

Dr. KELLER. In some instances it might be, but you are dealing with quantity, and I raise no questions about that. I would say this: Each one of our applicants prepares what is called a proposal for study, not a project—deliver me from them—but a proposal for study. That to some extent is worked out with his school; not that the school dictates, but, after all, he is going to be away from that school for a year and he is coming back to that school, so that to some extent this proposal for study is worked out with the school.

Then we feel that if you get the right teachers, and, remember, we are dealing with 88 year fellows only, if you get the right people, let them freewheel in the sense that when they freewheel they will recognize what their needs are, and all we can say is with this small a number, with the close contact that we have with them, with the followups that we have, is that we think it is very beneficial.

I have four or five letters in my briefcase from fellows this year. The very key thing, and I said this, is we have an adviser in each university. He does not tell them what to do, but he meets with them when they come, and our advisers meet on Saturday in New York, the six advisers from the six universities. They now have the names of their fellows who will be in their universities.

We will send out this week letters to the fellows saying "This is where you are going to be." They have already been selected. The next thing is for the adviser to get in touch with them, and then you begin that kind of a relationship. Then, during the year, and this is something to which I was referring, the adviser meets with the fellows as a rule about every 2 weeks.

Mr. THOMPSON. Do you pay the adviser?

Dr. KELLER. Yes.

Mr. THOMPSON. And in a sense then you are helping the university for the additional burden on it?

Dr. KELLER. That is right. We consider this essential because these are special people. These are teachers who have had, many times, 15 or 20 years' experience and when they go to a university the university needs to be opened to them. That is what the six universities do. They say "Here are our resources. You can take practically anything you want to," and the adviser is essential, we think: One, to get them started in the first place, and, two, to be there if they need some help during the year, and three, to meet with them ever so often.

Our adviser at Columbia, for instance, has a really remarkable seminar on Great Books with our fellows.

Mr. THOMPSON. How much do you pay your advisers?

Dr. KELLER. \$3,000.

Mr. MARTIN. Is that for one of these fellows?

Dr. KELLER. No; \$3,000 for a group of about 15.

Mr. MARTIN. He handles 15 fellows?

Dr. KELLER. He handles 15 fellows.

Mr. THOMPSON. You do not give anything else to the universities?

Dr. KELLER. We pay tuition.

Mr. THOMPSON. You pay their tuition?

Dr. KELLER. We pay the tuition. We pay a health fee.

Mr. THOMPSON. What is that? In the form of medical insurance?

Dr. KELLER. Yes. In some universities this is required, by the way. In other words, you could not have anybody there unless there is a health fee that covers the people while they are there. They would not let the people be there. It is not required in all of our six, but we pay it in all of the six because in a couple of them this is just as much a part of their being there as the tuition which we pay.

Mr. THOMPSON. How much does the health fee cost?

Dr. KELLER. I think the maximum one is about \$68.

Mr. THOMPSON. I can see as we go on here how really parsimonious our \$5,000 suggestion is. With the tuition, which is not provided for, and the costs of the books, and health fees, and so on—

Dr. KELLER. And the travel.

Mr. THOMPSON. And the travel, we are going to have to, if indeed we get anywhere with this legislation, revise that I think quite considerably. We are not trying to make anyone wealthy, but, on the other hand, why select 2,500 people and say "You are the greatest and now Uncle Sam is going to recognize this and wants you to help us improve the Nation's school system. Go out and sacrifice."

That is ridiculous. It does not make much sense.

Dr. KELLER. This is the way we felt all along and in talking with both the John Hay Whitney Foundation people and the Ford Foundation people this is the way we wanted to put it. Again, I do not

think we are being overly optimistic in thinking about things, but the results we get seem to indicate that these things are worth it.

Mr. MARTIN. I was interested, Dr. Keller, in your statement when you stated that these fellows should attend universities rather than colleges. Williams and Dartmouth were both mentioned. They are colleges.

Dr. KELLER. Williams was mentioned because I taught there and Dartmouth was mentioned because Daniel Webster made a comment about Dartmouth once upon a time. Take a place like Williams. No teacher could go to Williams. An outstanding teacher has already graduated. He has to go to a university. I do not know whether I should mention Harvard down here or not. Yes, I guess I should mention that. I must mention Harvard.

Mr. THOMPSON. Yes, of course.

Dr. KELLER. Or even Yale, or the University of California, or the University of Arkansas.

Mr. THOMPSON. Nebraska.

Dr. KELLER. Or Nebraska. Nebraska is doing some very interesting things, by the way.

Mr. MARTIN. I am a Dartmouth man, so I was particularly interested in your statement.

Mr. THOMPSON. Dartmouth is in the same category as Williams, is it not?

Dr. KELLER. Pretty much. There is no real graduate work at Dartmouth, not in the liberal arts. There is a medical school and there is business. No; a good teacher would not go to Williams, or to Wabash, or to Pomona. They have been there. Your summer institutes could well be on college campuses. Ours are.

Our four places, by the way, for our summer institutes are Williams, Bennington, Colorado College, and the University of Oregon, as we move across the country; and I might say that Dartmouth is now making faces at us and saying "How about going up to Dartmouth?"

The small college campus in many ways is a good place for a summer institute of the kind that we have; and I think of the kind that you are talking about in the bill. These are universities. You get a good teacher and he wants to go where the names are. We have six universities stretching across the country.

Mr. THOMPSON. Stanford, I presume?

Dr. KELLER. No; the University of California in Berkeley, Chicago, Northwestern, Yale, Harvard, and Columbia. We would like to get another public university in, as a matter of fact, but they want to listen to the really able people. There are good teachers at Williams and Dartmouth, sir.

Mr. MARTIN. Very fine.

Dr. KELLER. I know them. I would love to go up and listen to, we will say—

Mr. THOMPSON. Commager?

Dr. KELLER. Commager is in Amherst; but Mr. Foley, for instance, up at Dartmouth, or Mr. Hill in history, or Arthur Jensen. No, it has to be a university and a university atmosphere, I think, and that is why when I saw charges in here for the grants I just had to say a word.

Mr. THOMPSON. I have learned a tremendous lot from you, Doctor, and I am very grateful. I gather in general you think this is pretty good legislation?

Dr. KELLER. Here is what I had as a concluding eight-line paragraph: To sum up, we know through the John Hay fellows program what year fellowships and summer institutes can mean to teachers, students, schools, and education in general. The bill under consideration could increase these benefits many, many times; provided that, but I shall not repeat the "provided thats." I hope that this bill will receive the careful consideration that I know it will receive.

Mr. THOMPSON. With regard to your "provided thats," Doctor, I think some of them can certainly be considered and perhaps put in the report. The one thing that we cannot do here is to tell the States who they must select or to establish the criteria.

Dr. KELLER. That is right.

Mr. THOMPSON. I do not know why it has to be this way. The Federal Government is an evil thing, you know, until you want something from it, and then it is fine; but we have to be terribly careful about establishing standards.

Dr. KELLER. That is right.

Mr. THOMPSON. We do one thing that I do not necessarily approve of. We guarantee each State a minimum number. "Outstanding" being a rather vague term and being relative, I assume that it is fair to guarantee Alaska the outstanding 10 teachers. I assume further, if we want this thing to have a national effect, that it reasonable to do it this way. At least we have not done it by congressional districts.

Dr. KELLER. At the present time we are limited to working in 26 States, which we have picked out, plus the District of Columbia; and I can assure you that you will get from some States much more of quality in applications than you will get in others.

Mr. THOMPSON. I would assume so, because their standards are so high. Recently I was in Arizona where they pay teachers reasonably well. In discussing the effect of Public Laws 815 and 874 on the school system at Tucson, with the superintendent, he said he has the very devil of a time getting music teachers. Every time he gets a good one, California comes along and offers much better pay, and so on, and off that teacher goes.

Dr. KELLER. That is right.

Mr. THOMPSON. There is nothing we can do about this, I think.

Dr. KELLER. That is right.

Mr. THOMPSON. It is going to happen. The one thing that I fear from this program is that teachers from some of the deep Southern States, for instance, found to be outstanding and getting this year of training, will look around and say, "I was selected as one of these outstanding teachers and would you not like to have me in your State?"

Well, the competition is so intense for teachers today that that might well take place.

Dr. KELLER. That is right.

Mr. THOMPSON. Yet I do not think it is reasonable of us to put a caveat on this thing.

Dr. KELLER. We have simply had the 1-year requirement because we felt that it was a way to protect the schools which were permitting us to have candidates.

Incidentally, you mentioned Tucson. This is a school system in which we are very much interested and with which we work a great deal, and I called my office this morning and we have just appointed another teacher from Tucson as a John Hay fellow. We have had a number of them from here. Pueblo High School, in particular, is one of my favorite high schools in the country, and there is a letter there from Tom Lee, the assistant superintendent, saying again what this means to the Tucson schools.

It is that kind of thing that is so important in a small program. How do you keep that same kind of thing going in a larger one?

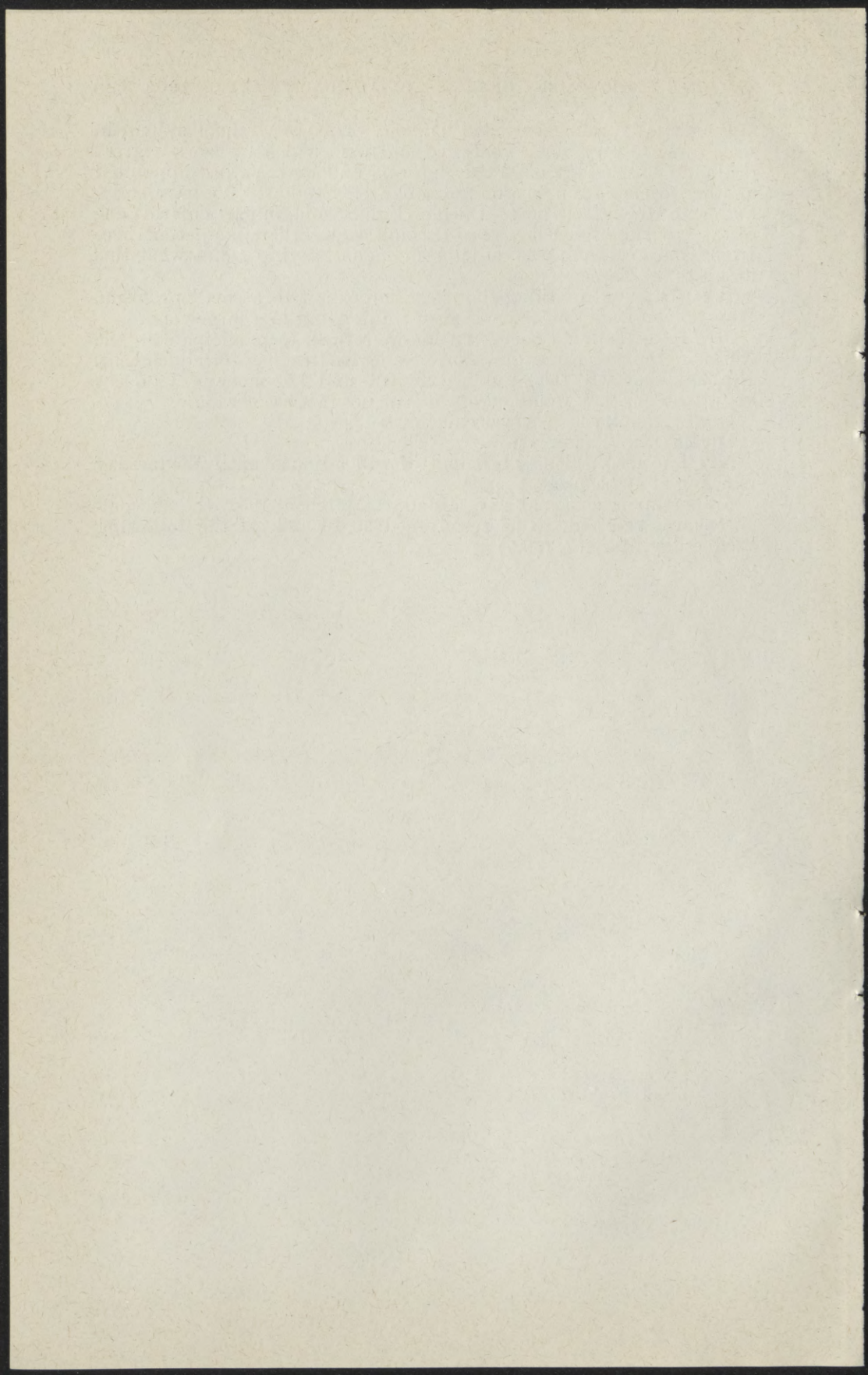
Mr. THOMPSON. Arizona, you know, refuses to participate in the National Defense Education Act. Its legislature has forbidden that, although they will take Public Law 815 and 874 money. I do not know whether they would accept this or not if it becomes law.

Doctor, thank you very, very much.

Dr. KELLER. Thank you.

Mr. THOMPSON. The subcommittee will adjourn until Wednesday morning at 10 o'clock.

(Whereupon, at 11:20 a.m., Monday, March 5, 1962, the subcommittee was recessed, to be reconvened at 10 a.m. of the following Wednesday, March 7, 1962.)



THE IMPROVEMENT OF EDUCATIONAL QUALITY ACT OF 1962

WEDNESDAY, MARCH 7, 1962

HOUSE OF REPRESENTATIVES,
SELECT SUBCOMMITTEE ON EDUCATION,
COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to recess, in room 429, Old House Office Building, Hon. Roman C. Pucinski presiding.

Present: Representatives Bruce and Martin.

Also present: John D. Hawke, Jr., subcommittee counsel, and Carla Otten, assistant clerk.

Mr. PUCINSKI. The committee will come to order for the further consideration of H.R. 10145.

The chairman of the committee, Mr. Thompson, has been unavoidably detained, and he will rejoin us as soon as he can. He has asked me to proceed with the hearings until such time as he gets here.

We are very pleased to have with us this morning Miss Caroline Whitenack, associate professor of library science and audiovisual education at Purdue University.

STATEMENT OF MISS CAROLINE WHITENACK, ASSOCIATE PROFESSOR OF LIBRARY SCIENCE AND AUDIOVISUAL EDUCATION, PURDUE UNIVERSITY

Mr. PUCINSKI. Would you be good enough to identify yourself for the court reporter?

Miss WHITENACK. Yes, I am Caroline Whitenack, associate professor of library science and audiovisual education at Purdue University.

Mr. PUCINSKI. Miss Whitenack, you have your statement here. Would you want to read your statement first, or would you rather merely enter it in the record as it is, and proceed in any way you prefer?

Miss WHITENACK. I would like to enter this in the record, and then I would like to read from it, if I may.

Mr. PUCINSKI. Fine.

Miss WHITENACK. You see, I have been a classroom teacher, Mr. Pucinski, all of my life, and this is a little different role for me, but I believe so firmly in libraries and in our need for quality education that I am pleased to be here in behalf of the American Library Association.

The American Library Association is a nonprofit professional association of more than 25,000 members, consisting of librarians, library

trustees and laymen interested in the development, extension, and improvement of libraries as essential factors in our educational program.

As I specifically believe that one of the complex problems of the 1960's is this problem of the explosion of knowledge and as librarians, I think one of our major responsibilities is to help young people to find out what we already know, so they can move on from here into the unknown.

The American Library Association supports the objectives of H.R. 10145, a bill to improve the quality of elementary and secondary education, because as an association, we are concerned not only with the development of libraries, but with establishing and maintaining adequate educational services and facilities and in equalizing educational opportunities.

In 1958, we officially endorsed the National Defense Education Act, which has done much to improve education and school libraries in specific areas of the act. The association also believes that this new proposed educational legislation will take us another step toward raising the quality of education.

Improvement of education is a vital problem. Writers, parents, educators, laymen are all concerned with the competency of teachers and with the use of materials in all subject matter areas. They argue that the quality of our education has to be raised so that the elementary and secondary school pupils will be better able to meet complex current questions—local, national, and international.

Since other testimony has presented already the general arguments for bettering the quality of education and for Federal assistances in this area, the American Library Association will devote itself to the relation of libraries to various aspects of the bill.

The association notes with approval that the bill recognizes the importance and some of the potentialities of libraries. For example, in section 103(a), page 4, line 23, "library resources" are included among the possible costs of project grants to strengthen the teacher education program.

Library resources are essential to a program of preparation of teachers of excellent quality. For such projects, colleges and universities must have not only the general subject matter materials, but also specialized adult materials for teacher education, and we also need demonstration collections of materials appropriate for use by students and teachers with children in the elementary and secondary schools.

The situation regarding library resources, however, is bad. The report of a statistical study of college and university libraries shows that in both volumes available and annual expenditures these libraries are far below minimum standards. More than 50 percent of our 4-year academic institutions, for example, have library collections of less than 50,000 volumes. And many of our major university library collections are in the eastern part of the United States.

In addition the cost of materials has been steadily increasing. The cost of the average general book was \$3.59 in 1947-49 and \$5.25 in 1960, an increase of 46 percent. Similarly the cost of periodicals increased from an average annual subscription of \$3.62 to \$5.32, again an increase of 47 percent. College and university libraries, already

overtaxed, will thus need additional funds to take care of these special programs of teacher education.

The average cost of children's books was \$2.73 in 1958, yet the average amount spent in schools with school libraries for that same year was only \$1.60 per pupil, and this will show you that we are spending less than the cost of a single book per child a year, which will show you something of our problem.

Also included in the bill, in section 201(c)(1)(B), page 8 line 17, which specifies "the acquisition of library and other materials and equipment" as an allowed expense for certain purposes. The association is in full agreement with this provision. Pilot, demonstration or experimental projects in elementary and secondary schools cannot succeed without special printed and audiovisual materials to support these, such as are prepared and provided in school libraries.

Also, I would hope that some of the demonstration projects and some of the demonstration areas might actually be in the area of materials in school libraries. We have found in Indiana that demonstration elementary school libraries have served very effectively to increase the interest and to show the need for centralized library collections in Indiana schools.

Educational leaders are stressing more and more that the school library is one of the basic requirements for quality education. Frequently school superintendents say this is the hub of the school, the learning laboratory of the school, because it does provide teachers and students with the tools for learning. And, of course, in our schools we have all the children of all the people, and children vary in needs and abilities and interests. So we must have materials for the gifted—the gifted child must have a range of mature books, films, and records to meet the needs of their intellectual curiosities—and then we have the broad average group that we must meet their needs. And on the other hand, we have many pupils who have reading difficulties, and language difficulties, and need simplified materials, tailored to their special interests and abilities.

Under the leadership of a trained librarian, the library program encompasses guidance in reading, listening and viewing, instruction in the use of the library, and in reference and research techniques, and the good school library has a program that touches all of the aspects of the curriculum, such as the teachers in the classroom and the pupils.

I have been a classroom teacher all of my life. I was an elementary school teacher before I became a librarian, and I know that a good teacher can only be as good as the materials of instruction which supports the subject matter which she teaches or which she is trying to explain and use with young people.

In view of the vital role of the school library in the school program, the American Library Association would also like to make some additional observations and recommendations. Since all States require teacher certification as a basis for the certification of school librarians, we urge that school librarians be considered as coming under section 101 and section 102(a) of the bill. This provision provides for the training of teachers and supervisors of teachers in institutes for advanced study and the use of new teaching methods and instructional materials in the subject matter areas, and we feel that this program is vitally needed by librarians.

In section 102(a), provision is made for scholarship grants to competent teachers who show promise of being able through study to make significant contributions to the improvement of quality of instruction. Competent librarians are also needed, just as competent teachers are needed, and there is a great dearth of fully qualified school librarians.

A study made by the Office of Education shows that of the 82,222 public schools in 1958-59, only 42 percent of these were served by school librarians, and some of these librarians were part time.

Of the approximately 30,000 school librarians reported in the survey, only 65 percent of these met the minimum standards for training and certification of professional library education.

According to a recent statement of the American Association of School Librarians, a division of the American Library Association, the schools have only 17 percent of the total number of school librarians needed for school library service of the quality recommended by our national standards for school library programs.

So you can see there is a dearth of school librarians. The same association reports that 23 States do not have, at the State level, even one qualified school librarian whose chief responsibility is to plan for and assist with the development and improvement of school libraries.

We have this same problem at the local and district level; 12 States do not have any supervisors at all at the local and district level, 8 States have only 1, and 3 have only 3 in the whole State.

Also, it seems evident that school librarians should be eligible for the institutes for advanced study and for scholarship grants, because their improved competency is essential to the improvement of the elementary and secondary school programs. A further recommendation is that section 201(c) (1) (D), page 10, lines 5 to 13, which provides for expansion or improvement of State educational agency supervisory or related activities, be clarified to make certain that school library supervisory positions are eligible. State school library consultants or supervisors, working in cooperation with other consultants and supervisors in State departments of education, can contribute greatly to the effective development of demonstration programs in the local school systems. I know this, because I know of the great influence that our State school library director has in the development of school libraries in Indiana.

We know that these recommendations will receive your careful consideration, and in conclusion, I would like to say that the American Library Association reaffirms its wholehearted support for this proposed legislation to improve the quality of education of elementary and secondary schools, and urges that this be enacted into law by this Congress.

And Mr. Pucinski, and Mr. Martin, I do thank you for permitting me to appear in behalf of the American Library Association and I would like you to know that we do feel that this is a very significant bill.

Mr. PUCINSKI. Thank you very much, Miss Whitenack. I am sure that the observations you made here this morning will prove very helpful to the committee in polishing up this bill, when we get down to the process of actually making the necessary changes, and we are grateful to you for your appearance here this morning.

Mr. Martin?

Mr. MARTIN. No questions.

Mr. PUCINSKI. Miss Whitenack, are librarians now considered a part of the teaching staff or teaching faculty of the average school?

Miss WHITENACK. Yes, this is true. You see, librarians are required to have the same certification as schoolteachers and practically all State departments of education—in fact all the States—require this at the present time.

Mr. PUCINSKI. Is it your judgment, then, that the language in section 102 which provides “full-time certified elementary and secondary school teachers in each State” would be qualified for these scholarships—

Miss WHITENACK. Yes.

Mr. PUCINSKI. Do you feel that this language needs further clarification?

Miss WHITENACK. Mr. Pucinski, I raised this because generally everyone feels that the librarian is a teacher, and that this should be applicable. I raise this only in that sometimes in the technical interpretation of a law, school librarians seem to get left out. I think in general it does cover this very well, provided we are recognized as teachers. But, I think that when someone goes to the technical interpretation of this, that perhaps this might be spelled out more specifically.

Mr. PUCINSKI. Now you used the figure “82,222” public schools. Does that include elementary and high schools?

Miss WHITENACK. Yes, it does, and this is for the year 1958-59. We have a few more than this now. You might be interested to know that of the 60,000 elementary schools, 20,000—only 20,000—have centralized elementary school libraries. This means that over 10 million elementary children in the United States do not have access to centralized elementary school libraries.

Mr. PUCINSKI. I certainly agree with you that the library is the learning laboratory, the nerve center of any school, but I was wondering if you would offer an opinion here as to whether or not in the average school, the pupils in that school make sufficient use of the library? I wonder if there is sufficient time provided the youngster during his schedule during the day, or after school, to spend some time in that library for additional research in the course and pursuit of his classes?

Miss WHITENACK. I think this is a good comment, because since I am from a teacher-training institution, this is one of our problems, to get teachers to see the importance of the library. You see, teachers really are the directors of learning. If teachers do not organize the curriculum so that young people can have time to pursue on their own some of the curiosities which they have, and also, if the teacher does not arrange to take young people to the library in study groups, and make assignments where they have to actually gain evidence and weigh evidence, then of course if this teacher is strictly a one-textbook-teacher type of person, then there is not an opportunity for young people to use the library during the regular class hours. We feel that this is changing very fast. As a librarian, I can't push this fast enough; but we do think that the whole feeling of the importance of young people's searching out for themselves to find answers, the individualized approach, the reorganization of schools so that young people do have time to do some library research—that is happening in the public schools today.

We have some very significant studies, both at the secondary and elementary level, in the reorganization of schools so that young people may use library resources, and I think this is happening, too, as we train our teachers to make better usage of resources.

Mr. PUCINSKI. It would be your judgment, then, that with the passage of this legislation, you might be able to develop some further techniques, improved techniques in this entire approach?

Miss WHITENACK. Yes. You see, this is the reason that I asked for some demonstrations in this area. I think that we do not really know what could be done with a full saturation of materials in a school community, where young people could have adequate materials to support not only the instructional programs, but the hobbies which they want to explore, where they could find all the materials, and anything which they have a question about, and where they would be able to use the resources both in the school and in the community.

Mr. PUCINSKI. Well, Miss Whitenack, is it your judgment now on the basis of your experience that the youngsters today are being encouraged? Is there an effort being made to arouse their intellectual curiosity to the point where they would make full use of these facilities that you have in the average library, albeit this library may be deficient, it may be substandard; as you have pointed out in your statement here, many of these libraries are inadequate. Even with these inadequate standards, I wonder if you would be good enough to venture a judgment as to whether or not enough is being done in these schools to encourage these youngsters to use these facilities?

Miss WHITENACK. You know, the greatest reservation which I have is that when we send young people out from Purdue University, they will not have the resources of learning at their fingertips for use. Because in the methods courses and in the subject matter areas, I work with these teachers to teach them the resources which should be available in the schools. In fact, this is what I did all day long yesterday. And these young people do want to use many resources, which are just not available.

I think that we have all levels of development, Mr. Pucinski. We have some people who are going to always use the textbook lecture approach to learning, but I think that actually many others are also using this problem-solving approach, the scientific approach, in which you find as many answers and as much information on a topic as you can, and then try to find the answer to your question.

Mr. PUCINSKI. We have made a great deal of progress in recent years in this country, in developing similar data processing equipment.

Miss WHITENACK. Yes, this is true.

Mr. PUCINSKI. Which I am inclined to think can be applied very effectively to this particular field. Do you feel that this bill could provide an extension and some greater research in this particular aspect to make the material more readily available to youngsters who do want to do research?

Miss WHITENACK. Yes, I hope so. This is the reason that I said in my opening remarks that I think our major problem is to make this step, you see, for young people to find out quickly what we now know. I think that we have to do this by improving our techniques, and one of the ways is through information retrieval, and you do have an opportunity in this very bill to do experiments with new ways of ap-

proaching instruction, and I would hope that this would include this type of an approach.

Mr. PUCINSKI. I agree with you, and I think this could very well become one of the most important bills to come out of this Congress.

Miss WHITENACK. Yes, I think so, too.

Mr. PUCINSKI. But I was wondering, Miss Whitenack, if you would be good enough to advise the committee, on the basis of your own experience, the only thing that disturbs me is—they may develop these various techniques and make these great contributions toward improving the ability of a youngster to find additional material he needs for that youngster who wants to pursue his studies—the thing that somewhat disturbs me is that in so many of our schools, when the bell rings, the building is cleared out. They have facilities for the basketball team to remain in the gymnasium to practice basketball, but the rest of the building, for the most part, is shut down, and I am wondering whether or not it is your judgment that we will ever reach that point when local school educators will look upon that educational plant as a community center that is there to serve that youngster, not by a chronological timetable which ends at 3:15 or 3 o'clock every day, but rather for this youngster to be able to find an opportunity to use the facilities, such as the library, for greater periods during the day.

Would you agree that this is not being done enough in the country now?

Miss WHITENACK. I would certainly agree that it is not being done enough, but it is being done, and it is being done more and more. For example, we have many of our school libraries which stay open until 5 o'clock. Also, for some of our children who live in rural communities, there is an additional bus that runs late, so that these students may stay and study. Also, in an area that is just north of Indianapolis, our school libraries are open on Wednesday nights and on Saturday mornings, so that students may come back. This is an area in which many young people have their own cars, and so it is no problem, really, to get them to come to the school to do their study. In fact, the librarian told me that this is the most delightful group of young people to work with. These are your gifted students who really want to explore a subject.

Certainly, there is not enough of this being done, but it is being done, not just in Indiana, but in Michigan, Illinois. These are the places that I know about, and it may be being done in Nebraska or other places, too; I am just not as familiar with those areas of the country.

But it is, of course, one of our great needs. This is the reason, I think, that we need competent librarians. You see, the person who directs a program is the key to the kinds of services, and what you are talking about are the kinds of services that should be available for children and young people. Certainly, in our library-training programs, we are anxious that all of these librarians come out with this philosophy of staggering the school day so that the facilities will be available, and some schools are even hiring additional librarians. Some of these schools have summertime programs, too, for the use of some of their facilities. It is not only a problem of schools; it is a total problem of the whole picture of library resources.

For example, the public libraries are just being flooded with students after hours, and in order to meet their needs, we simply do have to have this kind of an expanded program. Every library resource needs to be strengthened.

Mr. PUCINSKI. We are very grateful to you for your contribution this morning. I think you have certainly discussed a very important aspect of this entire legislation on the problem of quality in education.

Thank you very much.

Miss WHITENACK. Thank you so much for permitting me to come. I should say, this is the very first time I have done this, and I did it with a little bit of fear and trembling, but I have enjoyed it, now.

Mr. PUCINSKI. I am sure that Mr. Martin will join me in assuring you that you have done well, very well before the committee.

Miss WHITENACK. Thank you very much.

(The prepared statement of Miss Whitenack follows:)

STATEMENT BY CAROLYN I. WHITENACK, ASSOCIATE PROFESSOR, LIBRARY AND AUDIOVISUAL EDUCATION, PURDUE UNIVERSITY

My name is Carolyn Whitenack, associate professor, library and audiovisual education, Purdue University. Previously I have had experience in school libraries in Kentucky and Indiana at both the State and local level. I am appearing today in behalf of the American Library Association, a nonprofit, professional association of more than 25,000 members, consisting of librarians, trustees, and laymen interested in the development, extension, and improvement of libraries as essential factors in the educational program of the Nation.

The American Library Association supports the objectives of H.R. 10145, a bill to improve the quality of elementary and secondary education, because the association is concerned not only with the development of libraries but in establishing and maintaining adequate educational services and facilities and in equalizing educational opportunities. In 1958, we officially endorsed the National Defense Education Act, which has done much to improve education in specific areas. The association believes the new proposed legislation will take us another step forward in raising the quality of education.

Improvement of education is a vital problem. Writers, parents, educators, laymen, and others have been urging that competency of teachers and use of materials in all subject areas must be improved. They argue that the quality of our education has to be raised so that the elementary and secondary school pupils will be better able to meet complex current questions—local, national, and international.

Since other testimony has presented already the general arguments for bettering the quality of education and for Federal assistance, the American Library Association will devote itself to the relation of libraries to various aspects of the bill.

The association notes with approval that the bill recognizes the importance and some of the potentialities of libraries. For example, in section 103(a), page 4, line 23, "library resources" are included among the possible costs of project grants to strengthen the teacher education program.

Library resources are essential to a program of preparation of teachers of excellent quality. For such projects, colleges and universities must have not only the general and specialized adult materials for teacher preparation, but demonstration collections of materials appropriate for use with children in elementary and secondary schools.

The situation regarding library resources, however, is bad. The report of a statistical study of college and university libraries shows that in both volumes available and annual expenditures these libraries are far below minimum standards. More than 50 percent of the 4-year academic institutions, for example, have library collections of less than 50,000 volumes.

In addition, the cost of library materials has been steadily increasing. The cost of the average book was \$3.58 in 1947-49 and \$5.25 in 1960, an increase of 46 percent. Similarly the cost of periodicals increased from an average annual subscription of \$3.62 in 1947-49 to \$5.32 in 1960, an increase of 47 percent. College

and university libraries, already overtaxed, will thus need additional funds to take care of these special programs of teacher preparation.

Also included in the bill is section 201(c)(1)(B), page 8, line 17, which specifies "the acquisition of library and other materials and equipment" as an allowed expenditure for certain purposes. The association is in full agreement with this provision. Pilot, demonstration, or experimental projects in elementary and secondary schools cannot succeed without special printed and audiovisual materials, such as provided in school libraries. Educational leaders are stressing more and more that the school library is one of the basis requirements for quality education. It is the learning laboratory of the school. It provides the teachers with tools for teaching children and young people as individuals with varying needs, interests, and abilities. It makes accessible a variety of printed and audiovisual materials to help each pupil learn at his own pace and to gain most from classroom instruction. The gifted child must have a wide range of mature books, films, and records to meet the many directions of his intellectual curiosity. On the other hand, the pupil with reading and language difficulty needs simplified materials tailored to his special interests and abilities.

Under the leadership of a trained librarian, the library program encompasses guidance in reading, listening, and viewing; instruction in the use of the library; in reference and research technique. The good school library has a program that touches all aspects of the curriculum, each classroom, and every pupil and teacher.

In view of the vital role of the school library in the school program, the association would like to make some additional observations and recommendations. Since all States require teacher certification as a basis for certification of school librarians,¹ we urge that school librarians be considered as coming under section 101 and section 102(a) of the bill.

Provision is made in section 101 for the training of teachers and supervisors of teachers in institutes for advanced study in the use of new teaching methods and instructional materials in subject-matter areas. In section 102(a), provision is made for scholarship grants to competent teachers who show promise of being able through study to make significant contributions to the improvement in the quality of instruction.

Competent librarians are as essential as competent teachers, but there is a great dearth of fully qualified school librarians and supervisors. A study made by the Office of Education showed that of 82,222 public schools in 1958-59, only 42 percent were served by school librarians, some of whom were part time. Of the approximately 30,000 school librarians reported in the survey, only 65 percent met minimum standards (15 semester hours) of professional library education.

According to a recent statement of the American Association of School Librarians the schools have only 17 percent of the total number of school librarians needed for the school library service of the quality recommended by the "Standards for School Library Programs." The same association reports as of May 1961 that 23 States do not have at the State level even one qualified person whose chief responsibility is to plan for and assist with the development and improvement of school libraries. On the local or district level, 12 States have no supervisors at all, 8 States have only 1, and 3 have only 3 in the whole State.

It seems evident that school librarians should be eligible for the institutes for advanced study and for scholarship grants because their improved competence is essential to the improvement of the elementary and secondary school programs.

A further recommendation is that section 201(c)(1)(D), page 10, lines 5-13, which provides for expansion or improvement of State educational agency supervisory or related activities, be clarified to make certain that school library supervisory positions are eligible. State school library supervisors, working in co-operation with other supervisors in State departments of education can contribute greatly to the effective development of demonstration programs in local school systems.

We trust these foregoing recommendations will be given careful consideration by your committee.

In conclusion the American Library Association reiterates its wholehearted support for this proposed legislation to improve the quality of elementary and secondary education and urges that it be enacted into law by this Congress.

¹ U.S. Department of Health, Education, and Welfare. Office of Education. "Certification of School Librarians," p. 1. Bulletin 1958, No. 12. Washington, Government Printing Office, 1958.

Thank you, Mr. Chairman and members of the committee, for this opportunity to present the views of the American Library Association on this significant bill.

Mr. PUCINSKI. Our next witness is Dr. Noyes, acting president of the College Entrance Examination Board.

Dr. Noyes.

**STATEMENT OF DR. EDWARD NOYES, ACTING PRESIDENT OF THE
COLLEGE ENTRANCE EXAMINATION BOARD**

Dr. NOYES. Mr. Pucinski, Mr. Martin.

Mr. PUCINSKI. I understand that the gentleman on my right had the great pleasure of being admitted to Yale under your guidance.

Dr. NOYES. Well, I served as chairman of the board of admissions there for about 18 years, so that I can't be responsible for all the sins that the board committed.

Mr. PUCINSKI. I might tell you that you obviously did very well, because he has done a good job of helping this committee organize its program for these hearings.

Dr. Noyes, would you care to merely submit this statement in its entirety for the record, and proceed in any way you prefer, or would you prefer to read your statement?

