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IMPROVEMENT OF EDUCATIONAL QUALITY

HEARINGS

BEFORE THE

SPECIAL SUBCOMMITTEE ON LABOR

OF THE

COMMITTEE ON EDUCATION AND LABOR

HOUSE OF REPRESENTATIVES

EIGHTY-EIGHTH CONGRESS

FIRST SESSION

ON

H.R. 6013 and H.R. 6025

BILLS TO IMPROVE THE QUALITY OF ELEMENTARY
AND SECONDARY EDUCATIONHEARINGS HELD IN WASHINGTON, D.C.,
MAY 7 AND 8, 1963

Printed for the use of the Committee on Education and Labor

ADAM C. POWELL, *Chairman*

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IMPROVEMENT OF EDUCATIONAL QUALITY

TUESDAY, MAY 7, 1963

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

The subcommittee met at 10:15 a.m., pursuant to notice, in room H-329, Capitol Building, Hon. Frank Thompson, Jr., presiding.

Present: Representatives Thompson, O'Hara, Carey, Sickles, and Taft.

Staff members present: Robert E. McCord, subcommittee director, and Mary E. Corbin, clerk.

Mr. THOMPSON. The subcommittee will be in order.

The purpose of these hearings is to consider two bills, H.R. 6013 by Mr. Carey of New York, a bill to improve the quality of elementary and secondary education through institutes for advanced study for teachers and for other purposes, and H.R. 6025 by Mr. O'Hara of Michigan, to broaden the scope of the Cooperative Research Act.

(The bills referred to follow:)

[H.R. 6013, 88th Cong., 1st sess.]

A BILL To improve the quality of elementary and secondary education through institutes for advanced study for teachers, teacher preparation programs, and programs of specialized training for teachers and related educational personnel

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—INSTITUTES FOR ADVANCED STUDY FOR TEACHERS

AUTHORIZATION OF APPROPRIATIONS

SEC. 101. There are authorized to be appropriated \$37,500,000 for the fiscal year ending June 30, 1964, and such sums as the Congress may determine for each of the next two fiscal years to enable the Commissioner 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 materials, to improve the qualifications of individuals who are engaged, in the elementary or secondary schools, as teachers of gifted children or other children, as counseling and guidance personnel, library personnel, or other personnel whose activities in the educational process have a significant impact on the quality of that process, or as supervisors of such teachers or personnel.

SUBJECT-MATTER AREAS FOR STUDIES

SEC. 102. In determining the subject-matter areas in which advanced studies will be provided under this title, the Commissioner shall identify those areas in which he finds there is a widespread need for improvement in the quality of instruction.

OTHER PERSONS ELIGIBLE

SEC. 103. In the case of any institute for advanced study in a modern foreign language or for advanced study for library personnel operated under this title, college or university modern foreign language teachers and college, university, or community librarians, respectively, shall be eligible to attend.

STIPENDS

SEC. 104. Individuals referred to in section 101 or 103 who attend an institute operated under the provisions of this part shall, upon application, be eligible to receive stipends for the period of their attendance at such institute in amounts specified by the Commissioner in regulations, including allowances for dependents and including allowances for travel to attend such institute.

PAYMENTS

SEC. 105. Payments pursuant to a grant or contract under this title may be made in installments, and in advance or by way of reimbursement, with necessary adjustments (in the case of a grant) on account of previously made overpayments or underpayments; and shall be made on such conditions as the Commissioner deems necessary to carry out the purposes for which the grant or contract was made.

TERMINATION OF EXISTING PROGRAMS

SEC. 106. The first sentence of section 511 of the National Defense Education Act of 1958, and the first sentence of section 611 of such Act, are each amended by striking out "five succeeding fiscal years" and inserting in lieu thereof "four succeeding fiscal years".

TITLE II—TEACHER PREPARATION PROGRAMS

AUTHORIZATION OF APPROPRIATIONS

SEC. 201. There are authorized to be appropriated \$7,500,000 for the fiscal year ending June 30, 1964, and such sums as the Congress may determine for each of the next 2 fiscal years, to enable the Commissioner to make grants to colleges and universities, which have programs for the preparation of individuals to teach in elementary or secondary schools, to pay part of the cost of special projects designed to strengthen such programs through—

(1) expansion or improvement of course content and curriculums (including improvements in library resources needed for such programs),

(2) increased use of other college or school teaching personnel, on an exchange, part-time, or full-time basis, to augment the faculty regularly assigned to such programs,

(3) improvement of student teaching activities,

(4) improvement of standards for selection of candidates for such programs and standards for continuation in and graduation from such programs, or

(5) establishment or improvement of full-time postbaccalaureate programs or of special programs designed to train, for education as a second career, retired military personnel, personnel trained in other professions, and women with prior college training whose change in family responsibilities will now permit them to engage in such a career.

ADVICE OF EXPERTS ON PROJECTS

SEC. 202. No grant may be made under this title for any project until the Commissioner has obtained the advice and recommendations of persons who are competent to evaluate the project as to its feasibility and its pertinence to the purposes of this title, and as to the adequacy of the resources available to carry out the project.

PAYMENTS

SEC. 203. Payments pursuant to a grant under this title may be made in installments, and in advance or by way of reimbursement, with necessary adjustments on account of previously made overpayments or underpayments; and shall be made on such conditions as the Commissioner deems necessary to carry out the purposes for which the grant was made.

TITLE III—SPECIALIZED TRAINING FOR TEACHERS AND RELATED EDUCATIONAL PERSONNEL

AUTHORIZATION OF APPROPRIATIONS

SEC. 301. There are authorized to be appropriated \$7,500,000 for the fiscal year ending June 30, 1964, and such sums as the Congress may determine for each of the next two fiscal years, to enable the Commissioner to make grants to and contracts with colleges and universities for training of persons preparing to teach gifted children or to teach adults who have difficulty reading or writing English or have less than an eighth grade education, persons preparing to engage in counseling and guidance or to be school librarians or auxiliary school library personnel in elementary or secondary schools, persons preparing to be college or community librarians, persons preparing to engage in educational research, and other persons requiring specialized training in order to teach or engage in other activities related to provision of education either in particular subject-matter areas or for other pupils needing specialized education.

USE OF GRANTS

SEC. 302. Any grant to or contract with a college or university under section 301 may be for the cost of courses of study, or for traineeships, or both. Such traineeships shall carry stipends in amounts specified by the Commissioner in regulations, including allowances for dependents and allowances for travel to attend such college or university.

PAYMENTS

SEC. 303. Payments pursuant to a grant or contract under this title may be made in installments, and in advance or by way of reimbursement, with necessary adjustments (in the case of a grant) on account of previously made overpayments or underpayments; and shall be made on such conditions as the Commissioner deems necessary to carry out the purposes for which the grant or contract was made.

TITLE IV—MISCELLANEOUS

DELEGATION OF AUTHORITY

SEC. 401. The Commissioner is authorized to delegate any of his functions under this or any other law, except the promulgation of regulations, to any officer or employee of the Office of Education.

FEDERAL CONTROL OF EDUCATION PROHIBITED

SEC. 402. 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.

DEFINITION

SEC. 403. For purposes of this Act, the term "Commissioner" means the Commissioner of Education.

[H.R. 6025, 88th Cong., 1st sess.].

A BILL To improve the quality of education by broadening the scope of the Cooperative Research Act

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That subsection (a) of the first section of the Act of July 26, 1954 (20 U.S.C. 331), is amended by striking out everything following "(a)" and inserting in lieu thereof: "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, and with State educational agencies, for the conduct of research, surveys, and demon-

strations in the field of education, including grants to such universities, colleges, and other organizations to pay part of the costs of the operation, in cooperation, when appropriate, with State or local educational agencies, of centers for the conduct of programs of research, development, evaluation, and demonstration of improved instructional practices and materials in elementary or secondary schools.

(b) Subsection (b) of such section is amended by inserting “, and no grant shall be made,” after “shall be entered into”.

(c) Such section is further amended by adding at the end thereof the following new subsection:

“(d) Any grant under this section for any project made from an appropriation for any fiscal year may include such amounts as the Commissioner of Education determines to be necessary for succeeding fiscal years for completion of the Federal financial participation in the cost of such project as approved by the Commissioner.”

Mr. THOMPSON. I think the record should show that on the subject of these bills, improving the quality of education, extensive hearings were held in the last Congress. It was my thought as the subcommittee chairman that a day or two to bring us up to date would be sufficient. In view of the voluminous record of last year, and in the interest of not only time but economy, we hope to report these bills to the full committee within a few days.

Our first witness this morning is Miss Cora Paul Bomar, president of the American Association of School Librarians, and an official of the North Carolina State education agency.

Mr. Scott of North Carolina, incidentally, regrets that he can't be here, because of the critical illness of his father.

STATEMENT OF CORA PAUL BOMAR, PRESIDENT, AMERICAN ASSOCIATION OF SCHOOL LIBRARIANS

Mr. THOMPSON. The witness will please proceed as you wish.

Miss BOMAR. Congressman, I believe if it is all right with you, I will just read my statement. It is rather short.

My name is Cora Paul Bomar. I am supervisor of school library services, North Carolina State Department of Public Instruction, and president, American Association of School Librarians, a division of the American Library Association.

The American Association of School Librarians, which is a constituent organization of the American Library Association, has approved the enactment of legislation such as that embodied in H.R. 6013, which is similar to title III of H.R. 3000. Endorsement has been given to H.R. 3000, including title III, by the council, the governing body of the American Library Association.

Competent personnel is a vital factor in any sound program for the improvement of education. H.R. 6013 wisely provides for the training of teachers and related workers. It specifically mentions librarians as a category to be included under the terms of the legislation.

Title I of H.R. 6013 would expand the institute program of the National Defense Education Act to include, among other categories, school, college, and public library personnel. Title III of H.R. 6013 would authorize project grants to colleges and universities to strengthen the training of teachers and related personnel in certain specialized areas, including school library, college library, and public library work.

These provisions could be of significant assistance in the recruitment and training of library personnel. In view of the present critical shortage of school, college, and public library personnel, we believe that such Federal assistance is essential and strongly support its enactment in order to help in solving a national problem.

The present severe shortage of trained librarians is hampering the development of library services. In order that our libraries may have a sufficient number of workers trained to the degree of competency set forth in our national professional standards, current personnel needs in addition to present staffing are:

Public school libraries.....	92, 400
College and university libraries.....	2, 500
Public libraries.....	8, 500
Total.....	103, 400

Libraries are essential to an educational system of high quality. Library service at the level which education today requires can be achieved only with a corps of librarians adequate both in numbers and in training. The glaring deficiencies cited above offer a serious obstacle to the accomplishment of the educational objectives of the Nation.

Federal assistance for library training as provided in H.R. 6013 is necessary not only for current educational activities but also for the successful administration of new and expanded program presently under consideration by the Congress.

For example, the library training provisions in H.R. 6013 bear an essential relationship to the various proposed programs to upgrade education in H.R. 3000, the National Education Improvement Act of 1963. All of these programs, and in particular title II, part D, the college and university library provisions, and title VI, part C, the public library provisions, will have impact on library services.

Leaving aside the general aspects of library training, which I have just been discussing, I should like, as president of the American Association of School Librarians, to focus attention now on the problem of the school librarian.

To understand this situation, we should look for a moment at the significance of the school library in the modern educational program and then at the school librarian as an indispensable factor in the whole process.

The school library has become an important element because the new programs of instruction, developing under the increased emphasis on quality education, look to it for many fundamental services. It functions as the center for obtaining, organizing, and making readily available all types of instructional materials, such as books, magazines, films, and sound recordings, for the use by pupils and teachers.

When adequately supported and operated, the library covers all subjects, serves as a learning laboratory for every classroom and provides teachers with tools for teaching children and young people, no matter how greatly their needs, interests, and abilities vary. The school library is, therefore, a basic part of elementary and secondary education.

A key factor in the successful operation of the school library is the librarian. Without capable direction, school library facilities never

achieve the full potentiality of their use. The librarian is consequently the essential person in providing instruction and guidance in the use of books and nonbook materials.

This competence calls for special skills and techniques. The school librarian must know all aspects of the curriculum; must be able to evaluate and select materials so that they fit the particular needs of varying groups of pupils. The school librarian must be able to guide the slow learner, the average pupil, and the gifted child. Competent librarians are as essential as competent teachers.

In view of these facts, an extremely pertinent question is: What is the current supply of trained school librarians?

All reports indicate that the shortage of school librarians is alarming. According to a recent statistical statement made by the U.S. Office of Education, public school districts serving 150 students or more lacked about 83 percent of the total number of qualified school librarians needed to provide good library service.

These school districts serve about 97 percent of the total public school enrollment. My own State of North Carolina needs approximately 2,000 additional school librarians. Data for the public school districts having less than 150 enrollment are not available, but this size school could scarcely be expected to improve the picture.

Furthermore, the same U.S. Office of Education study indicated that 47,000 public schools have no qualified librarian on the staff. In addition, 17 States still lack a school library consultant at the State level to coordinate and assist in making the work of the individual libraries more effective.

Although no figures are available for private school libraries, indications are that a critical deficiency in qualified personnel exists here also. It is evident that the need for training more school librarians is immense.

In addition to the provisions for training for librarianship in titles I and III of H.R. 6013, the American Association of School Librarians notes with approval the recommendations in title II of H.R. 6013 for improving teacher preparation programs, which would include the training of school librarians.

Under title II, library resources are specifically mentioned as eligible for project grants to strengthen teacher education programs. The association endorses this recommendation because library resources are essential to a program of preparation of teachers of excellent quality.

Our national interest requires a sound and adequate program of education. Many deficiencies exist in education today. Although the localities and States have been trying to close the gap, the urgency of the problem from a nationwide standpoint places a responsibility upon the Federal Government to help in alleviating some of the serious lacks which are found.

The American Association of School Librarians urges that favorable consideration be given by this committee to H.R. 6013, including those provisions which pertain to the training of librarians for professional service.

In closing, I should like to add the association's endorsement of H.R. 6025, to improve the quality of education by broadening the scope of the Cooperative Research Act. As in many other aspects of

education, programs of research and evaluation of instructional practices and materials in school libraries are badly needed.

Mr. Chairman and members of the committee, thank you for the privilege of appearing before you.

Mr. THOMPSON. Thank you for a splendid statement.

Many of us recognized, when we enacted the National Defense Education Act—as a matter of fact, even before its enactment—that it was limited in scope. It was a response, as you know, to the sputnik, and has a heavy emphasis on mathematics, science and modern foreign languages. And, insofar as it goes, I think it is a splendid act, but I also think that it needs to be supplemented.

I believe there is nothing more important than improving the quality of the teachers and the teaching facilities, including libraries. We appreciate very much the support of your organization.

Mr. Carey?

Mr. CAREY. Thank you, Mr. Chairman.

Miss Bomar, I want to join the chairman in complimenting you on your statement here, which certainly calls our attention to a very glaring need in the improvement of quality in education, especially at the elementary level.

Would you agree now that the school library at the elementary level is an indispensable part of a successful basic education for a child in any State in the Nation, or any part of the school system in any State in the Nation?

Miss BOMAR. Well Congressman, I certainly would agree with you in every way, and we have had studies conducted that indicate that the children who go to school where there are good school libraries have a better opportunity of advancing.

Mr. CAREY. That is interesting for this reason: That in my own State at this moment, we have been conducting panic hearings on the need for budgetary funds to carry on and increase the quality of our New York City schools, and the library facility almost becomes a matter of status, school to school.

The mothers and the members of the parent-teacher organizations, teaching groups, superintendents, those interested in improving the general level of education, point to those schools which do not have libraries now, and they indicate that almost above everything else, they desire that libraries be open through the school hours and after school be made available to the elementary school students.

I say as a matter of status, because they find that in those schools where library services are lacking, the educational level of the child is immediately impaired.

I would like to get your opinion on this: Do you feel that deficiencies in reading—and almost every newspaper article on education points up the lack of reading competence as one of the sore needs, one of the basic reasons for the inability of the child to meet the education demands of other subject matter—do you think, that possibly a good deal of our pains in reading or reading deficiencies are tied to the inadequate supply of good library materials, good library guidance, especially for those students who are deficient in reading, by reason of lack of guidance and library personnel as well as materials?

Miss. BOMAR. Yes. I think there is a relationship there, and I would point this up: That the teaching of the skills of reading would

be of very little use if there isn't something to read. And in some schools where the individualized reading teaching technique has been installed, which is based upon the use of a variety of materials, and library books, basic text books, current magazines, the schools that have tried this technique have strong convictions that this is the best way they have found to teach reading.

Mr. CAREY. Would it be a correct statement that the best way to increase the deficient reader's aptitude for reading is to give him a variety, a better menu in his reading, to make available to him more excitement, more interest in reading by giving him materials that he now lacks in his present school curriculum?

Miss BOMAR. Yes. Of course, I would agree with you on that, and we all feel that we will never be able to read a book that we don't have. The availability of materials is one of the most important factors.

Mr. CAREY. You indicate that in your own State you lack 2,000 librarians in order to bring your own State quality up to what you think would be a basic minimum.

How many librarians are now employed in the State system?

Miss BOMAR. I believe we have 1,015 employed now.

Mr. CAREY. In other words, you are only about one-third of the way home toward reaching what you believe is the minimum level of competence in library administration?

Miss BOMAR. That is right, and I would like to point out that 2 years ago, our State legislature increased the appropriation so that we now have 1,013 where 2 years ago we had around 500, so North Carolina is doing everything it can do to bridge that gap.

Mr. CAREY. Well, I have noticed Governor Hodges, your previous Governor's efforts in this regard, and I certainly am aware of what Governor Sanford is doing. I think the present session of this State legislature directed a great part of its time and interest to the improvement of education, and in one sense, you have emulated the program in the State of New York by looking into a scholar incentive program to assist by tuition grants those students in higher education who would be pursuing such things as library administration.

You indicate here, also, that you have figures throughout the country indicating that about 97 percent of the total school enrollment is deficient in the supply of qualified school librarians. Is that correct?

Miss BOMAR. Yes.

Mr. CAREY. And would it be true that this is a proper avenue, then, for Federal subvention or Federal assistance, because the States are really at the seam bursting point in their budgets and still can't provide this service?

Miss BOMAR. Yes; I would—in going back to my own State, I know that we have many vacancies that we can't fill because of lack of qualified staff, and in many of our schools, we have to employ teachers who are not properly trained, and one other area that is of great need is at the systemwide level, and we know that in North Carolina it will never be possible to have a full-time librarian in each school, because some of our schools are too small to do this, so working out programs of service where a very well-qualified school library coordinator, or supervisor, person to give guidance in all the schools, is important, and we feel that this sort of training program projected in this bill would provide the opportunity to train that type of leadership.

MR. CAREY. On the supply of librarians, you indicate in what seems to me a rather vague way that indications are that a critical deficiency in qualified personnel exists in private school libraries, also.

What are those indications? What is the source of those indications?

MISS BOMAR. Well, I think the source of indications, as far as this testimony is concerned, would be from opinion and visitations.

I would like to point out that on Monday of last week, I served on an evaluation team that evaluated two private high schools, two of our better private high schools, and one of the greatest deficiencies in those two schools was in the area of library service.

MR. CAREY. Do you feel there is a tendency on the part of the public in general to look upon the librarian with some degree of misconception as sort of just a book checker today, and one who hands books out and then takes returns at a counter, as contrasted with the true functions of a librarian, to be actually a supply general of all the materials, audiovisual, sound, tapes, films, recordings, and so forth? All of the tremendous weaponry that is needed in the attack on ignorance?

Do you think there is a misconception in the public mind on the functions of the librarian?

MISS BOMAR. Well, I hardly know how to answer that, because in our professional organization, we are trying to change that image, but I think you are right, that many people still have the image that you have described.

We like to think—and we believe, of course—that the school librarian is a resource person, and is indispensable in helping the classroom teacher do a better job, as well as helping the individual child, and that the training level enters the picture, because if the librarian assumes this role as an instructional materials specialist, the librarian must have training.

MR. CAREY. Wouldn't it be a correct statement, then, to say that with the vastly increasing needs of our school population, the increase in population alone, as well as increased demand for education, adult basic, elementary education, secondary, and so forth, that truly without the use of library materials, and exotic new aids, audiovisual, mechanical, and so forth, it will be impossible with our present resources to advance, let alone keep up with, the increased demand for education in this country, without some sort of a quality program to upgrade library services?

MISS BOMAR. Yes, sir. I would like to even reinforce that statement, and I have a strong conviction—and this is not a part of the testimony here—that in a democracy, we have an obligation to give boys and girls the opportunity to develop the ability to think, and we believe that the use of many materials and being able to become an individual user of books and libraries is essential in developing this ability to think.

MR. CAREY. One final question. I, personally, have a feeling that the educational television route, the development of educational television with Federal and other resources being employed, is going to be a great assistance in improving the general level of education in the Nation. However, at the conclusion of a half hour or hour program on any subject on television today, isn't it true that unless the person is directed to a source—the only source, I would state—would

be a library, he really is appetized, or he is enticed into an educational adventure, and then left high and dry without the source material to improve and continue that education?

Miss BOMAR. Of course, I would agree with you on that, too, and you may be interested in knowing that our association has been asked to work very closely with the Midwest program of airborne television and early in June, we are having a 2-day workshop at Purdue University to discuss this. They have asked us to help them, because they see the need of libraries in extending the television instruction.