Dr. NOYES. I would like to read part of it, sir. I think that I can submit the entire piece, I will not need to read it all.

Mr. PUCINSKI. The entire statement will go in the record following your presentation, and then you can refer in any way you wish to your statement.

Dr. NOYES. Thank you.

Chairman Thompson invited me to come down to testify today, and to clarify the position of the College Entrance Examination Board. I have prepared the statement which goes into the record.

It is in a sense a little awkward, because the college board is a membership, nonprofit organization composed of 427 colleges and 126 schools, and 41 educational associations all over this country, and obviously, no one person can act for this large and heterogeneous group, except insofar as the group itself has already taken action; and in certain matters connected with the purpose of H.R. 10145, the trustees and the board have already taken definite action; that is, action to improve, we hope, the quality of instruction in the secondary schools. These facts, therefore, I think I can report to the select subcommittee as direct evidence of the interest of the board member institutions in the aims and purpose of this bill.

I would like to at this point to begin to condense what is on the written record.

Our first case was the commission on mathematics, when our examiners reported some 7 years ago that they were no longer able to set a single satisfactory test in mathematics, because of variations in the school curriculums in that subject. Instead of attempting to compel all the schools that sent up candidates to the college board to adopt a single curriculum, which would have been grossly unfair to students not prepared in that curriculum, if the examination was based upon it, the board established a commission on mathematics, to study the problem and make recommendations, leading to a revision and modernization of the secondary school courses in that subject.

I don't wish for a moment to imply that the total revolution in the study of mathematics in the secondary schools was solely the work of the board's commission. It was a trailblazer. A good many other mathematical groups, notably the school mathematics study commission, have followed along with it, and have generally adopted the principles which it set up.

And the commission on mathematics has been discharged, because although by no means all the schools in the country are now teaching what we call modern mathematics, the number is increasing annually, and we think that the job has been done so far as the board has anything to do with it, and that the rest of the job, the cleanup process, should be left to the regular mathematical associations.

Now the point I wish to make in bringing this matter up was first that there was an identification of a need for improvement in a very important subject in the secondary schools, and second, that the board, before sputnik, began action in regard to it.

Now the third is that a large part of the success of the operations of the commission on mathematics has been due to the fact that through the National Science Foundation, there were a great many summer and year-long institutes in which schoolteachers of mathematics could be retrained and refreshed in the new theories and practice at Government expense. This has been a major factor in this revolution, which is, I think, doing a great deal to improve the quality of the teaching of mathematics in the secondary schools.

Now the second case that I want to bring up is one which is not current. For many years, the board's committee on examinations and many of its member colleges have been unhappy about the secondary school curriculum in English. Complaints have been fairly constant to the effect that though freshmen have high ability, they are less able to read with comprehension and to write with clarity than they ought to be, and a recent study—and I understand that this may well have been sent to members of this committee—called the National Interest and the Teaching of English, a recent study published by the National Council of Teachers of English indicates that colleges through this country are spending over \$11 million a year in remedial courses in English for their freshmen.

I should make here a slight correction. The figure cited here is \$10,111,000. But since that time, other remedial courses have been set up, so that I think my statement in the prepared statement is probably now accurate.

Accordingly, on a recommendation of the trustees, the college board voted to authorize the establishment of a commission on English, with functions roughly equivalent to those of its predecessor, the commission on mathematics. This commission has now been at work for over 2 years, and is now carrying out a program which it hopes and believes will make for improvement in instruction in the field of English in the secondary schools. And this brown pamphlet which I have attached to my statement is a document which describes the plans of the commission on English for the information of the committee.

Now, what needs to be emphasized, I think, is the fact that this commission, too, recognized that a beginning had to be made in the retraining and refreshing of secondary school teachers of English, and that institutes in universities offer the best solution to this problem. But there is no national humanities foundation analogous to the

National Science Foundation to provide such institutes, vitally needed though they seem to be. Hence, the college board, through its commission on English, is providing such institutes. The total cost of the 20 institutes to be held this coming summer as described in this brown pamphlet will be well over \$600,000.

The college board thought this work so essential that, at considerable risk to any reasonable reserve fund of its own, it agreed to underwrite the commission's plans. At the same time, the trustees instructed the acting president to do all he could to raise funds from outside, and a second exhibit indicates that there has been some success, that foundations have to date been quite generous in their response to my appeals, and this, I think, is significant for the subcommittee, because it indicates that people outside the teaching profession and the profession of teachers of English also recognize the importance of this campaign.

There are some 90,000 teachers of English in the secondary schools in the United States. By no means all of them need refresher kind of work in institutes. Our 20 institutes this summer will directly affect 900, or just 1 percent of the total. We believe, however, that these 900 will become missionaries; we believe that other projects of the commission, such as kinescopes and printed materials, will reach a much wider professional audience of English teachers, but I think I have to say that unless Federal funds can be secured to help at least the same proportion of English teachers as Federal funds have helped teachers of mathematics, science, and foreign languages, progress on this front will be heartbreakingly slow.

I would add that if there is delay in implementing the provisions of H.R. 10145, such initial advantages which will have been gained by the college board's commission on English institutes this coming summer will be partly lost. If the bill should be passed, and money appropriated promptly, it seems to us likely that substantial gains might result from the pioneer work done by the commission on English and its institutes in the current academic year, and I should like to add that every effort has been made to keep the U.S. Office of Education informed about the work of the commission on English.

And by supporting the commission's program to the limit of its ability, the board, its 427 colleges and so on, has, I think, taken a very clear position in regard to the importance of the aims and purposes of H.R. 10145, and particularly of title I, section 101, authorizing the Commissioner to arrange for short-term or regular session institutes in subjects in which he determines that improvement in quality of education is poor.

Now I have another case here, sir, the writing sample, which I think I need not go into. This was voted in by our member colleges as a part of the regular examination program of the college board, simply because most of our admissions tests are now of the objective kind, and do not require writing, and the colleges felt that they needed to emphasize to the schools which are sending them candidates that good writing is still an extremely important part of proper preparation for college work; so this exercise was voted in. This past year, over 90,000, I think, candidates submitted writing samples to separate colleges, and that fact in itself seems to me to indicate quite clearly the anxiety of our member institutions about the need for more drill in writing, more composition work in English courses in the secondary school.

Now, I add only one thing: this is, that we believe, we have evidence to the effect, that the situation in history and social studies also needs improvement. We have already been requested by various groups to set up a commission in this field analogous to our previous commission on Mathematics, and the current commission on English. I feel reasonably sure that our trustees will feel it impossible to do this, not because they do not think that it is needed, but because of the financial limitations. We have a nonprofit organization, we are not a foundation, and we have limited funds that we can expend for purposes of this kind.

And finally, in this record, I ventured to offer a personal opinion, which I do not wish to have thought as expressing the considered opinion of the college entrance examination board in toto. I am also an old teacher of English. I taught it for 4 years in secondary schools and 42 years at Yale, and I have been extremely interested in that subject in particular.

My worry about Federal aid to instruction in the secondary schools up to now is its imbalance. Millions have been spent for science, mathematics, and foreign languages through NDEA, through National Science Foundation Institutes. These were necessary. I would not for a moment detract from the value that they have shown. But I plead for the humanities. I honestly believe a case could be made for the humanities as essential to national defense, if this is a necessary bulwark. I am sure a case can be made for them as essential to a sound educational program.

Teachers in English and the other humanities, I think, are under a kind of inferiority complex because they see so much being done for teachers in other subjects by the Federal Government; nothing for them. I have a hunch that this also affects the attitudes of teenagers, who know full well that there is plenty of money for language laboratories, science laboratories, teacher institutes in these areas, and nothing for the humanities; and they, with a perfectly natural inference, it seems to me, may come to feel that English, history, the humanities in general, are less important in the total scheme of education than a great many of us believe them to be.

And I would like, sir, to end with the quotation from an article in a recent issue of the *Saturday Review of Literature* which contains a notice of an important new book on Soviet education by Dr. Nicholas de Witt, an associate of the Russian Research Center at Harvard.

To me—
the Review said—

the most significant sentence in this book is this one: "This (Soviet) type of one-sided scientific and technical education, producing specialists who are little interested in human and ethical values, apparently is considered to provide the most suitable and pliable kind of manpower for running the affairs of the Communist state."

End of quotes, and end of my testimony, sir. I should be glad to answer any question which you or other members of the committee put.

Mr. PUCINSKI. Dr. Noyes, you certainly are presenting this committee today with some extremely valuable information in support of this legislation. And as I listen to your testimony, and the other testimony before this committee, I have only one fear about this

legislation: that it doesn't go far enough. I didn't realize how vast was the need for some methods to improve the quality, until we began these hearings, although I felt all along that there was a great concern about quality in education. Perhaps the gentleman from New Jersey who is chairman of this committee, and author of this bill, will want to give some consideration to seeing whether this will provide the kind of crash program that we obviously need, if we are going to make worthwhile the great expenditures that are now being made in this country for education.

I will have other questions, but Mr. Bruce from Indiana has a conference meeting at 11. Mr. Martin, will you yield to him?

Mr. MARTIN. I have no questions.

Mr. PUCINSKI. I will recognize Mr. Bruce.

Mr. BRUCE. I have no questions. I would simply comment that you certainly are a most articulate spokesman.

Dr. NOYES. Thank you, sir.

Mr. BRUCE. You have delivered your expressions of support of the bill in a most convincing manner. It was very well done.

Dr. NOYES. I feel it very strongly, sir.

Mr. BRUCE. I can tell that. I just congratulate you on your dedication and your method of delivery.

May I apologize to the lady from Purdue, from my home State, for not having been here earlier, but we did have some conflicting problems.

Mr. PUCINSKI. Mr. Bruce, you will be interested to know that Miss Whitenack gave us some excellent testimony this morning on the role that the library plays in the educational processes of our community, and the benefits they would gain from this bill.

Mr. BRUCE. Yes. I have just read it.

Mr. PUCINSKI. Mr. Noyes, there is one question that disturbs me, and I can't think of a better man to ask this question than yourself.

You say here in your statement that, on page 2—

what needs to be emphasized here is the fact that this Commission also has recognized that a beginning must be made in the retraining and refreshing of secondary school teachers.

Now, without in any way detracting from this legislation, which I think as I said earlier this morning could very well prove to be the most important piece of legislation to come out of this Congress, and is certainly worthy of our support, I am wondering what is happening to the process of preparing our teachers in this country? Why? I can appreciate the fact that this legislation proposes to help our universities and help our educational institutions probe and develop new techniques, more effective techniques to inspire the youngster, and to develop his intellectual curiosity, but I am certainly disturbed when I hear a distinguished witness like yourself tell us that we have to retrain and refresh the education of our secondary school teachers.

One would get the impression that they got this basic training before they became teachers, and the question then is, Are we turning out substandard teachers in the first instance?

Dr. NOYES. May I try to elaborate on this point, sir? I would be the last to decry the dedication, the skill, and the ability of a very large proportion of the teachers of English—and I am talking about that subject—in this country at the present time. The fact remains, how-

ever, that another very large proportion of people now teaching English do not meet the State qualifications for that post in their own States. There are those who feel that the State qualifications need to be upgraded, not in the number of hours of courses, but in the ability of the individuals who are eventually certified.

This is another matter, which I don't care to go into unless you ask me to do so, but there has been all too often a feeling that because someone talks English, reads English, and was born in America, he or she is thereby qualified to teach English. We do not believe this to be true.

Mr. PUCINSKI. Well, may I interrupt here, though? We would no more think of certifying a doctor—

Dr. NOYES. Right.

Mr. PUCINSKI (continuing). To prescribe medicine, perform surgery, do all the other things, if he were not fully qualified. Now I am wondering if, on the basis of the volume of testimony that has appeared before this committee—and your statement today certainly, in my judgment, paints a very grim picture of the quality of our education in this country—I am wondering whether or not our teachers' colleges and the various other institutions that certify teachers have been perhaps too lenient? Maybe one of the reasons and one of the places to begin is to perhaps establish higher requirements before we certify a teacher. Now I am reminded fully of the fact that we have had a tremendous shortage of teachers, and so I am inclined to think that we have been trying to get these teachers into schoolrooms just as quickly as possible. When I think of the tragic chain of events that follows when you certify a deficient teacher, who then becomes a part of the system and stays with the system for many, many years to come, I am wondering if we are not doing a great injustice to the people of this country by trying to catch up on the need for teachers by reducing, perhaps, our standards, if our standards have been reduced? I don't know.

Dr. NOYES. Sir, the people to whom I have had reference are people who do not meet the certification requirement, but because of the shortage have been drafted to teach, and teach in courses not only in English but in other courses as well, where their preparation has been far from the best. And this is the desperate effort of principals and superintendents to man the schools.

Mr. PUCINSKI. Would you agree, then, Doctor, that perhaps we have a sort of twofold responsibility here? No. 1, to do whatever we can and everything we can through legislation of this type to bring our existing teachers up to adequate and sufficient standards, and perhaps at the same time develop new teaching techniques which will help us introduce better teachers coming into the profession?

Dr. NOYES. I think you are absolutely right, Mr. Pucinski. I happen to be the graduate of a liberal arts college. I was for a time director of the master of arts in teaching program at Yale University, so part of my job was to help prepare teachers for the secondary schools.

I do not wish for a moment to denigrate any of the institutions that have been doing their level best to prepare teachers. I think it may be pertinent, however, at this point to remind the committee that in a number of States the word "teachers" have been, by law, omitted from the title of institutions preparing teachers.

New Haven State Teachers College, in my own State of Connecticut, is now Southern Connecticut State College. Rightly or wrongly, that change was made in the Connecticut Assembly in part because the colleges affected maintained in a public hearing that their chances for securing a higher quality of candidate for admission would be improved if that word were deleted from their title.

I do not know whether they were right or not, sir, but I think this may be some significance in the picture which you have been suggesting.

MR. PUCINSKI. Doctor, your testimony has been extremely helpful to this committee.

I was wondering if you would be good enough to comment on one aspect of the College Entrance Examination Board.

Do you feel that in your judgment, sir, the college entrance examinations now being conducted by your organization do reflect the potential of native intelligence in a youngster?

If I understand, and perhaps I am wrong, we are providing higher education for our youngsters, they go through their elementary and secondary school merely to develop learning habits, but we really then go into the full process of polishing them as learned people, educated people, in our institutions of higher learning.

I am wondering whether or not the examinations as they are now constituted do reflect the native intelligence of a youngster, the potential that is there that could be developed in an institution of higher learning, or is this merely a test of what he has absorbed in his earlier years?

DR. NOYES. Sir, the answer to that is a little complex.

The board offers two types of tests in its admissions program. The first is a scholastic aptitude test divided into two parts, one of verbal ability and one of mathematical ability. This comes as close as any test can come, I think, to measurement of the sort of inherent ability of the student without reference to particular courses of study that he may or may not have taken.

It is impossible absolutely to separate aptitude from achievement because, when a test is given, whatever the student has had in his whole career up to that point is going to influence what he does on that test.

It would be quite impossible to dig out—I do not believe anybody has even adequately defined it—what might be called native intelligence pure and simple without any reference to material on which that intelligence has to work to demonstrate its existence.

The point is then that the scholastic aptitude test, which is the most widely used test of the college board, is a definite effort to do what I think you are shooting at.

The achievement tests are tests in subject matter fields. The student's ability in general here will depend on what he has been taught although we are trying very hard and have, I think, succeeded rather well to keep them from being merely factual or memory recall measurements.

What we are trying to do is to measure the ability to think in terms of a particular subject, whether it is French or mathematics.

MR. PUCINSKI. I heard the other day that some of the universities are not being strictly bound by the record that a youngster makes on

his College Entrance Board examination and are going beyond this in some instances.

Dr. NOYES. Sir, this is exactly what the board has always advocated. No one in the board has ever believed that the tests tell the story either entirely or even in a major measure.

The value of the tests really lies primarily in the fact that they are applicable to students from all over the country, no matter what their learning experiences may have been in the past.

So that a college which has applicants from over 600 different schools can have a kind of common denominator which enables the admissions people in that institution to give a kind of rank order of merit among the candidates. But in all cases that I know of, and I served as an admissions officer for a long time and have still a great many friends in that order of the misunderstood, I never heard of an admissions office which put primary responsibility on tests for selection. Always the whole picture is tried for.

It is difficult to get, but the school record is more important than test scores in any institution I know of so far as admissions are concerned and, of course, all of the nonintellectual factors that make for success in college, persistence, motivation, creativity, these are things that no test can measure, no test pretends to measure at the present time.

But these are the things which the admissions officers are trying very hard to find out from the schools and from the teachers and other people who know the candidates.

Mr. PUCINSKI. I would think that this is a rather encouraging development because it would seem to me somewhat cruel to deny a youngster, who is fortunate to be born with a basic native intelligence and then is unfortunate enough to have a bad school system, perhaps deficient teachers, who have never been able to develop this potential in this youngster, that he should then be precluded for the rest of his life from going on to greater things.

I read with great interest recently an article where educators are beginning to look rather seriously at and reappraising rather seriously the whole concept of IQ test as standards.

I might tell you that we have had this problem.

As you know we appoint youngsters to the military academies and I wish somebody more learned than myself could provide for me a method of testing the applicants so that we could find the youngster who has those traits of leadership, because this is what we want.

I have confidence that the academy is going to develop the intellectual level of this youngster, that is what we are sending him there for, so I have no fears about that.

But the problem that we have is determining, on the basis of several hundred applications who in this group, which of the youngsters in this group, have those traits of leadership that we are looking for in the future officers of our Defense Establishment.

I am very much encouraged to see that educators are starting to look beyond the written exams to find the answer.

This legislation, incidentally, I trust you agree, might pave the way for finding better methods.

Dr. NOYES. Yes, indeed. This is another reason for my own enthusiasm for it.

Mr. PUCINSKI. Doctor, we are very grateful to you.

I am sure that your testimony will be extensively quoted when this bill gets to the floor for final action.

We are grateful to you for taking the time to be with us today.

Dr. NOYES. I am very grateful for this opportunity to come before this committee, sir. I should be glad to be of further assistance in any way I can.

Mr. PUCINSKI. Thank you very much.

(The prepared statement of Dr. Noyes follows:)

STATEMENT OF DR. EDWARD NOYES, ACTING PRESIDENT, COLLEGE ENTRANCE EXAMINATION BOARD

My name is Edward Noyes, and I am acting president of the College Entrance Examination Board. Today I have been invited by the chairman of the select subcommittee to give views on H.R. 10145. To clarify the position of the college board, I have prepared the following statement:

1. The College Entrance Examination Board is a membership organization, composed of 427 colleges, 126 schools, and 41 educational associations throughout the country. The governance of the board resides in its membership, which meets in October of each year, although an elected chairman and board of trustees may take action between meetings. Unless a specific proposal has been acted on by the trustees and duly ratified by the full board, it is not possible for anyone to state the college board's position thereon.

2. In certain matters connected with the purpose of H.R. 10145, however, the trustees and the full board have already taken definite action. These facts can therefore be reported to the select subcommittee as direct evidence of the interest of the college board member institutions in the aims and purposes of this bill.

3. The primary function of the college board is to deal with problems of transition from school to college. The growth of the board is due mainly to the fact that colleges have discovered that they can generally improve their selection of incoming students by combining the applicants' school record with scores on college board tests.

4. Since college board tests are taken by hundreds of thousands of students all over the country, and since the board earnestly wished that these tests be fair to all, it is clear that the secondary school courses of study, both in general and in particular subjects, are a matter of great concern to the college board and its examiners, who are school and college teachers.

CASE I. THE COMMISSION ON MATHEMATICS

Some 7 years ago, the board's examiners in mathematics reported to the committee on examinations that they were finding it almost impossible to set a single examination in mathematics which would be fair to students prepared in different programs in the schools. Many schools were experimenting with new topics and new courses, others retained older programs, at least in part; a chaotic situation prevailed. Instead of attempting to compel all schools to follow a single curriculum by means of its mathematics tests—which would have involved great unfairness to students in schools unwilling to change to such a curriculum—the board established a commission on mathematics to study the problem and to make recommendations leading to a revision and modernization of the secondary school courses in that subject. In cooperation with other organizations, the commission proceeded to carry out this mandate, and its work seems to have been effective. Without setting up any rigidly prescribed course of study, which was never intended, the guidance of the commission has been a factor in improving the secondary school curriculum in mathematics and in linking it more closely with college work in the subject. The commission on mathematics, its mission accomplished, has been discharged. A very large part of its success, however, has been owing to the availability, through the National Science Foundation, of summer and year-long institutes in which schoolteachers of mathematics could be retrained and refreshed in the new theories and practices, at Government expense.

CASE II. THE COMMISSION ON ENGLISH

For many years, also, the college board's committee on examinations and many of its member colleges have been unhappy about the secondary school curriculum in English. Complaints have been fairly constant to the effect that though freshmen have high ability, they are less able to read with comprehension and to write with clarity than they should be. A recent study published by the National Council of Teachers of English indicates that colleges are spending over \$11 million a year in remedial courses in English for their freshmen.

Accordingly, on recommendation of the trustees, the college board voted to authorize the establishment of a commission on English, with functions roughly equivalent to those of its predecessor, the commission on Mathematics. That commission has now been at work for over 2 years and is carrying out a program which it hopes and believes will make for improvement in instruction in English. Exhibit 1, attached hereto, is a document describing the commission's plans.

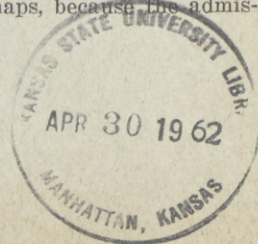
What needs to be emphasized here is the fact that this commission, also, has recognized that a beginning must be made in the retraining and refreshing of secondary school teachers, and that institutes in universities offer the best solution to this problem. But there is no National Humanities Foundation analogous to the National Science Foundation to provide such institutes, vitally needed though they seem to be. Hence, the college board, through its commission on English, is providing such institutes. The total cost of the 20 institutes to be held this coming summer will be well over \$600,000. The college board thought this work so essential that, at considerable risk to any reasonable reserve fund of its own, it agreed to underwrite the commission's plans. At the same time, the trustees instructed the acting president to seek outside support wherever it could be found. Exhibit 2, attached herewith, shows that a number of private foundations have been generous in contributing to this campaign.

There are some 90,000 teachers of English in secondary schools. Not all of them, by any means, need work of a refresher kind in institutes. Our 20 institutes this summer will directly affect 900, or 1 percent of the total. We believe that these 900 will become missionaries; we believe that other projects of the commission, such as kinescopes and printed materials, will reach a much wider professional audience of English teachers. I should like to suggest that unless Federal funds can be secured to help at least the same proportion of English teachers as Federal funds have helped teachers of mathematics, progress on this front will be heartbreakingly slow. I would add that, if there is delay in implementing the provisions of H.R. 10145, such initial advantages as will have been gained by the English institutes of the board's commission on English will be partly lost. Should this bill be passed, and money appropriated promptly, it seems likely that substantial gains can result from the pioneer work done by the commission on English and its institutes in the current academic year. I should add that every effort has been made to keep the U.S. Office of Education informed about the work of the commission on English.

By supporting the commission's program to the limit of its ability, the college entrance examination board, which I have the honor to represent here, has obviously taken a clear position in regard to the importance of the aims and purposes of H.R. 10145, and particularly of title I, section 101.

CASE III. THE WRITING SAMPLE

Another action in this same general direction taken by the college board 2 years ago was a vote to include in the regular testing program what is known as the writing sample. As more and more candidates have taken college board tests, the tendency of the tests has been to become almost completely objective. That is, the candidate does no writing, but marks on an answer sheet the number of that response which, among five suggestions for each question, seems to him the best answer. For purposes of this subcommittee, the important fact is that the member colleges of the board felt it necessary to emphasize to schools and candidates that the ability to write with clarity is extremely important in college work; many of our members felt that writing had not been stressed as much in the schools as it ought to be, partly, perhaps, because the admission tests themselves now require little or no writing.



Hence, this exercise was voted into the regular program. It may or may not be required by any particular member college. What happens is that a candidate writes an hour's theme on a given topic, and on carbon-backed paper, under test conditions, so that parents or teachers have no chance for editorial work. The original goes to the candidate's school; one carbon goes to each of three colleges he has designated. The college board does not grade these themes; the colleges are left free to treat them as they please. The fact that last year over 90,000 candidates submitted writing samples indicates clearly the anxiety of board member colleges about the need for more composition work in the secondary schools.

CASE IV. THE SITUATION IN HISTORY AND SOCIAL STUDIES

The college board actions just described indicate clearly that the member colleges have felt the need for improvement in the quality of the teaching of English in secondary schools. I should add that there is evidence of a similar feeling about the field of history and social studies, that the suggestion has already been made that the college board establish a new commission in this area, patterned after the earlier commission on mathematics and the present one on English. I am sure that the trustees will feel that a new commission will be impossible for the board to support until the work of the commission on English is completed. This decision, if taken, will be taken because of financial limitations, not at all because of any belief that instruction and the curriculum in the area of history and social studies do not need improvement.

CASE V. A PERSONAL OPINION, NOT PRESENTED AS THAT OF THE COLLEGE BOARD

Before being invited to present views on H.R. 10145, I had already written, as a private citizen, to Chairman Thompson, urging favorable consideration of this bill. To me, an important point is the present imbalance of Federal aid to improving instruction in secondary schools. Through the National Science Foundation and National Defense Education Act there has been massive support for science, mathematics, and foreign language teaching. There is no question but that this support was badly needed, and I believe that it has been effective. What I deplore is the almost total neglect of studies equally important for national defense, and surely of equal importance for sound education: the humanities in general, and English—the basis for all studies, in this country—in particular. This neglect has, I believe, affected the morale of teachers in these fields, who see themselves barred from advantages open to their colleagues in the favored areas. It would not be surprising if the student population were led to believe that the humanistic studies are of slight value, when so little is done for them and so much for the other areas.

The current issue of the *Saturday Review of Literature* contains a notice of an important new book on Soviet education by Dr. Nicholas de Witt, an associate of the Russian research center at Harvard. I should like to end with a quotation from this article:

"To me, the most significant sentence in this book is this one: 'This (Soviet) type of one-sidedly scientific and technical education, producing specialists who are little interested in human and ethical values, apparently is considered to provide the most suitable and pliable kind of manpower for running the affairs of the Communist state.'"

SUMMER INSTITUTES FOR ENGLISH TEACHERS

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 tion of America

Letters should be addressed to the Executive Director, Commission on English,
 687 Boylston Street, Boston, Mass.

THE INSTITUTE PROGRAM

In late autumn 1960, the commission on English announced in a pamphlet "Preparation in English for College-Bound Students" a program of 20 summer institutes in 1962 for secondary-school teachers of English. The commission recognized the need for early and extensive preparation to insure a curriculum especially designed for English teachers and a pattern of organization satisfactory to the 20 participating universities.

A planning institute took place at the University of Michigan, Ann Arbor, August 14–September 1, 1961. Miss Helen C. White, University of Wisconsin, Mr. W. Nelson Francis, Franklin and Marshall College, and Mr. Albert Kitzhaber, Dartmouth College, directors in literature, language, and composition, worked in association with 60 English instructors from colleges and schools. Each of these 60 participants was selected by one of the cooperating universities and is under contract to teach in a 1962 summer institute.

The principal work of the planning institute was the development of the program for 1962, the choice of texts, and the agreement on procedures which best satisfy the purpose of the summer institutes. To make certain that the three courses lead to integrated and articulated English programs in secondary schools, the Commission planned general sessions involving all participants, and smaller intergroup discussions in which the members represented the three separate areas.

For the second week, consultants from representative secondary schools shared the work. This group, guests of the commission on English, made an invaluable contribution to the planning institute.

Participating Universities	Institute directors	Department chairmen	Literature	Language	Composition
Cornell University, Ithaca, N.Y.-----	William Keast-----	William Keast-----	Ruth Fisher*-----	Baxter Hathaway-----	Jonathan Bishop-----
Duke University, Durham, N.C.-----	George Williams-----	Arlin Turner-----	Groves Smith-----	Holger Nygard-----	George Williams-----
Harvard University, Cambridge, Mass.-----	Harold C. Martin-----	Walter J. Bate-----	Harold C. Martin-----	Priscilla Tyler-----	Scott Ellinger-----
Indiana University, Bloomington, Ind.-----	William Wiatt-----	Philip Daglian-----	Terence Martin-----	Thomas W. Ware*-----	William Wiatt-----
New York University, New York, N.Y.-----	Walker Gibson-----	Oscar Cargill-----	Louise Rosenblatt-----	Louise Higgins*-----	Walker Gibson-----
Ohio State University, Columbus, Ohio-----	Edwin Robbins-----	Henry Sams-----	A. E. Wallace Meurer-----	Leonard Newman-----	Edwin Robbins-----
Pennsylvania State University, University Park, Pa.-----	John Bowman-----	Robert Esrich-----	Wilfred T. Jewkes-----	Agnes McElwee-----	John Bowman-----
Rutgers-The State University, New Brunswick, N.J.-----	Fred Main-----	Rudolf Kirk-----	Fred Main-----	Leonard Newman-----	John Bowman-----
St. Louis University, St. Louis, Mo.-----	Elstas Chiasson-----	Maurice McNamee-----	Martin Parry*-----	Margaret Bryant*-----	John Myers, Jr.-----
Southern Illinois University, Carbondale, Ill.-----	Betty Mitchell-----	W. B. Schneider-----	Georgia Winn-----	J. J. Sanders-----	Elstas Chiasson-----
Stanford University, Stanford, Calif.-----	Lawrence Ryan-----	Virgil Whitaker-----	Lawrence Ryan-----	Robert Ackerman-----	Fred Lingke-----
State University of New York-College of Education, Albany, N.Y.-----	David Martin-----	Townsend Rich-----	Carl Niemeyer*-----	Grechen Faulstich-----	Craig Villettoe-----
Tulane University, New Orleans, La.-----	Marvin Morillo-----	George W. Meyer-----	Marvin Morillo-----	James Downer*-----	William Kraus-----
University of California, Los Angeles, Calif.-----	Charles Hartung-----	Hugh G. Dick-----	Fred Marcus*-----	Charles Hartung-----	Philip Bollier-----
University of Michigan, Ann Arbor, Mich.-----	Arthur Carr-----	Warner G. Rice-----	Arthur Carr-----	Louis C. Rus-----	R. T. Lemaghtian*-----
University of Nevada, Reno, Nev.-----	Jennings Woods-----	Robert Gorrell-----	James R. Dickinson-----	Richard C. Peal*-----	Carlton Wells-----
University of Pittsburgh, Pittsburgh, Pa.-----	Dorothy Miller-----	W. George Crouch-----	Dorothy Miller-----	Alan Markman-----	John Morrison-----
University of Texas, Austin, Tex.-----	Arnold Lazarus-----	Moby Bealright-----	Joseph Slovic-----	David L. Camp-----	Virginia Elliott*-----
University of Washington, Seattle, Wash.-----	William Irmscher-----	Robert Hellman-----	Edward Bostetter-----	Donald Emery-----	Arnold Lazarus-----
University of Wisconsin, Madison, Wis.-----	Ednah Thomas-----	Helen C. White-----	G. Thomas Tanselle-----	Fredette Cassidy-----	Richard Lander*-----
					Ednah Thomas-----

*Indicates extramural appointment.

SUMMER INSTITUTES, 1962

During the summer of 1962, secondary school teachers selected to participate in the program will enroll in the cooperating universities. Each teacher will undertake three graduate-level courses: literature, language, composition. In addition, he will develop materials and assignments appropriate for secondary school English. The class schedule and the number of graduate credits will be matters of university policy, but the content of the courses and the work in curriculum development have been determined at the planning institute.

Host universities will select teachers from secondary schools—public, private, and parochial. Further, each university has been urged to make certain that the group includes teachers from grades 9 and 10, as well as grades 11 and 12. The teachers selected should be experienced persons who have demonstrated their competence, who have the support of their school administration, and who can commit themselves to participate in the followup program. Selection should be limited to the teachers who look forward to continued service. From the participants in the 1962 summer institutes, schools can reasonably expect leadership in the profession during the next decade.

The commission has proposed that applications be accepted from secondary school teachers within a 50-mile radius of the host university. Overlapping areas and differences in population density will make adjustments necessary. Areas will be drawn to assure effective followup and widespread seeding of the commission's program.

Enrollment in the summer institutes is limited. Only teachers accepted by a university's special committee on selection can be accommodated. A teacher who wants to participate should write to the director of the summer institute in English for an application form.

With application forms, teachers will receive from the universities information about dates, registration, and costs, as well as a statement about stipends given by the commission on English, under a grant from the college entrance examination board, to meet tuition expenses and \$350 for living costs.

The host universities are urged to select teachers who can gain much and, at the same time, contribute by their participation. The commission on English and the institute directors present at the planning institute recommend that each institute group consist of the following:

1. Teachers with at least 3, but preferably 5, years' experience in teaching secondary school English.
2. Teachers who look forward to 10 or more years in the classroom.
3. Teachers whose principal assignments are in college preparatory English.
4. Teachers with the equivalent in subject matter courses of a full or nearly full undergraduate major in English and with an academic record that gives promise of success in graduate study.
5. Teachers who pledge themselves not to take additional courses during the summer term.
6. Teachers in schools that regularly send a substantial portion of their graduates to college.
7. Teachers who have the endorsement of their administrators and the assurance of support to carry out the commission's program.

The teachers will meet in classes; in addition, they will have facilities for seminars, working parties, and workshop activities. The business of each summer institute faculty member will be (1) to give instruction of graduate level; (2) to cooperate with the other instructors and with teachers in showing how one field of study touches another: language—composition—literature—language; (3) to help teachers discover the materials essential to their immediate assignments and to assignments which they may properly give in secondary school classes; and (4) to illustrate and discuss methods of teaching.

Course descriptions, written and approved at the planning institute, appear on this page and page 6.

PROGRAM IN LITERATURE

The purpose of teaching literature in schools and colleges is to make the student aware of the power of great literature to illuminate human experience, and to give inexhaustible pleasure.

The literary work is an ordered world, organized out of experience by the vision and discipline of the writer. To enter that world the student must be trained in thoughtful and sensitive reading, supported by essential knowledge of

the cultural context and guided by each teacher's understanding of his class. The student must be put in possession of such indispensable tools of literary study as analysis of image, metaphor, and symbol, awareness of point of view, analysis of structure, and semantic examination of meaning and tone.

The teacher should himself have resources of knowledge and literary skill beyond what he will use immediately in his teaching. We of the planning institute of 1961 hope that the secondary-school teachers in the institutes of 1962 will be able, in class and workshop, to broaden their own individual competence and awareness with such methods of literary study as are here suggested. Above all, we hope that they will come to share our sense of having been on the frontiers of contemporary thinking about literature, and that they will bring back to their work with their students and fellow teachers the excitement of a freshly stimulated and enriched imagination. (Helen C. White and the 20 participants.)

PROGRAM IN LANGUAGE

The language section of the planning institute has prepared the outline for a course in language, which will be followed with some variation at all of the 1962 summer institutes. The course has three principal aims: (1) to introduce the teachers to the idea of language as a field of study and to the assumptions and methods of linguistics; (2) to furnish them with some indispensable knowledge about the English language; (3) to encourage them to undertake further study and guide them in pursuing it. The group agrees that the second of these, while important, is subordinate to the other two, and that discussion of how to adapt the material to the secondary school classroom can best be carried on in workshops handled largely by the teachers themselves.

The program for the course comprises five main parts, to be handled in whatever seems to the instructor to be the best order; introduction to language and language study; phonology, especially in its prosodic aspects; systems of syntax; linguistic variety and the problem of standard usage; the history of English. Since none of these can be treated fully in the available time, emphasis will be on general principles and methods, with illustrative demonstrations.

Class sessions will be supplemented by selected reading, exercises, and workshops. There will be a final examination but no long paper. The work, including outside assignments, will demand about 15 hours per week over 6 or 8 weeks. Students will be given an extensive annotated reading list for further study. (W. Nelson Francis and the 20 participants.)

PROGRAM IN COMPOSITION

The members of the composition section agree that their principal aim is to plan a course that will help secondary schoolteachers become better writers themselves and better critics of writing, both student and professional. The course will deal mainly with expository prose as the variety most widely useful.

The composition group is aware that writing and the teaching of writing are arts but that apart from the obvious need for practice there is no single best way to develop skill in them. Two courses have therefore been prepared embodying different approaches to the same goal. One course emphasizes the role of writer, purpose, subject, and audience in controlling the complex intellectual choices that comprise the art of written discourse. The other focuses primarily on the art of writing as a symbolic ordering of experience deliberately structured by the writer's need to establish an appropriate "voice."

In both courses, which will be taught in varying forms on 20 campuses next summer, the teachers will write a series of short essays which they and their instructors will analyze and revise, and they will make rhetorical analyses of selections of prose by professional writers. About half of the papers will be assigned in cooperation with the other two instructors so as to pull together the work in language, literature, and composition. The teachers, meeting in small workshops, will prepare exercises, composition assignments, and other practical adaptations of the substance of the course to the high-school classroom. The work of the course will require about 15 hours a week. (Albert Kitzhaber and the 20 participants.)

SUMMER INSTITUTE WORKSHOPS

Most host universities will offer separate courses in literature, language, and composition, but the summer institute instructors and the commission recognize that they are related fields. English, as a subject for study in secondary schools, is a fusion of the three. Beyond the plans of the instructors to make this clear in their own courses, the workshop activities are designed to give teachers further opportunity to explore these relationships as they exist in the schools.

Each of the instructors will share responsibility for the workshops. With their help, the teachers will develop materials for use in their own schools. While specific requirements may vary from university to university, it is expected that each teacher will prepare for use in his own classes a specified number of assignments. These materials should demonstrate an intelligent fusion of the three separate areas of study.

On the average, teachers will spend 6 hours per week in workshop activity. In some cases they will be divided into small groups to prepare teaching materials for particular grades. In other, teachers in small teams will work on common problems; e.g., an application of the principles of language study to poems commonly taught in schools.

SUMMER INSTITUTE FOLLOWUP PROGRAM

An important phase in the summer institutes is the followup program. It is planned to serve two purposes: help teachers continue the preparation and revision of teaching materials based on the summer studies; assist the commission in evaluation of the summer institute. Some decisions, affected by geography and personnel, rest with each university. The commission has, however, made two stipulations; the followup work must be, in part, a field program, and must be carried out by the persons best acquainted with the courses and the workshop activities.

Released one-half time to lead this program, the university instructor will serve as consultant to the participating teachers. In the fieldwork he will help interpret the commission's program to administrators and, where possible, encourage other English teachers in the participating schools to examine new course materials. His main work, however, will be assisting summer institute teachers in translating their own studies in English into appropriate teaching materials.

Among the possible followup activities are classroom visits and conferences with summer institute teachers; 1-day or evening meetings with some or all participants, either in one of the schools or on the university campus; meetings which include administrators and other English teachers; and standing committees of teachers working on specific problems.

THE COMMISSION'S PROGRAM

1. *Summer institutes.*

2. A series of kinescopes to present talks and demonstrations on specific problems of English instruction. These productions, addressed to teachers, will be available for conferences, teacher-training classes, and English department meetings. Three pilot kinescopes have been produced and are being widely distributed.

3. End-of-year examinations, written by the commission and tested in pilot schools, to state in another way the English preparation appropriate for college-bound students. The commission plans to have four examinations of graduated difficulty, with examples of student answers that have been carefully read and ranked so that teachers can see reasons for the grades assigned. These examinations, not to be used for college admission purposes, will permit any teacher or school to match the performance of students with the sample sets published by the commission. The commission plans publication of this material late in 1962.

4. Sample syllabuses, in literature, language, and composition, prepared in the summer institutes and in the followup program. These syllabuses, supplemented by examples of sound teaching materials in English, are planned as guides for curriculum study and revision at both local and State levels. Publication of these syllabuses is scheduled for early 1964.

5. A program of information, to tell the public of needed reforms in the conditions of English teaching and of its responsibility if improvement is to take place, and to acquaint teachers with the commission's program, the materials available,

and the results of its study. Commission members and their representatives take part in regional, State, and National meetings of English teachers and school administrators. In addition to the progress reports, the commission plans to publish recommendations on the teaching of English and a variety of supplementary materials for use in English classrooms.

COMMISSIONS OF THE COLLEGE ENTRANCE EXAMINATION BOARD

From 1907 to 1940 approximately 34 commissions were appointed: 4 on English, including English for foreign students; 7 on language, including aural examinations in modern language; 5 on history; 7 on the sciences—biology, botany, zoology, chemistry, physics; 3 on mathematics; 4 concerned with psychological and intelligence testing; and several others on such subjects as music, mechanical drawing, and the examination schedule.

From about 1940 until 1955 the board appointed no commissions. Much of the commission work was handled by related standing committees, and the war, of course, reduced the board's opportunity to work on curricular questions. By 1955 there was a greatly renewed interest in revising the college preparatory curriculum in secondary schools which led that year to organization by the board of a commission on mathematics and a commission on advanced placement.

In the fall of 1959, a Commission on English was appointed.

NOTE.—Excerpted from "Historical Survey of the Committees and the Commissions of the College Entrance Examination Board," prepared by Richard Pearson, executive vice president.

FOUNDATION GRANTS OF \$259,000 ANNOUNCED TO SUPPORT PROGRAM OF COLLEGE BOARD COMMISSION ON ENGLISH

At the conclusion of their regular winter meeting in New York, the trustees of the college board today announced five foundation grants totaling \$259,000 to be used in partial support of the 1962 summer institute program being conducted by the board's commission on English.

Chairman of the trustees, Frank D. Ashburn (headmaster, Brooks School, North Andover, Mass.), said that the following foundations had approved substantial grants to help sustain the work of the 20 institutes planned for next summer:

The Danforth Foundation, St. Louis, Mo., \$160,000—to encourage and advance professional leadership in the field of English through the summer institute training and subsequent activities.

Old Dominion Foundation, New York, N.Y., \$40,000—in general support of the summer institute program.

The Bing Fund, Inc., Los Angeles, Calif., \$20,000—to help finance the summer institute at the University of California, Los Angeles, Calif.

Hobby Foundation, Houston, Tex., \$5,000—to help finance the summer institute at the University of Texas, Austin, Tex.

Victoria Foundation, Inc., Glen Ridge, N.J., \$34,000—to support the summer institute at Rutgers, the State University, New Jersey.

Dr. Edward S. Noyes, acting president of the board, said that several other foundations were considering grants to support the program of the commission on English. He observed that the real significance of the donations already received lay in the fact that in widely separated areas foundations had endorsed the commission's ideas and proposed plan of action to strengthen and improve instruction in English.

"The college board," Dr. Noyes said, "has been convinced that it was providing a valuable and needed service in supporting the work of the commission, and we are highly gratified to receive the reinforcement of these generous foundation grants at this time." The estimated total cost of the institutes will be about \$600,000.

Details of the 1962 summer institute program are contained in the enclosed booklet, currently being issued by the board and the participating universities. Some 900 secondary schoolteachers of English will attend the 1962 institutes.

CHARLES M. HOLLOWAY,
Director of Information Services.

Mr. PUCINSKI. Our next witness is Dr. James W. Maucker, president of the American Association of Colleges for Teacher Education and president of the State College of Iowa.

Dr. Maucker, welcome to the committee.

Dr. MAUCKER. Thank you.

Mr. PUCINSKI. I wonder if you would be good enough to identify yourself for the reporter.

STATEMENT OF DR. JAMES W. MAUCKER, PRESIDENT, AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION; PRESIDENT, STATE COLLEGE OF IOWA

Dr. MAUCKER. Mr. Chairman, I am J. W. Maucker, president of State College of Iowa at Cedar Falls, Iowa, and president of the American Association of Colleges for Teacher Education.

I appreciate this opportunity to participate in this hearing on behalf of the organization, the American Association of Colleges for Teacher Education.

Mr. PUCINSKI. Doctor, your entire prepared statement will go into the record following your oral testimony. We will leave up to you the decision as to whether you want to read the whole thing or merely refer to it and take whatever quotes you want out of it as you go along.

Mr. MAUCKER. I should like to handle it about as Dr. Noyes did, if I may.

I have organized this first to identify the AACTE, on whose behalf I am speaking, then to give general reasons for the support of title I, and then specific reasons for the support of each portion of title I.

The AACTE is a voluntary organization of 609 accredited degree granting; that is, 4-year colleges and universities in the United States which prepare about 90 percent of the new teachers for our elementary and secondary schools each year.

I will not bother to cite all this written down here.

I refer to the fact in its constitution the basic purpose of the organization is to be constantly searching for and promoting ideas and practices which will be more effective in the education of teachers, so that this quality of education act, the portions that have to do with improving teachers, are directly in line with the interests of this organization.

As indicated on page 2, the organization has not, its membership has not, taken formal action with regard to H.R. 10145. I want to be sure I do not mislead you in that respect.

The executive committee of the organization, however, which makes the basic decisions with regard to the organization did take cognizance of this legislation being proposed and, as indicated there in the quotation, we issued just last month a statement to the membership at the annual meeting calling their attention to this legislation and urging them, if they felt that they might properly do so, to speak in its behalf, so as to call to the attention of their Congressmen their interest in this bill.

We did hold an open hearing at the meeting and this matter was discussed and there seemed to be complete agreement with the action of the executive committee.

As indicated in the next paragraph—I will limit my remarks strictly to the aspects which have to do with teacher education.

Turning then to the reasons for support of title I and running down through it rather quickly, we would say, first, that in the national interest, the quality of education in our elementary and secondary schools should be dramatically improved in the years just ahead. The reasons being the complexity of the times in which we live, this challenge from the Sino-Soviet axis, and then beyond these challenges the very fact that it is an inherent part of the American dream, so to speak, that we do provide for every youngster an opportunity to achieve his maximum potentiality, and if we provide only a mediocre, or a poor education system, we are not living up to this part of our promise.

Second, the crucial factor in determining the quality of education is the competence of the teacher. We state that as a bald fact. I doubt if there would be disagreement with it.

Third, upgrading in the subject matter and professional qualifications of teachers is greatly needed because, in the first place, many teachers in service have had extremely limited preparation in their teaching fields. This was discussed by the previous speaker. I cite a little information here.

A little over one-fifth of our elementary school teachers in this country have less than 4 years of college. They have been prepared and certified in years past on the basis of 6 weeks of college, 1 year of college, 2 years of college, and now the standards are being raised rather rapidly, but the fact still remains that there are almost a fourth of them who are not college graduates. This has to do with the elementary.

I should like to cite quickly a little evidence which has to do with high school teachers that I was not able to get into this prepared statement.

First, with regard to English teachers. Just this one fact which is in this same booklet that Dr. Noyes referred to, that only between 40 and 60 percent of the teachers of high school English have completed college majors in English. This is directly relevant to your question.

In many instances a person who majored in physical education or who majored in business education or who majored in mathematics, perhaps, and took minimum work in English, is actually teaching English. So that the statement is to the effect that approximately half of those people who are teaching English did not have major preparation in this field.

If we turn to the field of social studies, history, government, and so on. I think these data cited for 1956 and 1957 by Frederick L. Wellman, with regard to the persons teaching social studies in the high schools of Illinois—this only one sample, but I am afraid it is all too typical—11 percent of them had had no college work whatsoever in political science; 21 percent, none whatsoever in economics; 27 percent, none in sociology or anthropology; and 46 percent, no college work in geography; over 42 percent had not had a single history course dealing with Latin America, with Asia, or with Africa. areas that in recent years have obviously come into prominence, should be dealt with in our schools. The patterns of a previous generation, which concentrated almost entirely on American and European history. leave these people just grossly unprepared.

Mr. GRIFFIN. Doctor, perhaps this is a bit facetious, would that be because in too many of your member institutions a large percentage of those who graduate and get teachers certificates, major in the easy subject areas and shy away from math, science, and the more difficult subjects?

Dr. MAUCKER. Well, that would perhaps be a partial factor.

Mr. GRIFFIN. Is this really a fault of the Federal Government or are there some of these other considerations the major factors?

Dr. MAUCKER. I would not say it was the fault of the Federal Government at all.

The Federal Government has not heretofore had direct responsibility with regard to this.

I am simply saying these are the facts. This is the situation which calls for efforts that go beyond the kind we have made in the past to bring these people up to the place where instruction can be of higher quality.

Secondly, the preparation of many teachers who did have majors in history or English is now outdated. They took their work 20 or 30 years ago and they need to be brought up particularly in the new developments in the field, particularly structural linguistics in the field of English and the history and economic and governmental aspects, of these regions of the world which heretofore had not been given much attention.

And then finally, this point indicates that the problem is going to be long range, the rapidly moving developments in the various subject fields make continuing study necessary for even the most effectively and recently prepared teacher.

Just as you find this in practically all professional fields, it is necessary for teachers to keep themselves refreshed. Consequently, it is important that there be available to them adequate offerings and that the mechanisms be provided that will encourage them to keep themselves up to date.

Well, most States and most local school districts and individual teachers have not been able to finance the qualitative upgrading with sufficient rapidity to meet the situation. For one thing, and this does not excuse it exactly, but in the local schools and States they have been having their hands full dealing with the quantitative problem, the tremendous increase in numbers of youngsters going to school.

I think we ought to recognize that the States have—and particularly the localities, because so much of the education is based on the local property tax—they have made a tremendous effort in the last decade or so. Expenditures for public education have doubled in the last 10 years.

What I am saying to you is about all that has been accomplished is to handle the quantitative aspects. I should not make it quite that flat. There has been improvement in the quality of our secondary and elementary education since World War II but it is just in small degree compared to the magnitude of the need for qualitative improvement. Hence this appeal to the Federal Government for financial assistance.

Now, the Federal Government by its previous actions in establishing the National Science Foundation and the National Defense Education Act has recognized, I would say, the force of these arguments

and undertaken to discharge the responsibility of helping in qualitative improvement, but it has done it in a limited and a one-sided manner, such as to distort the educational process. This is, in general, what Dr. Noyes was speaking about.

The emphasis on mathematics and science and modern foreign language and limited just to those fields and to the field of guidance has had this kind of effect.

Mr. PUCINSKI. Doctor, at this point Dr. Noyes made the point and you did, and I agree with you, but I wonder if you would perhaps at this particular moment comment on the fact that we went into this crash program in science and languages and mathematics because we suddenly discovered with sputnik that, in 1958 I think, we had graduated something like 36 physics teachers or some completely unrealistic figure. So, quite obviously, we had to have a crash program.

However, we have been dealing with the field of humanities in this country since the educational system began.

I wonder if we are not being just a little unfair to our educational institutions when we try to create the impression that we are now putting all of our eggs in science, languages, and math, and completely ignoring the humanities? Humanities we have had here from the very beginning of our educational system. We did not have any emphasis on that point. As a matter of fact, we had overemphasized humanities and suddenly we discovered that we did not have people who could play a part in the stream of technological advancement to meet the great challenge of engineering and the other problems presented with the new sputnik age.

Is this not perhaps a more realistic way of looking at this problem?

Dr. MAUCKER. It certainly has a good deal of validity and, as Dr. Noyes said, I did not mean to decry the action of the Federal Government in supporting programs for the improvement of teaching in mathematics, science, and modern foreign languages. But I am simply trying to call to the attention of the Congress the fact that in so doing it has brought about an imbalance, as he spoke of it.

The teaching of science and mathematics has been helped. The Congress has put the Federal Government behind assuring that if a youngster takes work in high school, modern foreign languages, he will do it in a good language laboratory, but there is no similar kind of support for his learning his own language.

The effect, then, is to say to the teachers and to the students that here are the important areas, the mathematics and the science and the modern foreign language. Yet the guidance, the English and the history, well, they are just English and history, you sort of take them for granted.

Mr. PUCINSKI. I do not subscribe to that view because we presume, and certainly with all the money that is being spent in this country on education, we have a right to presume, that our educational institutions were developing courses in English, courses in history, courses in the various other humanities.

But we discovered that they were not developing foreign languages, that they were not developing science, they were not developing math to the extent that we would need it in this area.

I do not want to in any way contradict what you are saying. Obviously we need a great deal of work in both fields. But I have heard during the course of these hearings several witnesses make this statement and one would get the impression from these statements that we are now concentrating on only three facets of the educational process, foreign languages, science, and math, and we have abandoned all the other subjects which, of course, is not true.

Dr. MAUCKER. When you say we get the impression we have concentrated on three, if "we" is the Federal Government, that is right. That is what the Government has done.

Mr. PUCINSKI. I mean the 82,000 schools in the country when I say "we."

Dr. MAUCKER. Certainly, as you say, we have been offering work in English and history for, lo, these many years. Also they have been offering work in math and science for, lo, these many years. The inadequacies in these areas have been recognized. The inadequacies in the others have not been recognized because they are not as closely related to national defense. My point is simply that there is great need in these other fields.

Mr. GRIFFIN. Doctor, I should like to make this observation: When we passed the National Defense Education Act, we were concerned about the fact that in colleges and universities generally, and in your member institutions, not enough students were taking and majoring in math, physics, science, engineering—in that particular area which is so vital to our defense effort.

You indicate that now there is some imbalance. I do not think you mean to indicate or imply that we have an imbalance in the sense that now we have too many engineers or scientists or mathematicians, because we do not.

We are still trying to get more people to go into these areas.

As you indicated, there is a more direct connection between these fields and national defense, although I suppose the argument can be made that the whole field of education is related to national defense. But if you are going to talk in relative terms, we can perhaps concede that there is a direct interest as far as physics, math, science, and so forth, are concerned.

Now then, if we should expand this program across the whole spectrum of education, wouldn't we be right back where we were before enactment of the National Defense Education Act? We would be putting the same emphasis upon the "easy" subject fields and students would again flock to those fields instead of math, science, and engineering. Wouldn't we be right back where we were?

Dr. MAUCKER. I do not think that would necessarily follow if the effort is put behind raising the quality of instruction in these fields, which is what this bill is designed to do.

There is actually a shortage of teachers in English. The fields that we have been having an oversupply in are physical education and the social studies, that is true; but efforts that will really go into improving the quality of the program I do not believe you would find that they would undo the efforts that were made to improve the quality of mathematics and science.

Mr. GRIFFIN. Well, all right. But this is still a concern to me.

Dr. MAUCKER. In summary, then, in respect to this point I would urge passage of title I on the general ground it would put our Federal Government strictly behind the improving of quality instruction on all the basic subjects in secondary and elementary schools. That is what I assume it is designed to do.

Turning then to the specifics, you first propose in section 101 to set up institutes for advanced study for teachers. This has been probably the main approach in the field of science and mathematics. I think those institutes have proved themselves very well. It has been an excellent means of upgrading teachers and I know of no unfortunate outcomes or undesirable effects except this imbalance that I speak of which, as Dr. Noyes said, leads to a kind of leftout feeling on the part of English teachers, history teachers, a kind of, as he said, inferiority complex.

This would be remedied if these fields were recognized by 10145.

These institutes do make it possible for substantial numbers of teachers to take a full year at a time and bring themselves up to date.

They are recognized as having value by the educational profession and I cite here the fact that in a meeting on February 22 and 23, called by the American Association for the Advancement of Science, which represents the scientists in the universities and by the American Council of Learned Societies, which represents the main groups of academicians in the humanities and in the social sciences, history, the institutes were spoken of as having proved themselves as a very effective means of upgrading instruction.

This seems to be a very evident indication of the desire that these things be extended.

It was the judgment of the scientists there that it would be a good thing for this to be done in fields such as history and English.

I mention our own experience here at our institution. Realizing how much was being done by the mathematics and science institutes, we tried on our own to set up institutes, for example, in the field of Asian studies. We only got a handful of takers. It is expensive, terrifically expensive, to bring in special staff and to bring in consultants and so on, and then have three or four students. So, we are not going to be able to offer that.

Now we are trying one this summer called New Viewpoints in American History. We are not sure what the response will be but these teachers will have to obviously come on their own. Their colleagues in math and science go where there is a sizable stipend to help them meet the expenses.

This is the kind of imbalance I was talking about.

Mr. GRIFFIN. Doctor, could I interject another thought here?

Dr. MAUCKER. Surely.

Mr. GRIFFIN. I believe this may be something to consider. Let's look at the situation of a teacher who has gone to college for 4 years and majored in history and social science or English and has received a good education. In order to keep his teacher's certificate in most States he must go back to college from time to time and add to his training. There is not a great or tremendous increase in the amount of knowledge accumulating in these areas as compared to what is going on in the science field, is there? When you consider the tremendous advances in science, the rapid advance of knowledge and an accumulation of knowledge, in the science field, there is little basis for

comparison with other fields. Surely, a history teacher should be expected to read the newspapers and keep track of current events, adding to what he should already know and be able to teach.

Now, I suppose you will say that there are new methods of teaching history, too. Perhaps there are, but I do not know that they are so different from the methods used for generations in these fields.

Maybe you have something to add to that.

Dr. MAUCKER. I am not talking essentially about methods. I am talking about the subject matter, content, although there are new developments in methods and some of the institute emphasis might well be placed on that. But I would say the major force ought to be on the subject itself, as it is in mathematics and science.

You are correct, there is not as dramatic or as extensive new development in these fields as in the mathematics and science. Yet there are significant new developments and there is a tragic lack of awareness of them on the part of a very large number of teachers of English and history.

In English, and I am talking out of my field now, but I know in general of several of the things; as I said this so-called field of structural linguistics, is a development that most English teachers never heard of when they were in college. It has come in since the war principally and it is one of the major focuses of this commission Mr. Noyes spoke about.

A man representing the commission spoke at this meeting in February that I mentioned and told us of the things they are trying to accomplish. This really has to do with the field of grammar very largely. They think it is of crucial importance that English teachers become up to date in this area.

So far as history teachers are concerned, obviously there is new information coming out about such things as American history. But then there is also this business of their not having any formal study with regard to the history of various areas in the world which we feel it is important for students to learn about that they just skipped over in an earlier time.

I grant you that the extremely well prepared history teacher who had a major in history and then went ahead and got a master's in history ought to be able to do most of this on his own and I think, by and large, they are. But that is not the characteristic history teacher in the public schools of this country. Too many of them did not have major work in this field.

Mr. GRIFFIN. Then you would not pick out just the outstanding teachers to receive this additional teacher training because those are not the ones you are concerned about. You are concerned about the great many others, the 2,500 scholarships provided in this bill would be just a drop in the bucket.

Dr. MAUCKER. That is true, but it would be a start, and if it proved itself and commended itself to the Congress, then it might be extended.

Mr. GRIFFIN. If it passes, then, next year I would be campaigning against someone who would promise 5,000 of these scholarships, and 2 years later it would be 50,000 or 100,000. There is no limit, is there? It is a question, really, of just how much should the Federal Government get into this field, I suppose.

Dr. MAUCKER. That is true.

Turning to the second section, the scholarship grants, I would simply say that the scholarship grant simply makes it possible for the individual teacher to go to a college or university and take a year of work. The institute provides a kind of tailor-made program for a group of teachers to come and they are still going to the college or university and taking a year of work but it is a year of work designed specifically for people with their teaching responsibilities and with their kind of background.

I think, actually, the best preparation comes when the individual teacher simply goes on his own and takes a solid program in a college or university, but the institutes have been a very effective means of doing this sort of crash program that you spoke of and it would seem to me it would be very appropriate, and the combination of the two is highly desirable.

This is a way in which the Federal Government can be of assistance without getting into any kind of relationship with the local school district, of getting into all this kind of involvement.

The section 103 project, to strengthen teacher preparation, simply means you would be making possible additional experimentation and here again I think this can be done without the undesirable kinds of involvement that might otherwise come from direct Federal participation.

I mention on the last page one provision of section 201 which would make possible grants to public schools so that they might do some experimenting, among other things, in the field of teacher education.

This might not be recognized as having to do with teacher education because these are not teaching education institutions, they are public schools, but, actually, a partnership is developing between teacher educating institutions and school systems where the school systems provide the student teaching opportunity and various kinds of internships and these offer a way of improving the quality of the preparation of teachers.

So that, in closing, I would just restate my conviction that I think it is very important for the Congress, acting in the interest of the general strength and general welfare of our Nation, including defense but not solely limited to defense, to tangibly recognize the basic importance of elementary and secondary education and the crucial need for improvement at this particular stage of our development.

Mr. GRIFFIN. Doctor, you might be interested in knowing that I attended one of your member institutions, Central Michigan College at Mount Pleasant, Mich. I majored in English and received a teacher's certificate. I thought you might like to know that.

Mr. PUCINSKI. Doctor, as I get it, you feel that there is a great area of need in this country for developing teaching techniques in various subjects which come across the horizon, particularly humanities, which, if I understand your statement correctly on page 5, you feel that the educational institutions themselves are not really able to do with their own resources.

You spoke of the course in Asian geography and three students showed up, yet it is important to offer this course, but you feel economically you cannot afford to do this as an institution.

Dr. MAUCKER. That is correct.

Mr. PUCINSKI. You feel that in this area the Federal Government could make a substantial contribution which would be of benefit to the million and a half teachers who are now teaching throughout the country?

Dr. MAUCKER. Right.

Mr. PUCINSKI. Is this substantially correct?

Dr. MAUCKER. That is right. The colleges face the same kind of problem that the public schools do, of quantitative expansion, numbers. We go to our legislative boards, we go to private institutions, go to their constituency for more money. It largely has to go into expansion at this particular period. That does not help the qualitative problem.

We try, and I am sure other institutions try, to put some of their money into experimentation, into ways of doing things that look as though they are promising, to improve. But it is hard to be able to siphon enough of that into that aspect of your work when you have the job of taking on additional students all the time.

Mr. PUCINSKI. Would it be correct to conclude here that if these techniques are developed with the assistance of the Federal Government, we would be able to look forward to having many of these teachers who have not had exposure to these various techniques take advantage of this and you would be in effect improving the quality of education throughout the country?

Dr. MAUCKER. That is right.

Let me cite one more example. At our plant last year we had a 2-week workshop in this field of structural linguistics and we had 40 teachers. They came, they worked hard, and we are confident they got a good deal from it and they will do a better job in their courses from now on. But this is just a kind of drop in the bucket. What is needed is 8 weeks in the summer and a full year in the academic year, roughly congruous, again, with the mathematics-science situation.

We are not very sanguine that we can get them to come for these lengths of time in the numbers that would make it feasible for us to handle without the assistance from the Federal Government of the kind which has been forthcoming in mathematics and science.

Mr. PUCINSKI. It would appear to me, Doctor, and Mr. Griffin made this point and you agreed, and I think other witnesses have agreed here, you have 1½ million teachers in this country. Now, obviously, they are trying to do a good job. We have had testimony here which indicates that the quality of our teaching process is very lacking in many aspects. It would seem to me, then, that it would be an impossible job to try to pass legislation that would make this supplemented instruction available on a personal basis to this vast number.

Now you did make a point here in that you said that the scholarship program would be a start in the right direction. Other witnesses have said that one teacher attending one of these scholarship programs under the grants envisioned in this bill would have a tremendous effect on the rest of that institution.

These are all fine arguments, but the fact remains that you have 1½ million teachers that you are trying to reach.

Would it be your judgment, then, that this particular legislation could go a long way in developing programs, developing techniques, developing aids which the teacher could benefit from without actually attending the seminar?

I do not think our universities could absorb, assuming every teacher in this country this summer decided that he or she was going to take a course in some special subject to improve quality, it is a physical impossibility to absorb all these people even if we could afford it, and I do not think the Federal Government can or the local governments can.

But it is your feeling, sir, that through this legislation we could help develop programs of self-help to the teacher right there at the school where she is teaching, rather than require her to attend these seminars and physically transfer for 2 weeks or 4 weeks or 8 weeks?

Dr. MAUCKER. I think the third section there that provides for these grants for experimental efforts may very well help in the way you speak of. They ought also to help us do a better job with the initial preparation of teachers because, as you pointed out, or implied at least, earlier, it is one thing to bring up a group that is already teaching but what about the input, can we keep it from getting to be in the same boat? In other words, can we do a better job with the new teachers going on? I think we can.

Mr. PUCINSKI. I have one final question. The witness for the American Federation of Teachers is here and I am sure he may want to comment on this but let me ask you this question.

I have been sitting on this committee for 3 years and listening to a great deal of discussion about our educational plant, the fact that we need more salaries, we need more buildings, we need more libraries, we need a great deal of things. We have all been talking about what we need. Very little is said about what we have. Very little is said about this.

I wonder if you would venture an opinion? Have we had a tendency to coddle our teachers a little too much in lamenting all of our shortcomings and not expecting the teachers to perform up to standards with what they have?

Let me give you an example. The automobile industry in this country produces a new car every year. Fantastic changes are made. We sell 45 million automobiles and we have X hundreds of thousands of mechanics who have to fix these cars every year. Yet, I have never heard anybody say that we have to give these mechanics an awful lot of supplemental aids. If this mechanic wants to keep his job, he has to go out and find out about the new transmissions, the new various other things which have been incorporated in these cars, so that he can fix these cars and keep his job.

I am wondering whether or not there has been a tendency in lamenting the low salary standards, and properly we have lamented them, I think the teachers are underpaid, and lamenting overcrowded classrooms, and very properly, it is very difficult to ask a teacher to do a good job when she has 40 or 50 students. But with all this experience, have we had a tendency to coddle this teacher too much? Have we failed to demand that within these shortcomings this teacher has to make a greater contribution toward the quality of education? If that is not a loaded question, I do not know one.

Dr. MAUCKER. Well, you cannot answer it in a "Yes" or "No" way and be fair about it. I think, without much doubt, there are teachers who do not put out more than just the minimum. This is not characteristic, by and large, of the teaching profession. To a very considerable extent, the teachers do make an effort to keep up. A great

many of them are going to summer schools, and so on, on their own.

The fact of the matter is, however, that the efforts that they are being able to make and that the local districts assisting them and the States through such institutions as ours are making, does not seem to be adequate in terms of the challenge.

If we were not up against the kind of total situation that we are as a nation, we could take our time about a slow upgrading, but these are not the kind of times we live in.

Mr. PUCINSKI. The point I was trying to make, though, is that we have in this country thousands upon thousands of teachers; very dedicated teachers. They are not waiting for anybody. They go out there and they prepare themselves, whether they get it from News-week magazine or U.S. News or from the library, or wherever they get the material, they prepared themselves, they are doing a dedicated job, they are turning out excellent students. I can see the results in my own children.

Then in this school plant you have teachers who consider this a strictly 8 to 3 job, or whatever hours there are.

I imagine it must be extremely discouraging to this dedicated teacher who attends these seminars at her own expense, who does progress, who has a real dedication and takes a great deal of pride in the job she is doing and gets a great deal of thrill out of seeing these youngsters progress—it must be very discouraging for that teacher to see in the school plant teachers who are being tolerated by the school board or by the school superintendent, by the principal, who are not exercising their dedication.

It is for this reason that I asked you whether or not you felt, Are we perhaps coddling some of the deficient teachers, or should we set more rigid standards and greater demands on those who are not making their full contribution, or are we, in effect, saying to these teachers who are making a great contribution, "You are a chump because the others are getting away with less"?

Dr. MAUCKER. As you said, the question is loaded. The way you phrase it, I would have to agree absolutely.

There are some who are not making the effort they ought to and it surely is in order for the school authorities to set standards, make requirements that would lead these people to do a better job. There is no question about it.

Mr. GRIFFIN. I believe that section 101 is the one in which you are primarily interested; after making the observation about scholarships I realized that you are primarily interested in institutes to be authorized by section 101—is that right?

Dr. MAUCKER. I sort of passed over the others because I thought time was going but actually the institutes and the scholarships are both excellent devices.

If you had to choose between them, I guess I would probably say that maybe the institutes are the better technique to use, better approach to the thing to get at the immediate problem. But I would certainly endorse the scholarships also.

Mr. GRIFFIN. Of course, in the National Defense Education Act, the Congress decided, because of direct relationship to defense, Congress did place especial emphasis upon and authorize institutes, in the areas of mathematics, science, and foreign languages.

In this bill, section 101, the Commissioner of Education would set up and authorize grants for advanced study in the subject matter areas in which he finds there is a widespread need for improvement in the quality of instruction. That is very interesting.

Of course, we would be setting up a czar of education if we should pass this legislation who would decide, on the basis of the money Congress appropriates, how he would allot it and thereby determine which subjects he thinks should have emphasis and which subjects should be deemphasized and so on and so forth.

Dr. MAUCKER. That is right.

Mr. PUCINSKI. Does that not concern you at all?

Dr. MAUCKER. Yes, to some extent. You have given him some direction here. You have said he should give preference to subjects which are generally accepted as meeting college entrance requirements and that he should take into consideration the work being done by the National Science Foundation and so on, which I assume refers to these major curricular efforts that are underway.

This led me to put my emphasis on English and history because I assume that those are the other two major areas that meet these criteria.

They are not spelled out too definitely, and I realize that everybody would be in, wanting the Commissioner to set up institutes in every kind of subject that is offered in the school curriculum.

I think, myself, that initially, there ought to be preference given to the fields of English and history, social studies it is referred to in high school, because these are among the basic academic areas which are not included in the present programs. I am sure that a case can be made for improving the offerings in, say, the business field or in art or in music.

I do not myself, personally, believe that they have as high priority as the other two, and I would think that a reading of this legislation would lead to that conclusion that that was the intent of Congress that the preference be given to the so-called basic academic subjects not already being assisted through Federal support. This seems to me to be sound.

Mr. PUCINSKI. Thank you very much, Dr. Maucker.

I am very grateful that you took time out to give us your views on this extremely important legislation.

As I said earlier, it may well be one of the most important pieces of legislation to come before Congress this year.

I am sure you have made a great contribution to a better understanding of this legislation.

Thank you very much.

Dr. MAUCKER. Thank you, Mr. Chairman.

Mr. GRIFFIN. Dr. Maucker, are you going to leave right now?

Dr. MAUCKER. I was.

Mr. GRIFFIN. Because of something that I see in his second page—before you get away, could I make a comment?

Mr. PUCINSKI. Yes.

Mr. GRIFFIN. The statement of the next witness reads, in part:

It is for these reasons I believe that the provisions of section 101 of the bill should be broadened to include all subjects and not limited to "subjects which are generally accepted as meeting college entrance requirements."

I just wanted you to know before you left what the next witness will say on the point of our discussion.

Dr. MAUCKER. I realize that. My point here would be that one of the things I think we in education, the public schools now have failed in to some extent—you were talking about possibly coddling teachers who did not make a strong effort—we have hesitated to make priority determinations. We have tended to treat all subjects as being of equal importance, I think, to too great an extent.

I think one of the things which has come about in the last half dozen years is a kind of reassessment and a recognition of this fact, and that we should in this instance put our emphasis on the basic academic subjects first.

Mr. GRIFFIN. I just wanted you to know that the next witness does not agree with you, that is all.

I just wonder whether we can afford to put such tremendously important determinations in the hands of a Commissioner of Education and then back away and forget the problem.

It is a real concern, that is all.

Dr. MAUCKER. Yes, sir. Thank you.

(Dr. Maucker's prepared statement follows:)

STATEMENT BY J. W. MAUCKER, PRESIDENT, STATE COLLEGE OF IOWA, CEDAR FALLS, AND PRESIDENT, THE AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION, WASHINGTON, D.C.