Mr. CAREY. Your organization also supports the extension of the Library Services Act, another bill before our committee, to urban libraries, the act which was once confined, I believe, to the counties with 10,000 or less population; is that correct?

Miss BOMAR. Absolutely correct. The American Association of School Librarians is a part of the A.L.A., the American Library Association, and we, of course, support library development at all levels, and all types of library development.

Mr. CAREY. That is my final question, Mr. Chairman.

Mr. THOMPSON. Thank you. I enjoyed your colloquy.

I was in North Carolina recently, and noted from newspapers the efforts of the State legislature to expand the State college and university system. There seemed to be almost complete agreement, except on the matter of changing the name of North Carolina State at Raleigh, which as a Wake Forest man doesn't excite me in the least.

I know that good library services is very important to the elementary and secondary school, and I know too, that bright youngsters, in selecting a college, very often consider the type of library as one of the more important factors. It happened in my daughter's case. She is at a small college, Oberlin, in Mr. Taft's State, and I believe it has one of the very largest libraries, if not the largest, for a college of that size.

I was interested in hearing my daughter and other youngsters discussing their choices, and this was paramount, because of the amount of research that they must do.

It is sort of pathetic that so many youngsters are going to well-equipped colleges without the equipment that they really need to go to those colleges.

Obviously, if they knew how to use a library, they would be much better off. I don't think there is anything more important, for instance, to a lawyer, than to know how to use a library. All of us on this subcommittee are lawyers, and I am sure we all agree.

Mr. Taft.

Mr. TAFT. Miss Bomar, I am not sure that I understand just how this bill is going to work. Is your concern and is the concern of this bill directed toward librarians or university libraries as well as schools, or are we just talking about schools?

Miss BOMAR. Well, Congressman Taft, I am primarily interested in school libraries, since that is the nature of my work, but it is my understanding that the bill does make provisions for the training of any type librarian. I believe that I noticed that in the bill on page 2, section 103.

Mr. TAFT. Yes. I see no limitation there. However, over on page 6, I do notice line 7, "school librarians or auxiliary school library personnel."

Then it goes on to state, "persons preparing to be college or community librarians," so I guess they come under there.

Your concern, anyway, is the schools, primarily; is that the case?

MISS BOMAR. Yes, sir. That is the case and, of course, I am not very good at interpreting legal language at all, but it was my understanding that the first title here was for advanced study, and that section 101 made provision for school librarians. The third title is specialized training for teachers and related educational personnel.

And in this, on page 6, lines 7 and 8, it does include——

MR. TAFT. It appears to be so.

MISS BOMAR (continuing). College and public librarians and related personnel.

MR. TAFT. In these programs, would there be any guarantee that the persons trained would in any way commit themselves to serve as school librarians, in grade or secondary schools?

MISS BOMAR. Well, in that connection, I might say that those eligible to attend the institutions, and only those eligible to attend the institutes, would be librarians. This works in the same manner as does the National Defense Education Act instituted for language teachers, and so on.

MR. TAFT. Who determines this? That is the question I wanted answered.

MISS BOMAR. Well, my experience with the guidance and language and science institutes that have been employed by other programs is that this is determined by the institution that is going to do the training. In other words, in our State, where we have had these excellent guidance institutes, I believe that the selection has been based upon the—well, one criterion, the purpose was to extend the training of people who are already in guidance work, or who are definitely planning to go into it.

MR. THOMPSON. That is right.

MISS BOMAR. It is the intent, I think.

MR. THOMPSON. For example, under the National Defense Education Act, an institution will apply to conduct a summer institute in languages. Once a contract between the institution and the Office of Education has been executed, then applications are made by individual teachers to the institution which takes as many of them as it can. The institution selects them on the basis of its own criteria, and I would assume that this legislation would operate similarly. We have to examine the operation of the National Defense Education Act to get answers to some of these questions.

MR. O'HARA. Would the Chairman yield to me?

MR. THOMPSON. Yes.

MR. O'HARA. Well, it is pretty clear in the bill, it seems to me. Section 101 authorizes contracts with colleges and universities, for the operation of short-term or regular session institutes for advanced study, to improve the qualifications of individuals who are engaged as library personnel, counseling and guidance personnel, and so forth. the operation of short-term or regular session institutes for advanced study," for library personnel, college or community librarians shall be eligible to attend.

MR. THOMPSON. Yes.

Mr. O'HARA. So they have to be librarians in order to attend in the first instance. There is no requirement, however, and I don't think there should be, that anybody who attends one of these institutes has to sign a pledge to keep on being a librarian. Maybe they want to take up bookmaking, or something; I don't know.

Mr. TAFT. They may want to go to work for a publisher. Miss Bomar, who sets the standards for the qualifications of these programs, then?

Miss BOMAR. Well, here again, Congressman Taft, I am not sure that I have an answer for you.

Mr. THOMPSON. I think I can help.

This ties into the National Defense Education Act. The standards for the program are in large measure determined by the institution which gets the grant. The Commissioner of Education reviews the applications of the institutions requesting grants, and presumably, picks the institution best suited or best qualified to do it. So that, in a sense, he has some degree of control.

Mr. TAFT. The Commissioner of Education makes the determination what programs are going to qualify, and what ones aren't? Is that correct?

Mr. O'HARA. Well, they have to apply.

Mr. THOMPSON. The Commissioner will be here tomorrow morning and he will be able to tell us about that.

Mr. TAFT. Yes.

Mr. THOMPSON. But this is almost, in a sense, out of context of the National Defense Education Act. Actually, this is a sophistication of it, in a sense.

Mr. TAFT. Well, moving on, perhaps, then, Miss Bomar—What is a qualified librarian or library personnel within the meaning of this act? Does it mean you have to have some degree, or what is the standard for qualification?

Miss BOMAR. Well, the standards vary sometimes from State to State, but we think that, of course, one qualification would be an undergraduate degree, with emphasis on subject matter, and a library science degree, which is an additional degree. However, most State certification requirements will certify school librarians at levels in between the undergraduate degree and the librarian's degree.

Mr. TAFT. What are the standards for membership in your organization, the national organization?

Miss BOMAR. Well, the American Library Association is open to anyone who is a librarian or who is interested in library development.

Mr. TAFT. Regardless of degrees?

Miss BOMAR. Yes.

Mr. TAFT. How about your American Association of School Librarians?

Miss BOMAR. That would apply, also.

Mr. TAFT. How many school librarians are there presently in the United States?

Miss BOMAR. Well, I think, according to the latest—

Mr. TAFT. In the public schools? Let's qualify that.

Miss BOMAR. In public schools, I think it would run around 20,000.

No. Excuse me, sir. I think I have that. Yes; that is right; around 20,000.

Mr. TAFT. 20,000 school librarians?

Miss BOMAR. Yes.

Mr. TAFT. Does that include all library personnel employed by public schools?

Miss BOMAR. It would include the category that we would describe as a librarian, a person who devotes most of his time to school library work. Now, he might teach one class, or he might service more than one school, but he would be a person who has a certificate, and who has some training in library science, and whose primary interest is school library work.

I believe the U.S. Office of Education says a person who has had 15 semester hours of library science training, holds a teaching certificate, and devotes more than half time to library work.

Mr. TAFT. Would those be the standards on which you are giving the 20,000 figure?

Miss BOMAR. Yes. That is right, sir.

Mr. TAFT. Do you have any idea how many there were in 1957?

Miss BOMAR. Well, now. I would suspect around 19,000.

Mr. TAFT. Do you have any figures on those?

Miss BOMAR. I do not have, but I believe we could get those for you from the U.S. Office of Education, sir. I don't have them with me today.

Mr. TAFT. I wonder if you couldn't get for me the figures, say, for 1957, 1952, and 1947, and I would ask that they be put in as part of the record.

Mr. THOMPSON. Without objection.

(The information referred to follows:)

Information on public school librarians: 1953-54, 11,854 librarians—1 librarian to 2,433 pupils; 1958-59, 19,372 librarians—1 librarian to 1,740 pupils.

Mr. O'HARA. Will the chairman yield to me?

Mr. THOMPSON. Yes.

Mr. O'HARA. On that question, I think the Commissioner ought to know whether we are talking about library personnel, including everybody that works in a library, including the janitor, or whether we are talking about librarians. There is a distinction.

Mr. TAFT. I think we should subscribe the same standards that were just outlined by the witness. In other words, that they be persons with 15 or more hours of library science training—

Mr. THOMPSON. And a teacher's certificate.

Mr. TAFT. Do you say and a teacher's certificate?

Miss BOMAR. Well, properly certified, according to the State and local requirements, and that usually includes a teacher's certificate for a school librarian, but not always.

Mr. TAFT. Yes. And devoting a minimum amount of time to the library work might be another qualification.

I gather you have no private school figures of this nature available?

Miss BOMAR. No. We do not.

Mr. TAFT. I wonder if the Office of Education has any private school figures on this?

Mr. THOMPSON. I doubt it.

Mr. TAFT. If they have any, I would be very happy to see them.

Mr. THOMPSON. Mr. O'Hara?

Were you finished, Mr. Taft?

Mr. TAFT. Do you have any figures for North Carolina that would be comparable to the figures I have just asked for?

Miss BOMAR. Yes, I do. I don't have them with me, but I can get them for you.

Mr. TAFT. Would you supply them?

Miss BOMAR. Yes, I will. We have them.

Mr. TAFT. In your statement, Miss Bomar, you referred to current personnel needs in addition to present staffing on page 2, and gave the figures of public school libraries, 92,400, and then a couple of other figures for college and for public libraries. Who determined these needs? Who made this assessment?

Miss BOMAR. The data that we are using here is from the U.S. Office of Education, and this was collected, I think, from the school systems throughout the Nation.

Mr. TAFT. Who made the assessment of it is what I am asking.

Miss BOMAR. Well, the figure is based upon the national school library standards, which project the need for 1 librarian for every 300 pupils. It was based upon that—the total school enrollment in relation to our national standards, which state 1 librarian for every 300 students.

Mr. TAFT. It was based on that study?

Miss BOMAR. Yes, sir.

Mr. TAFT. Then a librarian would be defined the same way as we have already defined it?

Miss BOMAR. Yes.

Mr. THOMPSON. I wonder, in a State such as North Carolina, with a great number of small schools, how do you work that out? Is there some exchange among them?

Miss BOMAR. Yes. We have in some of our counties what we call multischool elementary librarians, where one librarian would devote full time to library work during the school day, but might serve two or more schools.

Mr. THOMPSON. And you do that in other subjects as well, don't you?

Miss BOMAR. Yes, we do.

Mr. THOMPSON. In music, for instance.

Miss BOMAR. Yes.

Mr. TAFT. Do you include in your figures, then, personnel such as those employed in the various State-Federal bookmobile projects?

Miss BOMAR. No. This does not include the public library personnel that provide services to children and youth through the children's department and bookmobiles.

Mr. TAFT. Although the bookmobiles do work closely with the schools, do they not, when they go around to various communities?

Miss BOMAR. Yes, they do. The public library services to children and youth, and the school library services to children and youth, complement each other, we hope.

Mr. TAFT. Taking the figure for public libraries of 8,500 needed additional personnel, what is this figure based on?

Miss BOMAR. Well, here again, I believe that this projection is made on the basis of national standards for public library services, but I am sure that the U.S. Office of Education could supply more information.

Mr. THOMPSON. Miss Krettek, if you have any of the answers that might help us, and help Mr. Taft, if you would identify yourself, and then see if you can assist the witness?

MISS KRETTEK (Germaine Krettek, director, Washington office, American Library Association). I am Germaine Krettek, director of the Washington office of the American Library Association.

MR. CAREY. Would the chairman yield?

MR. THOMPSON. Yes, sir.

MR. CAREY. On the last question of bookmobile supply, you indicated there is a close rapport between the school instruction personnel, elementary, secondary, and so forth, and bookmobile programs.

Isn't it an actual fact, though, that bookmobiles carry very little in the way of what would be needed for elementary and secondary school instruction? Bookmobiles are more devoted to the general appetite for reading material?

MISS BOMAR. That is true, but, of course, a child who has elementary school library experience and learns to become an independent user of libraries is going to use library materials wherever they are, and wherever he may be. But the school library is more curriculum centered, and is the laboratory in the schools for the students to use in school.

MR. TAFT. Mr. Chairman, just summing up the previous requests that I made, I would also like to have the figures for the same years for public librarians—not school librarians, but public librarians.

MISS KRETTEK. In this connection, Mr. Chairman, in answer to Mr. Taft's question about standards, the figures for the number of needed personnel are based on public library standards. These were developed by professional librarians from throughout the country, over a number of years and published in 1956. They were drafting standards for the organization of public libraries in terms of all of the resources, including personnel, and these are the basis for the figures quoted. Then just about a year ago the school library standards were developed after study over a number of years by professional school librarians in cooperation with many of the national educational associations, the Chief State School Officers, a very impressive list of other associations concerned in developing these standards. On the basis of these standards, then, we have projected the needs in terms of—and this is what has been used—the professional standards.

MR. THOMPSON. Would you describe those standards for the public libraries?

MISS KRETTEK. We would be glad to turn a copy of the public library standards over to the committee for your use, if you would like to have them.

MR. TAFT. Yes.

MISS KRETTEK. They were very carefully developed, and, here again, these are not what everybody is doing at the present time, but they are goals toward which we hope that all libraries are moving, in order to get the best possible library service.

MISS BOMAR. We can do that for the school library standards, too.

MISS KRETTEK. We have not quite as complex a network of standards in college standards as in the other standards.

MR. THOMPSON. Mr. O'Hara?

MR. O'HARA. I have no questions, Mr. Chairman, but I would like to advise the witness that I have had the opportunity, during the time I have served in Congress, of meeting with a rather significant number of school boards and PTA's, and so forth, to discuss the needs

of the particular school system with which they were involved. I found a rather surprising number of cases where the parents were on their own, trying to supplement the curriculum in the elementary school their children attended by bake sales to buy books, and to equip a library the school didn't have. The school systems were also short of qualified librarians to handle such library facilities.

I think that your statement is correct with regard to the shortage of qualified librarians, and the difficulty that this creates for students and for the school system.

Miss BOMAR. Thank you.

Mr. THOMPSON. Thank you very much. You were a splendid witness, and we enjoyed hearing you.

Miss BOMAR. Thank you.

Mr. TAFT. Mr. Chairman, before we leave this subject, when we are asking for those figures from the National Catholic School Association, I wonder if there are some other private school associations that might also be consulted? I think there probably are.

Mr. CAREY. If I may, Mr. Taft, the Agudath Israel is the private school organization of the orthodox Jewish schools. They operate schools in some 20 States.

Mr. THOMPSON. The chairman will request Mr. McCord, subcommittee counsel, to make inquiry, and to determine from all available sources the statistics, which I think would be very interesting.

Mr. CAREY. On the statistics, Mr. Chairman, while we are gathering these, could we get an up-to-date figure on the number of colleges now giving a remedial course, say, in English, the number of colleges in the United States now giving remedial courses in English of the level that would be taught, say, in elementary or secondary schools? ¹

Mr. THOMPSON. Thank you.

Mr. CAREY. Can we get, possibly, an estimate of the cost of the remedial English teaching in the universities? ¹

Mr. THOMPSON. I think that I commend last year's hearings to the attention of the subcommittee. We had a statement last year from the National Council of Teachers of English, which was nothing short of shocking. I forget the exact statistic, but I believe that as many as 60 percent of the teachers of English in the elementary-secondary school systems throughout the United States don't have a major in the subject; that we want to teach modern foreign languages to youngsters who don't know their own. How can they possibly learn?

I had that experience myself, and learned as a college freshman, I didn't know a verb.

Mr. McCORD. Mr. Chairman, the hearings conducted in 1961 to extend and amend the National Defense Education Act contains a statement from the National Council of English Teachers. It is my recollection that there was discussion of the problem of remedial English in the colleges. In hearings conducted by the General Subcommittee on Education in 1962, on H.R. 10180, a general aid to education bill, the chief State school officer of Pennsylvania devoted a great deal of his testimony to the problem of English teaching in the State of Pennsylvania, which might be of interest to the subcommittee. Bound copies of these hearings are a part of the full committee's permanent files.

¹ Data requested included in testimony of Francis Keppel, U.S. Commissioner of Education, May 8, 1963.

Mr. THOMPSON. We might get some help from the next witness, too, on this subject.

The next witness is Mr. Joseph Totaro, and Dr. Roy M. Hall. Dr. Hall is the dean of the school of education of the University of Delaware, and Dr. Totaro is the director of teacher placement for the University of Wisconsin.

**STATEMENT OF JOSEPH V. TOTARO, DIRECTOR, TEACHER
PLACEMENT, UNIVERSITY OF WISCONSIN**

Mr. TOTARO. Thank you, Mr. Chairman.

There are four members on our team, and I wonder if it would facilitate matters if we just took positions a little closer to the table.

Mr. THOMPSON. Yes.

Would you identify yourselves for us?

Mr. TOTARO. Yes. I will.

You have before you an agenda, and it indicates the presentations of papers. There is a folder.

The speakers this morning are Dr. Flanagan, professor of psychology at the University of Pittsburgh, to my right, and the head man in project talent research; James Straubel, down at the end of the table, executive director of the Aerospace Education Foundation; Dr. Ned Flanders, whose name does not appear on your copy—we weren't sure when I talked to Ned yesterday whether he could get here—who is a professor of educational research at the University of Michigan; and I, if there is time for me.

Roy Hall could not get here. If I may say something off the record, Mr. Chairman.

(Discussion off the record.)

Mr. TOTARO. Enclosed in the folder that you have are a series of other papers. The names of the individuals preparing these papers are given also on the agenda. There are only two papers lacking in your agenda, those by Dr. Fishel at the bottom of page 1, and that of Messrs. McGuire and Jones on page 2. Copies of these are being presented into the record through your transcript.

Mr. THOMPSON. Without objection, all these papers will be admitted into the record.

And at the same time, a statement by Edward C. Pomeroy, executive secretary of the American Association of Colleges for Teacher Education.

Mr. TOTARO. That is included in our supporting papers, Mr. Chairman.

Mr. THOMPSON. It is.

Mr. TOTARO. Yes. It just happened to arrive a little later than the rest of these papers and materials.

I would like to thank the chairman and the committee for the opportunity to appear before you, and would like to say that we in the educational profession—and Mr. Strubel, when he speaks, will take objection to that, because he is a nonpedagogue, or a noneducator—are vitally concerned about your concern, about the question of quality in education. We are concerned that we have settled for mediocrity too long, that there has been a kind of a national apathy about getting up off the floor and doing something about this.

Now, there is no question but that we have some extremely well-educated people in this country, but there is also no doubt that there are millions of people, including young and old alike, physically well and physically not so well, retarded, deaf people from underdeveloped areas in our cities, and so forth, who just don't have the opportunity or the incentive or the motivation to go on as far as they can, educationally speaking.

And these very same people prevent us as a nation from making the progress we ought to make as a nation, nationally and internationally, and I suppose in outer space and down under the surface of the ocean.

So it behooves us, if historically, we are going to achieve the kind of things which have made America great, that we get some drive into this business, and some determination behind support for education.

I think all of the peripheral items that get crossed into this, whether we are involved in public or private institutions, whether we are concerned with higher or lower education, are really incidental. I think if we look at the issue squarely, we can't run away from the fact that we have young people, older people, and aged people in each of our States.

Each of us educators are representatives of a very mobile profession. While I reside in Wisconsin, I have also resided in New York. I even went over into Jersey every now and then, Mr. Chairman. My wife works in Ohio. We have concerns about these things in Mr. Taft's State, just as we do in my State, and Mr. Carey's State, just as we do in Michigan, and so this is a national problem, and we hope to be able to look at it nationally, and we hope we can motivate you to push us hard to come up with some of the answers we need to have.

(The statement referred to follows:)

PREPARED STATEMENT OF LINDLEY J. STILES, DEAN, SCHOOL OF EDUCATION, UNIVERSITY OF WISCONSIN, AND JOSEPH V. TOTARO, DIRECTOR, TEACHER PLACEMENT, UNIVERSITY OF WISCONSIN

Quality in education is directly related to the investment made in research and development. In the past 6 years the major thrust to improve schools has been primarily in the fields of science, mathematics, and certain foreign languages—those areas that have had the benefit of the investment of funds for research and development, curriculum improvement, and the updating of the knowledge of teachers. Such funds have come primarily from Federal appropriations through the National Science Foundation, the NDEA, and the cooperative research program of the U.S. Office of Education. They have also come from key philanthropic organizations, such as the Ford Foundation and others.

Federal investments in educational research and special programs of school improvement have centered primarily—in terms of amount of dollars invested—in the scientific fields, those judged vital to the national security. The gains made in these areas are now tending to bring about an imbalance in school programs. Students now coming from high schools to colleges have been reported by President DuBridge of California Institute of Technology to be far ahead in the fields of science and mathematics of their counterparts a decade ago. On the other hand, the superintendents of the Air Force Academy in Colorado Springs, at Randolph Field, and the Air College at Montgomery, Ala., reported at the Air Force Association's 16th national convention and aerospace panorama, held at Las Vegas, September 18–23, 1962, that recruits in the Air Force, although well up in science and mathematics, fall down in English, history, and other basic studies. The need now is for the National Defense Education Act to be expanded to include programs of improvement in other basic fields such as English, history, geography, technical education so important to defense efforts, foreign languages not now included, and in the creative arts, whose study can contribute to the development of the type of creativity needed in today's scientific age.