I appreciate this opportunity to participate in the hearings on H.R. 10145, the Improvement of Educational Quality Act of 1962, on behalf of the American Association of Colleges for Teacher Education. I will focus my formal comments on three items:

1. Description of the organization I represents—the AACTE—and its interest in this proposed legislation.
2. General reasons for support of title I relating to the improvement of quality of teaching in elementary and secondary schools.
3. Specific reasons for support of each of the three sections of title I, having to do with institutes, scholarships, and special projects.

1. The American Association of Colleges for Teacher Education and its interest in H.R. 10145

The AACTE is a voluntary professional association of 609 accredited, degree-granting colleges and universities in the United States which annually prepare over 90 percent of the new teachers for our elementary and secondary schools.

It was founded in 1948 through the merger of three organizations representing different types of teacher-preparing institutions. Its active membership includes the overwhelming majority of the major colleges and universities in this country, both public and private.

Its purpose (art. II of AACTE constitution) is to provide through professional organization and cooperation, for continuous search for and promotion of ideas and practices which are most effective in the education of teachers. More specifically (sec. 7 of art. II), to represent the education of teachers before all segments of the public as a great professional enterprise carrying special responsibilities for the development of responsible citizens.

The AACTE has not traditionally engaged in legislative lobbying, and its membership has not expressed a formal opinion one way or the other on H.R. 10145. At the annual meeting of the organization in Chicago on February 14, however, the executive committee, after deliberation, did take formal action and distributed to the membership a memorandum, the relevant portions of which read as follows:

"The role of the Federal Government in providing supplementary support to strengthen higher education and research has expanded appreciably in recent years. As a consequence, there is need for teacher education, as well as educational research, to be vigorously represented in the deliberations of the Congress and in the policymaking processes of the U.S. Office of Education and other

Federal agencies. The American Association of Colleges for Teacher Education proposes to accept responsibility to provide such representation for its member institutions * * *.

"The executive committee wishes to bring to the attention of its official representatives and their institutions the importance to teacher education of the proposed Improvement of Educational Quality Act of 1962, H.R. 10145, sponsored by Congressman Frank Thompson, Jr., of New Jersey * * *. Support of this piece of legislation, aimed at securing funds to aid in improving collegiate teacher-education programs, by member institutions of the AACTE will be important to the enactment of the legislation. Institutions which agree with this assessment of the importance of this proposal and which can appropriately do so are urged to make their views known to their Congressmen."

The executive committee discussed this matter in open meeting on Friday afternoon, February 14; no dissent was expressed by those in attendance.

Inasmuch as the focus of the AACTE is clearly on teacher education and the organization cannot presume to speak for its membership regarding education in general, I will limit my comments to those aspects of the bill directed toward improvements in the education of teachers, which are to be found primarily in title I of the bill.

2. General reasons for support of title I of H.R. 10145

I do not wish to bore you with repetition of the obvious. Perhaps the bare outlines of the case for title I will suffice. The argument runs as follows:

(a) In the national interest, quality of education in our elementary and secondary schools must be dramatically improved in the years immediately ahead. This is true because of the increasing complexity of the times in which we live, which places a fantastically complicated decisionmaking burden on the general citizens of our democracy, because of the challenge of the Sino-Soviet axis, and because the American dream calls for an educational system which provides every individual opportunity to achieve his maximum potentialities.

(b) The crucial factor in determining the quality of education is the competence of the teacher.

(c) Upgrading in the subject matter and professional qualifications of teachers is greatly needed because:

(1) many teachers in service have had extremely limited preparation in their teaching fields; one-fifth of our elementary school teachers, for example, have less than 4 years of college preparation;

(2) the preparation of many teachers is outdated—their preparation may have been adequate 20 years ago but is so no longer;

(3) rapidly moving developments in various subject fields makes continuing study necessary for even the most effectively and recently prepared teachers.

(d) Most States, local school districts, and individual teachers have not been able to finance qualitative upgrading with sufficient rapidity to meet the situation. Certification requirements and salary schedule inducements have helped but have not proved equal to the task. The States and localities have had their hands full coping with the quantitative problem of increasing enrollments; even though they have doubled their investment in education in the last 10 years, the qualitative problem remains. Hence, the appeal to the Congress for financial assistance.

(e) The Federal Government by its previous actions (establishment of National Science Foundation and the National Defense Education Act) has recognized the force of these arguments and undertaken to discharge this responsibility but in such a limited and one-sided manner as to distort the educational process. Teaching of science and mathematics has been helped notably but teaching of history languishes. The Congress seeks to assure that Johnny is taught a modern foreign language competently but ignores the basic task of teaching him his own language. Thus mathematics and science are glorified, while the command of one's native tongue and appreciation of his cultural heritage are relegated to a second-rate position. This state of affairs speaks volumes to both teachers and students as to the relative value of the various academic subjects.

I would urge passage of title I of this bill, therefore, on the general ground that it would put our Federal Government squarely behind the improvement of the quality of instruction in all the basic academic subjects in our elementary and secondary schools.

3. *Specific reasons for support of each section of title I*

(a) *Section 101. Institutes for advanced study for teachers.*—During the last 5 years Federal support of institutes in mathematics, science, modern foreign languages, and guidance has proved to be an effective means of improving the competence of teachers. I know of no unfortunate outcomes or undesirable effects on school programs other than the distortion referred to above, which, fortunately, would be largely remedied by passage of this bill.

These institutes, which make it financially feasible for significant numbers of teachers to spend sizable periods of time in specially designed courses of instruction at recognized colleges and universities, have been heartily endorsed by the academic community, the latest such approval having been expressed at a meeting on New Directions in Teacher Education in New York on February 22 and 23, 1962, called by the American Association for the Advancement of Science and the American Council of Learned Societies.

We have tried at State College of Iowa to provide, on our own, summer institutes for teachers in the fields of Asian Studies and New Viewpoints in American History, comparable to those we have operated with Federal support in mathematics, science, and guidance. Without financial assistance for the elementary and secondary schoolteacher participants, attendance thus far has been disappointingly low; costs have therefore been disproportionately high for the college and the State of Iowa.

The federally subsidized institute has proved itself; it need only be extended to additional subject fields deemed by the Commissioner of Education to be in need of qualitative improvement. And the balance of emphasis within the school curriculum will be restored in the process.

I can assure you that member institutions of the AACTE will cooperate wholeheartedly in the sponsoring of such institutes if this bill becomes law.

(b) *Section 102. Scholarship grants for outstanding teachers in elementary and secondary schools.*—As indicated above, the institute provides a tailor-made program to meet a widespread deficiency among teachers in a given field. The better prepared teachers can gain even more by pursuing advanced study in the regular programs of the graduate schools and colleges. Not many are paid enough to warrant their taking a leave of absence without salary for a full year of continuous study unless they are planning to switch from elementary or secondary school teaching to college teaching. Again, the granting of scholarships has proved to be a feasible technique of improving teaching quality without involving complicated relationships between the Federal Government and the local schools.

The cost of education allowance to the institution attended by the grantee is very much in order. It does not cover full cost of instruction, but it will ease the burden of the receiving institution in taking on more students. In view of the fact that teachers are highly mobile, it seems appropriate that a sizable part of the costs of upgrading the profession be borne by that portion of our Government which represents the country as a whole.

It is hard to justify an expensive operation in Iowa, for example, to upgrade teachers who will subsequently use their improved competence in schools widely scattered throughout the Nation.

(c) *Section 103. Project grants to strengthen teacher preparation.*—Experimentation is vital in teacher education as in other phase of our educational enterprise. Under pressure of increased enrollments few colleges and universities are able, however, to earmark significant items in their budgets to support projects of sufficient scope and quality to achieve meaningful results. Hence, most experimentation is done on the side by individual college instructors, usually without adequate sampling and controls. Once again, we have an area where Federal assistance can help make the difference between half-hearted efforts to improve and significant experimentation to enhance quality of instruction in the college and ultimately, through improved teaching competence, in the schools.

Section 201: (c)(B)(ii) provides funds to States to make grants to local educational agencies for "projects to improve the effectiveness of public elementary and secondary schoolteachers through preservice, internship, and in-service programs". I assume such funds would serve essentially the same purpose as those in section 103; this phase of the bill simply recognizes the fact that increasingly local school systems are becoming an integral part of the teacher preparation process through cooperative relationships with colleges and universities in the provision of student teaching, internships, and practicums in specialized teaching or supervisory fields.

In closing, may I restate my conviction that it is extremely important that the Congress, acting in the interest of the general strength and welfare of our Nation as a whole (including, but not limited to, considerations of national defense), tangibly recognize the basic importance of elementary and secondary education and the crucial need for improvement in the quality thereof at this juncture in our history.

May I thank you in the name of the American Association of Colleges for Teacher Education.

Mr. PUCINSKI. Our next witness is Mr. Daniel Schreiber, director of the project on school dropouts of the National Education Association. Mr. Schreiber, would you be good enough to identify yourself for the reporter?

STATEMENT OF DANIEL SCHREIBER, DIRECTOR, PROJECT ON SCHOOL DROPOUTS, NATIONAL EDUCATION ASSOCIATION

Mr. SCHREIBER. Thank you, Mr. Chairman. My name is Daniel Schreiber. I am director of the project on school dropouts instituted by the National Education Association and the Ford Foundation.

Mr. PUCINSKI. Mr. Schreiber, as I was saying, this is an excellent statement, but in the course of your discussion here I wonder if you would be good enough to give us a little more detail about your operation in New York known as Higher Horizons program. We have had a great deal of testimony here in support of this legislation and your own statement follows pretty much along this line.

However, I would like to perhaps get from you a capsule idea of what can be done specifically in developing a technique.

In this instance, I see you had the assistance of the National Scholarship Service, the CEEB and funds for other students. You obviously had outside help. You did not have the money to do it yourself.

From your experience in these projects, perhaps we can get a better idea of what we are talking about when we envision in this legislation the development of techniques, methods, for improving the quality of education.

If you will do that, I think that you will perform a greater service for this committee than to review many of the arguments which have already been submitted by previous witnesses in support of this legislation.

I suggest that you proceed in any way you wish.

Mr. SCHREIBER. I will try my best, Mr. Chairman.

May I say that if you and Mr. Griffin care to interrupt at any time, please feel free to do so.

The Higher Horizons program, which is a program that sought to raise the educational and vocational sights of children from less privileged groups, was made possible because two outside agencies were willing to help finance the original program.

My experience has been, as I have traveled throughout the country, that school systems, by and large, would like to engage in experiments, but the educational dollar is in short supply. So that a small grant sometimes will enable them to initiate the program and then, if it is successful, they take over.

The best example of this, of course, is New York City where outside agencies made a grant of \$21,000 and today New York City is spending approximately \$1½ million for the program itself.

Mr. PUCINSKI. What have been the results of this program?

Mr. SCHREIBER. The results of the program at the present time show that many more students have gone on to college than previously, many more have graduated from senior high schools.

May I say that the basic approach has been to create in the mind of a child a good image of himself, a college image, or a skilled worker image. This image must be fortified by the parent.

Studies have shown in terms of students who drop out of school that two-thirds of those parents see no loss to the child if he does not have a high school diploma, whereas practically 100 percent of the parents of stay-ins say that it would be a horrible experience if the child did not have his diploma to continue with his education.

So that we felt that, in order to change attitudes toward school and what school has to offer, we must work with parents who have a low expectation level of education.

In addition to changing attitudes of parents we must change the attitudes of teachers. Many teachers do not quite understand the cultural backgrounds that these children bring to school. This could be either rural or slum area in a big city. They expect certain responses based on their own experiences. When these responses are not there, they tend to feel that the children do not care about school and do not want to learn.

Children, as most individuals, respond and react to someone's opinion of them. Now, this may not be an expressed opinion, it may be any implied opinion, or it may be a felt opinion. So the child has to feel that the teacher feels he has ability, and this was our basic approach.

A good image, parental attitude, and a feeling on the part of the teacher that the child has ability.

Of course, we also believe that in this country of ours every person should have an opportunity to develop himself. This has been a truism.

Mr. PUCINSKI. Mr. Schreiber, may I interrupt here?

I am trying to see how this bill is going to work. You said \$21,000 from these three foundations. Would you be good enough to tell us specifically how was this money spent? How did you go about developing a new technique, a new approach?

What I am trying to do is find out expressly how is this legislation going to be used. I am trying to use your example here in this project as a model.

Mr. SCHREIBER. The money was used to hire additional guidance counselors. Our pupil guidance counsel ratio was 1 to 1,500. This meant that the guidance counselor spent most of his time on the problem boys or girls. In other words, let us take care of the boys who are getting into our hair.

In our approach, we had the guidance counselor work with the better child first so that the guidance office became a place where the good kids go.

We also had the guidance counselors work with parents. Instead of sending for the parent whose child was always getting into trouble, send for the parent of a good child. Let this parent know that he is doing a fine job. Let this parent know that his child has ability and, if he applies himself, there is no reason why he cannot become a professional person.

We also used our money to get additional remedial reading teachers, not only to work with small groups of children but also to do teacher training on the job. This is one of the things I think the institutes can do.

The teacher can come back and exchange her information, become a teacher trainer for other teachers so that they, too, can get some of the benefits.

This is what we tried to do. We set up homework study rooms. A teacher was allowed to come in late and stay later if he volunteered or come in early before school started and leave early. We found that many of our children had no place to do their homework and if they had a place sometimes they have had more education than their parents, so that there was no one home to help them if they had difficulty. We made this available to them and this was staffed by teachers.

We were allowed a certain sum of money to take our children on cultural trips.

We felt that if our culture is a rich one then children from this background should also have an opportunity to participate in these activities. This also enabled us to take them out of their own community to see the world they live in.

So we would take them on a Saturday or weekday to colleges, to let them meet with college professors and college students, to medical schools, engineering schools, dental schools, to atomic energy plants. Anything which would raise their sights and have an effect upon their motivation, we looked for.

Mr. PUCINSKI. I saw some figures on the improvement in the drop-out situation as a result of this project.

Do you recall those figures, sir?

Mr. SCHREIBER. I have them here. I may give them incorrectly if I dig in my memory.

Here they are. Forty percent more pupils are now finishing high school than previous groups.

May I say to you, which I have not put in my statement, that when we did a study of our first group prior to the start of the project, only 18 children of approximately 500 went on to college. Fewer than 40 percent graduated from senior high school. The city average had been 60 percent. Two and a half times as many youngsters are completing the academic course. Here, too, besides having the afterschool study, the preschool study, we also gave them individual tutoring where necessary and small class size in the two most secondary school subjects at least for our children, mathematics and foreign language. Three and a half times as many are going on to some type of post-secondary-school education. It could be schools of nursing, junior colleges, community colleges, technical schools.

Of the group that just graduated from the high school last year, those who took the academic course, 91 percent are going on to higher education. In terms of our previous holding power of 40 percent, today 60 percent are graduating.

In terms of IQ, and this is most important I believe, teachers for some reason or other, although they know better, tend to teach toward the IQ. So that if you have a class with an average IQ in the low 80's, you tend to expect less from the group. If you have children who have IQ's of 120, superior ability, you not only tend to expect more from them but you give more of yourself. So that the growth

in IQ that we saw take place was another indication that for children from rural areas, slum areas, children who are out of the main stream of our cultural life, their IQ tends to go down the older they become. If there is an improvement, then the teachers react positively.

It is for this reason that I feel so strongly about teaching attitude and teacher understanding. That unless the teacher believes in the child that child is not going to perform.

Other activities that we partook in, we stressed reading a great deal. The secondary school people seemed to call it literature. But if a child is reading at grade 5 level, he cannot do high school work satisfactorily and maybe this is one of the reasons many of the colleges are spending large sums of money to give courses in remedial reading and elementary composition for noncollege credit. The place to attack this is early.

Now, one reason that children with this background do not read as well is that the home does not provide the materials, supplies, and interest toward reading.

If I may say to you, gentlemen, if you have a child of age 9 or 10, this child has seen you read, that you get pleasure out of reading, and if he loves and respects you he likes to participate in the same type of activity. He knows right now, if he is 9 or 10, that he will be going on to college; maybe he does not know which one but he knows he is going, and this knowledge engenders within him a desire to get good marks because this is the way he will get into college.

Mr. PUCINSKI. Mr. Schreiber, you are satisfied, then, on the basis of your experience with Higher Horizons, that there is hope for an answer to the dropouts?

Mr. SCHREIBER. Yes, sir.

Mr. PUCINSKI. You are then supporting this legislation because you feel that with this assistance from the Federal Government more similar research projects could be attempted across the country?

Mr. SCHREIBER. Yes, sir.

Mr. PUCINSKI. In trying to upgrade the quality of education?

Mr. SCHREIBER. Yes, sir.

Mr. PUCINSKI. I have one final question on that point. You mentioned something about the "good kids." I presume that Higher Horizons was not limited only to "good kids."

Did you have any success in bringing into the program youngsters that are very difficult to handle, youngsters that would normally be classified as delinquents?

Mr. SCHREIBER. Yes, we did. The reason I stressed the phrase "good kids" was to show that the school attitude in bringing in the parent has to be to work with the parents who are doing an excellent job.

Too often in most schools, the only parent sent for is the parent whose child has been suspended, so that when a parent receives a letter "Please report to the school," his first reaction is "What did my son do wrong?"

We want to do away with this reaction. We want to let the parents know that we like to speak to you about anything and everything. But we did not limit the program to only the goodie-goodies.

Mr. PUCINSKI. I am very grateful to you for bringing to the committee a concrete example of what can be done. I think we can ap-

preciate and evaluate this legislation better. It is a specific example of what we talk about when we talk about setting up new criteria and new techniques for dealing with this entire problem.

Mr. Griffin?

Mr. GRIFFIN. Mr. Schreiber, returning to your point on page 2 of the statement, and I do not, by calling attention to it, I do not make right of it or anything, but I did want to emphasize the difference in approach which you have to this problem as distinguished from the previous witness.

You say, "It is education's function, in a highly industrialized society such as ours, to prepare all students for good and productive citizenship, with all that this connotes, as well as encourage all of the academically able to go on to college." Then you make the strong point that the bill does not go far enough and that it should not limit the subjects to those generally accepted as meeting college entrance requirements.

I take it that it would be your feeling that, regardless of the justification in the National Defense Education Act for emphasizing science and mathematics, if the Federal Government seeks to go beyond that, you feel there would be some form of discrimination in, or no logical basis for, drawing the line at college entrance subjects, is that true?

Mr. SCHREIBER. Yes, sir, for the following reason. We are dealing with a group which represents only one third of our total population. A smaller number than that in fact.

Donald Bridgeman did a study on what happens to talent. I would like to quote from these figures. He dealt with a group of students, a total population that should have graduated from senior high school in 1958. Of this group, and I will round my figures, if you please, of 21½ million in the group, 850,000 were school dropouts, 750,000 graduated from senior high school and tried to enter the world of work, making for a total of approximately 1,600,000. The number of high school graduates who went on to college was roughly 650,000. So that the ratio is approximately 7 to 3.

I say if we are going to spend large sums of money only for the college-going group, we are ignoring too large a group in our country, the group that Dr. Conant calls social dynamite, the group that is unemployed, that has no skills.

There is no reason why we cannot train in our public schools, stenotypists, now in short supply. One of the large brokerage houses in New York City is willing to pay and has advertised \$65 a week for a typist who can type 40 words per minute, and this is low level. They will train her.

Now, why are we limiting our courses only to the college going? Here are youngsters who can find jobs and get jobs. Skilled labor is in short supply. What are we doing for that particular group in this bill?

We have the semiskill that industry needs, the technological backup, as we call it now, to the engineering professions. This group is not covered in this bill.

It is for this reason I say we should.

Mr. GRIFFIN. It may be in the next bill that is coming next week, I do not know.

Mr. PUCINSKI. Will you yield?

Mr. GRIFFIN. Yes.

Mr. PUCINSKI. Perhaps, Mr. Schreiber, I can offer you at least one answer to the questions you have raised here.

This bill is designed to increase the quality of education. I have always gone on the theory that you will develop in a youngster an intellectual curiosity if you will teach him the basic fundamentals. He will then start being able to make a judgment as to what level he wants to go into.

I think that one of the great tragedies of the noble experiment right after the war is that we concentrated on the many things that you mentioned here, community living and various other things, but we did not teach the youngster how to read or write and we did not develop in him that intellectual capacity or curiosity.

It would seem to me that this bill by the very language incorporated in this legislation is to try to set the standards of improving quality in education so that the youngster if at any point along the line decides that he has the maturity, that he has the capacity, that he has the native intelligence, will be able to move on to college and would be able to make a better score on the college board examinations than Dr. Noyes spoke about earlier today. Whereas, conversely, the Soviet system, which we have discussed earlier today, tries to stereotype people. They try to make up their minds, what this youngster is going to be, and then they say, "This is what you are going to do," and they put him on the track.

This legislation is designed to try to improve the overall quality assuming that a youngster, we are preparing a youngster to go to college. If in the meantime he decides he wants to do something else, that is certainly his privilege.

I think this is why you will find the language is written the way it is, to try to set our standards at the highest, to give these youngsters something to shoot for.

I gather from your operation, Higher Horizons, you did the same in your program, and found it very successful.

Mr. SCHREIBER. We did and I agree with you on that but, since coming to the National Education Association and becoming more familiar with the large number of youngsters who drop out of school, the youngsters who are now 16, youngsters who are 15, who will be dropping out within a year, almost three-quarters of a million to a million, we must do something with that group.

That is the urgency I am concerned with also.

Mr. PUCINSKI. You are absolutely correct, but I would then have to agree with Mr. Griffin that if we try to take a gunshot approach here and say we are going to do something for everybody, I am inclined to think that we will be going right back to the great noble experiment right after World War II, which all educators today, I think for the most part, have agreed was a failure.

We are now trying to concentrate on the fundamental belief that the human mind has a capacity. We have shortchanged a whole generation of Americans by not having confidence in their ability.

What we are trying to do here now is to create techniques that will give youngsters, with this legislation, an opportunity to absorb greater intellectual capacity and then let them decide what they want to do

with it. If they want to go to college, fine, we encourage it. If they want to do some other work, that is their judgment. I think this is what distinguishes us from many of the other social orders in the world.

Mr. SCHREIBER. Yes, sir; but unless a school system offers the child an opportunity to do both, to go into a vocational direction or a college direction, then the school system is not being fair to him.

Let me give an example from your own city. The Dunbar Vocational High School, the high school which has been praised as being one of the best in the country, sends approximately 15 percent of their students on to college. By and large, the average student determines whether he is a college-bound student or not at grade 7 or 8. This is when he selects foreign language and algebra. If he does not select it, then he is not going on to college.

I think it is important to give teachers of other subjects a feeling that the Government cares about them, too, so that their subject takes on more meaning.

By stressing math and science we have put these mathematicians and scientists on a special pinnacle, and education should be much broader than that, as important as it is, Mr. Chairman.

Mr. GRIFFIN. Mr. Schreiber, I think your argument points up what the real problem is. We are groping for an answer to what the Federal role in education should be.

Now, so far as the National Defense Education Act, a majority of the Members of Congress were willing to go along on the basis of its direct relationship to national defense.

Now, if this does not represent the limit of the Federal role, then what is the limit of the Federal role in education?

I think your argument points up that this bill does not draw any rational line. If your area of interest is not covered in this bill, then we may wonder whether it will be covered in the next bill to provide Federal aid.

Is there any limit to the Federal role in education?

Let me say, as I said the other day in talking with several other witnesses, I believe one thing that is holding our country back to some extent is that we do not have any clear, logical policy recognizing lines of organization and responsibility in the field of education.

There is a muddled feeling across the country that, well, if we just wait a little while, the Federal Government is going to hand us some money. There is no clear delineation of responsibility as to what the Federal role is or should be in education.

If there is an area in which the States and local governments do have responsibilities, then it would be well if they knew what the area is and what the responsibilities are.

At the present time there is confusion because of the politicians and what they are trying to do for everybody. Would you like to comment on that speech?

Mr. SCHREIBER. Yes, if I may. I think the national defense is involved, real national defense.

Mr. GRIFFIN. Then you would say that the responsibility for defense involves the Federal Government in the whole spectrum of education?

Mr. SCHREIBER. Let me illustrate this with a point, if I may. I was told by a naval recruitment officer that more than 50 percent of the naval enlistees are high school dropouts. With the advanced equipment that we have on our ships, the Navy has found that these young men are not trained to operate the ships.

At the present time in the city of San Diego, Calif., the U.S. Navy is paying the board of education to conduct evening classes for Navy enlistees.

Mr. GRIFFIN: Your answer to my question is "Yes," you feel it does involve the Federal Government in the whole spectrum of education?

Mr. SCHREIBER. In the true aspect of our defense.

Mr. PUCINSKI. Dr. Schreiber, unless you have anything else to add, we are going to have a quorum call here very shortly and we do have one more witness but I do not want to preclude you from any further testimony.

I think this is one of the finest statements that we have had presented to the committee here.

I know that this is going to be undoubtedly widely quoted when we go to the floor for general debate on this bill but I am very grateful to you for giving us one very concrete example of how the development of new techniques, new ideas, can improve. And the fact that you have arrested the dropout rate by some 40 percent, I think is certainly a tribute to your wisdom and to the wisdom of the people who conceived this program.

If we can carry this program out in other parts of the country, maybe we can resolve many of the problems of the young people who are dropping out of school. So we are grateful to you for your testimony this morning.

Mr. SCHREIBER. Thank you, and also thank you for giving me the opportunity.

Mr. PUCINSKI. Thank you very much.

(Mr. Schreiber's prepared statement follows:)

STATEMENT BY DANIEL SCHREIBER, DIRECTOR, PROJECT ON SCHOOL DROPOUTS,
NATIONAL EDUCATION ASSOCIATION

Mr. Chairman and members of the subcommittee, my name is Daniel Schreiber; I am director of the project on school dropouts instituted by the National Education Association under a grant from the Ford Foundation. Prior to my assignment in Washington I was principal of a junior high school in New York City where the Higher Horizons program was initiated. I was later coordinator of the citywide program which involves 45,000 students and 65 schools.

I should like to express my appreciation to the committee for inviting me to appear before you, for the purpose of expressing my views in relation to the bill. As director of the project on school dropouts and coordinator of the Higher Horizons program, I have been called upon by many State and city education departments, universities, and private groups to act as a consultant and speaker. These visits have enabled me to meet with educators and public-spirited individuals who are seriously concerned with the quality of education. This great interest is not limited to any one area of our country. It runs to large cities, small cities, rural areas—wherever there is public education. This concern exists in Maine, Kentucky, Texas, Ohio, California, and Utah. It cuts through the very fiber of our society and our national welfare.

Personally, I am in agreement with the general philosophy and aims of the bill, but I feel that it doesn't go far enough. At the present time, if improvement in the quality of our elementary and secondary education is not brought about, 40 percent of the children in grade 5 will not graduate from high school. This 40 percent will number, in aggregate, 7½ million during the next 10 years.

Two and a half million of these young people will have less than 8 years of education. Approximately one-third of the original 1,000 fifth graders will graduate from high school and go on to higher education. This means that two-thirds of our present student body will try to enter the world-of-work without or with only a high school diploma. It is education's function, in a highly industrialized society such as ours, to prepare all students for good and productive citizenship, with all that this connotes, as well as encourage all of the academically able to go on to college. It is for these reasons, I believe, that the provisions of section 101 of the bill should be broadened to include all subjects, and not be limited to, " * * * subjects which are generally accepted as meeting college entrance requirements, * * *."

One reason for the high dropout and low college-going rates in the slum areas of our great cities and in our rural areas, is that the student has a poor image of himself. It is difficult, if not impossible to maintain a successful level of work in school, if one cannot envision oneself as a high school graduate or college student or a skilled worker. Constant school failure coupled with alienation from the main stream of our culture hardens the child's sense that he is fit to be only an unskilled dayworker. This view is further enforced if the teacher, who comes from a different background and environment, cannot understand the culture brought to the school by the child, or if he or she has low levels of expectation for the child, for, unfortunately, the child responds to this low level. Conversely, I am sure, if the teacher has high-expectation levels, then the child responds to that too. Children, especially from slum areas, seem to have built-in radar, which senses whether or not someone believes in them. Gentlemen, I submit that every one of your children knew, because of your faith in their ability, as early as the age of 9 or 10 that he would be going on to college. He may not have known what college he would attend, but he knew he would go to college, and this expectation of college attendance had an effect on his schoolwork even in the elementary grades.

This means that under section 101 colleges and universities should be encouraged to give training in sociology, anthropology, and community relations so that teachers who generally come from middle-class backgrounds will have a better and more sympathetic understanding of the culturally disadvantaged child. Important as it is to improve teaching methods and instructional materials, it is more important to change teacher attitudes so that children may be taken from where they are and gradually brought up to the cultural patterns we cherish. For a child to succeed in school, his image of the teacher's image of his ability is paramount.

Our goal should be the raising of the educational, cultural, and vocational sights of all children, especially children from the less privileged groups. The programs should be a coordinated, educational one. It should be total in its implications and not limited to a particular field or subject. All areas of the total-learning situation should be improved, and this includes the improvement of teaching, materials, curriculum enrichment, remedial work, identification and development of special talents, student and parent counseling, guidance—both for parents and children—parent and teacher workshops, and cultural enrichment. It is only by giving meaning to life that children will respond.

I am most enthusiastic in my support of title II, especially section 201. Educators throughout the country are coming up with ideas and programs, but unfortunately unless they can get the help and aid of a foundation, they cannot introduce the much needed programs in their schools. The famous Higher Horizons program, a program which seeks to raise the academic and vocational sights of children from less privileged groups, which as I said before, includes approximately 45,000 pupils, was started 6 years ago because two outside agencies, the CEEB and the National Scholarship Service and Fund for Negro Students, agreed to contribute a total sum of \$21,000 a year. This was enough to start the program in one school. Today it is in 65 schools, with an expenditure of approximately \$1½ million a year, totally financed by the New York City Board of Education. What made Secretary of Health, Education, and Welfare Abraham A. Ribicoff say about the program, after he visited one of the schools, "This is for all of America. This is the greatest single experience I have had and the greatest single lesson I have learned"? Mr. Carl T. Rowan, Under Secretary of State, Public Information, had this to say about the program in an article which appeared in the Saturday Evening Post, "It is probably the

boldest, most far-reaching attempt in the Nation to lift the horizons of youngsters whose drive and ambition have been stifled by the cultural and economic poverty of the neighborhoods in which they live."

Two groups of Higher Horizons' students have now graduated from high school; let's take a look at them. In various studies, they showed an average individual gain of 13 IQ points in 3 years. The average gain for the boys was 17 points; for the girls, 11 points. The boys, incidentally, had lower scores than the girls on the first test, and therefore produced greater gains. Let me quote from a study of 81 pupils who had taken both tests: "66 showed an increase; 12 showed a drop; and 3 remained the same * * *." This ratio of increase to decrease of 5 to 1, remained constant in all of the studies that were done. Twenty-one students or more than one-fourth of the group showed gains of more than 21 points; 13 between 21 and 30 points; 6 between 31 and 50; and 2 between 51 and 60 points. In 1951, 26 percent of the students had scored in the IQ category of 110 and above. In 1960, 58 percent had scored 110 and above. What is particularly interesting is the increase in the IQ in view of previous findings that boys and girls from this background usually show a decrease in IQ as they grow older.

In general, approximately 40 percent more pupils are finishing high school than did before. Two and one-half times as many are completing academic courses, 3½ times as many are going on to some type of postsecondary education. In fact, of those who completed the academic course in June 1961, 91 percent went on to further education. Sixty-six percent of the group graduated from senior high school, compared to an average of 40 percent for previous groups.

Other cities operating under grants from the Ford Foundation have introduced similar programs. The program now operates in Philadelphia, Detroit, and Washington, D.C. The New York State Legislature passed a bill authorizing the State education department to allot money to various communities undertaking similar projects. It is now called Project Able and is in action in 14 school districts. I would like to tell you of a comment made by a 10-year-old boy, who, for the first time in his life, was taken out of the city of Utica to visit the American Museum in Glens Falls. He looked around the museum, saw the beautiful country, and then while gazing out the window, said, "Now I understand why people are willing to fight and die for their country." Other States, not as rich as New York State, would like to introduce similar programs. For instance, the State of Maine through its education department, has set up a committee to see whether it will be possible to introduce this program next September. In fact, they already have a name for it, "New Horizons for Maine Youth." Most of the attention of this program will be centered on rural youth. It is understandable that private and foundation financing cannot support all the States and localities that wish to engage in this type of action program. This is where your bill could come in.

There are other experiments as exciting as this one, and I would like to describe a few: In Racine, Wis., the school board will engage in a pilot demonstration project this coming September, to determine whether, if kindergarten children culturally deprived are given cultural enrichment and the opportunity to visit places, to discuss these visits, to retell stories, to engage in many of the activities that are usual among middle-class children, their educational performance will be improved; and whether the school's holding power will be noticeably increased. This pilot project, which is fairly inexpensive (\$4,000 for the year for an initial group of 20 children) was made possible because of a grant from the Johnson and Western Foundations of Racine. Without this grant, Racine could not carry out this important experiment.

In Lane County, Oreg., the superintendent of schools, Dale Parnell, coordinated the activities of a summer work camp for boys from impoverished homes, who were considered potential dropouts. This was made possible through a grant from the State legislature. The results were most encouraging, and follow-up studies are going on at the present time. Mr. Parnell would like to introduce school guidance counselors for the rural schools in his district. He would like to find out whether, if the school works more closely with the parents and the children, school performances might be improved and the dropout rate diminished. Because of lack of funds this idea still remains on the drawing boards. Unless Mr. Parnell can get a foundation grant, or unless your bill becomes law, I am afraid it will remain there forever.

In St. Louis, Mo., a pilot project is now going on in eight schools to see whether boys and girls who are potential dropouts can be encouraged to remain in school, and to do better work, through a work-study program. Students go to school

in the morning or all day, and the school secures jobs for them, either after school or during school hours. A guidance counselor and a work counselor are assigned to every 50 students. When I was there last week, I had the opportunity of visiting some of the schools and talking with some of the students. I would like to tell you about the conversation I had with one boy. He is a handsome, strong, healthy young man, 18 years of age. He was attending the third high school of his career. He had been asked to leave the previous two high schools for disciplinary reasons. He "had failed a subject every time he had been in school." Today he is a member of the school honor society and will graduate from high school this June, and he hopes to go on to college. He would like to be a guidance counselor. This, is, no doubt, due to his identification with the school guidance counselor. There are many other wonderful examples of the success of this program, yet none of this would have been possible if the Ford Foundation had not made a grant to the St. Louis Board of Education.

In Kansas City, Mo., a work-study program for junior high school boys was instituted this past September. The participants are youngsters who are potential school dropouts. They go to school half time and work half time. The purpose of the course is to prepare these boys for the world of work, and to teach them that all labor is dignified and that each person has a contribution to make to our society. Here again, this program was made possible through a private foundation grant.

In Chicago, one of the most exciting and interesting experiments in the country is taking place. A large department store and the board of education have joined hands to work on the school dropout problem. A select group of young men and women dropouts go to school 2 days a week and work 3 days. Two students share one job. While working they receive the regular store wage and are expected to perform as regular employees. Of the 62 who were originally with the program, 51 are still working; 2 have gone back to school; only 3 were withdrawn because of inability to do the work. Again this program, as in the case of the others, was made possible by a foundation grant.

Not only are there demonstration or experimental projects going on throughout our country, involving the improvement of the total learning situation, but many school districts in large urban slum areas, realize that this improvement can only occur if parental attitudes toward education are positive. A large number of parents are indifferent, if not hostile, to the school, or at least give the appearance of being hostile; but they are most anxious to see that schools offer their children the same opportunities they offer the middle-class child. The cities of Philadelphia, Detroit, and New York are experimenting with community coordinators. These people usually are professionals who are assigned to the school staff to work with parents and to help develop leadership in the community. The Philadelphia and Detroit experiments were made possible through a private foundation grant, also. The New York program was made possible through State action after the Puerto Rican study. This idea of the school reaching out into the community is also being carried on in Montgomery County, Md., where two social workers have been assigned to the school staff to work with parents in culturally deprived areas. Again, may I say, there are so many good ideas, good projects which never fructify because of lack of funds.

Various foundations have been doing a splendid job in supporting educational experiments. They deserve nothing short of encouragement. At the same time, the resources of even the wealthiest among them are limited, and we can seldom expect them to finance an experimental project over a long period of time. I hope that one of the effects of this bill will be to enable successful experimental projects to be incorporated into the regular school programs. This would be a great step toward helping all students, regardless of their background, realize their full potential.

I would also like to speak in favor of section 202 which seeks to amend "An act to authorize cooperative research in education" (July 26, 1954). It is most important that the Office of Education gather as much information through research, surveys, and demonstrations in the field of education as other agencies in our country are now gathering. The National Science Foundation, the Public Health Services, the Mental Health Institute, and the Agricultural Extension Division have the authority to engage in such cooperative studies and to do less for the Office of Education would be to limit the services that it can offer to school systems throughout our country.

Mr. Chairman and members of the subcommittee, I appreciate the work that you are doing, and again want to thank you for giving me an opportunity to present this material to your committee. I have expressed some of the urgency that educators throughout the country feel about the need for moving ahead quickly on this problem of the continued waste of our human resources.

I shall be glad to try to answer any of your questions.

Mr. PUCINSKI. Our final witness for this morning is Dr. George S. Reuter, Jr., research director, American Federation of Teachers, AFL-CIO.

STATEMENT OF DR. GEORGE S. REUTER, JR., RESEARCH DIRECTOR, AMERICAN FEDERATION OF TEACHERS, AFL-CIO, ACCOMPANIED BY CLINTON FAIR, FORMER SECRETARY, AMERICAN FEDERATION OF TEACHERS

Dr. REUTER. I am the research director for the American Federation of Teachers, AFL-CIO.

Mr. PUCINSKI. I want to welcome you here this morning for many reasons: one in particular, it is always a pleasure to have a native Chicagoan before the committee.

Dr. REUTER. Thank you.

Mr. PUCINSKI. I am sure you will make a fine contribution to our committee. You have your statement. Your statement will go in the record in its entirety following your testimony.

Then I suggest that you proceed in any manner you wish.

Dr. REUTER. All right. I have several publications from which I have quotes, which I will include here. We also have in the audience this morning Mr. Clinton Fair, who served our organization in a very outstanding way as secretary several years ago.

Mr. PUCINSKI. Mr. Fair, would you like to step forward and join the witness at the witness table?

Mr. FAIR. I do not think I have anything to offer but I shall be glad to join him.

Mr. PUCINSKI. We are glad to have you here and we welcome your opinion.

Mr. FAIR. I am glad to see you again.

Dr. REUTER. I realize it is a late hour. I shall try to be as brief as possible.

The American Federation of Teachers has been in favor of the Federal Government participating more and more in various Federal aid-to-education programs.

At times we have been concerned because it appeared that many other programs that were worthy were given higher priority than the programs in education. We have felt that education is as primary as any other program in existence in the Nation. For that reason it deserves as much consideration if we are to maintain the type of educational quality that we desire.

In my report, I have cited what the Federal Government has done in the history of the Nation for education and for other phases of national life, such phases as aid to highways, to the farmers, to the airports, and so on. We are appreciative of the fact that these programs have been carried out but we are also concerned that more consideration should be given to the schools, the teachers, and students in that phase of American life.

We do not want at any time to see a decline in quality; in fact, we want quality to be improved with the passing of time.

We feel that the Federal Government is the only agency that is able to do this if we are to insure equal educational opportunities for all American youth.

This is a great assignment but if the Federal Government will participate, as a partner with the other units of government, we feel it can be achieved.

I think it is unfortunate that the word "aid" is used. Actually it should be termed "Federal participation in education" rather than "Federal aid to education," indicating the desire of partners to carry out a quality program of American education for all youth.

We feel that it is a program which can be achieved and we at the same time believe it is possible to achieve this program without necessarily extending the budget.

We feel that education deserves a much higher priority than it now has and that some other expenditures of Government should be checked more carefully and probably will result in the merging together of additional funds for Federal aid to education without increasing taxes.

Mr. GRIFFIN. Doctor, would you give us any suggestions as to where we can cut the budget in other areas?

Dr. REUTER. That is a very good question. I have the feeling that any program that requires expenditure of millions of dollars each year needs to be investigated constantly. I could not at this time cite you specific examples, although they are in the record.

Such gentlemen as Senator Douglas of Illinois have cited where money could be saved in expenditures for purchasing supplies for defense agencies. That is one.

Mr. PUCINSKI. Perhaps you would like to mention impacted areas, which is a very unfair distribution of Federal funds. We are appropriating \$300 million for 3,000 school districts out of some 35,000 school districts in the country.

Mr. GRIFFIN. Mr. Chairman, I just want to indicate that I appreciate the statement of Dr. Reuter. By asking a question, I certainly do not indicate disagreement. I think there are areas where Federal expenditures should be cut. However, we seem to have a lot of difficulty finding support, for any effort to trim Federal expenditures and, without intending necessarily to reflect upon your organization, let me say that we do not seem to find any great demand coming from the AFL-CIO, for example, or other labor organizations, to cut Federal expenditures.

It is very easy to make generalizations, you know, that Congress should cut expenditures somewhere else without being very specific. This is a problem of course that we face all the time.

Dr. REUTER. I realize that. I would say in answer that the AFL-CIO I feel sure would not recommend the expenditure of one cent for any program if they were not completely sold on it.

Mr. GRIFFIN. Mr. Chairman, may I ask one more question? I have to leave because I have some people waiting in my office.

I notice you make a strong statement that Federal aid to education should be for public schools only. In this bill which you are

supporting, there is certainly a good deal of it that is not limited to public institutions. Are you supporting the bill anyway?

Dr. REUTER. We are supporting the bill. I might say that it is our conventional policy for the statement we have made and we naturally must adhere to the policy. But we realize that any time a bill is brought before the Congress that there probably will be amendments and revisions in it and for that reason we would not condemn a bill because we found one part of it that we would not be completely in keeping with.

Mr. GRIFFIN. Thank you very much. I am sorry I have to leave.

Mr. PUCINSKI. You may proceed.

Dr. REUTER. We also are concerned that we continue with various phase of experimentation to try to achieve quality education, and I have cited in my report a number of examples of where I think the patrons, the teachers, the children, and the school board can use their money more wisely if they have, to begin with, sufficient money to use. That has been one of the difficulties in the past—inadequate funds have caused compromises to be made as was referred to by some of the prior speakers in selecting teachers who were not qualified because of insufficient funds, insufficient qualifications, and so on.

So I look forward to an improvement in that angle with the increase in Federal funds for this.

Also, I look forward to experimentation in various other areas, and I have cited them in my report, one which I participated in, and that is the concept of shared time.

We believe that something good may come from it where the private and public schools can have possibly a meeting of the minds and reduce some of the pressures on the private schools so that they in turn would not need Federal funds and at the same time increase the pressures on the public schools by assuming additional courses as physical education, industrial arts, and so on, where there would be greater need for Federal funds for public schools.

Mr. PUCINSKI. Dr. Reuter, actually this 10th point in your statement would not apply to this particular legislation.

Dr. REUTER. No.

Mr. PUCINSKI. Simply because this legislation is designed to develop new techniques, improved techniques for increasing the quality of education, and this money would, of course, be going to universities that are best qualified to assist in the development of the program.

I do not think anyone would have any objections if all the schools in the country were to benefit from the new techniques so developed.

So I do not think that this particular issue of constitutional prohibitions is involved in this particular piece of legislation.

I rather imagine your reference here is to the general school bill, the direct Federal assistance to the local schools and local communities.

Dr. REUTER. That is right. The reason it is included is because it more or less interprets our philosophy as an organization.

Mr. PUCINSKI. Were you here earlier, Doctor? I am sure you were when I asked Dr. Maucker as to whether or not there has not been a tendency during the past 2 years to somewhat coddle the teacher to the extent that the teacher who is really dedicated and is doing an excellent job, of which I am sure there are an overwhelming majority of our schoolteachers today, does feel somewhat discouraged when he

or she sees people who are not making as great an effort continue to remain in the school system and do not make their contribution.

Would you care to comment on that?

Dr. REUTER. Yes. I was here and heard the comment.

I would say that there are certainly teachers in both categories and probably teachers in a third category in between the two.

I, however, believe that the majority of American teachers are dedicated. I do not believe it should be expected, however, that the teachers should assume all the responsibilities themselves on the current compensation that they receive.

I think if we could get the teachers to the place where they would receive adequate compensation along with the other professions, then certainly it would be their obligation to completely assume these phases themselves and carry them out.

Now, one thing that could happen also, is the fact that you might find a teacher who watched the clock. We might want to know why. It might be that the teacher was not earning sufficient funds to take care of his family. For that reason he might have to participate in some part-time job after school hours. That, of course, would be corrected if the teacher was receiving adequate salary to begin with.

Mr. PUCINSKI. I think that your answer is correct.

I am inclined to think that this legislation might very well help develop techniques, I guess, and stimuli that would help bring up the teacher who, for various reasons, is not able to carry the full load or is not carrying the full load now.

We are very grateful to you for appearing in support of this legislation.

I regret that the second bell has now rung and we have to get down to the floor, but I was wondering, did you want to supplement this statement, Dr. Reuter?

Dr. REUTER. Only with some enclosures I have here which I will present to the committee.

Mr. PUCINSKI. I will recommend that the enclosures be made a part of the subcommittee's files so that they will be readily available.

Dr. REUTER. Thank you.

Mr. PUCINSKI. I am very happy to have you here. It is always a pleasure to see the labor movement appearing in support of this worthy legislation.

I am sure your testimony here today will have a great impact on the possibility of this legislation being adopted.

(Dr. Reuter's prepared statement follows:)

PREPARED STATEMENT OF DR. GEORGE S. REUTER, JR., RESEARCH DIRECTOR,
AMERICAN FEDERATION OF TEACHERS, AFL-CIO

My name is Dr. George S. Reuter, Jr., I am research director of the American Federation of Teachers, AFL-CIO. Our professional organization represents classroom teachers, and we have emphasized quality education since 1916. Through the years the AFT has pioneered in educational progress through leadership, experimentation, research, and action programs. A principal goal through the years has been equality of educational opportunity for all American children.

Our president, Carl J. Megel, has appeared many times before congressional committees in support of additional Federal aid for education. He personally asked me to express his thanks to Chairman Thompson for inviting him again this year. He is a great and dedicated American who is still speaking and work-

ing in all parts of America for additional Federal aid for education along the lines of H.R. 10145, but he is like many of you gentlemen in that he is unable to be in several places at the same time.

Our Washington representative, AFT Vice President Selma M. Borchardt, has also devoted much of her time in support of Federal-aid-for-education programs.

I would like to pay my respects to Congressman Pucinski of Chicago. We know him in Chicago as an outstanding Congressman.

I am appearing before your committee in support of H.R. 10145, because it is in keeping with the wise recommendations of President Kennedy and because there is urgent need for such legislation. I would like to cite several reasons:

First. Federal aid for education is older than our National Government. I call your attention to our study "Historical Justification for Federal Aid to Education" as proof for the statement.

Second. Federal aid is a reality for farmers, for highways and airports, for health and hospitals, and for welfare. These programs are desirable and you hear few complaints, but there is just as basic a need for additional Federal aid for education. I call your attention to our study "Survey of Teachers' Salaries," September 1961, as proof for the statement, particularly pages 15 through 45.

Third. Federal aid for education is the only possible way for achieving educational equality among the States so all American children will gain this goal, because all States fall far short of providing the necessary funds. The salary of teachers is an example, because other professions do much better. I call your attention to pages 49 to 98 of our study "Survey of Teachers' Salaries," September 1961, as proof for the statement.

Also, I would ask that my article "Current Teachers Salaries" be quoted here, because the summary will make the point above easier to understand.

"CURRENT TEACHERS SALARIES"

"INTRODUCTION"

"The study this year of teachers' salaries includes 880 salary schedules in the United States and 1 in the Canal Zone. Of the 880 districts, 209 are in the Northeastern States, 367 in the Central States, 168 in the Southern States, and 136 in the Western States. The study of the 880 districts with population of 10,000 or more compares with the 1960 study of 855 districts.

"MAJOR CITIES"

"Once again 34 major cities with a population of 400,000 or more are considered separately. The average salary for all the teachers with at least a degree is \$6,419. The average beginning salary for teachers with a bachelor's degree is \$4,509, with the average ceiling in this category of \$7,176. For the master's degree the average beginning salary is \$4,953 and the ceiling is \$7,659. The average beginning salary for the teacher with a year beyond the master's degree is \$5,186 and the average ceiling salary is \$8,285. The average beginning salary for the doctorate is \$5,274 and the ceiling is \$8,309. Concerning the four categories mentioned above, the average beginning salary is \$4,981 and the average ceiling is \$7,857.

"NATIONAL SUMMARIES"

"The beginning teacher with the bachelor's degree has a national average, in 1961, of \$4,328 and the ceiling is \$6,228. For the master's degree the average beginning salary is \$4,567 and the ceiling is \$6,819. For the teacher with a year beyond the master's degree the average beginning salary is \$4,839 and the ceiling is \$7,256. For the teacher with the doctorate the average beginning salary is \$5,124 and the ceiling is \$7,887. The average national beginning salary for a teacher with a degree or above is \$4,715 and the ceiling is \$7,048. The average national salary of teachers in the four classifications of bachelor's through doctorate is \$5,881.

"REGIONAL SUMMARIES"

"The northeastern region of the Nation is composed of nine States. The average bachelor's beginning salary is \$4,181, and the ceiling is \$6,479. The sectional averages for the beginning master's degree and ceiling are \$4,455 and \$6,896. The sectional averages for the beginning salary for a year beyond the master's

and the ceiling are \$4,733 and \$7,367. The sectional averages for the beginning salary for the doctorate and the ceiling are \$5,015 and \$7,744.

"The central region of the Nation is composed of 12 States and the average bachelor's beginning salary is \$4,399, with the ceiling at \$6,511. The sectional averages for the beginning and ceiling for the master's degree are \$4,734 and \$7,149. The sectional averages for the beginning and ceiling for a year beyond the master's are \$5,031 and \$7,698. The sectional averages for the beginning and ceiling for the doctorate are \$5,408 and \$8,254.

"The southern region of the Nation is composed of 16 States and the District of Columbia and has an average beginning degree salary of \$3,848 and a ceiling of \$5,372. The sectional averages for the beginning and ceiling for the master's degree are \$4,168 and \$5,900. The sectional averages for the beginning and ceiling for a year beyond the master's are \$4,581 and \$6,325. The sectional averages for the beginning and ceiling for the doctorate are \$4,866 and \$7,523.

"The western section of the Nation includes 13 States and has an average beginning salary of \$4,582, and the ceiling for the bachelor's is \$6,549. The sectional averages for the beginning and ceiling for the master's degree are \$4,913 and \$7,331. The sectional averages for the beginning and ceiling for a year beyond the master's are \$5,009 and \$7,635. The sectional averages for the beginning and ceiling for the doctorate are \$5,205 and \$8,026.

"STATE AVERAGES

"The States are reported below. Each of the 50 States has a reported State average for the teacher with the bachelor's degree.

"Average bachelor's degree salaries

	Starting	Ceiling		Starting	Ceiling
Alabama.....	\$3,241	\$4,052	Montana.....	\$4,609	\$6,429
Alaska.....	6,197	7,835	Nebraska.....	4,167	5,966
Arizona.....	4,603	7,252	Nevada.....	4,850	6,367
Arkansas.....	3,691	4,803	New Hampshire.....	4,021	5,803
California.....	4,922	7,424	New Jersey.....	4,449	7,366
Colorado.....	4,403	6,677	New Mexico.....	4,340	6,140
Connecticut.....	4,395	7,222	New York.....	4,625	7,526
Delaware.....	4,400	7,150	North Carolina.....	3,797	5,403
Florida.....	4,108	5,551	North Dakota.....	4,475	6,663
Georgia.....	4,045	5,330	Ohio.....	4,280	6,328
Hawaii.....	4,020	6,000	Oklahoma.....	3,638	5,141
Idaho.....	4,219	5,441	Oregon.....	4,387	6,635
Illinois.....	4,687	6,693	Pennsylvania.....	4,099	6,384
Indiana.....	4,636	6,693	Rhode Island.....	4,185	6,322
Iowa.....	4,259	6,354	South Carolina.....	2,816	3,701
Kansas.....	4,250	5,957	South Dakota.....	4,060	5,890
Kentucky.....	3,895	5,146	Tennessee.....	3,746	5,302
Louisiana.....	3,550	5,840	Texas.....	4,465	5,778
Maine.....	3,875	5,403	Utah.....	3,947	6,281
Maryland.....	4,350	6,767	Vermont.....	3,725	5,848
Massachusetts.....	4,256	6,436	Virginia.....	4,000	5,693
Michigan.....	4,712	7,108	Washington.....	4,511	6,143
Minnesota.....	4,493	7,120	West Virginia.....	3,545	4,313
Mississippi.....	3,337	4,253	Wisconsin.....	4,524	6,913
Missouri.....	4,250	6,340	Wyoming.....	4,560	6,519"

Fourth. Federal aid for education is the American way of serving the needs of our Nation. This point is an essential phase of our national defense, because it will solve many related needs. I call your attention to pages 2 through 4 of our study, "Survey of Teachers' Salaries," September 1961, as proof for the statement.

Fifth. Federal aid for education is the best means of expanding and improving the quantity and quality of education. Congressmen and Senators have made educational self-improvement, hence we need to encourage all groups through additional Federal aid in order to have the best possible civilization tomorrow. I call your attention to our study, "Education and Congress," as proof for the statement and I ask that the study be quoted here.

Sixth. Federal aid for education will help educators reduce class size and thus improve instruction. I call your attention to our study, "The Limitation of Class Size," as proof of the need.

Seventh. Federal aid for education will encourage schools to use their members more wisely. I call your attention to our study, "The Utilization of Educators," as proof of the need.

Eighth. Federal aid for education will encourage the voters in the school districts to examine more completely the proper fiscal approaches. I call your attention to our study, "Fiscal Independence Versus Fiscal Dependence of School Boards," as proof for the need.

Ninth. Federal aid for education will encourage better personnel relations among groups. I call your attention to our studies, "Personnel Relations for Teacher," and "Evaluation of Personnel Practices in Selected American School Systems," as proof of the need.

Tenth. Federal aid for education should be public schools only. This is the policy of the American Federation of Teachers. I call your attention to our study, "Some Constitutional Prohibitions Against Financial Aid to Private Schools," which reflects our thinking.

While the point above is our stand, we are concerned about ways and means of promoting harmony concerning this important issue. I call your attention to my article which appeared in the Congressional Record, February 1, 1962, pages A1407-A1408, at the request of Congressman Finnegan, entitled "Shared Time: A New Approach in American Education." While the article is my personal opinion and does not reflect AFT policy, I believe it is worthy of consideration.

Finally, Federal aid for education is the proper followup for school integration, because all children must have equal educational facilities. I call your attention to "A Brief Review of the AFT's Fight for Integration," which gives our history.

In conclusion H.R. 10145 is currently needed and should become the law of the land.

Mr. PUCINSKI. We will now adjourn this phase of the hearing, subject to the call of the chairman, Mr. Thompson.

The committee stands adjourned.

Thank you very much.

(Whereupon, at 12:45 p.m., the subcommittee adjourned to reconvene at the call of the chairman.)

(The following material was submitted for the record:)

COMMENT ON H.R. 10145 BY A. WHITNEY GRISWOLD, PRESIDENT, YALE UNIVERSITY

1. I approve and commend the first part of the proposed measure (title I) which will return 2,500 schoolteachers per year to universities for further study in their respective subject fields.

2. Query: Section 102(a) provides for scholarship grants for 1 year of full-time study though it does not specify the amount of such grants. Later in the same subsection it is stated "Each such teacher shall receive a stipend * * * equal to his or her most recent annual salary * * * but not to exceed \$5,000, and the college or university which such individual attends shall receive a cost of education allowance of \$500." Are the words "stipend" and "grant" synonymous as they are used in this subsection? If they are not, how much will the grant amount to? If the terms are synonymous, I believe this will restrict the individual teacher's freedom of choice with respect to the college or university he desires to attend. In the private institutions the \$5,000 ceiling on stipends will prove to be too small to permit full tuition payments; and the \$500 cost-of-education allowance provided for in the subsection will not be adequate to make up the difference. This will tend to concentrate the program in the State universities.

3. In title I, section 103(a), line 19, the word "and" should be changed to "or" in order to make it possible for the growing number of teacher-training programs concentrated on secondary school teachers only to participate.

4. While I think that the educational objectives of title II are commendable, I question the effectiveness of section (c) (1) (A), lines 4 and 5, which provides that the State educational agency will be the sole agency for administering the plan. On the whole, the most effective improvements in our public school curriculum, particularly in the high school curriculum, have been accomplished to date by the direct support of outstanding scholars in the respective curricular

fields by such Federal agencies as the National Science Foundation. It is my view that this policy will be more productive in the long run, than were the effort and the funds supporting it to be filtered through State agencies.

TEACHERS COLLEGE, COLUMBIA UNIVERSITY,
New York, March 9, 1962.

HON. FRANK THOMPSON, Jr.,
*Chairman, Subcommittee on Education, Committee on Education and Labor,
House of Representatives, Washington, D.C.*

DEAR SIR: I am sorry that I was prevented by other commitments from accepting your invitation to attend the hearing on H.R. 10145 and I should like to send you my views on the bill.

As the President has repeatedly emphasized, the improvement of our educational system is among the most important and urgent tasks now facing the United States. Basic to whatever else is done on this problem, including action at the college and university level, is the strengthening of the elementary and secondary schools. Without proper attention to the foundation years, efforts to provide sound education later are rendered exceedingly difficult, and in the cases of some people, virtually useless.

My general reaction to H.R. 10145 is that it is wisely conceived and well drawn. If the bill were passed in its present form, I am confident that the educational program of the country would be substantially assisted and I should be very happy at the outcome. I would, however, suggest that some changes might improve the total effect.

Under title I, section 101, I would suggest that provision be made (lines 3 and 4) to include as possible grant recipients principals, directors of instruction, or instructional consultants who may have responsibility for instructional leadership in schools or school systems. I consider it of the utmost importance that the effect of this bill reach those persons who can exert influence not only in the classroom but upon the teachers themselves. In the same section, lines 8 to 10, I would suggest that the preference to subjects "which are generally accepted as meeting college entrance requirements" may create considerable difficulty in the administration of the bill and may, indeed, have quite undesirable effects. Arithmetic, for example, is not required for college entrance. On the other hand, the higher branches of mathematics, which are required, are not taught in the elementary school where the foundations for all subsequent mathematical study must be laid. Is no assistance to be authorized for improving the teaching of arithmetic?

I have in mind also the importance of geography which, again, is not considered a "college entrance" subject. Geography is one of the most seriously neglected subjects in the entire curriculum and becomes more important every year. It badly needs to be supported and the teaching of it improved, yet the present wording would discourage if not prohibit grants to geography teachers.

These are but two examples of the consequences of using the college entrance criterion. I would urge the committee to remember that the improvement of education in this country is necessary not only for those who go to college but also for the two-thirds or more of our citizens who do not get beyond the 12th grade of formal education. The need for better quality is not restricted to higher education or those who intend to pursue it. The United States requires the best possible system of universal education, and our concern for quality must be correspondingly broad.

Section 102, which authorizes the Commissioner to make scholarship grants to teachers, specifically provides stipends to match the teacher's salary up to a maximum of \$5,000 and provides a "cost of education" allowance for the institution attended of \$500. I cannot determine from the wording of this section whether the scholarship grant to be made is in addition to the \$5,000 or whether the teacher is expected to meet normal tuition costs out of the \$5,000. I would strongly urge that the section be amended to make it clear that the scholarship grant is in addition to the stipend. If the teacher were required to pay his tuition out of his normal salary (or, in many cases, from a stipend smaller than his regular annual salary), one of two things is likely to happen. Either teachers, especially those with families to support, will not apply for the grants, or they will attend public institutions usually in their own States, because of residence requirements, where tuition fees are low. Very few teachers would then

attend private institutions of high quality—and high cost—and few would be encouraged to travel outside their own States to secure advanced training. The total effect would be to diminish substantially the benefits of this legislation.

Under title II, in section 201 (c) (1) (B) (iv), I would suggest adding "or school organization." The word "programing" might be interpreted to mean the arrangement of subject matter so as to make it usable in so-called teaching machines. This is a quite worthy objective and should be retained, but I would hope that the funds would also be available for developing new types of school organization which might include approaches to what is called team teaching or other variations in the ways teachers are deployed and related to each other and to pupils.

Thank you for inviting me to submit my views on this proposed legislation. I trust the committee may find them of some use.

Sincerely,

JOHN H. FISCHER.

UNIVERSITY OF MINNESOTA,
COLLEGE OF EDUCATION,
Minneapolis, March 6, 1962.

HON. FRANK THOMPSON, JR.,
Chairman, Select Subcommittee on Education, Committee on Education and Labor, House of Representatives, Washington, D. C.

DEAR SIR: The invitation which you extended to President O. M. Wilson asking him to express his views on H.R. 10145 has been referred to me for reply. President Wilson is in South America during March.

In writing in support of the improvement of Educational Quality Act of 1962 (H.R. 10145), I would like to comment specifically on two sections of the bill and make two additional comments.

I want especially to get your support of section 103, title I, project grants to strengthen teacher preparation programs. The first prerequisite to the improvement of the quality of education in the elementary and secondary schools is the improvement of those graduating from teacher preparation programs. Particularly important in teacher education is the selection of able students and their retention in the college programs. The effective selective admission and the selective retention of students in teacher education requires a well-developed student personnel program. Currently too few teacher preparation programs are employing the principles of student personnel work which are by now well-developed in leading colleges. Funds which would enable colleges and departments of education to strengthen their student personnel programs would directly strengthen the quality of students admitted to the professional curriculums.

Section 202, title II, entitled "Amendments to Cooperative Research Act" requires comment. I would heartily endorse those features of this section which would enable the U.S. Office of Education to go beyond its present restricted, contractual arrangements. Since its inception, the cooperative research program has been unduly hindered in its promotion of educational research because they could not make outright grants for research or make financial arrangements other than contracts. The creative solution to many of our educational problems cannot be contracted. The researcher often needs more freedom to explore the leads which are not evident until data are collected. Grants of money to able researchers with creative ideas are an important way of supporting research.

Section 202 also would support the establishment "of centers for the conduct of programs of research, development, evaluation, and demonstration * * *." Current information suggests that the model for such "centers" would be the agricultural experiment station. I hope your committee will call a number of knowledgeable educational researchers before such a model is adopted. It is doubtful that many aspects of research in education can be adapted to the agricultural model.

Although I am generally in favor of the bill, there are two critical needs in education which should be a part of any program of legislation. First of all, there should be a much larger amount of money available as undesignated research funds. The current policies of the U.S. Office of Education to allocate research funds for specific projects leaves a dire shortage of funds for research.

I would urge that some \$15 to \$20 million of funds for the general support of educational research should have the first priority.

The second most urgent need for funds is for use in the training of educational researchers. Increased moneys allocated for research without accompanying funds for the training of competent research workers will not make the best use of funds expended.

In summary, I urge your support of H.R. 10145 with special emphasis to those sections which I have indicated. I hope you will also see the need for additional funds for cooperative research without specification of the area in which they are to be used, and for the training of research workers.

Sincerely yours,

WALTER W. COOK, *Dean.*

STATEMENT BY THE LEGISLATIVE COMMITTEE OF THE NATIONAL ASSOCIATION OF SECONDARY-SCHOOL PRINCIPALS. CONSISTING OF EUGENE S. THOMAS, CALLOWAY TAULBEE, AND ELLSWORTH TOMPKINS, RESPECTIVELY PRESIDENT, FIRST VICE PRESIDENT, AND EXECUTIVE SECRETARY

The Legislative Committee of the National Association of Secondary-School Principals representing more than 26,000 leaders in secondary education respectfully requests a consideration of our viewpoints on H.R. 10145, known as the quality education bill.

A major purpose of our association is to work with our members and with other educational associations in helping to improve instruction and thereby raise the quality of public education. We agree in principle with the stated purpose of the proposed legislation. But we have reservations about details of certain procedures in H.R. 10145.

Under title I, we question the emphasis on the preference given to teachers of subjects which are generally accepted as meeting college entrance requirements. We believe that teachers of all students, whether they are college bound or not, should be invited to participate in the provisions of this legislation.

Further we question whether the U.S. Commissioner of Education should be authorized to contract with colleges and universities for the operation of short-term or regular session institutes for advanced study. It is our position that the U.S. Commissioner should be authorized to deal directly only with State departments of education; and they are in best position to contract with universities within the State to improve the quality of education and the competency of teachers.

We believe it is important to avoid the tendency to bypass States and have the U.S. Commissioner of Education deal directly with institutions of higher education. Historically the Federal Government, through the Office of Education and other agencies, has served education better when the major part of legislative implementation is left to the individual States and their departments of education.

Further, if the State department of education receives funds to arrange for grants and contracts, it will not be necessary to have a State commission established for the particular purpose of implementing the proposed legislation. There is always a possibility that a special State commission may constitute duplication with the regularly constituted State department of education. For the State department of education is closer to the scene of action so necessary to improve the quality of instructional personnel. Furthermore, the States themselves are in a better position than a Federal agency to judge the basis of need.

So, we question whether a new commission should be established to do what the States are qualified to do themselves. It would be unfortunate if the legislation empowered the U.S. Commissioner of Education to do certain things to public education rather than help State and local officials to do things for themselves. In its present wording, H.R. 10145 will, if we assess its provisions correctly, authorize Federal education officials to wield influence and possibly control over specific aspects of curriculum and instruction.

Our association believes that fragmentary education legislation by Congress intended to improve categorical aspects of the school program will not be able to accomplish a genuine across-the-board improvement in school programs. We believe that a general financial support program is the only effective way for Congress to help bring quality education to all pupils.

We commend the administration and Congress for their purpose to assist teachers now in service to improve their competence so that their instruction will be of a higher quality. However, it would take many, many years for 2,500 teachers in each succeeding year to really make effective improvement in the total field of education.

You are probably acquainted with the fact that thousands of elementary and secondary school teachers attend colleges and universities during the summer at their own expense for self-improvement. Many of our association members have taught summer session courses at universities and colleges and recognize the deep commitment of teachers to improve themselves, to attain higher degrees, and to meet advanced certification standards. Over the years, this development has attracted an increasing number of teachers and we think it is a good thing.

We doubt, therefore, the wisdom in having a federally authorized and financed State agency for administering scholarships. Each State already has an authorized education agency and we believe that a high quality of education cannot realistically be accomplished by legislation which provides for 2,500 teachers each year. Of course, we give our full support to efforts by Congress for Federal financial assistance for improving education in public schools and for improving instruction; but we are convinced that H.R. 10145 needs to be rewritten to achieve its legislative authorization within the framework of Federal, State, and local cooperation and responsibility.

It is indeed a good omen that education has been given an importance at all levels of government by the Congress and by President Kennedy himself. We are confident that much can be accomplished if State and local responsibility for education is not bypassed in developing proposals for legislation by Congress.

Here are principles which, in our judgment and in the judgment of the American Association of School Administrators, should be used as criteria for assessing any proposed legislation affecting public education:

(1) Federal financial support of public education should be distributed to the State and through the State to the local public school authorities with no restrictions as to how the State will spend the money received.

(2) Federal financial support of public education should be distributed and used with a minimum of redtape and administrative control. The more minutely a bill describes how the money is to be spent, the more likely will be the enlargement of the staff of those who will administer it at all levels, thus reducing the actual amount of money available for the improvement of public education.

(3) Federal financial support of public education should follow the principle of limiting public tax moneys to publicly controlled and supported institutions.

(4) Federal financial support for public education should be distributed on a basis that is readily understood and simple to administer.

(5) Federal financial support of public education should guard against developing and protecting vested interests and special groups within the public educational systems.

(6) Federal financial support of public education should guard against the promotion of commercial enterprises which may profit by the expenditure of earmarked funds.

(7) Federal financial support of public education should be characterized by recognition of the State's constitutional responsibilities for education. Consequently, Federal legislation should leave the manner of strengthening the curriculum to the discretion of each State.

STATEMENT BY PETER G. PETERSON, PRESIDENT, BELL & HOWELL CO., CHICAGO., ILL.

Many distinguished men, who have spent most of their professional lives in education, have appeared before this group. Against this background of impressive testimony, perhaps the most meaningful contribution that a businessman can make is to talk about research in industry and its possible implications to research in education.

Education, as much as industry, labor, or agriculture, will determine our standard of living in the years ahead. And, as our society is swiftly changing from one that produces with its muscles to one that produces with its minds, the standard of living, and indeed the survival of our whole way of life will more and more come to depend upon our standard of thinking. To increase this standard of thinking, it is imperative and, I believe, urgent, that we reexamine and re-

evaluate our educational processes, needs, and goals. It is largely for this fundamental reason that Bell & Howell Co. urges the passage of a bill having this objective.

LEVEL OF RESEARCH

I am impressed, as others have been, with how little research is done in the field of education. In 1962, our Nation is expected to invest an estimated \$16½ billion in industrial research, making research one of the important "industries" in this country. Private industry will support roughly \$6.3 billion with its own funds. It is not unusual for companies in high-technology industries to spend 10 percent or even more of their total sales on research and development.

Businessmen have apparently been convinced that one of the most practical ways to reach their future goals is through research. Likewise, it is interesting to note that successful educational publishers nearly always spend substantial portions of their total sales on research.

I would like to begin my appraisal of this bill by asking this question: How likely is it that private industry serving the educational market will invest in the large amounts of educational research that are needed?

We can get part of our answer by reminding ourselves that less than 2 percent of the educational dollar goes for instructional materials, the one important area where research by educational businesses might be expected. The annual sales of the entire textbook-publishing industry amount to only about \$335 million, or roughly one-twentieth of what private industry will spend on industrial research and development alone.

When one considers the enormous gaps in our knowledge about education (a gap that is likely to grow in light of the so-called information explosion and the obvious teacher shortage), it seems clear that there is an inadequate financial base in private segments to support the educational research that is needed.

There is the second, and equally important question of how a much enlarged program of educational research might be carried out in order to maximize its quality and usefulness.

Here, too, it is possible that some of industry's experience in managing research programs might be relevant.

SYSTEMS CONCEPT OF RESEARCH

One important concept that has emerged in industry is the so-called systems concept. It has several important elements.

First, we have learned to ask ourselves, What is it that we expect this system of hardware to accomplish? We refer to it as evaluating system performance.

In the field of education, one can well ask whether we are likely to achieve basic improvements in the educational system until we have learned to evaluate the systems in terms of the performance we expect later in life.

To take one small example, grades in college are inadequate as indicators of job performance.

But more important, what sort of human beings will the future require? How can we turn out human beings of the sort best equipped to serve the Nation and mankind in an era when knowledge is exploding and when the threats to our whole system are multiplying?

Whatever our differing ideas of education, all would agree that a high degree of flexibility, adaptability, and, most important, creativity is increasingly needed in order to cope with the swiftly changing conditions of modern life. We have only begun to scratch the surface of identifying these people, let alone to know how to nurture the precious and limited resource called creativity.