Experience with the cooperative educational research program of the Office of Education has demonstrated conclusively that investments in research can produce knowledge on which better school programs may be built. The research on creativity has already given us insights into the identification of young people with high creative potentiality. Further research is now refining our knowledge of how to develop the kind of creativity in people that is needed to produce the Edisons, the Einsteins, and the Fermis of the future. Project English, the curriculum improvement program in the field of English, has already set in motion a nationwide effort by leading scholars to improve the English preparation of our students, from kindergarten through college. Evidence is accumulating that dynamic advances can be achieved in other fields with similar support.

Local supporters of educational research strongly recommend the broadening of the Cooperative Research Act to authorize support for centers for multipurpose educational research, for development and demonstration programs, for broadening the types of educational agencies eligible to conduct research, and to increase the investment in the program to assure that the most pertinent research findings may be implemented in the Nation's schools with dispatch.

The quality of American education, and the degree to which it can condition our people to respond, efficiently and effectively, to the dynamic challenges which lie ahead, will largely determine whether we continue as a leader among nations or slip to subservience. A continuing, realistic investment in educational research and development is absolutely essential if we are to remain on top. At a time when our very survival is threatened, can we afford not to create an atmosphere in which all Americans may have the opportunity and will be encouraged to pursue the amount and kind of education of which they are capable? Education for survival is nonpartisan. Accordingly, I hope you will consider this plea for improving American education on its merits.

SOME ACCOMPLISHMENTS OF COOPERATIVE RESEARCH

From its inception through December 31, 1962, the cooperative research program has initiated over 508 major research and demonstration projects covering the wide spectrum of educational problems throughout the United States. The program's project-by-project approach for researching problem areas is producing usable results of significance to education. Well-known examples of the range of results now available to educators are the recently completed projects in mathematics education, in which children in the early grades have shown unusual ability to understand advanced mathematics when taught by a method developed under a cooperative research project, and the success of the compressed speech method which has quadrupled the rate at which blind children learn. New dimensions are resulting from more recent studies. Illustrative of the range of topics studied, knowledge emerging, implications of the findings, and new directions for continuing research and development in 1964, are the summaries which follow:

1. Preliminary results of Project Talent, a nationwide inventory of the talents of over 440,000 American youngsters, reveal many important characteristics of our schoolchildren and the relationship between academic achievement and community characteristics. There is ample evidence that teachers, median income of parents, and type of housing in areas served by the schools have a high positive correlation with achievement in such areas as English, mathematics, and abstract reasoning. Most startling is evidence that when the same achievement tests are given to 9th and 12th grade youngsters, the upper 25 percent of the 9th graders score higher than the average 12th graders.

2. A project at Indiana University has analyzed in detail the language of elementary school children and its relationship to the language of reading textbooks. The relative complexity of sentences spoken even by very young children is demonstrated for the first time. Questioning the extreme simplicity of sentence structure in children's readers, the study is leading commercial publishers to reexamine the principles upon which their reading textbooks have been based.

3. Another cooperative research project at Harvard University has developed a method of using lay readers to assist high school English teachers in grading compositions. As a result of this study, several hundred school systems, including large cities such as Detroit, Pittsburgh, and Milwaukee, currently employ lay readers. The effectiveness of instruction in many of these systems has been

measurably improved as housewives put their educational backgrounds to work assisting in schools.

4. A recurring question is that of special classes for educable mentally retarded children. Are such classes really helpful or do they tend to keep these youngsters out of contact with other children? The results of a 4-year research project concerned with the efficacy of special classes for educable mentally retarded children, completed at the University of Illinois, show that with a well-designed curriculum and trained teachers certain clear differences are emerging between groups of identified educable mentally handicapped youngsters who have had special classes and those who have not. A group of children attending special classes since school entrance appeared to be more advanced academically and socially than those who entered and remained with a group attending regular classes. Moreover, intelligence quotients as measured by standard tests showed improvement, in many instances increasing to the degree where an individual who at 6 years of age was judged to be mentally retarded was now considered to have advanced to the slow learner level and possibly even within the slow average range. Implications based on the final results of this research emphasize the need for: (1) early identification and placement into special classes; (2) systematic evaluations of children during special class placement because many may become eligible for and could profit from classes designed for slow learners and slow average youngsters as a result of special class experiences; and (3) highly trained teachers and well-designed and executed curriculums. After these materials have been more thoroughly tested the more encouraging findings will need to be freely disseminated.

5. Two recent cooperative research projects deal with the education of Alaskan natives. The first is a comprehensive treatment of the development of educational programs for both Eskimo and Indian youngsters from 1850 through 1958. The project examined the curriculum and educational objectives for native elementary schools, the secondary education provided, education beyond high school, and the major problems encountered. Among the 16 major findings in this study are clear indications that: (1) Native students were considerably retarded in terms of standardized achievement tests and that ability to understand and use English was a prime factor in this retardation; (2) Alaskan school facilities were found to be inadequate for the demands of natives for increased educational opportunities, particularly at the secondary level; and (3) qualifications of teachers in native schools were found to be generally low. This report provided an extensive assessment of native education at the time when Alaska became a State.

The second project concerned the dropout problem among Indians, Eskimos, and Aleuts prior to high school graduation. This project has particular significance because of the tragic waste of human resources in Alaska. Researchers found that a high school education is still a rarity among natives. They uncovered evidence of academic weakness in specific subject areas, generally low academic achievement, and lack of participation in extracurricular activities. Community studies point to major cultural conflicts regarding education because of the bilingual and bicultural background of youngsters. The attitude of teachers toward native students has also been identified as a major problem in their educational progress. This project probes deeply into the causes for the lack of educational achievement uncovered in the first study. Together they offer a sound foundation for improving the total educational system of a specific State—Alaska—and should provide invaluable insights for other States faced with the education of similar native groups in public schools.

Additional studies, completed and in progress, are concerned with the high dropout rate among such other disadvantaged groups as migrant laborers, Negroes, and Spanish-speaking people in the United States. Others are probing into pupil-teacher relationships, the development of concepts of democracy and freedom, the relationship between school experiences and juvenile delinquency, the motivations of youth for leaving school, the financing of education in urban areas, the effects of various teaching methods on the achievement of elementary school children, the teaching of spatial concepts to blind children, the language achievement of the mentally retarded, and improving the effectiveness of college teaching. Although many more are in progress, we are really just beginning to strike fertile soil. Much remains to be done.

Mr. TOTARO. I would like first, without further ado, to introduce our first speaker, Mr. Flanagan, and let him go on from there, and

you may use whatever procedure you like, to question each member, or whatever.

Mr. THOMPSON. Well, I think that this should be a very valuable experience for us.

Dr. Flanagan, if you don't mind, if the members have a question as you go along, may they interrupt you?

Dr. FLANAGAN. Surely.

Mr. THOMPSON. Fine.

**STATEMENT OF JOHN C. FLANAGAN, PROFESSOR OF PSYCHOLOGY,
UNIVERSITY OF PITTSBURGH, AND RESPONSIBLE INVESTIGA-
TOR OF PROJECT TALENT**

Mr. FLANAGAN. Mr. Chairman and members of the committee, it is a pleasure to be here with this committee and to provide for in support of particularly H.R. 6025, which refers to "Title III—Improvement of Educational Quality."

Through our program of research in education and also my activities as a member of the executive committee of the American Educational Research Association, I have had considerable opportunity to study the role of research in the improvement of educational quality.

I would like to depart from my prepared text here for just a moment at this point, to give you a little bit more background on what research we have been doing, since that is the main substance of some of the conclusions which I am going to present this morning.

We have been working for, I guess, 6 years now on plans and the carrying out of a study of the identification, development, and utilization of the talents of American youth.

Now this was a large-scale study which was supported by the cooperative research program, primarily, with some help from the National Institutes of Health and the Department of Defense, the National Science Foundation, and the testing of a half million high school students was carried out.

Two days of testing for each of a half million high school students, in 1960. Now these students represented a 5-percent sample of schools of all types, public, parochial, private throughout the United States.

It was very carefully selected. We got help from Mr. Hansen, the Bureau of the Census, the Director of Research there, and we got a good stratified sample representing the high schools of the United States.

This was made possible, the handling of 2,000 items of information that we got from each person, each of a half million people, was handled by new developments in electronic scoring and document reading at the State University of Iowa. Mr. Lindquist there has just developed this document reader, which had never been tried out, so we go all of these data. We now have it on tape, an electronic tape, and we have something like a half billion items of information on tape—on reels of tape—at this time. It is a terrific condensation from 11 punchcards.

There were half a million punchcards in each of these stacks, about 300 feet high, if you stacked them up, and these have now been condensed to these tapes.

Now we are beginning the analysis. I want to mention one other thing. This was not only a large-scale study, it was a long-range study, in its conception. We are going to follow these students up 1 year, 5 years, 10 years and 20 years after they graduate from high school, and they were 9th, 10th, 11th and 12th graders. We followed up a couple of classes.

Now, I would like to just hit a few high spots of this, as I think they relate to the needs of research in this area, and relate particularly to 6025, as you have drafted and presented it.

The development of our children and our country demands that educational programs at every level be as effective as possible. The analysis of some of the results from the national survey of secondary schools and students conducted as a part of Project Talent in the spring of 1960 suggests some of the most pressing needs in our schools. Some of these findings and their implications for education are summarized below:

First, several hundred descriptive factors were obtained about each of more than 1,000 secondary schools representing all sections of the country. The single factor most closely related to how much the students learned was found to be the beginning salaries paid to the teachers.

Now I would like to insert a point. This point has to do with the library situation, and the other two factors—now we found, as I said, that the single factor most closely related to how much students learned was the beginning salaries paid to the teachers.

The two secondmost closely related factors were experience of the teachers, number of years of experience of the teachers in this school, and how many books they had in the library.

Now of course, in a survey of this kind, we are not able to get a good measure of the quality of the librarian, so that we settled for objective numerical things, like how many books there are in the library, but this was one of the three most closely related factors to the performance of the students on these objective tests of how much they had learned.

Now the factors that were found not closely related to how much students learned in a given school include school size. You see, in spite of the fact that the number of books in the library was very important, school size was not very important.

Being in a rural or small town as compared to an urban area turned out to be surprisingly unrelated to quality of learning.

Average number of students in a teacher's class did not turn out to be very important, and the newness of the school building also turned out to be of very little importance.

Making the reasonable assumption that the schools that pay the higher salaries tend to hire the better teachers and produce the better trained students, it seems clear that we should do everything we can to see that the better quality teachers are hired in all of our schools.

Now, second, students in the various classes within the high school differ widely—

Mr. TAFT. Excuse me. How is that possible? I thought we were studying English here this morning.

Mr. FLANAGAN. Of course, one of the things which we have as a problem is that not very many of our more able males select education

as a major in college, and this is one of the things we are finding as we go on with these students.

Now some of our better females do select education as a major, although how long they stay in this is another matter.

Mr. TAFT. Let me ask just one other question, if I might. Excuse me for interrupting, but am I correct in thinking that the factor of quality of teaching is something you decided you could not measure?

Mr. FLANAGAN. We decided we could not measure that, no.

Mr. TAFT. That is a rather important factor that relates to all of these.

Mr. FLANAGAN. Supremely important. Now, of course, we have how much the students learn, and that presumably is the product.

Mr. TAFT. That is the product, but quality of teaching on the other side along with all these other factors might be very important.

Mr. FLANAGAN. Oh, that is right.

Mr. O'HARA. That is what you are doing, is it not, measuring the quality of teaching?

Mr. TAFT. You cannot measure it.

Mr. FLANAGAN. The product. We are measuring the quality of the product that we have.

Mr. O'HARA. If you are looking for the quality of education, you cannot determine ahead of time what the answer is going to be and put that in your education.

Mr. TAFT. I agree with you, but on one side, you have the quality of teaching, and on the other side, you have the quality of learning, and what I am saying is that all these factors may be indicative of the quality of teaching.

I think the quality of teaching is an awfully important factor that is involved there. It is an intangible, but it is there.

Mr. FLANAGAN. Of course, the two factors that turn out to be related to how much the students learn, what is the beginning salary this school pays to the teacher, and you would assume that the schools that pay most to the beginning teacher attract the better ones.

And, second, the experience of the teachers turns out to be a very important factor, and you would hope that as they teach, they learn to teach better, so presumably, the quality might be better for people who taught a little longer.

Now, that is an assumption, and we do not really have data on that point, but well, to go to the second point: students in the various classes within the high school differ widely in their abilities and achievements. It was found that 25 to 30 percent of the 9th grade students have already reached a higher level of ability and achievement in the common school subjects than it attained by the average 12th grade student.

Similarly, it was found that the top 5 percent of the students can learn twice as much in the same amount of time as the average student in his school grade. It was found that large numbers of students in the 12th grade knew less mathematics and science than did similar students in the 9th grade.

These and similar findings indicate very clearly that good teachers are not enough. Large-scale, long-range programs of research and development are needed to provide these teachers with instructional procedures and instructional materials which will enable them to in-

dividualize their instruction and provide for appropriate systematic review so that they do not forget more than they learn.

No one teacher, no matter how wise and efficient, can effectively assist each child to learn the materials most suited to his special talents and goals at his own rate unless there is a coordinated program of individualized instruction in the school.

Such a program needs to break the lock step of units and credits and focus on the educational development of each child. An optimal instructional program for individual students will be one which begins at the level the student has already attained and proceeds at the rate best suited to effective learning for him.

Such a program should take full advantage of new findings regarding learning. For example, using the traditional procedures, it was established in the Project Talent survey that ninth grade students could learn an average of about two and a half words in a foreign language for each minute of study time. Within the past month a new linkage method has been developed which increases this rate to more than five new words per minute.

The individualized programs also need to make extensive use of motion picture and television demonstrations and presentations which can bring some of the advantages of the master teachers, the professional laboratory, and the professional actor into the instruction of every child.

The groundwork for much of this development has been laid by studies carried out with funds supplied through the Communications Media Program of Title VII of the National Defense Education Act.

The developmental work also needs to prepare alternate materials from which the teacher can readily select those best suited to this student at this time so that the busy teacher is not required to make special adaptations and improvisations for each student.

With suitable materials for the academically retarded students and the students who are slow learners, these students can learn steadily with materials of special interest to them and at their own rate. This should do much to prevent dropouts who tend to become the hard core of the unemployables.

Three, guidance programs in which "one or more persons are officially assigned" were reported by 73 percent of the public senior high schools. This number has been increasing steadily over the past 5 years largely as a result of the assistance provided by the National Defense Education Act. It is estimated that nearly 90 percent of such schools will have guidance programs by 1964.

The occupational plans of students improve in the direction of making better use of their talents and abilities as shown by the comparison of the plans reported by the 9th and 12th grade students. However, these plans are far from realistic for a large proportion of the students.

A large number of students who do not have the necessary aptitudes and abilities are planning to be engineers and scientists. On the other hand, not nearly enough of the students who would be well suited have made plans to become skilled workers.

The lack of realism in student plans appears to be due, at least in part, to the lack of adequate information in the hands of guidance counselors as to the pattern of aptitudes and abilities required for

effective work in many of the less glamorous occupations. One of the purposes of project talent is to supply this information.

A point of major importance in educational planning is the problem of inadequately utilized talents. Project talent has made a follow-up study of the students graduating from high school in 1960 and 1961. It was found that 43 percent of the high school graduates of the class of 1960 had entered college within 1 year after graduation.

Of the students whose academic aptitude was in the top 2 percent about 95 percent entered college the 1st year after graduating from high school.

Mr. THOMPSON. I assume that scholarships are available to those with the highest academic aptitude.

Mr. FLANAGAN. That is right, and I think that they are in most cases made aware of their unusual ability.

Now, I would like to digress just a moment to point out that when we use an overall average of the top 2 percent or the top 10 percent, and so on, we are talking about a composition of academic aptitude.

Now, in project talent, we have given 52 different tests, and we believe in patterns of aptitude.

Mr. THOMPSON. As distinguished from class standings?

Mr. FLANAGAN. From just general ability, yes, and we find, for example, that the boys who go into mechanics and do not go on to college are not less apt in mechanics. They are quite a bit more apt than the average person who goes on to college as far as mechanical aptitude is concerned.

This does not mean that there is a negative relationship between academic abilities, but there are different patterns of aptitudes, and this is one of the big points of project talent, is to find out what are the patterns of aptitudes that can be identified in high school which we can use to develop this particular person's unique talents.

However, a large number of students in the top quarter in academic aptitude in their graduating class in high school fail to enter college while a substantial number of those in the lowest quarter of academic aptitude do enter.

Only a little more than half of those who enter graduate from college. Considerable regional differences were found in tendency to attend college for students at the same level of academic aptitude. The rate of entry was nearly twice as great in the western area of the country as in the Northeast.

Mr. THOMPSON. I suppose you would thank the Land Grant College Act for that, would you not, or the establishment of State universities?

Mr. FLANAGAN. Well, we think that it is largely due to the presence of low-cost colleges and junior colleges in the West, as compared to the Northeast. There just are not the number of State colleges and junior colleges in the Northeast.

Mr. THOMPSON. I see.

Mr. FLANAGAN. Although some of the talent loss indicated above can be attributed to deficiencies in the guidance information available to the student, a much greater proportion appears to be due to deficiencies in the instructional program.

The inflexibility of the present courses prevents the teacher and guidance counselor from adjusting the students' educational program

to his special plans and needs. Only with a system of instruction which is focused on the individual can we expect to work out for him the type of sound educational program which will develop his maximum potential in an efficient manner.

I might digress there again to say that just yesterday, my wife, Dr. Ruth Flanagan, was interviewing a group of boys at one of the best schools in the country, I might mention, Mount Lebanon, and she was finding that some of these children were just not interested in school at all, planning to drop out, who had very high ability, and it was quite apparent that it was simply because of the failure to adjust to their particular interests.

One girl was interested in art. She saw no value in the other subjects that she was taking. She was getting very good grades, very talented in art. She felt the other things were a waste of time.

Now, it would be quite possible to develop an individualized program for this girl which would develop for her a program that she could see was related and valuable to her rather narrow goals at the present time.

Similarly, one of the other boys she interviewed was a person who wanted to be—he could not figure out whether he was going to be a physicist, chemist, or a mathematician. He had the ability, there is no question about that, but his grades were mostly C's, and he said that he found recitations and the work in school quite boring, that he just was not given the opportunity to do the sort of things that he felt were stimulating and interesting and valuable, and now whether he will end up as a mathematician, and so forth, it is hard to know, because with the kinds of grades he is getting at the present time, to a considerable extent because of lack of stimulation, lack of any challenge, he may never get into some of the better schools.

One of the other things in Project Talent we are finding is the tremendous difference in the colleges.

For example, if we take, let us say, one of the leading Ivy League colleges—

Mr. THOMPSON. Yale, for instance.

Mr. FLANAGAN (continuing). We find that the average of the students there is the 98th percentile for high school, and the lowest person in there is at the 95th percentile for 12th graders. Now this is just 12th graders. We have already lost a third of our students by the time we get to the 12th grade, a third of our population of all age groups, so the expectation in these places is tougher and tougher.

We call all these places colleges. There is one other place where the highest one is at the 12th percentile, and the average in the college is at the 5th percentile for 12th graders.

Now, of course, this is not in the New England States. It is in the Southern States.

Mr. CAREY. Off the record.

(Discussion off the record.)

Mr. FLANAGAN. I think this happens to be a teachers' college, and most of these people are girls, but that is another problem, of course, that we run into. How can these people down at the 5th percentile teach other people?

Mr. THOMPSON. I can tell you how.

A college mate of mine from a lower percentile was teaching at a small school. We asked him how he was making out.

"All right," he said. "I have got one right smart girl in there. I just take her paper and that is the perfect one, and mark all the others."

Mr. FLANAGAN. Well, I would just like to say in conclusion, we would like to emphasize that through the efforts of this and other congressional committees research projects have been initiated through which important new facts regarding educational policies and procedures have been discovered. To make effective use of these findings, developmental centers are needed to evaluate and apply them in new educational programs.

To provide support for such centers which can have a major impact on our educational programs substantial increases are needed in the funds for research and development. We would like to recommend very strongly that your group support H.R. 6025, especially with respect to its support of the National Defense Educational Act research program and the cooperative research program, and the new emphasis given this program.

Mr. THOMPSON. While we are on the subject of that act, do you agree with those of us who have this point of view: its emphasis should be broadened to include the humanities and/or, conversely, the preference sections should be eliminated?

I have in mind this: Under the loan provisions of the act, youngsters with special aptitudes or with background training in math, science, and modern foreign language are given preference. Yet the act doesn't require that they study in these fields in college. It seems to me a rather worthless distinction.

Dr. FLANAGAN. I think that it is undesirable to have special emphasis of this sort. I think that the purposes of education are best served if we develop each person's individual talents in the way for him, and I don't think that one or another group should get the special privilege over others. We need all kinds.

Mr. THOMPSON. Well, I think we had better move on.