Answers to these questions will require research among very large numbers of individuals and following their performance on the job and their contribution to society over a number of years. Even partial and tentative answers to such complex questions would be feasible only through a rigorous research program supported at the Federal level.

The "systems concept" of research has other important implications. It also means examining each component in terms of its value to the whole.

I would hope that this bill would avoid concentrating on research that is too highly specialized conducted by men who are disciples of a single discipline.

For example, it is very common to have audiovisual hardware manufacturers preoccupied with their hardware, educational film producers with films, textbook publishers with textbooks, etc. Systems research helps determine what each of the media does best, what the unique contribution is of each so that the total system is most effective.

When we determine what contribution each of the educational media makes to the learning process, we must then be sure that we train sufficient teachers in the use of these newer media so that the benefits can be passed along to our children.

BASIC RESEARCH

In industrial research, we have also learned that important benefits can come from devoting an important part of the program to so-called basic research. This means that part of the program should be free, not rigidly structured, an effort in which imagination, and not merely statistics is called into play.

The experience in our company and in industry as a whole supports the idea that most really basic innovations come from this kind of research.

To be sure, specific research projects, like specific buildings, are much "easier" to approve because their anticipated benefits can be made more tangible.

If our experience is a reliable guide, I would urge that the educational research program also call for the support, on a continuing basis, of the most imaginative minds in education in basic research in education. For example, until we learn more about what happens at a fundamental level in this whole phenomenon called learning, it is unlikely that we will achieve major breakthroughs in educational techniques.

Our full endorsement of the aims and purposes of H.R. 10145 does not constitute a full endorsement of all the sections in the bill. We believe, for example, that too much authority is vested in the Commissioner of Education, that the bill should include provision for a broad advisory committee, representing authorities in numerous fields of inquiry.

Government-sponsored research in the scientific and medical fields has been gratifyingly free from interference and domination; we may reasonably expect that research in education will receive the same treatment. Such safeguards should be provided for in the bill, to allay any possible fears that the program might become less an objective study than a vehicle for one special viewpoint or another.

To sum up, I believe that a much expanded level of research is essential if American education is going to become what it must become in order to keep up with the rapidly changing demands of the modern era. We need to learn much more about the basic problems of education in our society—what is the exact nature of the learning process; how can we teach best, and who is best equipped to do it; how can we make the educational system work with a maximum of speed, depth, and comprehensiveness?

We do not have the answers to these questions. Not enough money, time, nor other resources have been devoted to them. Yet our scientific and industrial skills will be in large part wasted if we are not able to transmit knowledge effectively to enough young people in the fastest time possible.

STATEMENT OF THE NATIONAL ASSOCIATION OF MANUFACTURERS

For many years the NAM has contributed to the record of both House and Senate committees considering various proposals for Federal aid to education, and it is glad to accept this present opportunity.

The NAM is a voluntary membership organization made up of approximately 18,000 business concerns of all types and sizes throughout the United States. More than 80 percent of our membership is small business. In fact, 28 percent of the membership employ 50 or fewer persons, 41.5 percent employ 100 or less, and 83 percent have 500 or fewer employees. The association thus speaks for a broad, diversified, and substantial segment of the country's productive—and taxpaying—enterprises.

The association has always been committed to improving educational opportunities, standards, and facilities. The contribution of our member companies to this goal through scholarships, direct aid to institutions, special programs for teachers, tuition payments for employees, has gained national recognition. Individuals associated with our member companies are active on local school boards, in parent-teachers' organizations, as trustees of schools and colleges, and

in alumni affairs. Also, as both business and individual taxpayers, our members participate in the support of public education. It is thus as citizens, taxpayers, parents, alumni, school board members, trustees of educational institutions, as well as businessmen, that our members bring their attitudes to bear on the question of the financial support to education.

Obviously, the association does not oppose education. And it does not oppose public support of education. It does, however, oppose Federal aid to education.

"Why We Believe Education Should Remain a State and Local Responsibility," an NAM booklet published in January, is attached to this statement for the files of the Committee on Education and Labor.

The most pertinent points in NAM's official position on Federal aid to education are these:

"Neither the provision of education to students and teachers, nor the promotion of the educational content in schools and colleges, nor the subsidy of private educational institutions, nor the financial participation in State-local school system operations, is the business of the Federal Government. This applies to existing programs except for the clear responsibility of the Federal Government for children of parents who work for Federal installations that impose an excessive educational burden on the local community. *It also applies to all proposals for Federal support of education through grants, loans, or other forms of subsidy * * **

"Specifically, Federal grants for educational purposes should be terminated and *Federal promotional activity with respect to elementary, secondary, and higher education should be halted.*" [Emphasis added.]

The association thus opposes the various proposals for Federal aid to education which the President specified in his message of February 6, as well as H.R. 10145 which would implement his proposal for the improvement of educational quality.

The basic case against Federal aid for school, colleges, students, teachers, quantity or quality of education is the same:

The sphere of Federal services and functions should be limited to those matters which can be handled only by the National Government. Education is not a Federal responsibility.

There is no present or impending "crisis" in education that would justify Federal assumption of responsibility for a service completely outside the area of truly national tasks.

The Federal Government should be retrenching, rather than extending, its financial commitments; it is in a precarious financial situation, as evidenced by the balance-of-payments problem; the massive spending plans and proposals which suggest renewed budget deficits to threaten the domestic and international integrity of the dollar; the enormous public debt pushing a new debt ceiling; and the continually crushing Federal tax rates. On the other hand, the States and their local units are, comparatively, in much better financial condition than the Federal Government.

The most significant contribution that the Federal Government can make at this time toward higher education would be prompt inauguration of sound fiscal policy, which would foster a higher rate of economic growth and thus increase non-Federal capacity for the support of education.

Federal support inevitably leads to Federal control and this control will distort and devalue the educative process.

Federal money cannot buy excellence in learning.

THE QUALITY THEME

The emphasis on improved quality of education as an official slogan dates from the task force report on education of January 1961, and the President's message of February 20, 1961. This is the third prepared position to which the advocates of Federal aid to education have rallied to continue their fight. The other positions have been aid to school construction, and aid for teachers' salaries. These positions have been rendered untenable by the steady progress that has been made over the past decade in overcoming the schoolroom shortage, which was caused in the first instance by the restrictions on use of materials and labor during World War II. During this period there has been, also, a steady rise in teacher salaries.

The following data are representative of the progress that has been made over the past decade insofar as this progress can be measured in dollars:

TABLE 1.—*Representative data relating to public school expenditure*

Period	Total expenditure	Current expenditure per pupil in ADA	Average salary, instructional staff	Percent of teachers paid	
				Below \$3,500	Above \$4,500
	<i>Millions</i>	<i>Millions</i>	<i>Millions</i>		
1950-51.....	\$6,520	\$224.23	\$3,126	62.0	13.0
1960-61.....	16,478	390.00	5,389	9.6	63.2

Source: NEA Research Report, 1960-R15, "Estimates of School Statistics, 1960-61."

The position that improved educational quality is a justified basis for Federal aid, is likewise untenable. This is true for both subjective and practical reasons.

No definition has been given of educational quality in any of the documents cited above. In a subjective or personality sense, it could mean the effect of some 12 years of schooling on the child's mental and emotional development, on his appreciation of learning, his capacity to learn, his understanding of the environment in which he must live and work, and so on. The response of child and youth to these influences will vary, even among pupils taught by a given staff of equally competent teachers. Some pupils will excel in history but not in mathematics; some will do well in languages but not in the sciences; some will be better in vocational subjects, and perhaps should not even go to college. No amount of expenditure could cause all pupils to be equally highly proficient in all subjects taught. There will always be some pupils, on the other hand, who, by reason of native talent or exceptional application, can achieve a uniformly high standard of excellence. As a subjective matter, however, the full results of the 12 years of lower education will become apparent only with time, as these pupils reveal their adult behavior, reactions, grasp of personal and civic problems, comprehension of broad issues; in short, as they make their way through life.

In contrast to the intangible and relatively incommensurable aspect of educational quality, there is a clear practical test of educational achievement. This test is provided by the college entrance requirements. It is well known that these requirements have become more rigorous with the years. It is a fact, also, that an increasing proportion of high school graduates are able to pass the college entrance examinations. The predictions of the rising flood of students that will swamp the colleges in a few years must rest on an assumption that ever larger numbers of high school graduates will be able to pass these examinations. And this will occur only because steady improvement in the quality of education has occurred up the line through elementary and secondary schools.

KEY TO QUALITY

H.R. 10145 conveys the impression that instructional quality needs improvement particularly with respect to college entrance, for it provides, in section 101, that in determining the subject matter areas in which the proposed advance study shall be provided, "the Commissioner shall give preference to subjects which are generally accepted as meeting college entrance requirements * * *." This would suggest, first, that emphasis on need of, and preference for, improved high school instruction was intended. Yet basic to getting the most out of high schools is getting the most out of elementary schools. The quality performance of the elementary school teacher is as vital a link in the chain as any. The text of section 101 mentions the elementary teacher, but the stress on college entrance requirements would seem to indicate preference for high school teachers.

This particular provision would also suggest that the quantity of college entrants was the key to educational quality. The President, on the other hand, says¹ bluntly that the key is the teaching profession. This would seem more likely in view of some generally accepted criticisms of our educational system.

¹ Message of Feb. 6, 1962.

Without downgrading the educational achievements that have clearly been achieved, it can nevertheless be said that a major source of our educational shortcomings is the kind of teacher training that has become standard. This training throughout the teacher colleges, schools of education, and other agencies engaged in preparing persons to teach, has overemphasized methods and underemphasized subject matter. The States generally have followed this pattern and authorized issuance of teaching certificates only to those candidates who could show completion of the prescribed credit hours in so-called education courses.

Section 101 of H.R. 10145 would authorize the Commissioner of Education "to arrange, through grants or contracts, with colleges and universities for the operation by them of short-term or regular session institutes for advanced study, including study in the use of new teaching methods and instructional materials, for individuals who are engaged in teaching, or in supervising teachers, in elementary and secondary schools, in subject matter areas in which he finds that there is a widespread need for improvement in the quality of instruction." Two points should be noted here. First, the emphasis is still on methods. Second, the higher institutions which are most likely to be prepared to set up such institutes are the present teacher colleges and the schools of education. Thus there is little new in the picture but Federal money. If Gresham's law can be associated here, the result could very well be a worsening of the situation. A repetition of the characteristic teacher training procedure, against which many complaints have been made, on more teacher trainees, would only swell the ranks of those knowledgeable in method but not in content.

Some progress has been made toward reorientation of curriculums in the teacher colleges and schools of education as a result of the criticisms that have been made by many educational authorities. The movement toward better balance between subject matter and teaching methods must thrive from within, as educators and administrators recognize more fully the defects to which the earlier extreme unbalance had led. Further marked improvement in American education may be expected as this self-examination continues. It is not a change that can be induced by Federal grants, but rather a development which must come freely and naturally under the impact of conviction that a revision of the basic concept of teacher training would be beneficial to the cause of education. As a necessarily self-generated development within the teaching profession, it will come sooner without Federal intervention than with it.

THE FACT OF CONTROL

A major public policy issue which faces the people and their government representatives is broad Federal planning for education and its support. To claim that the effectuation of such plans would not involve Federal intervention and control of the country's education system and resources is to be unrealistic. The President says,² "Let us put to rest the unfounded fears that Federal money means Federal control."

The hope would seem to be to divert the opponents from using the argument of Federal control. The proponents of massive Federal aid naturally have no such fears. What they have is a well-founded conviction that Federal aid will lead to Federal control; for this is their aim—Federal aid is merely the means.

Thus, for the proponents, the details of the means must be those that will have expansive financing potential.

One example is summer session study at a salary-level "stipend" paid by the Federal Government for a possible 1.6 million teachers. As far as the provisions of section 101 go, all these teachers could take advantage of the offer the first summer the law was in effect. There is, apparently, limitless possibility for spending in the arrangement the Commissioner is free to make with the institutions involved. Section 101 gives no guide or restriction to the amounts of grants or contracts he is authorized to arrange with colleges or universities.

Another example is the up to \$5,000 salary level scholarship grant under section 102 for 1 year of full-time study for teachers selected in each State by a commission set up by the Governor. In this case there is a limitation—2,500 teachers a year—which is a help to the Governors' commissions since

² Message of Feb. 6, 1962.

they might otherwise be swamped with applicants able and ready to substitute a year's studying for a year's teaching. The grave irony of this proposal is that the general taxpayer is asked to support the correction of insufficient content knowledge in teachers. As a corollary to section 101 would pay teachers to learn how to teach, section 102 would pay teachers to learn what they teach. Again, the full potential is 1.6 million, for it is unlikely that the commissions would run the risk of being judged politically discriminatory by any unnecessary restriction of those eligible.

A third example of section 103. Again the Commissioner is authorized, without guide or restriction as to dollar amount, to pay part of the cost which colleges and universities undertake to improve course content and curriculum, student teaching activities, and standards of selection of candidates for such programs. Since these activities cover the major functions for which an institution maintains its faculty, section 103 would seem literally, to be making a Federal project out of regular college administrative responsibilities. And, paying part of the cost of such responsibilities opens an ever-widening horizon for Federal control.

It cannot be anything but apparent that Federal control is and must be involved in these sections. They cover methods, subject content, curriculum, and selection of trainees, with apparently unlimited authority in the hands of the Federal Commissioner of Education.

The fact of Federal controls is even more apparent in section 201, which sets up grants for pilot, demonstration, or experimental projects by local educational agencies. Subsection (c) (1) (B) specifies seven kinds of projects which shall be undertaken for receipt of such grants. And subsection (c) (3) (A) and (B) clearly say failure to comply means "no further payments." There is only \$50 million a year for 4 years so far specified, but the potential influence of that money is wide, since there are around 40,000 basic administrative units in the country's local school systems.

REREADING THE RECORD

Numerous attempts have been made, by citing historical records, to prove (a) a long-established concern of the Federal Government for support of education as such, and (b) that this record is free of evidence of Federal control. In his message of February 6, 1962, the President contends that "from the Northwest Ordinance of 1787 through the Morrill Act of 1862, to the National Defense Education Act of 1958, the Congress has repeatedly recognized its responsibility to strengthen our educational system without weakening local responsibility."

The details of these acts reveal that in none of them was the purpose one of supporting and promoting education in the broad sense. Rather, in each case there were specific objectives and intentions related only incidentally to education as such; and, as the record shows, involving specific requirements—i.e., control:

1. *The land ordinance of 1785.*—This ordinance provided for a survey of the western lands with specific instructions for establishing base lines and for the rectangular township system. Section 16 of each township was reserved for the maintenance of public schools. The main purpose of these first school grants was the promotion not of education as such, but of settlement. This was the admitted concern, and would obviously proceed more rapidly if settlers could be assured of some provision for public schools.

2. *The Ordinance of 1787.*—This ordinance provided for a system of government in the Northwest Territory and for ultimate organization of States and their admission to the Union. It was promoted by a group of land speculators. Article 3 of this ordinance contains the oft-quoted declaration:

"Religion, morality, and knowledge, being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."

There is no other reference to education in the document and nothing whatever to show an intent of Congress to provide the encouraging of education. Since the ordinance deals so exclusively with the details relating to the organization of government in the territory, and in the States to be carved out of it, the passage quoted can be taken to be an admonition to these future States that the encouragement of education was to be their responsibility. No one has ever contended that the coequal reference to religion and morality with education means that the Congress intended to support religion or morality through land grants or by any other means.

3. *The Morrill Act of 1862*.—This act granted to each State 30,000 acres out of the public lands per Senator and Representative as determined by the census of 1860. The States were authorized to sell the lands, and they were required to invest the funds in U.S. stocks (bonds), State stocks, or other safe stocks, yielding not less than 5 percent on the par value. Such investments were to be a perpetual fund, the income of which was to be applied to the "endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, but including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts * * *."

The leading purpose, under this act, was employment training—to put it in current terms. Training for agriculture received chief attention. All of these colleges have since developed substantial curriculums in the arts and sciences, but the primary pattern was dictated. Moreover, the obligation to instruct in military tactics, a further instance of Federal dictation, is still required.

4. *The National Defense Education Act of 1958*.—This, of course, is of very recent record, and does deal with the content of education. However, it cannot be considered a precedent for general Federal support of education. The scope of its grants was strictly limited and prescribed, aimed at technological competence and advance in the economy—"to catch up with the Soviet." The act is, in fact, an outstanding example of Federal control because of its dictation of certain subjects of study as a condition of eligibility for grants. The intent was not to further the cause of general education, but to force, or induce, students to pursue prescribed studies.

A major objective of this act was an increase in the supply of engineers, but this is apparently not being realized despite control and inducement. Secretary Ribicoff announced, in February 1962, that the enrollment of engineering students has been declining relative to total college enrollment in the past 3 years. The number of graduates in engineering has also dropped in this time. These facts support the statement by a professor of physics—"Neither the intellectual capacity necessary to produce a scientist nor adequate training by an educational institution can be bought."³

EXCELLENCE IS NOT FOR SALE

Although it may be true that instructional personnel and methods are not all they might be; for there is no human endeavor in which the possibility of improvement does not exist; and even assuming more money as such would achieve some improvement—it is nevertheless beyond dispute that excellence or quality, like faith, can neither be instilled nor bought. Quality is an intangible. And a quality product of education is a mix of quality capacity in student as well as teacher, with a blend of a further intangible—the competitive factor as it influences students, teachers, and institutions. It is not simply the product of better training tools or methods, or more advanced teacher study in either methods, or content.

We all know there are many things that money cannot buy; and intellectual curiosity, the capacity to inspire, dedication, and excellence—to name only a few—are among them. And those are major ingredients of quality education.

Control of education rather than quality of education is the product most likely to be achieved by a Federal program such as proposed under H.R. 10145.

NAM BELIEVES

NAM therefore does not believe the goal of improved education can be obtained through the enactment of legislation such as H.R. 10145.

Instead, the association believes that these goals can best be obtained by returning to the citizens and States the exclusive responsibility for the framework of education in this country. Specifically, it is our belief that grants for educational purposes should be terminated and Federal promotional activity with respect to elementary, secondary, and higher education should be halted.

³ Dr. Nathalie G. Renner, associate professor of physics, Alfred University, quoted in the New York Times, Jan. 25, 1962.

STATEMENT OF CHARLES BLITZER, EXECUTIVE ASSOCIATE, THE AMERICAN COUNCIL OF LEARNED SOCIETIES

Mr. Chairman and members of the select subcommittee, I am grateful for the privilege which has been accorded me by your invitation to submit a statement concerning the improvement of educational quality bill (H.R. 10145).

The American Council of Learned Societies wishes to record its enthusiastic endorsement of the general provisions of this bill and to urge its speedy passage.

As a federation of national organizations in the humanities and the social sciences, the ACLS is of course deeply interested in the improvement of educational quality in the United States. Although our primary concern is with the area of higher education and scholarship, we are aware that progress in this area depends upon the achievement and maintenance of a high degree of excellence in primary and secondary education. We look to the schools of America to produce the college students and teachers, the scientists and scholars of tomorrow.

As the chief national organization representing humanistic scholarship in this country, we feel a special responsibility to speak for the maintenance of a due balance among the various branches of learning at all educational levels. As recently as January 21 of this year, at the annual meeting of the American Council of Learned Societies, the following resolution was unanimously approved by the assembled delegates of our 30 constituent societies, societies whose members number more than 60,000 scholars in the humanities and the social sciences:

"Resolved, That this council regards it as imperative, in the national interest and for the strengthening of American education on the broadest possible front, that the Federal Government extend its support of summer and academic year institutes for secondary school teachers to include the basic humanistic and social studies on the same basis as modern foreign languages, mathematics, and the natural sciences."

We are heartened by the realization that the bill you are here considering contemplates at least the partial accomplishment of this objective.

The clearest evidence of our commitment to the programs embodied in H.R. 10145, however, is to be found not in resolutions that we have passed but in actions that we have taken. To the degree permitted by the limited funds at our disposal, we have attempted to contribute to the improvement of educational quality in many of the ways contemplated by this bill. Although our activities in this area have necessarily been circumscribed, we believe that they have given irrefutable evidence of the potential fruitfulness of such approaches on a nationwide scale. I should like to discuss briefly three such undertakings and the conclusions that we have drawn from them.

1. Summer institutes in the humanities

As long ago as December 1960, the board of directors of the American Council of Learned Societies stated, "The council recommends that provision be made for summer institutes for high school teachers in the fields of the humanities and social sciences. The Federal programs which now exist for support of institutes in modern languages, natural sciences and mathematics are clearly justified and are accomplishing their objectives. But to support these fields alone, and in abstraction from the rest of the educational context, may create a dangerous imbalance. The other subjects that make up the basic secondary school curriculum are equally in need of improvement and strengthening. If our educational system as a whole is to accomplish its aims, raising the quality of instruction in English, history, Latin, social studies, and the arts is a matter of urgent social importance. The council is so convinced of this that it has used some of its own funds to sponsor summer institutes in the humanities. The response to these institutes and their success argues strongly for the need, and for their inclusion in a Federal program in education that will produce the well-educated citizenry on which, in the last analysis, our national strength depends."

During the summer of 1960 the ACLS sponsored four institutes for secondary school teachers in the humanities: one in English at the University of Michigan, one in history at Tulane University, one in Latin at the University of Wisconsin, and one in music at Bennington College. During the summer of 1961 the council sponsored three such institutes: one in art at Oberlin College, one in history at the University of Washington, and one in Latin at Stanford University.

This program was experimental in nature, designed to demonstrate the feasibility of institutes for high school teachers in the humanities and to test techniques and procedures. The ACLS, therefore, set forth the objectives that it hoped would be achieved and laid down certain broad lines of policy, but it left each host institution free to establish its program within this general framework.

The announced goals of the institutes were threefold: (1) to revitalize the high school teacher's interest in his subject by introducing him to new materials and placing him abreast of new scholarly developments in his field, (2) to advance his competence and to stimulate habits of reflective thinking in order to raise the level of his instruction, and (3) to provide him with the tools and techniques necessary to introduce his new knowledge and insights into his classroom teaching.

A careful evaluation of the results of these seven institutes, based upon extensive written reports and upon visits, convinces us that this program has been enormously successful and that it holds great promise for the future. Some of our specific findings may be of use to the committee in its deliberations.

1. One unplanned result of the institute program is the new relationship that is developing between the teaching faculties of the schools and the universities. This is admittedly still a fledgling development since the number of institutes has been small, but it gives evidence that the program can be an important means of fulfilling what the ACLS views as its primary role in the field of secondary education; namely, to promote an interest on the part of scholars in educational matters at all levels, and especially to bring about a rapprochement between subject-matter specialists and professional educators.

The high school teachers participating in these institutes found their instructors to have not only a great depth of knowledge but an ability to make their subjects come alive. The participants discovered, in other words, that specialization and research do not necessarily make pedants of scholars, but in fact give them the insights essential for proper presentation of their subjects. The implications of this for teacher education may well be imagined, for if a large number of educators can be similarly convinced that knowledge of subject matter rather than teaching methods is the real key to successful teaching, the present emphasis on pedagogical courses may decline.

2. A second important result of these institutes is the extent to which they raise the confidence and morale of the teachers involved. The comes in part, of course, from learning more about their subjects and is an inevitable byproduct of any good course of instruction. But these institutes have some rather unique inspirational features. In the first place, the very fact that there is an organization sufficiently interested in secondary schoolteachers of humanistic subjects to support ventures of this kind affords a tremendous psychological boost. It is doubtful whether many people fully realize the adverse effect that the National Defense Education Act, weighted as it is in favor of the sciences, has had upon this group of teachers. One has only to visit one of these institutes to see the dissatisfaction and even bitterness they feel at this neglect, and the rise in esprit which the institutes are producing.

3. There is perhaps more reason to believe than was formerly thought that the task of reeducating teachers through summer institutes is a feasible and practical undertaking. It is evident, of course, that the financial costs will be large and that staffing of institutes with high quality instructors will pose a problem. Yet there are reasons to believe that the costs may not run as high as was originally estimated and that enough able scholars may be secured in most fields to staff the necessary number of institutes.

In conclusion, our pilot program of summer institutes in the humanities has generated a wholly unexpected degree of enthusiasm among the teachers: it has demonstrated the need and the value of such institutes to the schools and universities, and it has found evidence that university professors are willing to sacrifice their own work temporarily in order to assist conscientious teachers in the schools. A good many professors involved in the ACLS program have devoted weeks of time in preparation and teaching and long hours of informal discussion with the participants both during the institutes and in their follow-up phases, and they fully realize the amount of work connected with them. Yet they are recommending that institutes of this kind become standard offerings at as many major universities as possible and be held occasionally at as many other institutions as feasible. Knowing that they have been dealing with

a highly selected group of teachers at the ACLS institutes, they realize for the first time how serious are the basic deficiencies in the education of many of the Nation's high school teachers. They are also convinced of the ability and eagerness of these men and women to acquire the fundamentals of their profession and want them to have the opportunity to do so.

2. Curriculum improvement

Title II of H.R. 10145 contains a provision for the support of "programs to encourage and stimulate educational excellence, including course content * * *." In this area, too, the American Council of Learned Societies has been active during the past years. Under its auspices, and in cooperation with the National Council for the Social Studies, leading university scholars are completing the first nationwide attempt to improve the content and widen the scope of the social studies program in the country's schools.

The project is the result of meetings sponsored during the last 3 years by the American Council of Learned Societies and its committee on the secondary schools. It adds the social studies to the growing list of subjects that are currently being restudied and revised.

To reach agreement on curriculum objectives it was decided to ask one scholar from each of the disciplines and areas primarily concerned with the social studies to prepare a background paper. The American Council of Learned Societies commissioned the following subject-matter experts:

Political science: Dr. Norton Long, Northwestern University.

Sociology: Dr. Gresham Sykes, Dartmouth College.

History: Dr. Joseph R. Strayer, Princeton University.

Geography: Dr. Preston James, Syracuse University.

Psychology: Dr. W. J. McKeachie, University of Michigan.

Anthropology: Dr. Douglas Oliver, Harvard University.

Russian Studies: Dr. Michael B. Petrovich, University of Wisconsin.

Asian Studies: Dr. Hyman Kublin, Brooklyn College.

Economics: Dr. Ben W. Lewis, Oberlin College.

These papers have now been prepared and reviewed; they will soon be published in a volume tentatively titled "Social Science for the Schools." Although it is our hope that the volume itself will serve to provide guidelines for curricular reforms in the Nation's schools, we are aware of the staggering magnitude of the task that remains to be done. The preservation of the American tradition of local control of curriculum, to which scholars are no less committed than other Americans, requires that studies be made and decisions be reached by a very large number of State and local educational authorities. To insure that these studies are conducted with the cooperation of the most competent scholars, and that these decisions are reached on the basis of the best available information, is far beyond the means of the American Council of Learned Societies or any other private organization, no matter how well intentioned. It is our hope that the passage of H.R. 10145 will contribute substantially to the achievement of this objective too.

3. *New directions in teacher education.*—In February of this year, the American Council of Learned Societies in cooperation with the American Association for the Advancement of Science sponsored a conference of 60 scholars, teachers, educational administrators, and representatives of organizations concerned with education at all levels, devoted to the topic "New Directions in Teacher Education."

Here, again, our purpose was to bring leading scholars from colleges and universities together with teachers and experts on secondary education in order that they might jointly deal with problems of common concern. We were convinced that such meetings, designed to bring the highest scholarship to bear upon the problems of secondary school curriculums, would prove fruitful—and the results have, we believe, borne out our conviction.

Although the report of this conference has not yet been made public, I may tell you that the overwhelming consensus of those present was that substantially increased Federal support of educational quality at the primary and secondary levels is a matter of the utmost urgency. I believe it is correct to say that every program envisioned in H.R. 10145 would receive the enthusiastic endorsement of a substantial majority of those attending the conference.

In conclusion, Mr. Chairman, I should like to emphasize once again our conviction that America can ill afford further delays in the adoption of a vigorous, far-reaching, and balanced program for the improvement of the quality of pri-

mary and secondary education. In a very real sense neglect and omissions in this area are irremediable; the opportunity for education comes only once in a child's life, and he must then settle for whatever is available to him. For the child born at the end of World War II it is already too late to improve the quality of primary and secondary education; each year another million and a half young people leave our high schools, many with an education far below the standard of excellence that our society can afford and should insist upon. We urge the passage of H.R. 10145 as at least a step toward the correction of this intolerable situation.

STATEMENT BY W. K. BEGGS, DEAN, TEACHERS COLLEGE, THE UNIVERSITY OF NEBRASKA: SCHOLARSHIP GRANTS TO OUTSTANDING TEACHERS ARE NECESSARY TO BRING INSTRUCTIONAL LEADERS ABREAST OF NEW KNOWLEDGE

Gentlemen, the most exciting feature of the academic world today is the dynamic development of new knowledge and of old knowledge put to new uses. In some ways this development is fantastic and, in the long run, will certainly be of great benefit to our society.

However, the rapidly growing store of new and retooled knowledge poses some problems that need immediate attention. The elementary and secondary teachers of the United States are not presently geared into the scholarly world in such a way as to become immediately aware of the new developments. Or, if they are aware of them, they have not had the opportunity to consider what of the new knowledge should be taught, and how it should be taught, to children and youth.

Some advancement has been made in science and mathematics through the institutes made possible by the National Defense Education Act. But even here, the upgrading is too slow to keep pace as to what is happening in these vital areas.

Every school system needs an organized pattern through which its staff can become upgraded. Actually, much has been done through summer school attendance and faculty seminars, and general inservice supervision, but this method will not keep up with the tremendous rate of research and scholarly production of the past few years. And, this production rate will accelerate rather than decrease in the future.

The only hope to keep our elementary and secondary school faculties abreast of the times is to devise a plan which will enable the superior teachers to get back into an academic environment periodically for additional study, not only of new and revised knowledge, but also the new developments of organizing and programing knowledge for accelerated learning. These teachers then become a nucleus of leadership in each school system for internal and inservice upgrading for the entire staff.

There is another factor which should be mentioned. The presence of such teachers at the colleges and universities during the regular academic year would have a salutary influence on the faculties and administration of these institutions. The relationship between the colleges and universities and the general school system needs to be cemented by tighter liaison. A constant flow of superior teachers through the academic halls would do much to bring a better understanding of the problems involved in incorporating new knowledge and new developments into the elementary and secondary school curriculums.

Presently the only way this can be achieved is for teachers to take leaves of absence so that they can go back to college. In more instances, it is impossible for them to take leaves of a year or more because their modest salaries do not provide the necessary financial resource. The proposal for the Federal Government to support a program to improve the quality of elementary and secondary schools, which would include scholarship grants to outstanding teachers, would in many ways meet the need described above. It would provide an avenue for superior teachers to spend enough time in colleges and universities to master new knowledge, and it would provide the resources for these people to maintain themselves reasonably while they were at the universities.

I, therefore, respectfully request the committee to give careful consideration to the need herein outlined, and the act which would, at least partially, meet it.

THE UNIVERSITY OF THE STATE OF NEW YORK,
THE STATE EDUCATION DEPARTMENT,
OFFICE OF THE PRESIDENT OF THE UNIVERSITY
AND COMMISSIONER OF EDUCATION,
Albany, March 8, 1962.

HON. FRANK THOMPSON, Jr.,
Committee on Education and Labor,
House of Representatives, Washington, D.C.

DEAR CONGRESSMAN THOMPSON: Thank you very much for your invitation of February 23 to submit a written statement relative to H.R. 10145, known as the Improvement of Educational Quality Act of 1962. I regret that, because of demands upon me occasioned by our present State legislative session, it has been impossible for me to make a personal appearance before your committee.

The New York State Education Department is in accord with the basic objectives of H.R. 10145. These objectives are much the same as those upon which our own special State program to improve the quality of education in our elementary and secondary schools is based. For this reason, and as a matter of general policy, we would prefer that Federal funds for achieving such objectives should be administered through State education agencies rather than through grants or contracts with colleges and universities administered directly by the Federal Government.

Specifically—

1. We believe that the funds to be allocated under section 101 of title I for institutes for advanced study for teachers should be distributed to State education agencies for allocation to colleges and universities upon application. We believe that the New York State Education Department is in a better position to determine the higher institutions in our State which should have preference in establishing institutes for advanced study than is the Federal Government.

2. Similarly, with respect to section 103, we believe that the funds allocated for the preparation of teachers and to strengthen such programs in our colleges and universities should be administered through State education departments. Again, we feel we are in the better position than is the Federal Government to determine those teacher education programs in our colleges and universities which need to be strengthened. As you may or may not know, the New York State Education Department has general supervision of, and sets minimum standards for, all of education in the State, including our colleges and universities.

3. It appears from our reading of the bill that the programs in sections 101 and 102 duplicate, in part, existing programs of the National Science Foundation and of the National Defense Education Act. If this is so, it might be wise to consolidate all programs of this kind under one management.

4. Finally, with respect to section 202, Cooperative Research Act, we are pleased to note that State education agencies are included for grants or contracts. There is great need to coordinate educational research and experimentation within States so as to insure maximum application of such research fundamental statewide problems. The New York State Education Department has been a prime mover in trying to meet this need. (See document enclosed entitled "Organizing New York State for Educational Change.") A coordinated statewide program of research, spearheaded by strong State education agencies, will, in our judgment, achieve more effectively the objectives of this section than would the allocation of funds directly to applying institutions or agencies. We are pleased, therefore, that such appears to be possible under this legislation. Again, however, we favor a plan which would allocate Federal research funds directly to State education agencies for reallocation, upon application, to institutions and agencies within the State.

In summary, the objectives and provisions of H.R. 10145 are generally excellent and we commend the administration for its interest in helping to improve the quality of instruction in our elementary and secondary schools through measures of this kind. We cannot emphasize too much, however, the importance of the Federal Government using State educational agencies for the coordination and administration of Federal funds. In this way the Federal Government builds on and strengthens State efforts, and assures the most effective use of the Federal moneys. It is important also, if the Federal Government is to

make its greatest contribution to public education, that maximum discretion be left to the States in determining where, how, and for what purpose Federal education grants should be spent.

I hope that it will be possible to amend H.R. 10145 so as to enable New York State to carry out the objectives behind the bill in the most efficient and economical manner.

Sincerely,

JAMES E. ALLEN, Jr.

TESTIMONY PREPARED BY THE SPECIAL COMMITTEE ON FEDERAL POLICY AND LEGISLATION OF THE AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS

Mr. Chairman and members of the committee, we of the American Association of School Administrators wish to express our sincere appreciation to the Select Subcommittee on Education for being invited to present a statement of position on H.R. 10145—a bill to improve the quality of teaching in elementary and secondary education.

Improving instruction and raising the quality of public education are the chief business of the membership of the American Association of School Administrators, and we agree heartily with the stated purpose of this legislation. We agree, too, that the teacher is the key factor in high-quality education.

May we remind this committee and the Congress that due to unprecedented numbers of births and phenomenally increased enrollments, together with limited financial resources for local board budgets, an insufficient quantity of well-qualified teachers has been available during the past 15 years. Until we have the resources at the State and local levels to attract and hold greater numbers of teachers, the quality of education will be less than the best. In fact, we believe Congress can help public education very little by piecemeal legislation designed to assist with categorical aspects of the school program, as is the case in this legislation. A massive general assistance appropriation for the total public school program is the only sound way Congress can help bring quality education to all pupils.

However, it is laudable that the administration and Congress propose to assist teachers now in service to improve their competence to the end that better quality instruction prevails. Since World War II, the teaching profession—teachers, principals, and superintendents—has joined hands with State departments of education and with colleges and universities to improve its standards of excellence. Giant strides have been made, especially since 1946. At no time in history have so many members of the teaching profession, at all levels—elementary school, high school, and college—worked together to increase standards and improve teacher education. At no time has more progress toward better teacher education been made.

Each summer hundreds of thousands of teachers throughout America flock to colleges and universities for self-improvement—and generally at their own expense. Thousands of others seek to improve their professional knowledge and skills by travel, individual research and writing, and by special projects initiated within the local school district. H.R. 10145 seeks to encourage this kind of activity and in terms of purpose it is commendable.

We also note with approval section 304, which states:

"Nothing contained in this Act shall be construed to authorize any department, agency, officer, or employee of the United States to exercise any direction, supervision, or control over the curriculum, program of instruction, administration, or personnel of any educational institution or school system."

A close reading of H.R. 10145, however, would seem to indicate that its provisions are inconsistent with this guarantee and in fact depart from the historic principle that public education in the United States should be administered and controlled at the State and local levels. The legislation before you seems to suggest that the U.S. Commissioner of Education should do certain things to public education, rather than help State and local school officials do things for themselves. As presently worded, H.R. 10145 will, as we interpret it, authorize Federal education officials to wield strong influence, if not control, over specific aspects of the curriculum and instruction.

"In determining the subject-matter areas in which such advanced studies will be provided, the Commissioner shall give preference to subjects which are generally accepted as meeting college entrance requirements, and shall take into consideration the activities, in the area of advanced studies for elementary or secondary school teachers, being supported by the Office of Education, the Na-

tional Science Foundation, or other agencies or departments under other Federal laws."

Thus the act is directed at certain areas of the curriculum and will further put in imbalance the school curriculum, which is already unduly influenced by previous Federal legislation affecting specific school subjects.

Furthermore, school administrators believe, as a matter of principle, that teachers of every subject and for every child should be helped to improve their competence. To single out a teacher to be given special help, prestigewise as well as financewise, because he teaches collegebound pupils is to suggest that teachers of pupils bound for other productive lives immediately following high school graduation are less important to the general welfare and that pupils who do not go to college are of less concern to the Congress. Does Congress really mean to authorize this kind of authority and finance it, too?

The members of the American Association of School Administrators believe all pupils are entitled to the best teachers possible. Good teachers must be found to teach every subject from art to electronics to Latin. The average child is also entitled to the best kind of teacher. In the cities our crying need is for better teachers for the disadvantaged pupils who also deserve the best.

Through this proposed act the U.S. Commissioner of Education is given very broad discretionary powers, both as to allocation of specific grants and as to amounts. Why not leave such authority to State and local authorities? Administration would be less expensive and more consistent with sound policy if grants were made direct to States. Section 103, page 5, lines 4-9, reads:

"Any grant for any such project made from an appropriation under this section for any fiscal year may include such amounts as the Commissioner determines to be necessary for succeeding fiscal years for completion of the Federal participation in the project as approved by the Commissioner."

Also, section 101, page 1, lines 9-11, and page 2, lines 1-6:

"The Commissioner is authorized to arrange, through grants or contracts, with colleges and universities for the operation by them of short-term or regular session institutes for advanced study, including study in the use of new teaching methods and instructional materials, for individuals who are engaged in teaching, or in supervising teachers, in elementary and secondary schools, in subject-matter areas in which he finds that there is a widespread need for improvement in the quality of instruction."

Also, section 104, page 5, lines 17-23:

"There are hereby authorized to be appropriated for the fiscal year ending June 30, 1963, and for each of the four succeeding fiscal years such sums as may be necessary to carry out the provisions of this title, including sums determined by the Commissioner to be necessary for administrative expenses of scholarship commissions under section 102."

Although this association has not always concurred, the Congress has generally insisted that Federal assistance to schools be based on a formula which allocated moneys to States on a basis of need. H.R. 10145 seems to ignore this as a principle.

May we be so bold as to suggest to the committee that we strongly believe that State and local school officials, together with colleges and universities with whom they have longstanding working relationship, are in much better position to administer a program aimed at improving elementary and secondary teaching than are Federal officials. Federal money should be appropriated and transferred to presently established State and local agencies rather than administered and controlled by Federal officials. It seems unlikely that any official at the Federal level is in a better position to assess the areas of greatest need in improving elementary and secondary instruction than those persons directly responsible for public education; namely, the State and local school authorities, along with assistance from colleges and universities with whom they are accustomed to working. No Federal intermediary seems needed.

Furthermore, we doubt the wisdom of establishing another federally authorized and financed State agency for administering scholarships. Each State already has an authorized educational agency. If there are instances where such agency lacks authority to administer aspects of this proposed legislation, State legislatures, if they wish to participate, will quickly establish their own machinery. The bill itself seems somewhat contradictory in calling for the appointment of a new State commission in section 102, while at the same time recognizing and placing other responsibilities on the appropriate State educational agency (see sec. 201, p. 8, lines 1-3). In our opinion, duplication is

unwise, and the existing State educational agencies provide the most appropriate and the most tested channel for improving elementary and secondary instruction.

In closing, we wish to restate the official policies of our association, which we believe should serve as criteria for evaluating all Federal legislation pertaining to education. Careful reading of H.R. 10145 will disclose, we believe, aspects other than those herein delineated and which are in conflict with our adopted policies. We believe this committee should give consideration to these principles adopted by the American Association of School Administrators when evaluating H.R. 10145 and all other education proposals which come before it. These principles are—

(1) Federal financial support of public education should be distributed to State and local public school authorities without undue control or emphasis on any aspect of the curriculum.

(2) Federal financial support of public education should be distributed and used with a minimum of administrative control.

(3) Federal financial support of public education should follow the principle of restricting the use of public tax moneys to publicly controlled and supported schools.

(4) Federal financial support for public education should be distributed on a basis that is readily understood, equitable to all concerned, simple to administer, and that does not encourage needless expenditures.

(5) Federal financial support of public education should guard against developing vested interests and special groups within the total public education enterprise.

(6) Federal financial support of public education should guard against the promotion of commercial enterprises which may unduly profit by the expenditure of earmarked funds.

(7) Federal financial support of public education should be characterized by recognition of the constitutional responsibilities of States for education. Consequently, Federal legislation should leave the manner of strengthening the curriculum and the total program to the discretion of each State authority.

Again we wish to express our full support for Federal financial assistance for improving education in our public schools and for improving instruction. We urge that H.R. 10145 be rewritten to better help accomplish this purpose.

Respectfully submitted.

MARTIN ESSEX,

Superintendent of Schools, Akron, Ohio.

EVERETT KEITH,

Executive Secretary,

Missouri State Teachers Association, Columbia, Mo.

PHILIP J. HICKEY,

Chairman, Superintendent of Instruction, St. Louis, Mo.

JAMES E. ALLEN, Jr.,

State Commissioner of Education, Albany, N.Y.

JOHN W. LETSON,

Superintendent of Schools, Atlanta, Ga.

CONCORD PUBLIC SCHOOLS,

Concord, Mass., March 7, 1962

HON. FRANK THOMPSON,
*Chairman, House Select Subcommittee on Education,
House of Representatives, Washington, D.C.*

DEAR MR. THOMPSON: Last week the Improvement of Educational Quality Act of 1962 came to my attention.

I presented it to the school committee last evening with the result that I was requested to write you to indicate the committee's endorsement of this bill.

H.R. 10145 of the 87th Congress, second session, appears to be the kind of bill that can receive the endorsement of the professional staff as well as that of all citizens.

We are particularly interested in section 202, which amends the Cooperative Research Act to broaden its scope.

Best wishes in engineering its passage.

Sincerely,

ROBERT S. IRELAND,

Superintendent of Schools.

THE PHILLIPS EXETER ACADEMY,
Exeter, N.H., March 10, 1962.

HON. FRANK THOMPSON, JR.,
Chairman, Subcommittee on Education and Labor,
House Office Building, Washington, D.C.

DEAR MR. THOMPSON: I have read H.R. 10145 and am very much interested in this legislation.

It seems to me an eminently sound Federal education aid bill and I hope your committee will recommend it to the House for passage.

Sincerely yours,

WILLIAM G. SALTONSTALL.

SEQUOIA UNION HIGH SCHOOL DISTRICT,
Redwood City, Calif., March 8, 1962.

HON. FRANK THOMPSON, JR.,
Chairman, Subcommittee on Education and Labor,
House of Representatives, Washington, D.C.

DEAR CONGRESSMAN THOMPSON: I understand that two very important bills are being considered by your committee, these being H.R. 10145, entitled, "Quality Education Act," and another bill referring to the cooperative research program.

I am very much interested in and enthusiastic over the benefits that will accrue to the students affected by both of these programs. All of us in high school work are aware of the need of developing our students to their fullest potential. We need help to do this.

We are also aware of the fact that we need millions of dollars for research. The benefits of research that accrue to industry through research are incalculable. Similar benefits should be available in the field of education.

The purpose of this letter is to add my voice to that of many others who will be urging favorable consideration of these two measures.

Cordially yours,

REX H. TURNER, Superintendent.

STATEMENT OF THE AMERICAN CIVIL LIBERTIES UNION

The American Civil Liberties Union has examined H.R. 10145, "A bill to improve the quality of elementary and secondary education." As a civil liberties organization we take no position on the overall purpose of this legislation. But since the bill provides for advanced training for teachers employed not only by public, but by nonpublic schools, including those which are church-controlled, and assigns that training to all types of institutions of higher education at the discretion of the Commissioner, we are concerned with such aspects of the bill as run counter to the long-established American tradition of separation of church and state. Our comments follow:

TITLE I—SECTION 101. INSTITUTES FOR ADVANCED STUDY FOR TEACHERS

We note that "the Commissioner is authorized to arrange, through grants or contracts, with colleges and universities for the operation by them of short-term or regular session institutes for advanced study for individuals who are engaged in teaching, or in supervising teachers, in elementary and secondary schools, in subject matter areas in which he finds that there is a widespread need for improvement in the quality of instructions."

Since, under the first amendment, the Congress must "make no law respecting an establishment of religion," the ACLU holds that the Congress can constitutionally reimburse for the advanced training of teachers only those colleges and universities which are education-centered. As the union made clear in its testimony on the college loan bill, S. 1241 (see Congressional Record, Feb. 6, 1962, pp. 1650-60), we believe that church-related colleges and universities can qualify as education-centered provided (a) students and faculty members are not required to be adherents of the religious group with which the institution is linked; (b) indoctrination in the tenets of a particular faith is not a required part of the curriculum; and (c) determination of the instructional

program is committed to the hands of those charged with educational rather than religious responsibilities. An institution that unconditionally meets those minimal standards may properly be characterized as educational, whether or not it was founded by or is now governed or financed (in whole or in part) by a religious group.

Each such institution should be required to present evidence in proof of its having met these conditions. It would then be the duty of the Commissioner to evaluate the evidence, preferably with the aid of an advisory council, so as to insure whether the institution to be paid by the Federal Government for the training of teachers, is primarily concerned with providing a higher education administered by a faculty for the benefit of students, without regard to the church or nonchurch affiliation of either group, and in the pursuit of a curriculum that does not call for the indoctrination of students in the tenets of the faith of the sponsoring body. It is clear to the union—and should be clear to the Members of the Congress—that it would be a violation of the no-establishment clause of the first amendment for the Federal Government to subsidize the training of teachers in any college or university whose overriding aim is the inculcation of faith in one religion or another. We therefore urge that section 101 be so amended as to provide that among church-related colleges and institutions only those which meet the suggested criteria be reimbursed for the conducting of institutes which offer advanced training to elementary and secondary schoolteachers.

We note that section 101 further provides that “each individual (engaged in teaching or in supervising teachers in elementary or secondary schools) who attends an institute operated under the provisions of this section shall be eligible * * * to receive a stipend at the rate of \$75 per week” and in addition, for each dependent, a stipend of \$15 per week for the period of his attendance at such an institute.

Since the stipends are to be made available to teachers in nonpublic as well as public schools, it becomes apparent that the purpose of H.R. 10145 is “to improve the quality of elementary and secondary education” in all schools which meet minimum State standards, church-controlled schools included. To the American Civil Liberties Union this would be clearly unconstitutional use of Federal funds. In June 1960, we testified in part as follows, in commenting on H.R. 7378, “A bill to extend and improve the National Defense Education Act, * * *”

“Our belief that subsidization of church schools would violate the establishment clause of the first amendment rests upon the very nature, and understandable purpose, of church-controlled schools. They are devoted in considerable degree to religious instruction, or indoctrination. They are created for the precise purpose of communicating a body of religious teaching. They are meant to nurture and fortify the faith of children already linked with the religious group. They have additional functions to be sure; they engage in secular educational work, organized play, and the like. But they exist primarily to assure that children of school age will receive religious instruction and will be shielded from competing ideologies and values. So long as this is true, they must be regarded as a religious activity even though not devoted exclusively to religious exercises. A church does not cease to be a church because at times its basement may be used as a recreation hall by young members of the congregation. No more does a religious school cease to be a religious activity because at time its premises may be used for the secular teaching which, by State law, is exacted as the price of keeping children away from the educational institutions the public has provided for them.”

Inasmuch as a church-controlled school is palpably a religious activity, and exists for the purpose of inculcation of a particular religious faith, it would be as improper for the Government to assume the financial responsibility for the further training of teachers employed by these schools, as it would be to subsidize in whole or in part the payment of their salaries. There is a difference in degree, but not in kind. We trust that the Congress will not authorize by circumvention what it would not authorize directly. We urge, therefore, that the bill be amended so as to limit the extension of stipends for attendance at institutes, to public schoolteachers, as does the present National Defense Education Act.

SECTION 102. SCHOLARSHIP GRANTS FOR OUTSTANDING TEACHERS IN ELEMENTARY AND SECONDARY SCHOOLS

This section provides for 1-year scholarship grants of up to \$5,000, for full-time study at colleges or universities to "individuals engaged in teaching in elementary or secondary schools who have demonstrated special scholarship ability and aptitude for teaching, and who show promise of being able, through such study, to make significant contributions to improvement in the quality of instruction in elementary and secondary schools"—the recipients to be selected by broadly representative State commissions. Since this section says nothing to the contrary, it must be assumed that a recipient of such a merit scholarship may attend any accredited institution of higher education which admits him, as was specifically provided in Title II: Scholarships for College Students, of S. 1241. The union saw no civil liberties violation in that provision, and for the same reason sees none in section 102 of the legislation now under consideration. Just as we have held that under the free exercise of religion clause of the first amendment, students receiving funds under the GI bill of rights—as a reward for service rendered the country—should be allowed to choose their institution without regard to whether it was public, independent, or church-related, we believe that superior teachers, selected on a competitive basis, should become eligible for college scholarships, without regard to their choice of institution. Such a scholarship would be primarily an aid to the individual teacher, in furtherance of his professional career, and would be only secondarily an aid to whatever school—public, independent, or church-controlled—in which he happened to have been teaching, or might teach in the future.

But section 102 further provides that the institution of higher education attended by the scholarship recipient be paid "a cost of education allowance of \$500." Such an allowance, in the union's view, could constitutionally be paid only to church-related institutions of higher education which meet the criteria outlined above. We therefore urge that section 102 be so amended.

ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES,
Washington, D.C., March 7, 1962.

HON. FRANK THOMPSON, JR.

Select Subcommittee on Education, Committee on Education and Labor, House of Representatives, Washington, D.C.

DEAR REPRESENTATIVE THOMPSON: With respect to your invitation to testify on H.R. 10145, the proposed legislation to improve the quality of elementary and secondary education, our association cannot make an official statement as our appropriate committees have not had opportunity to review the bill.

I have, as an individual sat in on some of the discussions which preceded the preparation of the legislation. Its provisions for the conduct of institutes, etc., in colleges and universities for elementary and secondary teachers, appear to be in line with those of programs already successfully established through the National Science Foundation and National Defense Education Acts, and I am sure that a number of our individual institutions will be most interested in cooperating with this program. At its recent convention, our association approved a general resolution supporting expansion of programs for the improvement of educational research and related activities affecting education at all levels.

Sincerely,

RUSSELL I. THACKREY,
Executive Secretary.

STATE COLLEGE OF IOWA,
Cedar Falls, February 27, 1962.

HON. FRANK THOMPSON, JR.

Chairman, Select Subcommittee on Education, House of Representatives, Washington, D.C.

DEAR MR. THOMPSON: I appreciated the invitation extended in your letter of February 23, 1962, to submit a written statement relative to H.R. 10145, the "Improvement of Education Quality Act of 1962."

I wish to report that at its meeting in Chicago on February 14, the executive committee of the American Association of Colleges for Teacher Education (a voluntary association of some 600 teacher educating institutions in this country,

including the overwhelming majority of the large universities and colleges, both public and private), after deliberation, distributed to the membership a memorandum, the relevant portions of which read as follows:

"The executive committee further wishes to bring to the attention of its official representatives in their institutions the importance to teacher education of the proposed Improvement of Education Quality Act of 1962—H.R. 10145—sponsored by Congressman Frank Thompson, Jr. of New Jersey. * * * Support of this piece of legislation, aimed at securing funds to aid in improving collegiate teacher education programs, by member institutions of the AACTE will be important to the enactment of the legislation. Institutions which agree with this assessment of the importance of this proposal and which can appropriately do so are urged to make their views known to their Congressman."

On behalf of our executive committee I wish to urge passage of this act on the general ground that it would put our Federal Government squarely behind the improvement of quality of education in our elementary and secondary schools. It is extremely important that the Congress, acting in the interest of the general strength and welfare of our Nation as a whole, tangibly recognize the fundamental importance of elementary and secondary education and the crucial need for improvement in the quality thereof at this juncture in our history.

Since we are professionally involved in teacher education, we would urge particularly the passage of title I. The great need, as we see it, is for elementary and high school teachers to improve their competence in their subject fields and to be brought in touch with the latest scholarship regarding curriculum and method.

The experience of the National Science Foundation during the last several years has demonstrated the effectiveness of special institutes for teachers in the fields of science and mathematics. Section 101 of H.R. 10145 would extend this type of program to other academic fields where the need is equally great. The scholarship grants provided in section 102 to enable outstanding teachers to take a full year of study at colleges and universities is likewise a proved method of upgrading teacher effectiveness in which the Federal Government may properly participate.

We definitely need increased experimentation in teacher preparation programs which would be supported by action under section 103.

I would be happy to be more explicit if you so desire.

Sincerely yours,

J. W. MAUCKER, *President, AACTE.*

THE NATIONAL COUNCIL OF TEACHERS OF ENGLISH.
Champaign, Ill., March 2, 1962.

HON. FRANK THOMPSON,
Subcommittee on Education, Committee on Education and Labor, House of Representatives, Washington, D.C.

DEAR MR. THOMPSON: The National Council of Teachers of English strongly recommends the passage of H.R. 10145 and appreciates your having introduced this legislation in the House. As the world's largest subject organization of teachers, the NCTE, with its more than 70,000 college, elementary, and secondary members, has long called for national leadership to provide necessary support for all basic areas of education. Although we can speak with authority only for the imperative needs in English, we believe that the provisions to improve the quality of teaching contained in this legislation are essential to American education.

The National Council of Teachers of English urgently requests an opportunity to present testimony to the subcommittee planning hearings on this legislation. Because we represent one area in the curriculum which has been too long neglected in terms of broad, basic support, we believe that we have factual information to present which may be of interest to the subcommittee. If time is provided to hear a leader from the NCTE, I can assure you that we shall be represented.

Last year we distributed to all Members of the Congress copies of our fact-finding report on the National Interest and the Teaching of English, which reviews some of the basic problems in one basic curricular area. An additional copy of this report is attached to this letter. We should be happy to supply you and your staff with additional copies if you so request.

Very truly yours,

JAMES R. SQUIRE,
Executive Secretary.

THE OHIO STATE UNIVERSITY,
COLLEGE OF EDUCATION,
Columbus, Ohio, March 2, 1962.

Mr. FRANK THOMPSON, Jr.
Chairman, Select Subcommittee on Education, House of Representatives,
Washington, D.C.

DEAR MR. THOMPSON: I am grateful for the opportunity to react to H.R. 10145. This legislation appears to me to have identified the key to educational improvement, upgrading the quality of the classroom teacher. I am most enthusiastic in my endorsement of sections 101-104 of title I of the act.

From my own experience in the administration of programs of teacher education, I can assure you that this bill holds the promise of meeting the most pressing needs in this field. Sections 101 and 102 will allow colleges and universities to design inservice educational experiences for teachers commensurate with the need for new knowledge on the part of educational practitioners. I need only cite the remarkable success of the National Science Foundation teacher institutes in mathematics and science to illustrate the effect these programs can have on the improvement of instruction in local school districts. The reasons for this success appear to be twofold. In the first place the stipends and scholarships to individuals allow the teachers enrolled in the institutes to pursue their studies on a full-time basis without being harassed by financial difficulties. This is in sharp contrast to the usual inservice education for teachers which is pursued in the evening or on weekends without time for out-of-class study, library readings or research. Secondly, funds are provided to the college or university so that the courses offered can be staffed adequately, with time and facilities available for the individualized instruction so necessary in graduate programs for mature individuals. Unfortunately, at the present time, the inservice education courses offered for teachers by institutions of higher education are, too often, no more than massive lecture sections designed to "cover the cost" of full-time graduate study on the part of those few teachers who can afford this luxury.

No less important to the improvement of teacher quality is section 103. There are few colleges of education in the country which have funds available to initiate experimental programs in teacher education or to improve the facilities and resources employed in these programs. As a result there has occurred a crystallization of inadequate programs which are recognized as inadequate by teacher educators who are unable to take the necessary steps to remedy the problems. The authorization under section 103 to provide satisfactory resources for strengthening programs of preservice teacher preparation should result in rapid and marked progress toward the establishment of sound patterns of teacher preparation.

Let me thank you again for allowing me to respond to the proposed legislation "to improve the quality of elementary and secondary education." I would be willing to amplify or substantiate my views in more detail if this would be useful from your point of view.

Sincerely yours,

DONALD P. COTTRELL, *Dean.*

STATEMENT SUBMITTED BY THE AMERICAN COUNCIL ON EDUCATION,
WASHINGTON, D.C.

The American Council on Education is a council of national educational associations and organizations and of approved institutions of higher education including universities, colleges and junior colleges. Its present membership includes 145 national and regional educational associations and more than 1,000

educational institutions. Its scope of concern with Federal legislation is stated as follows in the words of the Council's board of directors:

"The legislative concern of the Commission on Federal Relations of the American Council on Education is primarily with Federal legislation that affects colleges and universities. The Commission recognizes, however, the need to strengthen education at all levels—elementary, secondary, and higher—and believes that the Federal Government must assume significant responsibility for assisting in this strengthening through legislation appropriate to the needs of each level of education."

While H.R. 10145, the proposed Improvement of Educational Quality Act of 1962, is concerned with instruction in schools below college level, institutions of higher education are necessarily extensively involved. In title I of the bill institutions of higher education would be involved in three ways:

(1) In the operation of institutes for advanced study by elementary and secondary schoolteachers and supervisors in those subject matter areas where there is need for improved quality of instruction.

(2) In accepting teachers awarded scholarships for a year's full-time study.

(3) In designing and carrying out projects to improve the quality of an institution's own program of teacher education.

H.R. 10145 has not been reviewed by the Council's Commission on Federal Relations and it is not possible for us, therefore, at this time to endorse the administration's proposals as such. It is clear, however, that the proposals are directed toward the repair of serious deficiencies in our educational system and that the proposal is worthy of the most serious consideration by the Congress.

Those provisions of H.R. 10145 that would affect the relationship of higher educational institutions to the Federal Government appear to be consistent with the policies governing such relationships advocated by the council's commission on Federal relations. As presently drawn, H.R. 10145 would enable colleges and universities to render effective assistance in developing better programs for the training of schoolteachers, leading to an improvement of the quality of instruction in our elementary and secondary schools. The council has every reason to believe that its member colleges and universities would cooperate to the fullest extent possible with the Office of Education in helping to carry out the provisions of title I of H.R. 10145 and the expanded program of cooperative research proposed in section 202.

(The Association of State Colleges and Universities, composed of 158 public institutions of higher education, has asked that its concurrence in the views expressed above be made known to the subcommittee.)

STATEMENT BY CHARLES A. NORFORD, SCHOOL OF EDUCATION, THE UNIVERSITY OF VIRGINIA, AS CHAIRMAN OF THE NATIONAL LEGISLATIVE COMMITTEE OF THE DEPARTMENT OF AUDIOVISUAL INSTRUCTION OF THE NATIONAL EDUCATION ASSOCIATION

The Department of Audiovisual Instruction is an autonomous professional organization that is affiliated with the National Education Association. Our department has a membership of some 5,500 educators whose primary concern is improving the quality of education through the more effective use of audiovisual and other rapidly emerging newer media of instruction.

The Department of Audiovisual Instruction supports H.R. 10145 and compliments Mr. Thompson of New Jersey for his foresight and leadership in sponsoring this important legislation. In our opinion, this measure can be a significant step toward improving the quality of instruction in our schools, and we would like to recommend the following changes in H.R. 10145:

Section 101. Institutes for Advanced Study for Teachers

As it was written, this section seems to imply that the institutes for teachers will be limited to traditional subject matter areas. It is our opinion that recent developments in educational technology make it essential that a certain number of these institutes be concerned with the application of new educational media to the improvement of instruction.

In the last several years it has become increasingly apparent that schools need teachers with special training in this area—teachers who can share their knowledge of newer educational media with others in the school system. Our schools today have a lack of leadership in this critical area.

To provide for the preparation of such specialists, we would like to recommend that the following wording be inserted on line 6 of page 2, after the word "instruction": " , or in the use of new educational media for the improvement of instruction."

Section 103. Project grants to strengthen teacher preparation programs

Grants should enable colleges and universities to strengthen their teacher education programs by purchasing adequate and up-to-date instructional materials and equipment. A recent House of Representatives report on education stated that: "There is ample evidence that many colleges and universities could do a much more effective job of teaching foreign languages if they had funds for tape recorders, listening booths, and other electromagnetic aids which have proved extremely useful in language instruction. National Defense Education Act, title III, provides such equipment for high schools, but not for colleges. The result is that many high schools are now better equipped to teach languages than are the colleges whose job it is to train language teachers for these high schools." The same is true for other subject areas as well.

Because of this and because of the present ambiguity of the term "library resources," we would like to recommend that the following wording be inserted in line 23 on page 4, following the word "resources": " , and other instructional materials and equipment."

In teacher education it is essential that teachers of teachers not only be well informed in their subject, but that their own teaching techniques set a good example for their students who are the teachers of tomorrow. It is for this reason that improvement in teacher education will call not only for additional materials and equipment, but also for inservice training of faculty members in the use of the new media of instruction. It is our further recommendation, therefore, that the following wording be inserted on line 4 of page 5, after the word "programs": " , and the training of the instructional personnel of such colleges and universities in the use of new educational media."

Section 202. Amendments to cooperative research act

The Department of Audiovisual Instruction supports the need to strengthen the cooperative research efforts especially in the areas of basic research on the learning process, and research involving the media in broad instructional contexts. Therefore, this section should not bar the use of funds for educational media research.

To improve education promptly and to any significant extent, a program of dissemination is needed within the teaching profession, among research workers, and directed to the citizenry of this country. Application of research findings can be increased manifold through adequately financed programs of dissemination.

A key aspect of good instruction has always been efficient teaching. Today it has become increasingly clear that even the most knowledgeable and gifted teacher will approach his maximum level of teaching efficiency only through the judicious and effective use of modern instructional media. The efficient and creative teacher will assign to the media and the machine those aspects of the instructional process that can most readily be accomplished by media and machine, and he will reserve for himself that which can only be accomplished directly between teacher and student. Thus, it is increasingly feasible for the skilled teacher to supervise the efficient learning of more information, concepts, and skills while at the same time this teacher—being freed from the role of drillmaster—will have more time to devote to the more important, more humanistic aspects of his job. We feel, therefore, that the suggestions submitted above are worthy of your serious consideration.

We very much appreciate this opportunity to present to you our views and relatively minor recommendations concerning changes in H.R. 10145. Our department is prepared to support this legislation as it stands, although we sincerely believe that our recommended changes will make it an even more significant instrument for improving the quality of education in the United States.

UNIVERSITY OF PITTSBURGH,
Pittsburgh, Pa., March 8, 1962.

HON. FRANK THOMPSON, JR.,
Chairman, Select Subcommittee on Education,
House of Representatives, Washington, D.C.

DEAR MR. THOMPSON: I appreciate the opportunity to make this statement regarding the bill you have introduced for the Improvement of Educational Quality Act of 1962. The following comments are based on a careful study of this bill in relation to many years of experience in efforts to improve the quality of education through research and experimentation.

In the provisions of title I and title II you have included two of the most important ingredients for improving the quality of instruction in elementary and secondary schools. The improvement of the teaching in these schools through institutes for advanced study for teachers, scholarship grants for outstanding teachers, and grants to strengthen teacher preparation programs is soundly conceived and should show significant results in improving educational quality. High-quality teachers have always been recognized as an essential requirement of effective instruction.

The parallel program for achieving broader applications of improved instructional practices through the conduct of pilot, demonstration, and experimental projects through local educational agencies is similarly soundly based in terms of experience in achieving educational change. The strengthening of the resource represented by the Cooperative Research Act by the proposed amendment in section 202 is certainly a step in the right direction.

However, "educational change" can only be expected to be "educational progress" if these programs are accompanied by effective efforts in creating, developing, and evaluating improved instructional procedures. Some directions are suggested by the preliminary analyses from Project Talent, which you recall is a large study partially supported by funds from the cooperative research program of the U.S. Office of Education. This project included the intensive study of 440,000 students in the 9th, 10th, 11th, and 12th grades in a sample of more than a thousand high schools representing the country as a whole.

One of the most striking facts is the very large amount of variation found for the students within a grade in both the extent of the knowledge they now have and in the rate at which they can acquire new knowledge. The variation in student knowledge is shown by the fact that for most tests of academic knowledge 25 to 30 percent of the 9th grade students already exceed the average of the 12th grade students. The great diversity in the rates at which students can learn new information is illustrated by the finding that the best 5 percent of the students learn new information at twice the rate of the average student.

A program of instruction is needed that permits each individual to begin a topic at the level he has already attained and proceed at the rate most appropriate to his ability to learn.

Another important requirement for instructional programs emphasized by our preliminary findings is the need for planned review and the systematic application of skills and knowledge learned in one field to problems in another field. Specific fields showing special need for improvement in this respect include foreign languages, science, and mathematics.

The conclusion to which this experience brings us is that the provisions of the Improvement of Educational Quality Act of 1962 are essential to the continued development of an effective educational system. However, these activities must also be accompanied by a strong research program in education aimed at creating, developing, and evaluating improved instructional procedures if an effective program for improving educational quality is to be achieved.

Please let me know if there is additional information or questions which would be useful to you or your committee.

Sincerely yours,

JOHN C. FLANAGAN,
Professor of Psychology.

THE PUBLIC SCHOOLS OF SPRINGFIELD, MASS.,
March 9, 1962.

Hon. FRANK THOMPSON, Jr.,
Chairman, Subcommittee on Education and Labor,
House of Representatives, Washington, D.C.

DEAR CONGRESSMAN THOMPSON: We strongly support your bill for the improvement of educational quality for the following reasons:

1. There is an obvious and immediate need to upgrade the quality of instruction by teachers now in our schools.

(a) Section 101 would support experienced teachers' attending college and university programs to deepen their knowledge of the subject or subjects they are teaching and as a result increase their competence as teachers.

(b) Section 102 would make it possible for a limited number of able teachers to spend a year in full-time graduate study with Government support. This training would enable them to fill positions of leadership in teaching.

(c) New programs are needed to insure that enough teachers are carefully recruited and well prepared before they enter the classroom for the first time. We feel that section 103 would provide support for this program.

(d) Section 202 would provide support for expanding necessary research in the field of education. There has been too little money expended for the purpose of enabling scholars and educators in the field working together to improve curriculum and methods of instruction.

(e) Section 201 of the bill would enable us to find more effective methods of disseminating the findings of research which would be applicable to better instruction.

Very truly yours,

T. JOSEPH MCCOOK,
Superintendent of Schools.

MONTGOMERY, ALA., March 7, 1962.

Representative FRANK THOMPSON, Jr.,
Chairman, Select Subcommittee on Education,
House of Representatives, Washington, D.C.:

Urge that your committee give favorable consideration to Quality Education Act. H.R. 10145.

W. A. LECROY,
State Superintendent of Education.

TALLAHASSEE, FLA., March 5, 1962.

Representative FRANK THOMPSON, Jr.,
Chairman, Select Subcommittee on Education,
House of Representatives, Washington, D.C.:

I believe that H.R. 10145 would make a lasting contribution to the improvement of the instructional program of the schools of this State and the Nation.

THOMAS D. BAILEY,
Florida State Superintendent of Public Instruction.

HARRISBURGH, PA., March 5, 1962.

Hon. FRANK THOMPSON, Jr.,
Chairman, Select Subcommittee on Education,
House of Representatives, Washington, D.C.:

Wish to go on record as giving full support for Quality Education Act.

CHARLES H. BOEHM,
Superintendent of Public Instruction, Pennsylvania.

SACRAMENTO, CALIF., *March 5, 1962.*

HON. FRANK THOMPSON, JR.,
House of Representatives, Washington, D.C.:

We strongly support H.R. 10145, which recognizes the need for scholarship grants to outstanding teachers, for inservice education, for strengthening of teacher preparation, and for research, experimentation, program development and evaluation at the State and local level as a means of improving the quality of education in America. Such funds will stimulate and make it financially possible for institutions of higher learning, State departments of education, and local school districts to reach out and find answers to the critical questions facing education on the basis of valid research and experimentation. Our experience has demonstrated that incentive funds of this kind have paid dividends far beyond the dollars expended. A recent State survey of 827 school districts having 78 percent of the State's enrollment indicates their greatest needs lie within the areas this proposed legislation is designed to serve.

ROY E. SIMPSON,
Superintendent of Public Instruction, State of California.

TOWN OF LINCOLN, MIDDLESEX COUNTY, MASS.,
March 6, 1962.

HON. FRANK THOMPSON,
*Chairman, Committee on Education,
House of Representatives.*

SIR: With regard to bill H.R. 10145, I strongly urge passage of this bill which will greatly aid research which is one of the most vital and necessary areas of education.

Very sincerely,

JOHN B. DAVIS, Jr., *Superintendent.*

STATEMENT OF THE CHAMBER OF COMMERCE OF THE UNITED STATES

The Chamber of Commerce of the United States believes that the programs proposed in H.R. 10145 would be an unnecessary and undesirable intrusion of Federal influence into the State and private school systems of America and, therefore, should not be enacted.

While concurring in the stated purpose of these programs to improve the quality of elementary and secondary education, the chamber sincerely believes that such improvements can be and are being better promoted through State, local, and private efforts than through federally financed and directed programs to these ends.

The responsibilities of American education have indeed increased and intensified, as our population and knowledge, both social and scientific, have grown rapidly during the past decades. These explosions in population and knowledge, however, do not justify any withdrawal from our basic concepts of the operation of a free society, the most critical of which is the faith, understanding, and support of the people in the diverse educational institutions evolved in a pluralistic society.

The compulsions made possible in the programs proposed in H.R. 10145 toward standardization of educational processes and goals, in the chamber's opinion, are an abridgement of the freedom to evolve through diverse approaches the kind and quality of educational institutions which the people believe to be appropriate to their way of life.

H.R. 10145 would establish such programs in the form of institutes to train teachers in selected subjects, scholarships presumed to develop master teachers and grants for special projects in teacher training under title I; and under title II, subsidies to all the States to expand their State departments of education and finance pilot, demonstration, and experimental projects in local school systems and centers for research and development in education.