Incidentally, we hadn't planned originally to sit this afternoon, but this is a prodigious effort of yours, and although all of us can't be here, Mr. Carey informed me—he is the principal sponsor—that he would be able to be here, so that if we don't finish by noon, at which time we must rise, can you gentlemen come back?

Dr. FLANDERS. Maybe we can finish by noon.

Mr. THOMPSON. Okay.

Who is next?

Mr. TOTARO. Mr. Straubel, our executive director of the Aerospace Education Association.

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

Mr. STRAUBEL. Mr. Chairman, I might add that I am not a professional educator. I might add I don't have a doctor's degree, so I feel sort of like a maverick in a heard of intellectuals here.

Mr. THOMPSON. Oh, you shouldn't feel that way. None of us have.

Mr. STRAUBEL. I do appear before you to express the firm belief of our foundation that greater effort is required to gear America's great educational program to the dynamics of space technology, with which we have had some close experience.

For the record, the foundation is a nonprofit group affiliated with the Air Force Association but governed by a separate board of directors. Our trustees bring together outstanding educators, scientists, and businessmen.

We are now in our eighth year, and particularly since Sputnik, we have had an opportunity to discuss with you the particular problem I want to discuss with you today at close range in various sections of the country.

For example, in the last 12 months, we have sponsored aerospace education seminars for teachers and students in more than 25 cities, each with the active cooperation of the city or State school systems. And we have concentrated education on the elementary and secondary schools.

In addition, we annually sponsor a national symposium on aerospace education that brings together educators from all parts of the country.

Looking back on this experience, we are encouraged on the one hand by the interest of the school systems in updating their curriculums to better keep pace with the fast-moving space technologies.

On the other hand, we continue to be discouraged with the total efforts that we see in contrast to what we would consider to be the total requirement.

For example, while exact figures are not available, the best that we can find indicate that the Nation is now spending as a total investment in formal education something at the rate of \$30 million a year. Exact figures are not available as to how much of this huge sum is being invested in research and development, but some months ago, at our request, the former Secretary of Health, Education, and Welfare estimated in a public statement that about one-half of 1 percent would approximate the correct figure.

Mr. THOMPSON. For research and development?

Mr. STRAUBEL. For research and development.

Of the total investment in the Nation on education of all types, public, private, at all levels.

Mr. THOMPSON. You mean research and development of educational matters?

Mr. STRAUBEL. That is right.

Mr. THOMPSON. Oh, I see.

Mr. STRAUBEL. That is right; one-half of 1 percent of the total investment in education is going into what you might call research and development.

So this got us interested in the activity here, and we are very happy to join my colleagues here, the educators. We have been brought up in an aviation and space environment, where one doesn't survive without a much larger proportion in R. & D. So we have asked the question that with a \$30 million investment, and only one-half of 1 percent of the total being spent to explore new concepts, new procedures, and new techniques, we know that the business world has learned from very hard experience the sad results of underinvesting in research and development.

And we have statistics that we have worked out, just in requesting what the Pentagon spends, for example, something like 17 to 18 percent; industry about 14; even the Department of Agriculture, 3; Public Health was way up to around 40.

We feel that there is a good documentation to show that when you underinvest in R. & D., you can expect equivalent results.

The problem, I think, that bothers us more is the fact that there is no plan, really, to materially correct the imbalance that we see in education. And so we state that we feel that greater leadership is needed at the national level, and we don't find that leadership greatly in evidence.

A year ago, I reported to the committee of the Congress that the Government, itself, was spending about 1 percent of its total education appropriation on research and development. So, 12 months later, our checkup reveals that there is very little improvement in that situation.

Funds available to the Office of Education in the current fiscal years amount to approximately \$650 million for all programs. Of this amount, we were told, some \$14 million now is available for general studies, but only about half of that, or \$7 million, available for the cooperative research program, which, as we understand it, is the principal research and development activity of the office. Thus, little more than 1 percent of this current Federal appropriation is available for what can be realistically considered educational research and development.

Now, that is as much as I will go into the statistical side of this question, but on the qualitative side, I want to state at the outset I am not prepared to discuss the cooperative research program as such, or the special provisions of H.R. 6013, other than to say that they would seem to be the only answer to the problem that I have so far presented. The others here on hand certainly can discuss those things in detail with you.

I represent an organization that is concentrating its efforts in the field of aerospace education, and I will stick to my chosen area.

Now, I want to make it clear that I am not talking about the vast efforts in the country, at various public and private sources, to develop more scientists and engineers. This effort includes the activities of the Office of Education, National Science Foundation, NASA, and many other agencies.

I would like to go beyond that for the moment, and speak of the lack of national leadership to enlighten those in our society who are not necessarily technically qualified, technically minded, or technically skilled. I am speaking of an overwhelming majority of students at all levels whose lives are being influenced by possessive technology, which I will call space technology, for want of a more complex term, and these are people who at least deserve, we feel, to be introduced to the basic elements of the influence.

Dr. Kiernan, the Massachusetts State Commissioner of Education, whom we think very highly of, at one of our own seminars made this statement:

The space age is obviously one of science and technology. Yet, hundreds of thousands of the Nation's youth are destined to be almost totally ignorant of recent developments in those areas of knowledge which most dramatically raise the age in which they live.

Now, we consider this a dangerous situation in a democracy which is founded on an enlightened citizenry; yet, the projected Federal expenditures for education, the budget now before the Congress, earmarks

no money specifically for research in the field that you might call space science.

We find this hard to understand in a country that is only a few years away from placing men on the moon.

No one even is engaged in a qualitative inventory of space education activities. Nowhere is there a clearinghouse for this information and this, too, we find hard to understand, hard because we feel the stakes are so high.

In conclusion, I would like to refer to the article I did a few months ago for a new bureau at the Ohio State University, because it sums up the appeal of our foundation to the committee for greater emphasis on education research and development, in these words:

Superior technology, based on superior scientific research, is the new key to national power. The evidence is apparent for all to see. In this vast and complex struggle for freedom, we can afford to run behind communism on some fronts without affecting the balance of power. But we cannot afford second-best on the research and development front. We must surmount the barriers we have chosen to live with, in the cause of freedom, by the application of new concepts and new ways of doing things. For this we need a steady stream of new basic knowledge—available only through research.

Even in the broad field of research and development, we cannot expect to be superior in everything. That's not in the cards. But certain basic areas permit no compromise with first place—if we are to preserve freedom over the long pull. Basic research is one of these areas. The school system is another. And they go hand in hand—one feeding the other.

We have depended, to a great extent, on other nations of the free world for our basic research. Let us hope that this input will continue. Our schools—by their very nature—cannot be dependent upon imports, to any great extent. Individuals from other nations have made, and we hope will continue to make, important contributions to our educational structure. But the schools, to function successfully, must garner their strength from within and build that strength, layer upon layer, in the American way.

Our schools, on these terms, demand aggressive research and development—in quantity—as do no other American institutions, because the end product is fundamental to all our institutions.

Thank you.

Mr. THOMPSON. Thank you very much. I think we had better get on with the next statement.

That was the 15-minute warning.

Mr. TOTARO. Our next speaker, then, is Dr. Flanders.

Ned, I don't know that you had enough copies to be distributed.

Dr. FLANDERS. Mr. Chairman, may I ask that this be submitted for the record?

Mr. THOMPSON. Without objection, and such other statements as counsel has will be submitted for the record.

Dr. FLANDERS. In this statement, which I will not read, because I would rather talk with you, is a statement about the need for continuing expansion, which Mr. Straubel has just made for educational research. A statement on how I think this kind of Federal support leads to local responsibility, and development in school districts.

Mr. THOMPSON. I want Mr. Taft to listen to that one.

Dr. FLANDERS. A statement on how I don't think we have reached our research potential, such as Mr. Straubel has just indicated, and some other statements which I would like to submit for the record.

Instead, I would like to introduce myself and ask you gentlemen if you would care to ask me questions.

STATEMENT OF DR. NED FLANDERS, PROFESSOR OF EDUCATIONAL
RESEARCH, UNIVERSITY OF MICHIGAN

Dr. FLANDERS. Formerly, I was a member of the school board, for 3 years in the State of Michigan. I have been for 8 years trying to help young people learn how to become teachers by being a member of a school of education at a university.

I have conducted research in teaching, and have tussled with the problem that Mr. Taft was referred to about the quality of instruction.

I have spent more than 8 years in this field, and frequently find myself sitting in a class observing systematically acts of teaching at a rate of once every 3 seconds.

I have also spent my last NDEA project on trying to help teachers improve their ability to teach, working with some 55 teachers in a small school district near Minneapolis.

I believe that we have tremendously underestimated the problems in helping a teacher change his behavior in the classroom in such a fashion that when this change occurs, there will be an improvement of quality in the classroom instruction. Since joining the faculty at the University of Michigan, I am now director of a National Defense Education Act program on research in the field of designs and statistics in education, a member of the Michigan Research Council.

Mr. THOMPSON. With respect to that project, it might benefit us if you would describe how it ended up at the University of Michigan.

Dr. FLANDERS. How the efforts to improve teaching ended up?

Mr. THOMPSON. No. How you got that project under NDEA.

Dr. FLANDERS. I simply applied under title V, I believe it is, of the National Defense Education Act, to the—is it IV?—under IV, to the U.S. Office of Education, and we were awarded this particular program to start in the fall of 1963. It will run for 3 years. We hope to get successive grants, so that we can begin to build a program at the University of Michigan at Ann Arbor which will train adequately statisticians and research design people for education.

Mr. THOMPSON. Are you satisfied with your relationship with the Department?

Dr. FLANDERS. It has been very satisfactory. It has the freedom for us to design what we think is the most important first step in training educators to use computers and other technical resources that are now available.

Mr. THOMPSON. That is title VII, I think.

Dr. FLANDERS. No. Title VII is a new media, and it is another title, VI or V, but I am sorry, I don't remember.

Yes. I have been very satisfied.

Mr. THOMPSON. How are those who are studying under your program selected?

Dr. FLANDERS. They were selected by myself through an application. We had 34 applications for our positions that were awarded to our university. Of the 34 applications, 15 were highly competitive, and at least 8 or 9 were adequately trained, had adequate backgrounds to pursue this program leading to the Ph. D. successfully, and we could only select 4.

The judgment was made on the basis of all college transcripts, letters of recommendation, and a personal interview with each applicant.

Mr. THOMPSON. I see.

Mr. TAFT. What are these men going to do, after they get their Ph. D.'s?

Dr. FLANDERS. They are going to conduct research on problems in the field of education. They are going to work. They will be able to bring resources of being able to write computer programs, to develop statistical analysis procedures to some of the complex types of data that we get, and to contribute to ongoing research programs, another in a school director at a university.

Mr. CAREY. Mr. Chairman.

Mr. THOMPSON. Yes.

Mr. CAREY. Doctor, would that be a parallel program, or would it allow others to mount parallel programs to Project Talent?

Dr. FLANDERS. Do you mean Project Talent as described a moment ago?

Mr. CAREY. Yes.

Dr. FLANDERS. The two are unrelated.

Dr. FLANAGAN. The two are different programs.

Mr. CAREY. Yes, but would the training of the four men allow them to head up similar studies to project talent?

Dr. FLANDERS. Yes, it would. They would be what I would call a social scientist in the true sense of the word. They would have the ability, first of all, to formulate questions nicely, and to develop points of inquiry that are very necessary to effective education; but, second, and more important, perhaps, they would have the necessary skills which are sadly lacking in much of our educational research that would permit them to make complex statistical analyses, use the computer, and outlay various other resources that have only been available to educational research during the last decade or so on this kind of a scale.

I think that—

Mr. TAFT. Who is going to hire these fellows?

Dr. FLANDERS. They will either be hired by large school districts that can afford a research center, or they will be hired by a university to join the faculty of a school of education. Many schools of education even at major institutions are dependent upon departments of psychology and other departments for consultant work in research, design, and statistics. Sometimes, these people are too busy to attend to our problems in the field of education. We need some in our own school.

Mr. TAFT. Are there any others being trained anywhere else in the United States?

Dr. FLANDERS. Yes. There are other centers at the University of Wisconsin, at Michigan State University, at the University of Chicago.

Mr. THOMPSON. Obviously. Illinois must have some.

Dr. FLANDERS. Yes. Illinois, Ohio.

The thing I think I would most like to see is that the provisions of title III in 6013, and title II is, in my opinion, extremely important. I think we are gathering information at an increasing rate with re-

gard to what kind of changes teachers need to make in order to improve the quality of teaching.

I think there is going to be a need to develop programs immediately such as is envisaged here, where the quality of teacher preparation programs at universities can be improved, as well as dissemination of existing research findings made to teachers who are already through training and in the field. Title II and title III are concerned with both of these aspects of the improvement of education.

Mr. THOMPSON. Commissioner Keppel, who was the dean of the Harvard School of Education, feels about this particular point that it is the most important part of the entire proposal. He is testifying tomorrow.

Have you found that there has been an improvement in the quality of education at the teachers colleges?

Dr. FLANDERS. Over, say, the past 10 or 15, 20 years?

Mr. THOMPSON. Yes.

Dr. FLANDERS. I think they have brought more resources, and they have better textbooks, certain types of materials, but, frankly, no. I believe that, first of all, the improvement is difficult, because they are overcrowded and overloaded.

Even at major institutions in the Big Ten, as well as in the far west and on the east coast, schools of education typically do not have personnel to turn to the field of research, and didn't have until the Federal Government provided research grants and proposals of various sorts so that we could release some people to do research on what they were trying to do.

Mr. THOMPSON. I gather that you welcome the Federal Government's assistance in these areas.

Dr. FLANDERS. I certainly do. I think that, first of all, it provides some relief, financially and timewise, for those of us that are busy up to our necks trying to train teachers, and the second thing that it does is in the case where I was working in a school district. It stimulated surrounding districts to contribute funds; it stimulated the district where we did our research, to contribute funds, and I think that this kind of Federal support is a cloud-seeding operation that not only innovates in the school district where the research is conducted, but it also sets a standard for surrounding school boards, who suddenly realize that it is possible to spend time and money on the improvement of education.

Very few school districts do much more than have a little workshop at the beginning of a semester, or they invite speakers to come and talk to their teachers. This is not an effective way to improve education.

Mr. THOMPSON. I am not sure that the system throughout the United States of electing thousands of school boards is the best possible answer, either, but I don't know.

Mr. FLANDERS. It guards a certain amount of independent control, Mr. Thompson, and I think these people can be educated—that is, the school board members can be educated—to realize that it takes time and money to improve classroom teaching.

The best way to educate them is to set an example, and I think that this is a primary function of the Federal Government: to set an example which will spread just like measles in a kindergarten around

to some of the other school districts, and stimulate their acceptance of their responsibility, which they are not now accepting.

Mr. O'HARA. Mr. Chairman.

Mr. THOMPSON. Yes.

Mr. O'HARA. Several of these gentlemen have had experience with the Cooperative Research Act. One of them is an editor, one a psychologist. I would like to ask them a few questions about the operation of the Cooperative Research Act.

One is, do you feel that under the terms of the Cooperative Research Act, that the areas of study and investigation that you are permitted to undertake are broad enough? That is, are you able to undertake not only research related to educational materials and methods, but also research related to the learning process, itself, which would certainly bear very heavily upon the other question? The more you know about the learning process, the more meaningful the research on materials and methods would be?

Dr. FLANDERS. I would certainly say yes. I have received a cooperative research contract. It was completed 2 years ago. One is free to propose any kind of research that he is prepared to conduct and this is important, and once he gets funded, he then has the resources to conduct this research adequately.

The only restriction that occurs is when there is so-called earmarked money in the fixed budget of the cooperative research program.

Would you like to add to this?

Dr. FLANAGAN. Well, I think that the funds might well be less restricted, and not slanted at particular areas. I think that was a comment made a minute ago.

The other thing is that I think that there is a need for more pragmatic research, that is, where you have a center which is set up to do research in the learning process, over a period of time, and there just hasn't been enough of this kind of pragmatic, long-range, large-scale attack on the problem that will really come out with something that can be used. And I think that is the biggest need at the present time in this area.

(The prepared statement of Dr. Flanders follows:)

EDUCATIONAL RESEARCH—KEY TO IMPROVING EDUCATION

(Statement by Prof. Ned A. Flanders, the University of Michigan)

(1) *The need for continuing expansion*

In creating research funds and by providing continuing, expanding support, Congress has already demonstrated its deep concern with our present inadequate research and evaluation in education. In no phase of our society has so much money been spent with so little attention to program effectiveness and innovation. Testimony before this subcommittee in the past has shown that funds for educational research as a percent of all funds spent in the field of education are now and have been woefully inadequate. Compare, for example, the less than 1 percent for educational research, with 17 percent in Aerospace undertakings, 14 percent in the Department of Defense, the 44 percent in Public Health Service, and 3 percent in Agriculture.¹

The hard truth that faces the sincere Congressman is that, on the one hand, he believes in local responsibility for education, and on the other hand, he recognizes that local school authorities have had no inclination to pay for educational research unless stimulated by Federal participation.

¹ These figures from the testimony of Mr. James Straubel, executive director, Space Education Foundation, Air Force Association, Washington, D.C.

The issue before this subcommittee is not whether the Federal Government should or should not provide financial support to education or educational research activities, but rather the question becomes how much Federal support and in what areas of education will this support most likely lead to increased quality in locally controlled education?

Federal support to education has, in the past, been responsive to the special interest groups of education. Higher education, vocational and agricultural education were the first to secure Federal support. In every case the justification for this kind of Federal action has been that if the Federal Government did not act, an unfortunate imbalance would continue to grow in the national educational effort. The Federal agencies have acted and should continue to act with support from the legislature in any fashion necessary to maintain a strong, expanding, balanced program of education.

Given this function of the Federal Government in the field of education, I would like to restrict my remarks to important aspects of the improvement of education.

(2) How can Federal funds stimulate local responsibility?

Federal research funds have had a unique role to play in the encouragement of local responsibility for the improvement of education. Projects funded have often stimulated supplemental funds not only from participating universities and State agencies, but also from local school boards where the research is conducted. In two projects under my direction, research and development activities were continued by local administrators and teachers after the research project was completed.

The only discouraging note is that so much needs to be done. Even the proposed increases in the budget will not be enough to help very much local school boards recognize their responsibility in the field of educational research.

I am convinced that much more should be done to help local school districts conduct educational research, apply research findings, and evaluate innovations scientifically. Projects sponsored by Federal funds have demonstrated one way to do this. They have shown that federally supported research, designed by local social scientists and educators, is an effective method of achieving this objective.

(3) How can we develop our full research potential?

There are quite a few educators and many social scientists who are qualified to design and conduct research in education but who are not currently engaged in these activities. One reason for this is that present and proposed appropriations for educational research are not sufficient to meet the demand. Some projects which have merit cannot be funded. One outcome of the increased competition for funds, however desirable this may appear, is that qualified research workers become discouraged when sound proposals are turned down. One can predict that even though the total number of applications is still increasing, this trend will level off and may even decline as more and more proposals fail to gain support.

(4) How can a balanced program of research be maintained?

Even a casual observer will note the emphasis that has been given to science and mathematics in a variety of Federal programs. Much research is needed in all areas of education, not just a few.

Two additional items strike me as worthy of special attention.

The first of these is a need for research and development in the training of teachers. Too little is currently known about how we can best educate teachers. For example, there is very little evidence concerning the effectiveness of existing programs. As shocking as it may sound, the fact is that those of us who try to teach teachers how to teach have been too busy, with no time to experiment, improve, and evaluate our present programs. Nothing short of an all-out, federally supported program can help solve this most urgent problem.

A second item that deserves special attention involves the creation of research and development centers. This proposal recognizes that some of our problems in education are so complex and difficult that special centers are needed to provide for a coordinated, interdisciplinary program of research. A center would not only provide opportunities for basic research, but would permit a research approach to the problems of applying research findings in local school districts. Special problems arise in the application of research findings when the process of application requires that teachers act differently while teaching.

This process of helping teachers change their behavior is a research problem in its own right. A center, with greater resources than can usually be found in single proposals, will permit us to work on these more difficult, complex problems.

Mr. O'HARA. I have been very impressed by some of the research that has been done on curriculum and teaching methods. The research in elementary mathematics courses is a good example.

But I am at the same time distressed by the confusion that has been introduced into the teaching of elementary mathematics. There are several new methods of instruction, some of which have been adopted by some schools, others of which have been adopted by other schools. You have yet another group of schools which have made no change in mathematics instruction.

Some valuable research, producing some worthwhile results is not enough. What about the question of implementing these results?

Dr. TOTARO. One of our great needs is to be able to set up demonstration centers in various places around the country, where the kinds of institutions that you have referred to can get a good look-see at what is going on.

It is impossible to expect a new piece of research, no matter how sophisticated and supportable, to be immediately transmitted into the kind of schools that exist throughout the country, and getting back to Mr. Taft's question of quality, I wish it were possible to simply state what quality in teaching is. We are really more concerned with quality of learning and the various kinds of stimuli that would bring about this sort of thing, but I think demonstration centers is one answer to your question.

Another, then, would lead to implementation, and here are places where we haven't put money on the barrel to get these kinds of things rolling.

I think that is the pragmatic kind of center that Dr. Flanagan was referring to.