It is unfortunate that administration witnesses, in describing educational conditions in this country to justify their advocacy of the programs of H.R. 10145, have portrayed to this subcommittee only those parts of the truth presumed to

demonstrate the ineffectiveness and weakness of our schools. While many vital statistics about American education have never been assembled by the Office of Education or other governmental agencies, a much more complete picture should be given to this subcommittee on several aspects of the development of teachers. The full truth, insofar as it is known, is much more optimistic than the statements of Secretary Ribicoff and Commissioner McMurrin may have suggested.

If the quality of American education is to be judged by the number of American teachers who hold college degrees—and this is certainly only one criterion of quality—the improvement of the quality of our schools has risen at a truly remarkable rate, especially since World War II. Virtually all of our secondary teachers now hold such degrees, although some of them are said to be substandard because of a lack of pedagogical training—and, conversely, many of them are thought to be better qualified than they actually are because they hold master degrees that are largely comprised of pedagogical credits.

The proportion of elementary teachers holding college degrees has risen more than 50 percent since the war, and a third of the States in the same period have raised certification requirements primarily in the field of elementary education.

We sincerely question whether these diverse voluntary improvements in teacher competence, with correspondingly rapid increase in the remuneration of teachers, would have been hastened by Federal intervention. In fact, it is the chamber's opinion that a Federal attempt to hasten this evolutionary process in State and local school systems may well dull the concern of the people because of the forced delegation of decisions to State and Federal authorities which are implied in the presently proposed Federal programs. Such decisions, except for the vocational and NDEA programs, have generally been brought about by popular understanding and support of programs enacted through State and local legislative processes and through private efforts as well.

Certain other half-truths advanced by the administration as justification of the H.R. 10145 programs should be called to your attention. It is true that the number of college graduates certified to teach each year is considerably less than the number of teachers needed in the profession to accommodate enrollment increases as well as replace those who leave the profession.

But it is false to imply that the only teachers who enter the profession come from each year's crop of college graduates. In fact, even the NEA has indicated in its surveys that almost half of those entering the profession each year do not come from current college graduates, but result from the reentry of earlier college-trained people (housewives, military officers) and from transfers to the profession out of other fields.

It should be significant that, notwithstanding the rapid increase in certification requirements and the rapid rise in enrollments in our elementary and secondary schools, the pupil-teacher ratio throughout our schools has been decreasing throughout the last decade, even while the number of college graduates certified to teach has been increasing. Such double-edge improvements through State, local, and private efforts do not suggest that a Federal intrusion into this process is required at this time.

Another major oversight in the administration's description of the scene in teacher training results from its commentary on the professional status of teachers in this country. We sincerely question Secretary Ribicoff's statement implying that teachers are not recognized as among the "most valuable members of the community." On the contrary, we have reason to believe that the status as well as the quality of teachers is higher than ever before.

Your committee, we believe, should be advised of the serious distortion of the facts advanced on the matter of teachers' salaries resulting primarily from the failure of the Secretary to discriminate or even mention the very different conditions under which men and women enter and continue in the teaching profession. It is true that the salaries of beginning male teachers are considerably below those of young men prepared to enter careers in engineering and science, but it is not true that such a differential exists for women. In fact, the Women's Bureau of the Department of Labor has indicated that the remuneration of the average female teacher is as good or better than that of the average female college graduate in other professions.

In terms of the remuneration of professional people, there is probably no other profession in the country which has expanded so rapidly in numbers

and, at the same time, has more than doubled the average remuneration of its members since World War II.

This truly remarkable achievement in education has not been brought about by any Federal stimulation, but through the widespread and continuing concern of the people of this Nation, as represented by State and local boards of education charged with the responsibility of providing the schools which the people want.

While recognizing and accepting our responsibility as a national organization for promoting such continued activity and support of the people throughout the States and communities of this Nation, it is the contention of the chamber of commerce that recent improvements in education—the hundreds of thousands of classrooms and the rapid rise of the remuneration of teachers—demonstrate that no Federal stimulation of the public is required to continue improvements of our schools.

Dr. J. Lloyd Trump of the National Education Association in a March 1962 newsletter of the American Council on Education said, "Nowhere in the world past or present have so many students been educated so well as in the United States of America. The present superiority of these schools arises from constant searching for better ways of doing things."

This "searching for better ways" obviously required no Federal stimulation as outlined in H.R. 10145.

The national chamber urges the committee to recognize, as we do, the degree to which public education is the unfinished business of the people in which there continues to be a variety of definitions of what knowledge is of most worth as well as what means of instruction are most effective. It is our sincere belief that the best curricular development for American education, as well as the best proportion and quality of teachers trained in the several subject matter areas, will be—and, in fact, is—better achieved as a response to the active consideration now being given to these controversial issues in the several State and community school systems than can be achieved in any federally inspired programs envisioned in H.R. 10145.

It is the chamber's contention, furthermore, that the imbalance and disproportionate accent in many of our schools, which Federal programs of the NDEA, the National Science Foundation and the Vocational Education Act have caused, cannot be corrected by the further assumption of responsibility by the Federal Government in other academic fields. Two wrong assumptions of Federal authority over the curriculums of American public schools do not make both assumptions right, unless the more sweeping assumption is made that the definition of general education for citizenship and the proper proportions of skilled manpower for the economy are the prerogative of the Federal Government.

This general assumption, thus far, has not been the basis for evolving the curriculums of our schools and, in the chamber's opinion, should not be considered as a future basis for doing so.

The awesome responsibilities, which the Commissioner of Education would assume in this bill, include the identification of "subject matter areas in which he finds a widespread need for improvement in the quality of instruction," a differentiation between subject matter areas in which advance studies will be provided (here referring to the current programs of the NDEA and the NSF), the determination of the proper "criteria and procedures" through which State commissions should select teachers with "special scholarship ability and aptitude for teaching" with a view presumably to building them into master teachers, judgments about the feasibility and pertinence of special projects designed to strengthen teacher training programs, and approval over State plans for expansion or improvement of State education agencies and for a wide variety of pilot, demonstration or experimental projects to be undertaken by local school systems to improve their quality and effectiveness.

As in the case of the categorical aid programs now operating, these programs envisioned in H.R. 10145 would establish Federal direction in teacher training and educational research and development through the lure of subsidy and the power of approval over the programs thus subsidized.

The national chamber respectfully urges the select subcommittee to disavow this approach to improve the quality of American education and, instead, to encourage the Office of Education to provide such an exchange of information about innovation in instruction, organization and administration among State and local school systems as to facilitate a free and continuing evolution of the best practices in education devised by these diverse systems.

STATE OF WISCONSIN, DEPARTMENT OF AGRICULTURE,
Madison, March 6, 1962.

HON. FRANK THOMPSON,
*Chairman, House Subcommittee on Education and Labor,
 House Office Building, Washington, D.C.*

DEAR MR. THOMPSON: This letter is written regarding H.R. 10145, the Education Quality Act. It is my sincere hope that the members of your committee will report on this bill favorably for it is exceedingly important that a sound research program get underway at an early date.

Respectfully yours,

ANGUS B. ROTHWELL, *State Superintendent.*

STATEMENT BY PAUL A. MILLER, SUPERINTENDENT OF SCHOOLS, SYRACUSE, N.Y.

First, I am identified with a city school system having 31,000 pupils. It is a rather typical school system. In addition, I speak with some knowledge and experience drawn from rural, suburban, and city communities.

May I respectfully devote my comments to the improvement of instructional practices? If education is to have a real impact, then this must be the focal for our efforts. The act under consideration does just that.

If the Federal Government is to invest the money of the citizens of the United States, then the best return will come from investment at the teacher-pupil learning point. May I suggest a syllogism to emphasize this point? A learner learns because a teacher has taught; a teacher can teach only content and experience he knows; content and experience for teachers grow out of rich learning and cultural experiences they have had; such wisdom comes from colleges and universities filled with cultured and learned professors; therefore, if improvement in instructional practices is to take place, a means must be sought to bring intelligent teachers to the colleges and universities to become learned and able to impart wisdom to others.

Learning of pupils will vary directly as the level of learning and culture of teachers. The rapid advance of knowledge must be attended by an accelerated increase of the learned level of teachers. Historically, this level has been about 7 years beyond the average educational level of the community served. The improvement of quality in education is basically the improvement of people who serve education.

A second point, education has been served by those who come from less economically favored groups in our society. Normal schools, State teachers colleges, and a very few privately endowed universities have served well to bring the literary level of this Nation from the woods to orbit in a little more than 100 years. As more and more highly educated people have been attracted to other professions, education has had to reach deeper into the population for its teachers. Hence, the need is much greater to manage incentives to enrich the lives of these people to the necessary high level of learning and culture needed in a world of technology.

My emphasis has been simply this. To improve educational practices, I must have improved or improving teachers. This act provides much-needed incentive to accomplish this very important need.

I approve of scholarship grants as outlined in section 102. The emphasis here is rightly placed upon teachers. In section 201, I am glad to see an emphasis upon pilot, demonstration, and experimental projects. One of the most difficult problems I have is to provide this kind of service. It is hard to get money for the status quo—almost impossible for experiment, except through university and foundation grants. Since this is the centennial year for the first Morrill Act, which was probably the most significant education act provided in this country, the quality education act might well have the same impact in the next century of progress as the Morrill Act had for agriculture, science, engineering, and home development in the past 100 years. May I point out that the \$50 million to be invested under this section is less than that now invested for similar purposes in agriculture each year. Need I point out the results?

I am pleased to see a minimum of administration placed in the hands of the U.S. Commissioner of Education and a maximum given to State education agencies, with major emphasis upon institutions of higher learning.

I had hoped to find some stimulus for States to provide funds from local resources to supplement moneys furnished by this act. The committee might well include some consideration for this principle.

A word of caution—I would give greater latitude to State commissions in formulating plans under this act, and only administrative and accounting responsibility to the U.S. Office of Education. May I point out that there is no State that does not have a highly competent State university organization upon which this honorable body could depend with confidence to carry out the intent of this act without further checks from an outside agency. Such individuality would be in the best American tradition and spirit of quality development through diversity.

I greatly appreciate this opportunity to speak to this distinguished group about what could be the keystone to progress in our generation. Thank you.

HARVARD UNIVERSITY,
GRADUATE SCHOOL OF EDUCATION,
Cambridge, Mass., March 13, 1962.

Representative ADAM C. POWELL,
*Chairman, Committee on Education and Labor,
House of Representatives, Washington, D.C.*

DEAR MR. POWELL: This letter is written in relation to H.R. 10145, the Improvement of Educational Quality Act of 1962.

I was granted the privilege of appearing before the select committee to study the bill, which will report to you in due course, and my detailed views are therefore available on the record. One issue of basic policy was brought out in the questioning, however, which seems to me important enough to justify troubling you with this letter.

The question had to do with priorities in considering the several proposals before your committee dealing with elementary and secondary schools: general aid, the Quality Act, adult literacy, etc. This issue goes to the heart of what one believes to be the most urgent problems that the Nation faces in which the schools can play a part. I have no doubt that the most pressing demand which should be put upon the schools is for a much more efficient and vigorous development of our greatest natural resource—school age children. Improvement of quality of our educational system through research and development and the upgrading of staff, in H.R. 10145, is what the Nation needs first. General aid will have a long run, indirect effect on the quality of schooling, but it seems to me that its major goals are to provide equality of opportunity and to give financial relief to hard pressed local communities. Adult literacy is also a worthy goal, but cannot be said to deal with as fundamental a problem as the raising of standards for the great numbers who will soon join adult ranks. The good record of the Federal Government through existing programs such as the National Science Foundation and the National Defense Education Act of 1958 seems to me evidence that H.R. 10145 has chosen both the right aim and right method, a method that guarantees freedom from bureaucratic control over the schools.

I therefore hope that you will be willing to give the quality bill highest priority and favorable consideration.

Sincerely yours,

FRANCIS KEPPEL.

NATIONAL CATHOLIC WELFARE CONFERENCE,
Washington, D.C., March 16, 1962.

Hon. FRANK THOMPSON, Jr.,
*Chairman, Select Subcommittee on Education,
Committee on Education and Labor,
House of Representatives, Washington, D.C.*

DEAR CONGRESSMAN THOMPSON: The Department of Education of the National Catholic Welfare Conference respectfully submits to the Select Subcommittee on Education some considerations on H.R. 10145, Improvement of Educational Quality Act of 1962.

The department is keenly sensitive to the objectives of H.R. 10145, the improvement of the quality of teaching and of teaching methods. It has itself worked assiduously with the Catholic school system on advanced training programs for improving the efficiency of teachers and on research and experimentation in educational methods for improving the quality of classroom instruction.

tion. Such efforts are vital to any dynamic school system that is attuned to the needs of students and teachers in rapidly and radically changing times.

Of particular concern to the Department is the intent of H.R. 10145 to utilize the total resources of American educational systems to achieve its objectives. Under title I and title II, section 202, Congress would stimulate institutions of all educational systems to projects for the improvement of American education. This procedure in a vital manner promotes the attainment of educational quality and fosters the congressional desire for maximum effort.

Title II, section 201, however, is in narrower formulation. In establishing a series of pilot projects and experimentation for the improvement of the quality of educational instruction the bill limits the Government's opportunities to attain these purposes by confining the programs to the public school systems only. This limitation in both purpose and program is unnecessary and incompatible with the desirable objectives of the bill.

The desire of the bill is to foster programs that will achieve educational excellence for all the children in this Nation's schools. To accomplish this, all educational resources must be tapped, not merely one facet. The facilities and experience of other school systems of independent educational organizations and private research institutes all have a valuable contribution to make to this effort, and would welcome the opportunity to cooperate with the Government in this worthwhile program. Not to permit these groups to contribute seems to be an avoidable limitation.

The department of education, therefore, respectfully suggests that title II, section 201, of H.R. 10145 be amended by the deletion of the word "public." An appropriate definition of these nonprofit agencies should be included in title III, section 301. Further, the authorization given the Commissioner of Education under title II to approve State plans should be expanded to permit contracts with nonprofit educational agencies whenever desirable.

The department of education is grateful for the opportunity to offer these considerations to the members of the House Committee on Education and Labor.

Very sincerely yours,

Rt. Rev. Msgr. FREDERICK G. HOCHWALT, *Director.*

PARK FOREST PUBLIC SCHOOLS,
Park Forest, Ill., March 16, 1962.

HON. FRANK THOMPSON,
House of Representatives, Washington, D.C.

SIR: As a member of the teaching profession who is vitally interested in the improvement of education in our schools through the effective use of the newer media of instruction, I would like to urge you to support the bill H.R. 10145 which is concerned with the improvement in the quality of elementary and secondary education.

I would also urge you to consider favorably the changes recommended by Charles A. Norford who appeared before your committee as a representative of the National Legislative Committee of the Department of Audiovisual Instruction of the National Education Association.

Very truly yours,

IRVING S. SPIGLE, *Director.*

MOUNTAIN VIEW-LOS ALTOS UNION HIGH SCHOOL DISTRICT,
Mountain View, Calif., March 14, 1962.

HON. FRANK THOMPSON,
*Chairman, Subcommittee on Education and Labor,
House of Representatives, Washington, D.C.*

DEAR MR. THOMPSON: The purpose of this letter is to urge the support of H.R. 10145, the Quality Education Act. The proposed act would provide for a continuation of research programs through cooperation with the universities of our Nation.

Research is essential to the improvement of education. In science, technology, and medicine, research has been the prime factor in the development and great accomplishments of these fields. This need is no less essential in the field of

education. Certainly, the future generations of Americans are the beneficiaries of today's efforts to improve the quality of education. Basic research can greatly aid that effort.

Sincerely,

A. BLAINE HUNTSMAN, *Superintendent.*

TESTIMONY BY FRANCIS PARKMAN, EXECUTIVE SECRETARY, THE NATIONAL COUNCIL OF INDEPENDENT SCHOOLS

We wish to support with enthusiasm H.R. 10145 in general and to comment on title I in particular.

H.R. 10145 is an important bill because it deals in direct fashion with what, in our opinion, is the single most vital aspect of "the quality of elementary and secondary education," the selection, education, and inservice training of teachers.

TITLE I—SECTIONS 101 AND 102

There is no need to refer to the already ample evidence of the importance, as well as the widespread use by teachers, of the summer and yearlong institutes of the National Science Foundation and of similar programs carried on under the National Defense Education Act. The desire and enthusiasm of the able teacher, both young and old, for opportunity for further study and greater capacity are unquestioned; but the ability of such teachers to finance themselves in such study is limited. H.R. 10145 through its support for summer and regular session institutes and for participants in them (sec. 101), and through its provision of scholarship grants to teachers selected for a year of full-time study (sec. 102), would broaden significantly the opportunities to strengthen whole programs in individual schools. Any program which encourages more of the best is bound to have a multiplying effect far beyond its immediate benefits.

There is a need for expansion of the institute type of program in areas other than those now covered by the National Science Foundation and the National Defense Education Act. An illustration of that need is the program of the commission on English of the college entrance examination board which, without any assurance of the funds for future support, has already begun such a program with its own funds for a limited number of teachers of secondary school English. Expansion of such programs and the initiation of others in various college preparatory subject areas would be made possible by section 101 of title I and would be of great value.

SECTION 103

The widespread criticism of teacher training programs today is that such programs are frequently not demanding enough, that they have been given less attention and support by colleges and universities than they deserve, and that, as a result, they neither attract the best candidates nor give them the kind or quality of training that is needed in the schools. Section 103 of title I, through its support of various aspects of programs of teacher education, deals directly with this key problem.

We have one final comment on title I. It is particularly pleasing that the provisions of sections 101 and 102 are applicable to teachers in all elementary and secondary schools, in the pattern followed by the National Science Foundation. We have been disturbed at the discrimination which exists in the National Defense Education Act institute program against teachers in nonpublic schools, and we were on record with the committee last year and on earlier occasions urging the removal of such discrimination.

In conclusion, we believe H.R. 10145 makes a substantial contribution to its stated purpose "to improve the quality of elementary and secondary education." No one education bill that has come to our attention would appear to have more potential for improving quality in teaching than this one. We urge its favorable consideration.

STATEMENT BY DR. WILLIAM G. CARR, EXECUTIVE SECRETARY, NATIONAL EDUCATION ASSOCIATION

Mr. Chairman and members of the subcommittee: The 800,000 members of the National Education Association and the 1,200,000 members of the State education associations affiliated with NEA have, as their prime objective, the improvement of educational quality for all the children of all the people. It is for this

purpose—and no other—that the National Education Association Division of Federal Relations urges congressional action in favor of broad general Federal support for public education. Such broad general support from the Federal Government through the States to the local school districts is basic to the quality of educational opportunity which every child deserves and the Nation's security demands.

H.R. 10145, the Improvement of Educational Quality Act of 1962, recognizes that the improvement of the quality of teaching is basic to improving the quality of education.

Title II of H.R. 10145, section 201(a) provides for grants to State education agencies "to assist in the conduct of pilot, demonstration, or experimental projects of local educational agencies designed to improve the quality of instruction in public elementary and secondary schools, and to assist in the expansion and improvement of State educational agency activities in developing, evaluating, and promoting the broader application of improved instructional practices in such schools." The NEA applauds this proposal and urges its passage. The NEA project on improvement of instruction has been offering leadership in this area, but more needs to be done, especially by the legally responsible State education departments who in most instances are hampered by lack of adequate financial resources.

While approving section 201 in principle, we note that section 201(c) seems unduly restrictive and urge the committee to rewrite this portion of H.R. 10145 in order to guard local control of education.

The issue of Federal control is raised also in title I, section 101 of H.R. 10145. The intent of this proposal (to assist in providing institutes for advanced study by teachers) is commendable. But the proposal, as drafted, places too much discretion and control in the U.S. Commissioner of Education. He will not only have the power to select colleges and universities in which the institutes are offered, but also may determine the subject matter to be presented. The directive that "the Commissioner shall give preference to subjects which are required for college entrance" is also objectionable. Such a provision is discriminatory against elementary teachers, as well as to the majority of pupils who may not enter college. Further, college entrance requirements vary from State to State and from institution to institution. Restricting institutes to such disciplines as indicated will tend to freeze high school graduation requirements in a mold shaped and fixed by Federal directive. Furthermore, the majority of pupils who do not go on to college also need better teaching in all areas to be competent citizens.

Section 102 of title I provides for scholarship grants for outstanding teachers, to be chosen by a selection committee in each State appointed by the Governor. We urge that such educational responsibility be placed in the hands of the chief education officer of each State.

Section 103 of title I providing for "project grants to strengthen teacher preparation programs" also raises several questions. The Commissioner is again granted authority to make grants of unstated size for an unstated period of years to institutions of his choosing on the advice of an undetermined number of persons who are deemed by him to be competent. This is undoubtedly Federal control. We urge this section be carefully evaluated.

These observations reflect no distrust of the U.S. Office of Education staff. Rather they reflect the firm belief of the teaching profession that Federal control of education must be avoided. State and local control of public education must be maintained. We recognize the problem of the role of noncoercive national leadership in education; enthusiasm for improving opportunity for national leadership should not overshadow the responsibility and authority of the States.

The National Education Association supports the purpose of H.R. 10145, with reservations as noted above.

Let there be no illusions, however, regarding the limits of this proposal. It will by no means meet the need for improving the quality of American education. Such improvement cannot be achieved by providing opportunity for a small selected percentage of teachers to receive advanced training. Until the Congress is able and willing to approve the use of the taxing power of the Federal Government to assist the States and local districts in properly financing education, quality in education will continue to be an eloquent phrase that lacks the means of action.

STATEMENT ON BEHALF OF DR. R. JEAN BROWNEE, CHAIRMAN, HIGHER EDUCATION COMMITTEE, AAUW; DR. MAYCIE SOUTHALL, CHAIRMAN, ELEMENTARY AND SECONDARY EDUCATION COMMITTEE, AAUW; MRS. WALTER M. BAIN, CHAIRMAN, COMMITTEE ON LEGISLATIVE PROGRAM, AAUW

The American Association of University Women wishes to assure the select subcommittee of the House Education and Labor Committee of its support for H.R. 10145, the improvement in educational quality bill.

As members of this committee know, the association, with a membership of approximately 150,000 university graduates organized in 1,500 branches throughout the 50 States, Guam, and the District of Columbia, has had as one of its chief reasons for continued existence and growth, work in the field of education. AAUW members serve on school boards and as teachers. For many years we have conducted study programs concerned with improvement in curriculum and in teaching, and with building the prestige of the teaching profession. For many years we have sponsored programs designed to encourage entry into teaching at the elementary, secondary, and higher education levels.

The association now has a 3-year project under way with the financial backing of the Rockefeller Brothers Fund which we refer to in AAUW as the college faculty program. This project takes the form of a search for women college degree holders, who recently have not been in academic life, but who after further study could be attracted into a second career in higher education. For the next 3 years this search for able women for college faculties will take place on a demonstration basis in the 11 States whose colleges and universities are accredited by the Southern Association of Colleges and Secondary Schools; namely, Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

The success of this project hinges upon the discovery of candidates of excellence. We recognize that even if highly successful, this program can only make a start at alleviating the college faculty problem. Similarly, H.R. 10145 in our estimation can do relatively little to meet present and foreseeable needs. However, we believe the programs authorized under our pilot project and under this bill would make a commendable start toward insuring additional college staff members and toward raising the quality of education in this country.

In the period since the association was founded in 1881, the demands upon the school system of this country have changed dramatically. In 1900 the average American left school when he was 12 or when he had finished elementary school. As we entered the 1960's approximately four out of five young people received a high school diploma.

In this same period the country's leading economists have come to recognize that this country's prodigious economic growth, its superiority in the fields of mass production, mass marketing, and distribution depend only in part upon better factories and better machines.

Education is the other and equal factor in this amazing growth. A better trained, better educated labor force accounts to a high degree for technological gains as well as for the mastery of the economics of production, marketing, and distribution to which we have just referred. These technological and scientific developments of the past decade and automation in addition to our much discussed increase in enrollment and our customarily low salary scales for teachers have created a critical shortage of competent qualified teachers. Unfortunately, however, these same developments have also contributed to growing shortages as teachers have left the profession to enter the higher paying fields of science, industry, and business. This shortage has come at a time when we need not only more teachers but when we need a high degree of excellence in our teaching staffs.

If our growth as a Nation is to continue at the same rate as in the past we must attract more and more people into the teaching profession. If we are to meet the challenges we are called upon to face in the immediate future we cannot postpone adoption of measures which will attract more and more people into the teaching profession. We also cannot afford to postpone improvement in the quality of education. It is regrettable, but until recently we have placed less emphasis upon attracting or retaining promising teachers and upon the quality of education than we have upon the need of the individual for more and more education. The profession of teaching carries less prestige than it did some years ago, a result, in large part, of the fact that good teachers in most schools work harder for less money than persons in other professions. At the same time as much education is required of an accredited teacher as in many professions.

Although H.R. 10145 does little that is tangible immediately to improve the financial plight of the teacher, in our estimation it would tend to enhance the prestige of the profession and provide a steppingstone to eventual acceptance of the teacher as one of the most valuable members of the community.

We are commending all three programs authorized under title I. In the past we have been concerned that the very successful institutes in mathematics, science, and language administered through the National Science Foundation and the Office of Education have not extended to English, history, and the social sciences. We believe these subjects are necessary to a well-rounded educational program. In our opinion a widening of these very successful institute programs to include these additional subject areas is most commendable.

We also believe that some encouragement and stimulation of the teaching profession can result from the 2,500 awards for excellence which are authorized for study in teaching subjects under section 102.

We wish to express satisfaction with section 103 of the bill which authorizes the Commissioner to make grants to colleges and universities for projects to strengthen the teacher education program and institutional libraries.

Perhaps we are most impressed with the proposal in title II to appropriate \$50 million for each of 5 years to State education agencies to help finance pilot or demonstration projects. Greater concentration has and is badly needed in the types of programs suggested in the legislation, such as improved course content and curriculum, special attention for gifted or deprived or disadvantaged students, and the development of new types of instruction or programing, improved library resources, and the most effective use of modern equipment and materials.

We also wish to add association support for the proposed amendment of the Cooperative Research Act which would authorize grants to participating institutions for payment of part of the costs of centers for research, and demonstration projects. Such support could supply the additional incentive necessary to encourage institutions, whose budgets are constantly strained by the growing demands upon them, to undertake these programs.

In conclusion, we in the association believe that while there is much in this bill which is commendable, it cannot be considered as anything but a supplement to the legislation offered by the administration at the public school and high education level.

LOS ANGELES, CALIF., March 14, 1962.

HON. GLENARD LIPSCOMB,
House of Representatives, Washington, D.C.:

I am disturbed that H.R. 10145 title I and II now up for adoption, leaves junior colleges out of support for instruction. Hope you can help include junior colleges in H.R. 10145, title I and II.

JOHN LOMBARDI,
President, Los Angeles City College.

DURHAM, N.C., March 19, 1962.

HON. FRANK THOMPSON, JR.,
Chairman, Select Subcommittee on Education, House Committee on Education and Labor, Washington, D.C.:

My work as executive director of the Commission on English takes me to schools, colleges, and universities all over the Nation. Everywhere I see the need and hear teachers and professors express the hope of upgrading the curriculum through Federal support as provided in H.R. 10145. Certainly the 20 summer institutions operated this year by the Commission on English and 20 host universities is at the best only a pilot program for a national need. We will provide institutions for 900 secondary school teachers or 1 out of each 100 teaching english in the secondary schools. I strongly support legislation to make such opportunities available to more of my colleagues in english.

FLOYD RINKER.

THE FLORIDA STATE UNIVERSITY,
Tallahassee, March 16, 1962.

HON. FRANK THOMPSON,
House of Representatives,
Washington, D.C.

DEAR REPRESENTATIVE THOMPSON: I have read with a great deal of pleasure of your work in the promotion of your House bill, H.R. 10145.

Since I am a member of the legislative committee of the department of audiovisual instruction of the National Education Association, I have also seen the statement sent to you by Dr. Charles A. Norford, chairman of that committee.

We invite your attention to those few changes.

I not only concur with what Dr. Norford said regarding the fact that the department of audiovisual instruction will support this bill enthusiastically with or without these recommended changes, but also can state with some accuracy that the school people of our State will support this legislation. I've talked to quite a number regarding it and believe that it will be warmly received. We deeply appreciate the interest of you and your select subcommittee in the cause of education.

Sincerely,

OTIS MCBRIDE,
Head, Department of Audiovisual Education.

THE UNIVERSITY OF BUFFALO,
Buffalo, N.Y., April 5, 1962.

HON. FRANK THOMPSON, JR.,
House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN THOMPSON: At a time when public education is as much a matter of concern to the Nation as it is today it is imperative that we begin to find the funds necessary for progress in education through comprehensive programs of research on problems of learning and instruction.

Thus I urge your support for H.R. 10145, the Quality Education Act, to provide funds for research and development in local schools, as well as other support for research activities.

The moneys provided in this bill should be returned to the Nation manifold in the benefits conceivable to the teaching-learning process in our public schools.

It is time that we begin to spend for better education through significant research in the same manner that we have for better agriculture and better mental and physical health.

I urge your support for this legislation.

Very truly yours,

ROBERT S. FISK, *Dean.*

[Article submitted by Congressman Charles E. Goodell, of New York, from the Saturday Review]

A VAST OVERHAUL OF TEACHER CERTIFICATION

Public school teachers are licensed by the various States and, in most States, public funds may not be used to pay the salaries of teachers not so certified. The purpose of the law is to prevent incompetent or inadequately prepared people from teaching, but in recent years charges have been heard that the regulations are keeping some well-educated people out of the profession while admitting others who have the necessary professional preparation but are deficient in liberal education. Part of the controversy centers upon the value of the required professional courses for teachers. The great majority of professional educators, including school administrators, consider such courses essential for elementary and secondary teachers, but some of the critics of certification laws consider them trivial. Another criticism has been that requirements in specific academic subject matter are much too low. Minimum requirements were kept low in order to make it possible for teachers in small high schools to teach several different subjects; the result has been that it was

possible in some States for a high school teacher to teach English, mathematics, science, or history with a background of only three or four rather elementary college courses in the subject. But regulations and laws can be changed and are being changed. In this article T. M. Stinnett presents evidence that most of the criticism of certification practices is based upon history rather than on current regulations. Dr. Stinnett is Assistant Executive Secretary for Professional Development and Welfare of the NEA. This article is based on data prepared for the 1961 edition of "A Manual on Certification Requirements for School Personnel in the United States," a biennial publication of the National Commission on Teacher Education and Professional Standards, by W. Earl Armstrong, and T. M. Stinnett.

(By T. M. Stinnett)

State requirements for the licensing of teachers, a favorite target of the critics of education in recent years, are undergoing a vast overhaul. In each 2-year period since 1951 some changes were reported but these were modest and even-paced. By comparison the changes since 1959 constitute an avalanche.

A total of 29 States have reported significant revisions of certification requirements during the past 2 years and 8 States have completely revised their certification structures. Substantially more subject matter in the teaching fields is now required for high school teachers. The total minimum of college work required for certification has been increased while the proportion of the time devoted to education courses has steadily declined. For elementary teachers the median now required in professional education by the various States is down to 21 semester hours while the median required for high school teachers is 18—only about 1 semester of the required 4-year course.

Of the 52 certification units (50 States plus the District of Columbia and Puerto Rico), 51 now require a bachelor's degree for high school teachers and 44 require it for elementary teachers. Three States require 5 years of preparation for high school teachers and several others require that a fifth year of college work be completed during the period of initial certification.

The significance of this upgrading is great. Some observers have been inclined to shrug it off as simply the addition of more education courses but this notion is not sustained by the facts. The added work is preponderantly in the content area.

There has also been improved provision for the movement of teachers across State lines. Although teachers have always been highly mobile, the diversity of requirements among States has subjected migrating teachers to many irritating and often picayunish restrictions. A decade ago a score of States required a special course (typically State history and constitution) which could be secured only in an in-State institution. Eleven States still have such requirements but 5 of these will permit proficiency examinations in lieu of the formal courses. Efforts are being made to bring about reciprocity in teacher certification to make it easier for teachers to move from State to State. Two regional compacts, now involving 18 States, and accreditation by the National Council for the Accreditation of Teacher Education, now accepted by 27 States, provide the basis for reciprocity agreements.

The use of examinations in teacher certification is showing a resurgence. A total of 18 States report the use of examinations in some aspects of the certification process. For the most part, States are using proficiency examinations either to waive required courses, or to permit already certified teachers to qualify for additional teaching fields, but several are making use of qualifying examinations. The District of Columbia, Florida, and South Carolina use examinations (on top of college degrees) to qualify for initial certification. West Virginia uses the National Teachers Examination for liberal arts graduates to qualify for provisional certification.

What is the explanation of this revolution? Obviously many forces have been at work. The critics have had some effect but the criticisms often were so distorted that they slowed rather than accelerated the change. The furor over education resulting from the sputniks was a factor and recognition that new conditions demand educational services at greatly stepped-up levels was another. No one can say what the predominant motivation was. As a guess, it would appear that all these factors influenced an unprecedented concert of effort throughout the educational world to upgrade the caliber of teaching and cur-

ricula in the public schools. Why were the fruits of all these influences so long in becoming evident in certification procedures? Again, as a surmise, it appears that for the first time changes in teacher education called the tune in certification changes. And, if this guess is an accurate one, this shift may be as significant as the new certification requirements. In the past, State certification prescriptions generally have dominated, directed, and forced changes in the curriculum for the preparation of teachers. The 1961 Manual reflects a reversal—the changes, for the most part, seem to have resulted from the impact of new curriculum patterns.

This is all to the good. Certification should be the legal undergirding of sound preparatory programs, not the determiner of these programs. Only with this approach can higher education institutions be in solid charge of the quality of their own offerings, and able to resist untoward pressures from professional groups to fragment their offerings.

Some of the changes in certification may have been accelerated by the transformation of single-purpose teachers colleges to general State colleges which began to gather momentum a decade ago and reached a new peak in the 1959-61 period. A total of 48 degree-granting public teachers colleges became general colleges during these years. Public teachers colleges remain in only 15 States and the District of Columbia and they now provide not more than 10 percent of the annual production of new teachers.

The imminent demise of the single-purpose teachers colleges provokes some intriguing and speculative questions about the future. Will the education of teachers receive the attention it deserves from the multiple-purpose institutions or will they make the more prestigious occupations their chief concerns? Who or what will be the new whipping boy for the alleged weaknesses of teachers in the academic disciplines? Have we already gone too far in the reduction of professional content in the preparation of teachers? The question may be raised, too, whether when teaching reaches the minimum of a 5-year preservice requirement, a trend already well under way, the same vigorous efforts will be made to eliminate or restrict the professional requirements to some piddling magnitude.

Forecasting the future is a tenuous undertaking, but based on the developments of the last decade, the following predictions may be more than mere guessing:

1. There will be a gradual evolution toward the 5-year requirement for beginning teachers, both elementary and secondary. The big unanswered problem regarding the mandated 5th year is the nature of the content.

2. There will be widespread search for more effective means of identifying qualified applicants for certification. Among the possible approaches are qualifying and proficiency examinations, supervised internships, and the use of apprentice certification during a probational period.

3. The trend toward simplification of certification prescriptions and procedures will be intensified, with requirements being stated in general terms rather than in designation of specified courses. There will be a drastic reduction in the number of different kinds of certificates, and a similar reduction in the number of functions certification is now attempting to serve.

4. It seems clear that the profession will gain substantial control over both the licensing process and the revocation of licensure. Already 11 States by law vest varying degrees of authority in professional boards and there is substantial evidence that this number will grow. In 36 additional States extra-legal advisory bodies have been established.