Mr. THOMPSON. I think, too, that the statement of Dr. Flanagan to us, relating the salary of the teacher to the problem, is especially important. It is obvious that something has got to be done to raise the level of pay of teachers everywhere in order to induce youngsters not only to enter the profession, but to stay in it, perhaps more important.

Dr. TOTARO. And some communities may have to come up with artificial attracting devices. For example, what you can accomplish in Shaker Heights near Cleveland may not work down in the center of Ohio in some of the other kinds of school districts, and I could make the same analogy for every one of our States represented here.

Mr. CAREY. Mr. Chairman, I hope someone will throw a bouquet to Mr. Straubel. It is interesting to hear you draw the analogy with our business research budgets that no business could hope to continue or succeed without a greater commitment to research than we are making as a Nation now in education, and I take it your background has been in the business world, to a large extent?

Mr. STRAUBEL. Yes, and, primarily, 15 years in aviation and in the last few years in the space side.

I am publisher of a magazine on space subjects, where we attempt to deal not with space technology, but to try to get at what is the impact of it all on our society, and each month I can count the qualified writers on my two hands. They just aren't there. And very few people have done much beyond the technology side.

Mr. CAREY. Talking to the point of impact, as a businessman, you do not feel or apprehend any danger in greater involvement in terms of the National Federal Government in advancing research in education as a matter of offending the principle of local and State control, local and State administration of education?

Mr. STRAUBEL. Well, as I go around the country and moderate seminars and help sponsor others, someone has got to step in, and as long as it is conducted on the terms that we have heard here, as a siding proposition, where you stimulate rather than attempt to direct—God knows what will happen if we don't do it. I mean, I don't see it coming. I see a State starting up the only space science course we have had in this country so far, in Pennsylvania, with no text books, working from magazine articles, newspaper clippings, with no visual aids. We are just in a pioneering process in the area I am discussing, and I just can't see this growing without a terrific timelag that we can't afford.

I guess the traditional timelag in this country, they tell me at the Office of Education, is something like 40 years between a new idea and the implementation. In this area, technology is moving so fast that we can't afford any great timelag, for once we get set, it will be outmoded by the time we are ready to go.

Dr. FLANDERS. I think that local control is illustrated well by the State of Michigan. Just on the basis that the quality act was formulated last year and submitted to the Congress, the Michigan Educational Research Council was created, given a constitution, and is already in existence, and if it can secure any kind of funds, it stands ready to help spread this through most local school districts that most need it, so that instead of having those school districts that are best qualified getting the major share of the funds, it will instead be spread throughout the State where it is needed most.

Mr. THOMPSON. Gentlemen, I am afraid that we have to adjourn.

(The statements referred to follow:)

STATEMENT SUBMITTED BY MERRILL F. HARTSHORN, EXECUTIVE SECRETARY, THE NATIONAL COUNCIL FOR THE SOCIAL STUDIES

Mr. Chairman and members of the subcommittee, my name is Merrill F. Hartshorn, and I am the executive secretary of the National Council for the Social Studies, a voluntary, nonprofit, educational organization founded in 1921. Our membership is composed of social studies teachers (from the fields of history, government, economics, geography, and sociology) in the elementary and secondary schools of our Nation. We also have in our membership a sizable number of instructors in colleges and universities whose main concern is the education of prospective social studies teachers for our schools. At the present time our membership is slightly in excess of 11,000.

First of all, I should like to express our general support for H.R. 3000 which should, I believe, have priority consideration by the appropriate committees of Congress. In connection with this general support, I appreciate the opportunity on behalf of social studies teachers to submit this statement which deals with section 362 of part D of title III in H.R. 3000. This is bill H.R. 6025, now under consideration.

The Cooperative Research Act has made a substantial contribution to education, and its potential for the future is indeed very great. Proposals to amend and strengthen the act certainly deserve careful and serious consideration. Outmoded content of courses, curriculum design, and teaching techniques must be eliminated, or our educational program will fail our Nation at a crucial point in history. This is especially true in the area of the social studies where change is developing much more slowly than in some other curriculum areas.

Education is a vital part of our national defense and it is crucial that it have the moral and financial support from all levels of Government that it needs to meet its responsibility to our Nation. To meet this responsibility, more research on educational problems is urgently needed. At the same time the base for this research and the dissemination of research findings, should be as broad and strong as possible. We need to move as rapidly as possible with this task and need assistance from all sources that can make a significant contribution.

The proposals to amend the Cooperative Research Act to enable the Commissioner of Education to make grants to public or nonprofit private universities, colleges, or other organizations with research or professional training facilities, and to local educational agencies, certainly would broaden the base for research and increase the opportunities the act provides for making a significant contribution to education.

By broadening the base of those eligible for contracts or grants to be awarded by the Commissioner of Education, several specific benefits would emerge.

First of all, it would enable the Commissioner of Education to draw on a much larger pool of manpower and talent, that could bring their special competencies to bear on some of the urgent research problems in education. Considering the size and nature of the problem, this could prove to be a great asset.

Secondly, national nonprofit educational organizations could make a significant contribution to the purposes of the Cooperative Research Act. One especially important role they could play would be in the dissemination of the results of the various research studies being supported under the act. One criticism frequently made at the present time is that the results of many research projects with subventions remain in reports on shelves of offices—that they do not get into the bloodstream of American education. This is indeed a great loss to education, and at the same time it means that the potential of the money invested in research is not realized to any considerable extent. Organizations could utilize their channels of communication with their members in the dissemination of the results of research, and do so economically. This could be done through the regular publications such as monthly journals, through special publications, and through programs at annual meetings.

Thirdly, national organizations, with branches in all parts of the United States, could assist greatly in helping to locate and to mobilize talent needed to assist in developing and implementing desirable research studies. They could sponsor seminars or conferences to assist the Commissioner of Education in discharging his responsibilities under the act.

Finally, national organizations could assist in serving as a clearinghouse on the various ongoing research projects being supported in their special fields of interest. This could be of great assistance to the individual projects. It would enable those responsible for specific projects to exchange information that could prove helpful in their project development and the conduct of their work.

Consequently, it is respectfully requested that members of this committee, and other Members of Congress, give their support to H.R. 6025 that broadens and extends the Cooperative Research Act to empower the Commissioner of Education to make further grants and to extend the act to groups presently not eligible to assist in furthering the basic purposes of the act.

RESEARCH RESULTS ARE USED

(By Burton W. Kreitlow, professor of rural and adult education, University of Wisconsin)

The longitudinal study of centralized school districts in rural areas in Wisconsin was designed initially to produce both basic and practical research outcomes. The vital assistance which came from the cooperative research program accelerated the practical aspects of this research and enabled the publication of pertinent documents which are eagerly sought by the public. Additional basic research has also been accomplished. The following account is an example of the requests for information related to the research which were received and met by this office during 1 week (February 18-22, 1963).

Monday, February 18: Phone call from Kansas School Boards Association seeking 200 copies of Special Bulletin No. 6 for distribution to the State legislature then considering a school district reorganization bill for Kansas.

Tuesday, February 19: Letters requesting copies of materials from Pennsylvania, California, and Nebraska.

Wednesday, February 20: Request for booking or purchase of the filmed research reports on school organization from Contra Costa County, Calif.

Thursday, February 21: Inquiry from South Dakota regarding the purchase of school reorganization films. Five letters and three phone calls requesting copies of Special Bulletin No. 6 within Wisconsin.

Friday, February 22: Two phone calls requesting the research director to give oral reports, one from a community group and one from a group of school administrators.

Requests for help from a citizens committee engaged in a survey of reorganization possibilities for three high school districts in Waupaca County, Wis.

Special Bulletin No. 6 was released by the University of Wisconsin College of Agriculture bulletin room in the spring of 1961. Since that period 35,000 of these reports have been requested and used. More than half of these requests originated outside of Wisconsin.

STATEMENT OF ZENO B. KATTERLE, DEAN OF COLLEGE OF EDUCATION, WASHINGTON STATE UNIVERSITY

I thank the subcommittee for this opportunity to present facts about the educational needs of American youth. Let me also express my respect for the years of thought and effort many of you have devoted to meeting the Nation's critical and expanding educational needs.

We are all aware that our society continually becomes more technical and complex. Consequently larger percentages of our citizens need higher levels of training. Citizens' capacity to earn paychecks for their families depend on education commensurate with present-day need. So does the prosperity and progress of our country. Clearly, somehow, citizens, localities, States and our National Government, together, must develop ways of allocating a more adequate portion of our manpower, time, and unprecedented financial resources to provision of such education. Research and developmental training aimed at improvement of instruction are particularly urgent as means of enabling the Nation to use its educational manpower, facilities, and funds in ways that yield the best possible instruction for youth.

To make education as effective as it can and should be, there is urgent need for research that will (1) better enable teachers to identify and develop all capacities of all pupils; (2) reveal more effective means of motivating pupils to learn during their school years and to continue learning throughout their adult lives; (3) show how modern teaching tools and material can be used most effectively; (4) show how personnel can best be used to provide high-quality education for our ever-larger numbers of pupils.

I strongly urge the subcommittee to support H.R. 6025.

Thank you.

STATEMENT BY LOIS S. JOSEPHS, ASSISTANT PROFESSOR OF ENGLISH, CARNEGIE INSTITUTE OF TECHNOLOGY

I wish to thank this committee for this opportunity to present facts in support of the Cooperative Research Program of the Office of Education. Until project English, a national effort at curriculum revision sponsored by the Cooperative Research Branch of the Office of Education, funds have not been available to improve the teaching of English in our schools. In order to see what project English really means we might ask three questions: Why must we improve the English program in our schools? What does project English mean now in the improvement of that program? And finally, what can and must be the role of project English in the next year?

To answer the question of "why" seems almost academic; however, I think it important to define clearly what some of the issues really are. Certainly, we must agree with the comment of James Squire, executive secretary of the National Council of Teachers of English, when he said: "the teaching of language, literature (reading), and composition is basic to our education program." If a student has not been taught to read properly, he will necessarily have difficulties in other subjects, for he cannot read a history or a science text as effectively or as quickly as he should; moreover, reading involves not just the pronouncing of words but also the comprehension of meaning both in terms of subject

matter and levels of insight. Can we go so far as to say that the ability to read without the ability to interpret what is read can be a dangerous tool in a democratic society? In addition, we know that the reason for students' dropping out of school is closely related to their inability to succeed because they have not learned to read properly. As a former high school teacher, I recall many 10th- and 11th-grade students who became discouraged because reading problems precluded success in any subject.

Now, as a teacher at a technical college, I am particularly aware of problems in composition. Why should it be necessary for Carnegie Tech to run writing workshops—and they are well attended—for engineers, for social workers, and for other professional people? The problem seems to be that many of these people cannot, either orally or on paper, communicate with those who work under them. As a result, time and energy are lost in improper procedures, the result of poor communication. Specifically, a graduate of our school of dietetics told me of her gratitude for the English training in composition at Carnegie Tech; she has just received a promotion in a large hospital because she is the only dietician who is able to write quick, expedient, clear instructions to the many different cooks. These are just some of the reasons for "why." There are many others.

I would like to turn next to the question of what project English means now in the improvement of English teaching. We may cite three existing and tangible aspects of that program: basic research, conferences and seminars, and the curriculum study centers. One of the most significant examples of basic research is that undertaken at Indiana University where the researchers studied the language of elementary school children and the relationship of that language to popular reading textbooks. The results of that research will clearly influence the reading textbooks—the Dick and Jane textbooks—which are now being seriously questioned. As for conferences, two important ones have been held so far: one at Carnegie Tech where professors of education and psychology, researchers in the teaching of English, and selected school and college leaders considered basic needs in research; and another at the University of Illinois where 75 selected college and university English department chairmen considered similar problems. Scattered results of these conferences have begun to show, but most of the findings will be significant only if project English has an optimistic future.

Enormously exciting to the "now" of the program are the curriculum study centers in which colleges and schools are cooperatively working out new programs. The goals of the eight curriculum study centers are varied and vital to the improvement of English teaching in our country, and the scope, span, and emphases of these centers encompass many needs. Since the center at Carnegie Institute of Technology is the one in which I am involved, I would like to tell you something about it.

The curriculum study center at Carnegie Tech proposes to write a complete, articulated, and sequential program in English for college-bound 10th, 11th, and 12th grade students. But the college staff does not work within the confines and quiet of its walls. Last summer, 4 professors of English and 12 high school teachers, 2 from each of 6 cooperating schools, came together to plan the first part of the program. After much discussion, they worked out a general, comprehensive plan for the 3 years and then a more specific plan for the 10th grade course. This specific plan, now being used in 10 experimental classrooms by 5 of the high school teachers and 2 of the college professors, is complete with day-to-day lessons in literature, language, and composition. Not only is the course being taught on an experimental basis, but it is constantly being evaluated by all of the teachers who meet at least once every other week during the year.

Here, tangibly then, is what we have done so far. Now I would like to tell you about what I see as significant in this kind of a program. We have an articulated, sequential world literature course; and as one of the two college professors who is teaching that course, I see students beginning both to read carefully beneath the surface of the printed page and also to understand sympathetically the people of the world through their literature. In language, I see my students beginning to understand, for the first time, how their language works, thus how it is used for communication. Weaned on traditional grammar that seeks to impose Latin rules on English, they suddenly discover how their language is organized within the concept of how it, not Latin, patterns. In composition, too, I have watched my students grow not because they write more—our teachers still teach five classes and cannot assume impractical paper loads—but because

we have worked out, in planning the course, new and more effective ways to teach composition.

I have also watched teachers grow, both college and high school teachers. Our college teachers who work in the program have a much clearer understanding of the needs of their undergraduates who plan to teach English. Thus college professors have revised their own courses to suit the needs of these undergraduates. I have watched high school teachers begin to see new ways to teach literature, language, and composition. For example, they have learned to teach inductively, that is to teach not by telling but rather by allowing students to discover knowledge for themselves. The art of inductive teaching is built into the planned curriculum for the 10th grade, and the enthusiasm for it is reflected in both students and teachers of the project English course. Our high school teachers have also responded positively to the basic organization of the course, sequential and articulated, so that knowledge builds on knowledge. At our last meeting, in looking over the entire program, one of the most frequently expressed remarks from both the college and high school teachers was: "I have learned so much."

Not only have English teachers been involved but counselors and administrators also. We work with counselors in our combined attempts to evaluate the program; therefore they begin to understand needs in English. Even more important are the administrators who are always clearly informed about what is being done. One administrator, Dr. William Potter, superintendent of the Wilkesburg Schools, commented on how nice it was to work with the Carnegie Tech staff because the members of that staff understood his problems. What I believe he meant is that we have all learned to understand each other, and out of that understanding has emerged significant progress in the English curriculum.

But we have touched only 6 schools and 16 people. This, then brings me to my third point. What can and must be the role of project English in the next year. We need money both to spread what we are doing and to articulate it with other grade levels. To involve only six schools will certainly not extensively upgrade the English program. We now have 16 trained people; we need many more, and using these 16 as a kind of nucleus, we would like to involve others. The spade work is done; soon, we will be prepared to demonstrate our program so that it can be widely disseminated in the schools. We receive a flow of letters asking for help that we simply cannot give, and we receive many phone calls, some from administrators not in the program who beg that we include their schools and others from administrators in the program who ask that we allow them to send more teachers. To comply, we need project English support as we will need it also to articulate our program with some of the new curriculums in the junior high school grades. No one group, working on a few grade levels, can hope to make an effective contribution in isolation.

In addition to our program I would like to mention the book, "Needed Research in the Teaching of English," that has come out of one of the Project English conferences that I mentioned before. The book suggests important research gaps in English on all levels, kindergarten through graduate school. A few examples of these suggestions might be such questions as when the teaching of reading should begin, when the teaching of reading should evolve into the teaching of literature, how to develop a new, linguistically sound spelling system, how to teach various aspects of language at appropriate levels, and how to develop valid examinations in literature and composition. These are just a few of the many useful ideas that grew out of the conference, ideas that the Project English program, alone, can turn into realities.

These suggestions must be acted upon in order to upgrade English; moreover, the results of these suggestions, of the basic research, must then be used in the schools. The gaps between what we know, even now, and practice in the schools are large and unnecessary. Thus to improve the teaching of English, we must know more about it; in addition, we must incorporate what we know into the schools. English is so much a part of all knowledge and of our everyday lives that as our society changes, so do the needs of an English curriculum, a living curriculum, for students in a fluid and democratic society.

STATEMENT BY EDWARD C. POMEROY, EXECUTIVE SECRETARY, AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION

Mr. Chairman and members of the subcommittee, my name is Edward C. Pomeroy, executive secretary of the American Association of Colleges for Teach-

er Education. Your willingness to add this statement to the record of support for the amendments to the Cooperative Research Act, as contained in the National Education Improvement Act of 1963, is deeply appreciated.

The American Association of Colleges for Teacher Education is a national association of 634 colleges and universities organized and dedicated to the improvement of institutional programs of teacher education. Association members represent the 50 States of the Union and Puerto Rico and exemplify all types of publicly and privately supported colleges and universities. In this organization, small church-related, liberal arts colleges and large, complex universities work together at the national level to improve teacher education.

Interinstitutional cooperative studies of problems in the field of teacher education constitute one of the means used by the association to encourage institutional improvement. An extensive program of meetings and publications serves as the vehicle for disseminating new and important information to the various member institutions.

The association's executive committee has considered the important contribution that the cooperative research program has made and must continue to make if the quality of education in our schools and colleges is to reach the high level demanded by this Nation's responsibilities and commitments. This statement reflects the executive committee's position, speaking as a nationally recognized group of leaders of teacher education in colleges and universities but without the formality of a membership poll.

The National Education Improvement Act of 1963, H.R. 3000, emphasizes the improvement of quality in our American educational system as a whole. The overall approach to the solution of the interrelated problems in American education has much to commend it, even though for the convenience of discussion various aspects of the total act may be considered as separate units, as is the case in regard to the amendments to the Cooperative Research Act, now being considered as H.R. 6025.

In our society it has become commonplace to look to basic research in business, industry, medicine, agriculture, and modern weaponry as the source for higher standards of living, of health, and of national defense. In light of this reliance on research for higher quality, production, and efficiency, it seems strange that equal emphasis is not provided in the field of education, upon which in the final analysis depends our present and future success and well-being as a nation.

The AACTE Executive Committee feels that it is desirable to widen the base of participation in the cooperative research program to involve more effectively the cooperation and research resources beyond the colleges and universities to include organizations and, where appropriate, local education agencies. Widespread institutional cooperative effort coordinated through professional organizations can frequently contribute to expanding the scope and effectiveness of research and study efforts. In a like manner, the lines of communication among educators and educational institutions developed by the several educational organizations provide an exceptionally useful means of disseminating new ideas and new findings to places and situations where these facts can best be implemented.

The AACTE Executive Committee is convinced that these amendments to the Cooperative Research Act would provide the U.S. Commissioner of Education with important new means of expanding the contribution of the cooperative research program. These amendments, plus a substantial increase in funds for this program, will insure a more effective use of the skilled professional personnel available in this Nation for the improvement of education. A significant forward step has been taken in stimulating basic research in the field of education through the cooperative educational research program. The proposed amendments now being considered by you and your colleagues in the Congress will open up new and important resources which are awaiting a chance to participate.

It is the hope of the Executive Committee of the American Association of Colleges for Teacher Education that these amendments will prove to be acceptable to the Congress and that they may be included in a bill meeting the needs of the entire scope of education as envisioned in the National Education Improvement Act of 1963.

I thank you for the occasion to submit this statement to the subcommittee.

STATEMENT BY LESLIE H. FISCHER, JR., DIRECTOR, THE STATE HISTORICAL SOCIETY OF WISCONSIN

Our deep concern is with the social studies in Wisconsin and the United States and specifically with the social studies curriculum in elementary and secondary school systems. Social studies embrace those areas of knowledge which are primarily concerned with man's relationship to man and the impact of nature upon this relationship. Taken with the natural and biological sciences, language and the arts, an intimate knowledge of the social studies, or social sciences, is a basic requirement for an educated people. Two Russian historians, visiting the State historical society earlier this month, commented on the explosive news and headline techniques of American newspapers. Our reply was that, as an educated people, we deserved to know all of the news and could select the pith from the trivia. Our democracy is rooted in the elemental fact that we are a thinking people and we have our educational system to thank, or to blame, for that.

It is this educational system, particularly in the area of the social studies, which is faltering, unable to live up to its responsibilities. Teachers need to be trained and retrained so that new interpretations of old information as well as new information itself is made available to them. Teachers need time and study to develop, with those more expert in subject matter than they can be, new curriculums and new curricular material. More importantly, colleges and universities and other institutions with research and training facilities need to have support for initiating and developing new ideas in teaching and teaching materials.

A reexamination of the social studies curriculum will quickly reveal a dull, repetitive and unexciting series of courses. While details differ all over the country, the general picture is one of American history courses rigidly slotted at two or three grade levels, frequently going over the same ground in much the same way. Courses in economics and sociology, if offered at all, are offered at the last moment in high school and as entirely new subjects. Courses in political science, often called civics, examine the process of government as if robots, not men, governed the affairs of the country. Courses in world history are jammed so full of required material that teachers must depend upon their own and their pupils' note learning to complete them. Courses in geography are almost nonexistent except for those students who are not able to handle world history. These courses are constructed as if land masses existed for statistical groupings of temperature, imports and major industries, or are so well integrated into history courses as to be lost. It is a dismal and depressing picture.

History and the social sciences are in a constant state of flux. New areas of history, such as the history of American science, of mass communications, of urban history, have not filtered down to elementary and secondary school levels, yet no one can gainsay their tremendous significance for midcentury Americans. New information in the social sciences is equally significant and, at present, blocked from elementary and secondary education because teachers are not informed and materials are not available. New interpretations of older concepts need to be presented, too, but cannot be unless the teacher and the materials are readied for the presentation.

History and the social sciences need to be revitalized if they are to perform their function of preparing young people to shoulder the increasingly heavy burden of living in a democratic society. They must know about their past—and that if those who oppose our democratic system. They must know about their society, their environment, their economic system—and those of their opponents. They must have this information, be permitted to think about it, be encouraged to work out study problems with it, be urged to stretch their imaginations about it so that they can approach their problems, when they become adults, with the wisdom of the ages, the reflectiveness of a trained mind, and the speed of the 21st century. And "their problems" are and will be the problems of national survival.

STATEMENT BY NORMAN L. RICE, DEAN, COLLEGE OF FINE ARTS, CARNEGIE INSTITUTE OF TECHNOLOGY

I have been asked to discuss briefly the nature of research in the arts. If by "research" we mean the pursuit of new knowledge or the application of

knowledge with innovative or investigative intent, then art itself can be called research. A serious artist in any medium is trying to extend the limits both of man's imagination and of his understanding of his world. The means used may be based on verbal, visual, tonal, structural or (as in drama and dance) projective techniques. The activity of the artist results in a product, art, the limits of which have not been predetermined. Art can be, in its highest form, pure research into the phenomena of seeing, feeling, insight, and communicative purpose.

But because "research" is not usually the term used to describe this creative process, it is not likely that the arts will spring quickly to mind when the Cooperative Research Program is considered. Research efforts of a more orthodox kind have frequently been applied to the arts, not always at effective educational levels or with significant results. It is quite likely that better understanding of the whole creative process, to the benefit of both education and science, as well as new art expression could emerge from serious and imaginative investigation into the artist's conceptual processes. Because the artist often is concerned with nonverbal communicative techniques, we could perhaps through these find a better measure of intelligence for some people than the scales of verbal and mathematical aptitude which, as now applied, control the opportunities, and thus the destinies, of many citizens. We need better studies of structural types and materials applicable to the design problems of architecture. There are problems which involve esthetics and design knowledge to be solved in the rehabilitation and extension of our cities. We can profitably investigate, through the drama, certain qualities of audience response.

The arts, like the sciences and humanities, require some open opportunities for speculation before many of the problems open to solution will emerge. Until vigorous minds are permitted to move without restraint into areas of free inquiry (beyond those which traditionally artists have been able to control through the simple application of techniques to their production of art) there will be little revelation of the extent to which the processes of art can contribute to a more complete understanding of man and society. This would suggest that institutions which are already engaged in broad research projects in diversified areas could (if the environment permits) productively add investigative projects in the arts at graduate levels. Institutions which have responsibly administered funds for other research purposes can with equal confidence be given custodial control of research funds the areas for which the arts have primary concern—creativity, the uses of the imagination in the conception and development of new problems, education at all stages of human growth, communication of both emotions and ideas, and the development of a balanced society.

Although some studies of sensory preception have been made, our understanding in this area is still far from complete. Beyond the value of such studies for artists and teachers, there are in these investigations far more complex implications for those who study the learning processes as a whole. The same can be said about whatever new insight we can gain into the neuromuscular mechanisms which condition performance on a musical instrument.

Certainly the arts have not been entirely isolated from studies that originate in the areas of psychology, physiology, engineering, science, sociology, and economics. But the attraction of talented and perceptive artists to collaborative efforts with research scholars in these fields has not been marked—largely because the arts have not been able to subsidize their part of such inquiries. Without doubt the studies which might be most useful in a general sense—and also probably those which are most complex—are those which deal with the nature of the creative process, however it may be applied—toward the arts, toward science, toward social growth, educational progress, engineering or political action. This would appear to be a corporate undertaking of considerable magnitude.

Those of you who have watched carefully the development of precollege programs at both elementary and secondary school levels during these recent years of change, have undoubtedly seen the ways in which young people with high intelligence have been guided (rather inexorably at times) into paths which would bring them into the colleges equipped to cope with almost anything except the problems of the arts. Expanded school programs in the arts have been reserved for the "slow track" people, those who cannot, without having college and professional school qualification barriers lowered for their accommodation, hope to compete intellectually with their college fellows. Thus we rapidly reach a point of greatly diminishing returns in the arts: We cannot maintain the intel-

lectual standards we require as serious educators and develop the processes of thought and action which art requires of its best practitioners. Any program which will attract to the arts the gifted and imaginative young people who will become the next generation of artists, and any devices that will enable us to identify and measure their talents, will contribute in extraordinary ways to the wealth and welfare of this country.

STATEMENT BY CARSON MCGUIRE, PROFESSOR OF EDUCATIONAL PSYCHOLOGY, AND DIRECTOR, RESEARCH IN EDUCATION, COLLEGE OF EDUCATION, THE UNIVERSITY OF TEXAS, AND ROBERT J. JONES, ADMINISTRATIVE ASSISTANT, OFFICE OF THE DEAN, COLLEGE OF EDUCATION, AND RESEARCH ASSOCIATE, LABORATORY OF HUMAN BEHAVIOR, THE UNIVERSITY OF TEXAS

THE NATION'S STAKE IN EDUCATION FOR A NEW ERA

The special message on education sent to Congress by President Kennedy on January 29, 1963, proposes a comprehensive program which clearly indicates an awareness of the Nation's stake in education as a matter of deep concern to the welfare of all Americans. This statement first summarizes evidence for the point of view that we are entering a new era in which life and living are going to differ radically from what we have known in the past, and strongly urges that a foundation be constructed for American education through behavioral science research and development explicitly oriented to the new era which demands qualitative improvements in education to preserve the national interest.

A new era

Whether or not we all realize it, the people of the United States face a series of crucial decisions in the very near future. Mankind is moving rapidly into a new era. The changes, piled upon conflicts not yet forgotten, are creating dilemmas we have to solve. Choices made by Americans are going to affect them politically, economically, and through many other aspects of their lives. Not the least in importance are courses of action for the education of coming generations and, right now, finding and encouraging the advanced education of keen-minded and creative graduate students to serve the Nation and its people.

What is happening? First, an incredible explosion of knowledge is taking place all over the world. Merely to keep pace, there has to be a revolution in learning in our schools and in many of our colleges. As the new era unfolds, an increasing proportion of executives and professional personnel, including teachers, are going to have to attain the equivalent of another university education each 10 years just to keep abreast of new developments and their competition at home and abroad.

Second, permanent unemployment or a marginal place in the community—supported by local, State, and Federal funds—faces persons who cannot be reeducated and fitted into new niches in a rapidly changing society. We at the University of Texas are convinced that even problems as complex as this one can be solved by using creative people, electronic computers, and modern methods of behavioral science research. We now can test ideas and determine the probable consequences of many proposals before large sums of money are allocated for public or private undertakings.

Third, we are entering a space age. New systems of energy transformation rapidly are being developed. The kind of world(s) that writers of science fiction began to portray only a few decades ago now can be seen opening up. We are going to have to cope with emergent views in the sciences, humanities, and philosophy, as well as in some of our religious beliefs and "commonsense" explanations. Thoughtful persons, willing to test their ideas, already are searching for a new order, fresh meanings, and revitalized human values—truth versus falsity, beauty versus ugliness, good versus evil—based upon broader premises and a faith in survival.

Finally, people in the simpler societies of the near past are "leapfrogging" into the complex present within a single generation. Many of their products, such as oil, and their ideas, presented in the United Nations and elsewhere, are intruding upon our heretofore relatively isolated lives. Taken together, these signs of a new era form the elements of what the late Walter Prescott Webb has called the great frontier. Once recognized, they should excite our imagination and urge us to creative action.

Centers for multipurpose educational research and development

Since it is a matter of national interest rather than merely State or local concern, we would suggest that the expansion and improvement of higher education and steps to insure the improvement of educational quality are both matters of legitimate interest to Congress. Our position is a relatively simple one. We believe that Congress can legitimately support long-term provisions for research and development activities in education that ultimately will pay off by answering questions for which we have, as yet, only imperfect answers accompanied by proposals to spend large sums of money without reasonable assurance of what the outcome will be.

The appended draft proposal, Regional University Center for Educational Research and Development, illustrates the possible organization, functions, and budget of a small regional university center designed to carry out a broad range of activities all the way from programmed research, to the development of new curriculums, to the dissemination of findings so that they would have some impact on current practices in our States and local districts.

Long-term support for centers such as the ones proposed in this act would provide for the acquisition, training, and retention of creative researchers, for the facilities necessary to conduct large-scale studies, for the continued support required in longitudinal studies, and for facilities to train graduate students in education. These additional benefits would supplement the research reports, monographs, and books that would result from the studies.

There is ample evidence for the foregoing assertion in the results obtained through the cooperative research program of the Office of Education. The comparatively modest funds expended in the cooperative research program have pointed out a way of involving some of the finest minds in education and the behavioral sciences. 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 in-service 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). Among the "factors in persons" uncovered in those who do not benefit by education as it is carried on in most schools and colleges today is an alienation syndrome (anxiety, resentment, hostility, and pessimism mixed together) which blocks learning in most young people unless they become excited by mathematics or by some aspects of the sciences so that their curiosity drives them on despite their negative orientation to the world and to people who expect things of them.

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. What they are finding out now and can accomplish in the future, with long term Federal support for centers for multipurpose educational research and development, underlies ways of devising and implementing a new and revitalized pattern of education in this country suitable for the emerging space age.

Joint Commission on Education and National Welfare

Back in 1955 Congress created a Joint Commission on Mental Illness and Health which issued its final report in the form of a book, *Action for Mental Health* (Joint Commission on Mental Illness and Health, 1961). We believe that the proposed legislation would permit the creation of a similar commission to make recommendations for a national education program based upon the premise that education is a resource not only in preparing for national defense but also for insuring our existence in the new era we outlined at the beginning of this statement. We would recommend that the Joint Committee on Education and National Welfare, or whatever title is chosen for this committee, be selected by the President on the recommendations of the Commissioner of Education. The members of this committee, whether established by President Kennedy's act or by a joint resolution of the Senate and the House of Representatives, would represent a panel of citizens, selected for their wisdom and interest in education. They would be empowered to appoint a director and staff to carry on necessary studies which would probe the current state of our knowledge, the economics of education, our manpower needs, current State and community resources, and to make recommendations upon which National and State legislators could act. The enabling legislation should provide sufficient funds to carry the undertaking through to completion, and should be administered by the Commissioner of Education as a part of the allocation to the U.S. Office of Education in the Department of Health, Education and Welfare.

Summary

What is needed in order to make more intelligent use of this country's educational resources for the national interests is more accurate information about the people of this country, the society which they form, and the processes of learning to live in that society. This information can be obtained by applying modern behavioral science techniques, on a large scale with the aid of electronic computers and other technological advances, to the problems in education. The Congress of the United States can initiate a movement in the desired direction by appropriating funds for the National Education Improvement Act of 1963 which will, among other things, establish multi-purpose centers for educational research and development. These centers, along with considered recommendations from a continuing Commission on Education and National Welfare, should provide the kinds of knowledge and understanding which may enable Congress, State, and local governments to provide means of insuring a desirable pattern of education for us in the new era that is emerging.

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REGIONAL UNIVERSITY CENTER FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

(A working paper by Carson McGuire, the University of Texas)

This working paper illustrates the nature and proposes a budget for a regional university center for educational research and development in terms of amendments to the Cooperative Research Act (1954). These are being considered in a bill, "Improvement of Educational Quality Act of 1962" (H.R. 10145, S. 2826), pending in the 87th Congress, 2d session. If suitable legislation is approved and necessary funds appropriated, each of the regional university centers for educational research and development (RUCERD) would not only maintain liaison among cooperating colleges and universities in the area but also would work closely with regional educational agency development and implementation centers (READIC). The latter have been proposed in testimony pertaining to regional research in education as it concerns chief State school officers and State departments of education. A limited number of both kinds of regional center would be established with the provision that no grant should be made until the Commissioner has obtained the advice and recommendation of a panel of persons competent to evaluate the proposed regional centers. Furthermore, the agreements (with grants and Federal portions of shared costs for the establishment and operation of facilities contingent upon annual appropriations) should be made for a period of 5 to 10 years, renewable each year upon a report satisfactory to the advisory panel. This should insure continuity of commitments and efforts to improve the quality of elementary and secondary education.

QUALIFICATIONS

The proposed regional university center for educational research and development (RUCERD), located at _____, has demonstrated the necessary qualifications and adequacy of resources to conduct programs of research, development, evaluation, and demonstration pertinent to the improvement of the quality of elementary and secondary education. This has been done by supporting evidence which shows:

1. Agreements with (among) cooperating colleges and universities in the region to coordinate certain undertakings pertinent to educational research and development, and to release faculty members from teaching or other assignments so that they may become research associates in the center for periods of time required to complete projects and/or programs (with salaries all, or in part, from center funds).

2. Evidence that faculty members and associated research personnel at _____, as well as the cooperating institutions, have successfully undertaken projects and/or programs of research, development, evaluation, and demonstration in education, and that they can envisage crucial and researchable problems having to do with learning and human behavior in educational settings.

3. Facilities which include a high-speed electronic computer that can be linked (by telecommunication) to the center, provisions for test scoring and processing, radio-television and automated learning laboratories to develop new educational media, together with the necessary key personnel who can create new ideas and materials as well as program computers and new educational devices.

4. Access to populations of elementary and secondary school students and working relationships with local school systems and State agencies which permit a range of research, development, evaluation, and demonstration—including studies of the new curriculums which emphasize education through the "act of discovery" as well as didactic instruction.

5. Preliminary understandings leading to reciprocal cooperation with regional educational agency development and implementation centers and/or with State departments of education in the region in order to insure dissemination of findings, permit field testing and demonstration, foster implementation in the elementary and secondary schools as well as teacher preparation programs, and encourage "feedback" which permits a continuity of undertakings to improve the quality of education.

ORGANIZATION

The proposed center has four sections, each with a certain amount of autonomy, but coordinated by the director of the center who would head the first section. Each of the other three divisions would have an associate director as well as senior, junior, and auxiliary staff members. A number of staff members would be "on loan" for agreed periods of time, paid by the center, from other institutions and educational agencies.

(a) *R. & D. coordination.*—This section, headed by the director, is charged with the coordination of the research, development, evaluation, and demonstration activities of the center. The staff develops paradigms of research on various educational problems, selected because they may be investigated not only by the center but also by coordinated endeavors of individual researchers and university divisions outside the center itself, usually with other sources of funds than those granted to the center. Members of this section establish liaison with universities, State departments of education, and individual researchers to get parts of each paradigm accomplished. Then they are charged with collating and synthesizing the results of piecework research to make significant wholes for dissemination or for further inquiry.

(b) *Programed research.*—This section, headed by an associate director, is responsible for the conduct of long-term investigations of a very limited number of significant basic research problems in elementary and secondary education as well as teacher preparation programs. In addition, the staff facilitates and coordinates its undertakings with projects financed by cooperative agreements (e.g., human talent research project), grants from other agencies or foundations (e.g., personality, teacher education, and teaching behavior), and by local funds (e.g., personality integration in adolescence) undertaken by individuals or teams of investigators at the location or in the cooperating institutions and agencies.

(c) *Curriculum development.*—This section, headed by an associate director, is responsible for the development, field testing, and aid to READIC or to State departments of education of new curriculums—especially the adaptation of new developments to the region, the State, and local situations taking account of cultural and other variables. Members of this section are to coordinate their work with the efforts of separately financed NSF programs (e.g., science education center), NDEA projects (e.g., Texas instructional materials project, Texas Education Agency), and other undertakings (e.g., southwestern educational television program).

(d) *Research dissemination.*—This section, headed by an associate director, is an impact-focused operation responsible for the dissemination of findings and new educational media not only to school people at the regional, State, and local levels, but also to college and university personnel who prepare teachers, guide professional specialization, and develop new research and development specialists during graduate education. The staff members are to arrange a wide variety of conferences, demonstrations, and workshops, as well as cooperating arrangements with regional educational agency development and implementation centers, State agencies, and local school systems. Certain individuals are to be given the responsibility of editing and/or preparing publications and/or other materials for dissemination to a wider audience than those who read professional books and journals.

BUDGET

Budget estimates are provisional and based upon the Federal year, July 1 to June 30, beginning with the authorization of a center. By and large, the initial year should be less than the amount shown since the center would be in process of recruiting and/or assigning staff members (including finding replacements for those giving up whole or part-time instructional duties). Ideally, each senior and many junior staff members may teach at least one course or seminar to "feed back" what is being found out and to maintain contact with graduate students. In such cases, a portion of the salary would be borne by the university. Nevertheless, the amounts shown would be expended in having a number of persons under split-time appointments. Moreover, provisions for increments in salary have to be made in budgeting over a period of years.

<i>Budget categories</i>		<i>Federal funds</i>
1. Personnel (including persons "on loan")		\$378,200
(a) R. & D. coordination section:		
Director (professor, \$15,750 for 9 months)	21,000	
Associate professor (\$10,500 for 9 months)	14,000	
Assistant professor (\$9,000 for 9 months)	12,000	
Research associate IV (executive officer)	8,520	
Administrative assistant	5,520	
Administrative secretary	4,800	
Senior clerk-typist	3,660	
Total	69,500	
(b) Programed research section:		
Associate director (professor, \$13,500 for 9 months)	18,000	
Professor (\$12,000 for 9 months)	16,000	
Associate professor (\$10,500 for 9 months)	14,000	
Assistant professor (\$9,000 for 9 months)	12,000	
Assistant professor (\$8,400 for 9 months)	11,200	
Assistant professor (\$7,500 for 9 months)	10,000	
Research associate IV (computer specialist)	8,520	
Research associate III	6,780	
Research associate II (2 at \$4,800)	9,600	
Senior secretary (1), secretary (1)	8,700	
Clerk-typists, assistants	10,080	
Total	124,600	
(c) Curriculum development section:		
Associate director (professor, \$13,500 for 9 months)	18,000	
Professor (\$12,000 for 9 months)	16,000	
Associate professor (\$10,500 for 9 months)	14,000	
Associate professor (\$9,600 for 9 months)	12,800	
Assistant professor (\$8,100 for 9 months)	10,800	
Assistant professor (\$7,200 for 9 months)	9,600	
Research associate III	6,780	
Research associate II (2 at \$4,800)	9,600	
Senior secretary (1), secretary (1)	8,720	
Clerk-typist, assistants, technicians	12,000	
Total	118,300	
(d) Research dissemination section:		
Associate director (professor, \$12,000 for 9 months)	16,000	
Associate professor (\$9,600 for 9 months)	12,800	
Assistant professor (\$8,400 for 9 months)	11,200	
Research associate IV (educational writer)	7,440	
Administrative assistant	5,520	
Senior secretary (1), secretary (1)	7,680	
Assistants (2)	5,160	
Total	65,800	
2. Services:		
(a) Rental of additional key punch, sorter, test-scoring devices, high-speed printer (IBM 1401), and telecommunication to computation center	18,000	
(b) Charges for CDC-1604 at \$300 per hour, 120 hours per year at computation center	36,000	
(c) Services of radio/television center and personnel in center experiments, et. al	12,000	
Total	66,000	

<i>Budget categories</i>	<i>Federal funds</i>
3. Materials and equipment:	
(a) Office supplies and expenses; typewriters, dictaphones, recorders, and maintenance-----	\$8,400
(b) Materials and equipment for preparation of tests, curriculum guides, publications, et al-----	9,600
Total-----	18,000
4. Other expenses:	
(a) Travel and per diem of staff while engaged on center assignments, "Request for travel"-----	10,800
(b) Expenses of conferences, demonstrations, workshops; including certain travel costs-----	28,000
(c) Consultants' honoraria and travel expenses-----	7,200
Total-----	46,000
5. Facilities: Amortization of additional building, including research facilities and offices; half to the university and half to Federal funds, annually-----	63,000
6. FICA payments-----	6,800
Subtotal of annual grant-----	578,000
7. Overhead (0.15)-----	86,700
Total Federal funds-----	664,700

NOTE.—For each course undertaken by a faculty member, the university would pay for one-third of the 9-month salary; added people would be employed.

The foregoing estimates are based upon costs at the University of Texas which may not be the same in other parts of the country. Neither the "direct" nor "hidden" costs of a center to a university have been included. Moreover, the budget for a very large RUCERD, such as the proposed midwestern center in which the "Big Ten" institutions may join forces, would be very much greater than the amounts shown above.

Mr. THOMPSON. I think that we have finished pretty well with you gentlemen.

I want to thank you very, very much, on behalf of all of us, for this prodigious effort of yours.

Dr. TOTARO. We are glad for the opportunity to come.

Mr. THOMPSON. Wonderful to see you.

Thank you.

The committee will adjourn until tomorrow morning, when we will hear Mr. Keppel, and we will be back in this committee room.

(Whereupon at 12:05 p.m., the subcommittee recessed, to reconvene at 10:00 a.m., Wednesday, May 8, 1963.)

IMPROVEMENT OF EDUCATIONAL QUALITY

WEDNESDAY, MAY 8, 1963

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

The subcommittee met at 10:15 a.m., pursuant to recess, in room H-329, the Capitol, Hon. Frank Thompson, Jr. (chairman of the subcommittee), presiding.

Present: Representatives Thompson, O'Hara, Carey, Sickles, Frelinghuysen, Griffin, Ashbrook, and Taft.

Staff members present: Dr. Deborah Partridge Wolfe, professional staff, Committee on Education and Labor; Charles Radcliffe, minority counsel, education; Robert E. McCord, subcommittee director; and Mary E. Corbin, subcommittee clerk.

Mr. THOMPSON. The subcommittee will be in order.

We note the presence of Mr. Frelinghuysen, ranking minority member of the full committee. We welcome him.

Before we begin our first witness, Mr. McCord has some reports to make.

Mr. McCORD. Mr. Chairman, yesterday the subcommittee directed that library statistics for the nonpublic schools be obtained. It is impossible to obtain them.

(The subcommittee staff submitted the following material:)

DATA ON LIBRARIES IN PUBLIC SCHOOLS

PAROCHIAL SCHOOLS

A check with the Catholic Education Association, the National Catholic Welfare Council, the Catholic Library Association, and the Library Science Division of Catholic University indicates that no national data are available on school libraries in parochial schools. No statistical survey of elementary and secondary school libraries on a nationwide basis has been made. Surveys of particular regions have been made by library school students for their dissertations which show secondary schools meeting accreditation standards usually have libraries but these are staffed mainly by untrained personnel.

According to the authorities consulted libraries in elementary schools are practically nonexistent.

A 3-year study of Catholic education is now underway, made possible by a grant from the Carnegie Corp., of New York.

One of the statistical phases of the study will report the existence or non-existence of libraries in Catholic elementary and secondary schools.

The information is being prepared for computer analysis but no findings will be available until next year.

CATHOLIC INSTITUTIONS OF HIGHER EDUCATION

Using statistical figures on college and university libraries gathered by the U.S. Office of Education, the Reverend Charles Banet of St. Joseph's College,

Rensselaer, Ind., currently is analyzing the data for libraries in Catholic Institutions of higher education. Figures are not yet available, however.

INDEPENDENT SCHOOLS

The National Association of Independent Schools, 4 Liberty Square, Boston, Mass., represents over 700 schools. According to Miss Esther Osgood, executive secretary of the organization, an estimated 90 percent of their schools have regular libraries, either in a large room or a separate building.

The libraries are staffed mostly by part-time personnel, some teachers, some mothers with various degrees of training or none at all. Some few of the larger schools have professionally trained librarians.

NUMBERS OF PUBLIC LIBRARIANS IN SELECTED YEARS

Comprehensive surveys of the Office of Education and an estimate from selected public libraries provide the following information upon numbers of public librarians and their ratio to the total population of the United States. The standards for minimum adequacy require a ratio of 1 to 7,500.

	Number of public li- brarians	(Population, in millions)	Ratio to total popula- tion
1945 ¹ -----	13, 819	139. 9	1:10, 123
1950 ² -----	14, 817	151. 7	1:10, 238
1953 ³ -----	17, 344	165. 3	1:9, 530
1960 ⁴ -----	19, 500	180. 7	1:9, 266

¹ Federal Security Agency, Office of Education, "Public Library Statistics: 1944-45" (Bulletin, 1947, No. 12).

² U.S. Department of Health, Education, and Welfare, Office of Education, "Public Library Statistics: 1950" (Bulletin, 1953, No. 9).

³ U.S. Department of Health, Education, and Welfare, Office of Education, "Statistics of Public Libraries: 1955-56" (Biennial Survey of Education in the United States, 1954-56, ch. 5).

⁴ "Library Services" (reprint from December 1962 Health, Education, and Welfare "Indicators.")

Professional librarians are defined in the comprehensive surveys of the Office of Education as follows: A professional staff member is a person performing work that requires training and skill in the theoretical or scientific parts of library work as distinct from its merely mechanical and clerical aspects.

SELECTED INFORMATION ON PUBLIC SCHOOL LIBRARIANS ¹

(1) Both the 1947-48 and 1953-54 Statistics of Public School Libraries define a school librarian as a teacher who has not less than 15 semester-hours in library science in a program planned for school librarians. Subsequent surveys do not use the 15 semester-hours as part of a definition, but retain it as a measure in tabulation.

(2) In 1953-54 there were 11,854 school librarians as defined in (1) employed in public schools in the United States, half-time or more.

(3) In 1958-59 there were 19,372 school librarians with 15 semester-hours or more of library science employed in school systems with enrollments of 150 or more.

(4) The enclosed table shows the ratio of school librarians to pupils in 13 selected cities for 1947-48, 1958-59, and 1960-61, and provides an average for each year. It should be noted that only large urban school systems are included.

(5) Available national ratios of librarians to pupils are as follows:

(a) 1953-54. 1 librarian to 2,433 pupils.

(b) 1958-59. ² 1 librarian to 1,740 pupils.

Standards call for 1 librarian to 300 pupils.

¹ No data available on private school librarians.

² In school systems with enrollments of 150 pupils or more.

Ratio of librarians¹ to pupils in 13 selected city school systems for 1947-48, 1958-59, and 1960-61

City	1947-48	1958-59	1960-61
Boston.....	1:5,926	1:9,552	1:8,745
Chicago.....	1:1,636	1:1,387	1:1,067
Cincinnati.....	1:5,059	1:4,027	1:3,723
Houston.....	1:2,929	1:1,676	1:1,473
Los Angeles.....	1:3,182	1:4,686	1:5,048
Minneapolis.....	1:1,156	1:1,694	1:1,378
New Orleans.....	1:4,469	1:3,132	1:2,599
New York City.....	1:4,344	1:3,643	1:2,711
Philadelphia.....	1:4,843	1:6,296	1:5,149
Pittsburgh.....	1:1,283	1:2,289	1:2,480
St. Louis.....	1:7,780	1:9,276	1:8,901
San Diego.....	1:2,447	1:4,745	1:4,700
Seattle.....	1:2,752	1:3,536	1:2,421
Average.....	1:2,992	1:2,955	² 1:2,387

¹ A school librarian is a certified teacher with 15 or more semester-hours in library science and who is assigned more than half-time to school library service.

² Standard should be 1-300.

School librarians employed in North Carolina public schools

	Number of librarians	School enrollment	Librarian-pupil ratio
1944-45.....	121	812,826	1:6,500+
1945-46.....	122	823,119	1:6,500+
1946-47.....	151	845,691	1:5,600+
1947-48.....	179	855,853	1:4,200+
1948-49.....	213	864,154	1:4,000+
1949-50.....	236	893,745	1:3,800
1950-51.....	234	909,777	1:3,800+
1951-52.....	318	914,269	1:2,800+
1952-53.....	375	929,023	1:2,600+
1953-54.....	394	968,066	1:2,500+
1954-55.....	367	1,000,075	1:2,800+
1955-56.....	392	1,023,747	1:2,600+
1956-57.....	404	1,039,487	1:2,500+
1957-58.....	439	1,060,187	1:2,400
1958-59.....	450	1,087,457	1:2,400
1959-60.....	558	1,105,457	1:1,900+
1960-61.....	558	1,123,829	1:2,000+
1961-62.....	938	1,141,574	1:1,200+
1962-63.....	¹ 1,025	¹ 1,143,831	1:1,100+

¹ End of 1st month of school year 1962-63.

NORTH CAROLINA SCHOOL LIBRARY PERSONNEL NEEDS

NOTE.—National school library standards developed by the American Association of School Librarians, a division of the American Library Association, in cooperation with 19 other national professional organizations are—Librarians: For the first 900 students or fraction thereof, 1 librarian for each 300 students or major fraction thereof. For each additional 400 students or major fraction thereof; 1 librarian; clerks: 1 clerk for each 600 students or major fraction thereof.

North Carolina public schools employ 1,025 school librarians. To meet national standards North Carolina needs to employ at least 2,000 additional school librarians. Even though North Carolina schools have made progress there still remains much to be done to attain an adequate level of school library service. Analysis of needs reveals that more than 50 percent of the schools in North Carolina are still without the services of qualified librarians. Only 25 of the total 173 school administrative units have library supervisors and there are no State and Federal funds allocated for the training of school librarians.

Mr. THOMPSON. Our witness this morning is the Commissioner of Education, Francis Keppel.

Mr. Keppel testified in favor of the quality education bill last year in his capacity as dean of the Harvard School of Education.

The printed copy of the hearings from last year has been sent to the members of the subcommittee and will be made available to any members of the full committee who want it.

Earlier this year Mr. Keppel, in his new capacity as Commissioner of Education, testified at length on the omnibus bill, H.R. 3000, and made specific references to this legislation.

I think that the best way to proceed this morning, Mr. Keppel, if it is agreeable with you, is, on an informal basis rather than a prepared statement, for you to say what you want and then perhaps answer some questions by members who are here.

STATEMENTS OF HON. FRANCIS KEPPEL, U.S. COMMISSIONER OF EDUCATION; PETER P. MUIRHEAD, ASSISTANT COMMISSIONER FOR PROGRAM AND LEGISLATIVE PLANNING; SAMUEL HALPERIN, DIRECTOR, LEGISLATIVE SERVICES BRANCH, OFFICE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. KEPPEL. Thank you, Mr. Chairman. I took the liberty of asking that there be put in front of each member of the committee a summary of or a brief description of the four legislative issues that are under discussion this morning as I understand it. That is title III, improvement of educational quality: First, the institutes and then, on the second page, the teacher preparation programs, and on the third page specialized training.

Mr. THOMPSON. Without objection, these materials will be made a part of the record following any statement that you make, Mr. Commissioner, and following the colloquy.

I have here also a Department of Health, Education, and Welfare statement by you as Commissioner-designate on the cooperative research program which will also be made a part of the record.

Mr. FRELINGHUYSEN. It does not say when the statement was made, Mr. Chairman.

Mr. THOMPSON. Maybe Mr. Keppel will remember.

Mr. KEPPEL. It was made, I think, in February or March, as part of information available to the Subcommittee on Appropriations for HEW, of which Mr. Fogarty is chairman. It is a description of the going show, really. Thank you, Mr. Chairman.

I wondered if it might be useful for the committee for me to make some general remarks about each of these four parts and perhaps you would let me know if I am not covering it properly as I go along.

Beginning with the first page of the materials before you, the institutes for advanced study for teachers, you will note the proposal for your consideration is an authorization of \$37,500,000 for fiscal year 1964.

You will note in the first paragraph of the description that it refers to grants to colleges and universities to operate institutes for advanced study for teachers of gifted children as well as other teachers, obviously a very general category, plus guidance personnel, plus library personnel, the emphasis being upon improving the work that these men and women are now doing in the schools.

May I emphasize that this program is designed for teachers and librarians who are now on the job, and the purpose is to raise the quality of their performance.

Other categories that we will be discussing later this morning deal with other types of personnel problems. This emphasis is on the teachers now on the job.

As you will remember, Mr. Chairman, in the report last year on H.R. 10145, the report of the committee contained information based in good part on the National Science Foundation but also on the experience in the National Defense Education Act about the success of these institutes in general.

On page 4 of the committee report of May 31, there are summarized reports of the National Science Foundation programs and institutes by the Science Research Associates and by the Bureau of Social Science Research pointing out that NSF institutes had clearly accomplished the intent of not only making the teachers better qualified to teach their subject, but to increase the number of students in those special fields of mathematics and science, and in general raise the academic quality of the whole school enterprise.

I think this is the first point that should be made with regard to this general question of institutes for advanced study, namely, that we have through NSF and the existing NDEA enough experience to say that these institutes, the great majority of them being 8-week summer institutes, actually had the effect of strengthening the teachers' grasp of the subject and the effect of transmitting in to the students.

There is enough evidence to say it has certainly worked well in mathematics and science.

Mr. FRELINGHUYSEN. I wonder if I should ask a question about the way the committee should handle itself.

I have a question about the National Science Foundation. I would like to know whether the proposal presently admitted in H.R. 3000 is to replace the National Science Foundation programs. Does the proposed broadening result in an overlapping in those programs now authorized or has there been consideration of how they should be meshed?

Again I realize that the National Science Foundation programs did not fall within the jurisdiction of this committee, unfortunately, but I would think the least we could do is to be sure that either there is a replacement of those programs with a broadened program or that no overlapping results.

Mr. KEPPEL. I will speak to this, Mr. Chairman, as best I can. While not being an expert on the National Science Foundation program, I do serve, sir, as a member of its advisory committee which deals specifically with questions in this area.

The following language is in the proposal before you—I am referring now to the middle of the first page—" * * * the Commissioner shall give preference to those areas in which he finds there is a widespread need for improvement in the quality of instruction." This is in the bill. I take it so that these shall be no overlapping.

For example, today it is quite clear that the program of the National Science Foundation in mathematics, in the biological sciences and in the physical sciences as it affects the secondary schools is the

most vigorous program affecting secondary education throughout the United States.

I think I can say this with the only possible qualification of the program in modern foreign language of the National Defense Education Act.

If I understood Mr. Frelinghuysen's question, it is, first, what is the relation of this proposed act to the NSF programs? Perhaps the language is not clear in the act. The intent here is not to overlap with NSF, but rather to move into areas where the National Science Foundation is not operating. Perhaps the language should be made clearer, Mr. Frelinghuysen.

MR. FRELINGHUYSEN. Again I would think that section 302, if that is what you are relying on, provides no such assurance against an overlap; that, rather, it would seem to give very wide discretion for the Commissioner to do whatever he felt would be desirable.

As I understand it, the specific authorization for foreign language institutes would be terminated and then at your discretion you can continue those or others.

MR. KEPPEL. Yes.

MR. FRELINGHUYSEN. And I would think there would be no reference in 302 which would require that because the National Science Foundation has active programs in mathematics and the physical sciences, we should not take a look at what might need to be done in those areas. That would not seem to be the case.

MR. KEPPEL. The reason for the language in its present form is to make it possible in the future to assess all subjects in the elementary and secondary schools. To give a hypothetical example: if some years from now the Science Foundation were not interested in elementary school mathematics, it is conceivable that this might be regarded as a key area in which some institutes could be offered in the elementary school and in cooperation with NSF.

MR. THOMPSON. If I might interrupt the colloquy, I would like to call attention to some language on page 2 of the report of last year's bill in which it says:

Considerations to be given to advance study programs to be conducted under other Federal laws so as to avoid unnecessary duplication but it is intended that the Commissioner may authorize institutes in such areas as science and mathematics if he finds that particular or specialized needs are not being met under existing programs.

The obvious purpose of that was that we did have the NSF in mind as well as the NDEA and I can envision no overlapping as a result of the enactment of this program, particularly if in the report, if we report a bill, we have the same emphasis on existing programs.

MR. FRELINGHUYSEN. If I might ask the chairman, the language which he quotes from the report would seem to make possible duplication and overlapping if it is not necessary. I am not saying that it is not wise but this language certainly says that there may be.

MR. THOMPSON. That is right. You might call it overlapping if you embarked in any of the general programs now going forward under the two existing acts in a technical sense but duplication of the precise things I think would be avoided. In other words, Commissioner Keppel, if he determined that there were some areas in the language field not covered under existing programs, could indeed under this act establish institutes.

Mr. KEPPEL. It might be worth adding, Mr. Frelinghuysen, that all the programs now under NDEA and even indeed under the National Science Foundation are ultimately approved following advice from the academic world.

I have served on such committees, myself, for the NSF and for the National Defense Education Act before I came to Washington. This seems to me a point that deserves very special emphasis for two reasons, sir. One of them is obviously to avoid the danger of a Commissioner acting in a hasty or unconsidered fashion in choosing the priorities.

But there is a second reason, Mr. Chairman, which I think might be emphasized. Speaking now as one who has just come from the academic world, it is of the first importance, I think, that the relationship between Federal activities that affect education and the institutions that carry out these programs, in this case institutions of higher education, be of a character in which there is constant advice flowing from the institutions to the Government. I think it is fair to say that this is a pattern which has been worked out in a good many other areas of Government activity, including the National Institutes of Health and the National Science Foundation. It seems to me of the very first importance.

Mr. Chairman, concerning the question of the method by which areas are determined, on the first page of the material before you, under section 302, it says—

In determining the subject-matter areas in which advanced studies will be provided under this part, the Commissioner shall give preference to those areas in which he finds there is a widespread need for improvement in the quality of instruction.

Mr. ASHBROOK. Could I interject a question there, Mr. Chairman?

Mr. THOMPSON. Yes.

Mr. ASHBROOK. It seems that that section in no way encompasses what you are citing as what is needed. You have referred to the fact that in the National Science Foundation you serve on an advisory committee. You are talking about getting the advice of people but in no way does it indicate that there is an advisory committee and it is completely within your discretion.

Mr. KEPPEL. This is the point that I was hoping to make. There is a request elsewhere in H.R. 3000 for general authority for appointing advisory committees. This seems to be an area in which there obviously should be one and if it is the wish of the committee so to state, I would be very happy. This was the point I had in mind, sir, when I started.

Mr. FRELINGHUYSEN. I am not sure what advice would do. I notice in section 322, on page 2 of this statement—

No grant may be made under this section—

I am not sure which section. This refers to teacher preparation only—

until the Commissioner has obtained the advice and recommendations of persons who are competent to evaluate the project * * *

This might not be the kind of restraint on the Commissioner which you are envisioning. You are just saying it would be logical to turn for advice to people in the field, but it does not direct you to turn the Government's attention to certain areas.

Mr. THOMPSON. What kind of restrain does the gentleman have in mind?

Mr. FRELINGHUYSEN. I am not sure, myself. Presumably, in answer to Mr. Ashbrook's question, the Commissioner has suggested that he has no objection to an advisory committee. I have not any, myself. I am just trying to find out whether there is any limitation on the discretion of the Commissioner.

Mr. THOMPSON. Mr. Carey?

Mr. CAREY. Mr. Chairman, my reading of the bill, without pride of authorship, is such that I would deem that he cannot act in any way without a contractual relationship with a higher education institution so he is immediately at the source of the advice when he goes into the negotiation of the contract.

I would assume that the Commissioner's proposals come from qualified schools of education and from their proposals he is going to get a mass of advice in examining and determining and discussing them with the proponents of these various programs and from that he will act, I would assume, in mounting the programs, properly funding them, and identifying those areas where he feels the subject matter needs a stimulus.

Mr. FRELINGHUYSEN. If that is an illustration of the advice, I would assume an interested party, one who is going to get Federal money from a project, would be the last one to turn to to see whether the project is justifiable. That would not afford much protection.

Mr. CAREY. I am perfectly willing to trust the people, who advance those programs. They have one purpose in mind, to advance education. They are self-seeking on the behalf of increasing educational quality. That is the kind of interest we want.

Mr. THOMPSON. I cannot conceive of an institution of higher learning not equipped to conduct an activity in any of these areas asking for the authority to do it. Nor could I conceive, in the unlikely event that this were to happen, of them being approved.

Perhaps we ought to accept Mr. Keppel's invitation and write some language establishing advisory committees but I would hope under no circumstances that we require them to come back to the Congress for advice in this area.

Mr. FRELINGHUYSEN. I have been here long enough, Mr. Chairman, to remember when I introduced a bill to set up a National Advisory Committee on Education. It was quite an experience for me because I was grilled by my committee regarding the significance of this proposal and the suggestion was made quite seriously that the Committee on Education and Labor was the most expert source of advice that one could obtain and we would not want a national advisory committee.

We enacted an authorization for a national advisory committee after some more heckling on the floor of the House.

To my knowledge, even though the law is still on the books, no effort ever has been made to establish it, which is quite a humiliating experience for me. It probably indicates that Congress is not willing to concede that it is not an expert in this field and would be also an indication that perhaps the executive branch does not feel that it needs an advisory committee on any subject, that it knows the right answers without seeking them.

Mr. THOMPSON. I think we can pursue this advisory committee later and then in executive session decide what type of shackles we are going to put on the Commissioner.

Mr. FRELINGHUYSEN. I am not sure they should be termed "shackles," Mr. Chairman.

I think that what we are looking for is the appropriate way to move and the Commissioner himself has already indicated he is well in need of advice, as he put it, to avoid hasty and ill-considered action.

Mr. THOMPSON. I think it would be well for us to provide a means by which we would get this advice. I think we have discussed this long enough for the moment and ought to let him go on.

Mr. KEPPEL. Thank you, Mr. Chairman.

The second part of the report of the committee last year seemed to me particularly relevant this morning. It is on page 6 and refers to some data already in the record with regard to the need for programs for teachers in their academic specialties. I am referring to the middle paragraph. It shows, for example, a study in Virginia, which indicates that only 41 percent of the teachers in English possessed a college major in that subject.

It also referred to California, and then went through other examples here.

The point I think can be summarized by saying that the present teaching staff in the schools needs strengthening in the major academic areas and that this is the basis for the proposal before the committee for the establishment of institutes in the teaching area.

Perhaps another dramatic illustration, that does not happen to be in last year's report which might be of interest is that 83,000 full-time teachers in the United States last fall actually failed to meet State certification requirements. That represents about 51½ percent of the total teaching staff in the public schools.

Mr. TAFT. Mr. Chairman?

Mr. THOMPSON. Mr. Taft.

Mr. TAFT. Do the State teaching standards in most of those cases require a major in English for teaching English?

Mr. KEPPEL. No.

Mr. TAFT. How are we going to get to that? Is it not true that one of the major problems in the whole teacher-education field is the insistence of many professional educators that teacher education be separated from basic liberal arts and that you have a certain methodology, rather than subject-matter requirements, and so forth?

Mr. KEPPEL. Mr. Chairman, if I may respond to Mr. Taft on that question, I think I can do it with a certain amount of personal knowledge because I spent 15 years trying to change that.

Mr. TAFT. We passed a bill in Ohio trying to change it, too.

Mr. KEPPEL. I was trying to do it from the university point of view. The separation of the so-called professional subjects from the liberal arts core of any college education was and is, in my judgment, one of the sad parts of academic history.

I think that what you refer to is now rapidly changing in a great many institutions of higher education and, when we come to the second part of the matter—teacher preparation programs—we will discuss it then.

Mr. TAFT. Do you think we will be able to guarantee that it is going to continue to change if we put control of those courses in the hands of special educators?

Mr. KEPPEL. These courses that would be offered in summer institutes would be taught by professors of English and modern history and modern languages.

Mr. TAFT. Would they be the ones setting up the standards for the courses?

Mr. KEPPEL. Yes.

Mr. TAFT. How would this work, by advisory committees or through the Commissioner, or what?

Mr. KEPPEL. The institutions of higher education would apply, as I understand the scheme, to the Office of Education for grants that would support instruction in English, composition, literature, history, and so forth. Also included in the grants would be the necessary cost of stipends for the teachers who would be attending these summer institutes.

As I see it, these applications would be reviewed by an advisory committee of academic people who would choose those offering the strongest possibility for a good course. It is my clear understanding, sir, that the emphasis here is on the subject to be taught, such as English or history.

Mr. TAFT. Do you think this would be true even though you were not able to change the State teacher qualifications?

Mr. KEPPEL. Yes.

Mr. TAFT. Because there would not be any academic incentive for many of these people to go ahead and take these courses. There would be financial incentive.

Mr. KEPPEL. This would be financial incentive. For example, if I understand the arrangements in the city of New York, an individual who took a number of these courses would have the incentive in the form of moving on the salary scale.

Mr. CAREY. I discussed this with the Commissioner prior to the hearings and we have just such an arrangement in the New York school system. It is a step-incentive plan. The motivation is provided by the increased income of the teacher in pursuing the subject matter areas which are felt to be needed in the school system.

Upon improving his teaching quality, he gets a better income and that is designed to give a lifting effect in the subject matter in which we feel the system is deficient.

Mr. TAFT. Does he have to take different courses in methodology?

Mr. CAREY. No.

Mr. TAFT. In many States he would have to, would he not?

Mr. KEPPEL. I am not quite sure I would go so far as to say "have to," but there are many places in which the salary system would encourage him vigorously to go on for a degree and the degree might not be in his subject area. This is one of the things that bothers me. This is one of the reasons for emphasizing the importance here of these courses in the subject field.

I think it might also be worth adding, Mr. Taft, that we have a record here on this through the National Science Foundation. The same considerations that you pointed out applied 5 years ago when NSF started these major programs for summer institutes in mathematics, biology, chemistry, and physics.

I know from personal knowledge those programs have been way overapplied by the teaching staff. For example, we had one of the NSF programs at Harvard and had 650 applications for 50 places from the teachers around the United States. Many of those were duplicate applications where the fellow was trying for three different places, but I think it is quite clear that the teachers want these programs.

Mr. FRELINGHUYSEN. Again if I might say so, Mr. Chairman, I do think we could probably make a good case for specific institutes such as the National Science Foundation has held and that we also can point with pride to their accomplishments. Yet it does not automatically follow that a complete broadening of authority is desirable. In other words, it seems to me what we must look for is a justification in terms of urgent national interest.

You have indicated one area, referring to our report last year on the bill, the area of English. You have suggested that there is need for improving education or teaching in other major academic areas. Well, there either is or there is not. Perhaps a case can be made for other areas in terms of national interest.

I think we should be wary about giving 100-percent freedom to set up institutes. It might well deemphasize the very thing that we wanted to emphasize when we established the NDEA, as an example. The ending of specific references and emphasis on foreign language teaching may well be undesirable if it results in an actual deemphasis in that area and I would think, as a history major myself, that we need to get some specific justification for getting the Federal Government into rejuvenating and strengthening the history teaching in this country.

I do not know whether it is good, bad, or indifferent. It may well be that the national defense requires it, but I would assume that we could not possibly justify this kind of broadening on national security grounds, whereas improved instruction in mathematics and the sciences was an urgent necessity because instruction was so obviously deficient and it resulted in very severe shortages in technical areas that were immediately needed by this country.

Mr. KEPPEL. Of course, Mr. Chairman, the ultimate judgment on this matter lies with the Congress; but before attempting to comment on that, may I just straighten one thing out for the record, Mr. Frelinghuysen?

There is no intent here whatever to end the program of upgrading language teaching. In point of fact, the present rate of seven and a half million dollars a year, if my memory is right, would be continued. We have by no means finished the upgrading of the existing teachers in the modern foreign languages, and institutes would be needed.

Mr. FRELINGHUYSEN. But you would have the authority to terminate it at your discretion.

Mr. KEPPEL. I think you used the word "ending" which is not intended here.

Mr. FRELINGHUYSEN. There would be an automatic deemphasis on languages if you have a broadening of the authority. Certainly there

no longer would be a finger pointed in that direction if you in your discretion decided that this program need not be continued, that physical education was more important to our would-be teachers.

Mr. KEPPEL. I am not disagreeing on words but I do not suggest that that program involve the ending of the language program. The more general question that you raise is one which, in my consideration, goes to the heart and nature of the elementary and secondary schools.

Superintendent Gross, of New York, has pointed out, I think quite rightly, that the key to improvement in both the sciences and the arts and the social sciences is reading. To use one example: if by the sixth or seventh grade, the student really is not competent to read fast and effectively—and I think I am using Mr. Gross' language—doors are effectively closed to him for all other fields.

The studies of the Carnegie Corp., by Dr. Austin and others, and analyses such as those of a distinguished superintendent of schools like Gross coincide on this point.

In my judgment, sir, the key to the raising of quality in the elementary schools is in improving the quality of the teaching.

I think this could be quite directly linked to improving quality in mathematics, chemistry, and the like because the doors are effectively closed in these fields to students who are, in effect, incapable of handling reading.

In the high school, and here again I could quote a recently published Carnegie study, the inadequacy in straightforward, expository English composition is one of the greatest problems we have got.

For example, it is estimated today, and I have data here in case the committee would like to look at it in detail, that I think it is \$10 million a year is being spent by institutions of higher education in what would have to be called remedial freshman courses in straight composition.

Mr. CAREY. I move to insert the data being provided by the Commissioner in the record at this point.

Mr. THOMPSON. Without objection, so ordered.
(The data referred to follows:)

EXTENT AND COST OF REMEDIAL ENGLISH COURSES FOR FRESHMEN IN COLLEGE (Excerpt from a report of the National Council of Teachers of English, 1961, "The National Interest and the Teaching of English")

The following information was developed from survey reports of 619 institutions of higher education.

THE COST OF REMEDIAL ENGLISH AT THE COLLEGE LEVEL

Highlights

Eighty-seven percent of American colleges test the competence of entering freshmen in using English. During 1960 the cost of this program probably exceeded \$800,000.

An estimated 150,000 students failed college English tests during 1960.

Almost two-thirds of American colleges offer remedial work in English, although most colleges do not grant college credit for completing such work.

The estimated annual cost of instruction in remedial English in American colleges today is \$10,114,736.62.

Does your school provide special remedial instruction for students who are deficient in their use of English?

	Yes		No	
	Number	Percent	Number	Percent
Universities.....	62	59.6	42	40.4
Liberal Arts Colleges.....	150	56.2	117	43.8
Teachers Colleges.....	36	51.4	34	48.6
Technical Schools.....	16	55.2	13	44.8
Junior Colleges.....	112	75.1	37	24.9
Total.....	376	60.7	243	39.3

The estimated cost of remedial English

	Total number of colleges	Percent offering remedial work	Estimated number offering remedial English	Mean number of instructors	Mean salary per instructor
Universities.....	139	59.6	83	3.68	4,558.75
Liberal Arts Colleges.....	728	56.2	408	1.48	4,658.22
Teachers Colleges.....	192	51.4	99	1.47	5,848.00
Technical Schools.....	44	55.2	24	1.29	4,620.00
Junior Colleges.....	503	75.1	377	2.34	5,603.77

Estimated total annual instructional expenditure for remedial English

Universities.....	\$1,393,288.60
Liberal arts colleges.....	2,812,819.56
Teachers colleges.....	822,059.44
Technical schools.....	143,035.20
Junior colleges.....	4,943,533.82
Total estimate.....	10,114,736.62

MR. CAREY. If we could pause at that point, would it be your recommendation that, in the subject matter areas, even now before receiving further advice on this, that reading competence would be one of the institutes that you would recommend?

MR. KEPPEL. I obviously would like to get that balanced with other arguments being advanced by mathematicians, but I am impressed personally with the reports of these studies.

MR. FRELINGHUYSEN. Mr. Chairman, I am not opposing the establishment of institutes for the better teaching of English. That may well be advisable in the national interest.

I am saying that an authority broadened to authorize the establishment of institutes for the teaching of English is not the same authority as is being sought in this bill. This is far broader and there may or may not be a case made for a national interest in some of these other areas that would be within the jurisdiction of the Commissioner if we should establish these broad programs.

MR. ASHBROOK. Mr. Chairman, could I ask a quick question with no statement?

MR. THOMPSON. Yes.

MR. ASHBROOK. Maybe we could get at it better by looking at 302 in a quick question. In what areas do you at the present time deter-

mine there is not a widespread need for improvement in the quality of instruction?

Mr. KEPPEL. It depends, sir, whether you do it from the bottom of the deck or the top.

Mr. ASHBROOK. As Commissioner of Education?

Mr. KEPPEL. I have been doing it from the top of the deck in terms of saying what struck me as priorities. Your question then is where in my judgment at the moment under this program—

Mr. ASHBROOK. There is no need.

Mr. KEPPEL. Well, there is a lower priority.

I would say that the work of the National Science Foundation in mathematics, physics, and chemistry is moving into areas in which under this program it would probably not be appropriate to grant priority.

Mr. ASHBROOK. This is already being done.

Mr. KEPPEL. The problem, however, is assuring a proper motion in the direction we want. We are now, I think providing more training for school administrative officers than is necessary in view of the number of positions as principals and superintendents that will become available as the years go by. What we need in this area is high selection and a smaller number of students than we now have.

Mr. ASHBROOK. Are you not, in effect, saying, if I gather correctly from your words, that there is probably need for improvement in every area and that is widespread?

Mr. KEPPEL. There is need for improvement in every area.

Mr. THOMPSON. Yesterday we received for the record a statement from Lois Josephs, assistant professor of English at Carnegie Institute of Technology. She said—

Now, as a teacher in a technical college, I am particularly aware of the problems in composition. Why should it be necessary for Carnegie Tech to run writing workshops—and they are well attended—for engineers, for social workers, and other professional people? The problem seems to be that many of these people cannot, either orally or on paper, communicate with those who work under them.

I think, of course, that the need for institutes in English is obvious.

Mr. GRIFFIN. Go ahead, Mr. Carey.

Mr. CAREY. I want to point out, quoting Dr. Gross, a former colleague I believe of the Commissioner, that he has said that in New York City until we learn to read we cannot have driver training.

I would assume we would not sponsor any driver training.

We would, by commonsense, delimit those areas not needed.

Mr. ASHBROOK. That was my question. There was no answer.

Mr. TAFT. Does this include training in physical education?

Mr. KEPPEL. Again, subject to the qualification that advice might change my view, I would not regard physical education as an area for two reasons: The college training programs, the second part of the bill, and physical education are turning out numbers related to the demand so you do not have individuals doing it in the same percent with other training.

Mr. TAFT. Did not the President a few years ago actually require the Office of Education to include physical education under NDEA?

Mr. FRELINGHUYSEN. Mr. Commissioner, there was a requirement in the administration proposal last year that the institutes should be

established only in those subjects generally required for college entrance.

Mr. KEPPEL. That is right, sir.

Mr. FRELINGHUYSEN. That limitation has been dropped.

I wonder why, again, there should be any reason to drop it? It seems to me, as Mr. Carey points out, that commonsense should prevail. I would think commonsense should prevail in our writing a law that would set you some guidelines and I would think subjects generally needed for college entrance would be an appropriate way for us to try to delimit what kind of institutes should be established.

Mr. KEPPEL. In response to that question, Mr. Chairman, let me give the example that is clearest in my mind. It is the example we were discussing before. Such language might be interpreted to eliminate the possibility of institutes to improve reading in the elementary schools on the ground that it is not clearly a subject related to college entrance.

This was what troubled me about that language and, as you know, I indicated that I felt strongly on that point as an area in which fairly important stimulative work could be done.

Mr. FRELINGHUYSEN. The only area we have talked about the advisability of ever establishing new institutes in is in English. I wonder if you would give us the other side of the coin that Mr. Ashbrook was discussing with you? In what areas do you think there is immediate need should this authority be granted for establishing new institutes?

Mr. KEPPEL. In my personal judgment, it is as follows: in the reading, as I have indicated; in English composition in the secondary school.

I will have to give a little background on this in order to make sense out of it.

For courses in history, there is now under active development through the school library world a group of historians and geographers who are working on new type of secondary school curricula.

I think it is important that we have this excellent, up to date material available for such institutes. They certainly would not be ready in the summer of 1963; they might be in the summer of 1964.

I stop only to point out that we are in a period of development on this.

Those are, in my judgment, the first three, at the present time.

Mr. THOMPSON. Now, anticipating further questions in the full committee, would you establish institutes to teach people how to install fire extinguishers?

Mr. KEPPEL. I would not, sir.

Mr. THOMPSON. Or driving automobiles?

Mr. KEPPEL. I would not, sir.

Mr. THOMPSON. In other words, the authority requested here goes to the basic educational structure, does it not?

Mr. Griffin?

Mr. GRIFFIN. That may be true, Mr. Commissioner, but would you concede that there is nothing in this legislation which would prevent you from doing that or prevent some other Commissioner from doing something like that? All we have is your personal assurance at this time.

Mr. KEPPEL. Well, there is more than my personal assurance here. As indicated earlier, I think by Mr. Carey, this program would be carried out through institutions of higher education. These institutions themselves have standards. They are not going to propose programs that are nonsense.

Mr. FRELINGHUYSEN. You reject a lot of projects that institutions suggest.

Mr. GRIFFIN. Maybe you could convince me concerning the merits of this bill but I doubt it. We hear, over and over again, from people appearing for various programs of aid to education that they do not favor Federal control of education. I intend no disrespect to you personally, but I suggest that this bill would set up the Commissioner of Education as the czar of the curriculum in this country. To me this is the worst kind of Federal control of education.

When the Congress passed the National Defense Education Act in 1958, without any question we got involved in controlling education to the extent that we placed emphasis on some subject area temporarily—we were told then, although I realize you did not tell us, that it would be temporarily. We were concerned because of the national security interest and we wanted to do something to stimulate the training of engineers, scientists and mathematicians, and so forth. At least those subject areas involve disciplines which are much different, I suggest, from such subjects as economics, sociology, political science which involved differences of philosophies and ideologies.

Now, this bill would open up the whole spectrum of the curriculum to manipulation and control by one officer of the Government who says and assures us—and I hasten to add I do not mean any disrespect to you personally, because nobody knows how long you will be the Commissioner of Education; perhaps it will be a long time—but you assure us that you will take advice. Well, that is fine, that you will take advice, but ultimately you will make the decision. Sure, one college may not agree to particular contract terms but another college will agree to the contract terms if the Commissioner has money to hand out. So there has been suggested no check, so far as I am concerned, at all on the authority of the Commissioner. Thirty-seven million dollars is not going to be enough to provide institutes for training in all subjects which require it. So you are going to have to select as Commissioner of Education.

I do not know how one could make this bill so that I would approve it, because these are basic fundamental objections, I should like to have you explain to me why you believe this is a Federal responsibility, which is suggested in this particular piece of legislation? How do you justify and how do you say this is not Federal control of education?

Mr. KEPPEL. Let me start with the general point of Federal control.

Mr. GRIFFIN. Yes.

Mr. KEPPEL. This is a word that is often used and I think very confusingly used, if you will permit me to say so. To begin with, let us look at the reality of the situation.

You have 1,300 institutions of higher education preparing teachers. We estimate, for example, that this spring there will probably be graduated from this variety of institutions about 116,000 men and women who will next fall enter teaching somewhere.

We have a long tradition in the United States of independence of institutions of higher education. I think it is clear that I believe that those institutions have an independence which they value and will maintain. I see nothing in the record that suggests that the activities of the Federal Government to date have weakened that independence of judgment.

Now, if the programs that are being presented to you here, as in the case of the NSF program, are programs conducted through such institutions, I myself believe that we simply have the independence of judgment that they will not be bribed or pushed around by any Federal official, including the Commissioner of Education.

Mr. GRIFFIN. Do you really believe that Federal grants for research and Federal programs under NDEA have not influenced the colleges and universities, and that they have maintained this complete independence?

Mr. KEPPEL. You have used a word now that I am willing to discuss, the word "influence." I do not mean willing to discuss, but I would prefer to discuss the word "influence." Here perhaps is a difference of opinion which is appropriate and debatable. I am trying clearly to disentangle this from the word "control" because I do not think that represents the facts of the case.

Mr. GRIFFIN. Influence and control are two different things? This is good influence?

Mr. KEPPEL. Discussing the question of influence, I do think, sir, that the Federal Government has a responsibility to attempt to play its part through funds which undoubtedly, to use Mr. Frelinghuysen's phrase, point to areas of need, influencing the quality of education.

I do think, sir, that this is perfectly appropriate in a country in which 20 percent of the people move their homes every year and in which we see the problems in the big cities of families coming in from other parts of the country with much lower standards of education. Everybody concerned with the big city educational problems knows this almost desperately.

This does seem to be appropriate, sir, and I think the record will show that we have, through programs in the last 5 or 10 years, contributed to the raising of quality in certain fields where, in the case of the NDEA, it was felt in the national interest to do so. This is, of course, I recognize, a debatable point.

I think the record shows that it has been done without the type of control which any of us fear who fought in an army against the Nazis.

Mr. GRIFFIN. What type of Federal control are you concerned about? I do not understand what kind of Federal control we are against if we are for having one officer in the Federal Government in Washington decide and exert control over the curriculum.

Mr. KEPPEL. I think it is only fair, sir, that you were the one who was concerned about this.

Mr. GRIFFIN. And, to decide which university, for example, among several is the one which teaches economics or political science in the way which a commissioner of education might want high school teachers to be trained, for example. Do you see what I am concerned about?

Mr. KEPPEL. I think I see what you are concerned about, sir, but you are the one who is much more concerned about this type of control than I, because it seems that the record of performance—

Mr. GRIFFIN. I am inclined to conclude that there is not much concern here about Federal control because I do not know what kind of Federal control you are concerned about.

Mr. KEPPEL. I would be concerned if the Commissioner of Education employed directly the individuals offering these institutes. There such influence could be direct.

Mr. GRIFFIN. But if he does it indirectly that is all right?

Mr. KEPPEL. I obviously have a very high regard for the intellectual independence of the institutions of higher education.

Mr. THOMPSON. We had a rather classic illustration of the independence of colleges and universities under the National Defense Education Act when so many of them refused to participate because of this disclaimer affidavit.

What was done about it?

The same thing that would be done if there were any type of undesirable activity on behalf of or on the part of the Commissioner of if the programs were not working out well.

We retain jurisdiction over this area. We retain the right at any time to call the appropriate Federal agencies in to explain to us the manner in which they are carrying out the legislative purposes in legislation. We did this with the National Defense Education Act. We eliminated the disclaimer affidavit.

We do retain control. Mr. Keppel was not the one who raised the question of control. Mr. Griffin did, and many, many others are going to do it. There is a disclaimer of control section set forth here.

Mr. FRELINGHUYSEN. Mr. Chairman, could I address myself to this question? I think the point that is worrying some of us is whether or not we should give a blank check to any individual or any office at the Federal level or whether, as a reasonable alternative, we might not consider specific reasons why existing authority should be broadened so as to enable the Federal Government to influence certain results. I do not know whether you call it control or not.

The only serious point we have had made today where a need exists is, in the Commissioner's opinion, in English, primarily reading and English composition.

Mr. THOMPSON. I refer you, Mr. Frelinghuysen, to the testimony of yesterday and to the testimony of last year on this subject, that the English part of it was elicited as a result of questions from you.

Mr. Keppel has not had a chance yet to complete his statement.

Mr. FRELINGHUYSEN. I have not had a chance to complete my sentence yet, Mr. Chairman.

Mr. THOMPSON. Your time expired.

Mr. O'HARA. I have a parliamentary inquiry, Mr. Chairman. Was the purpose of today's hearing to permit the committee to hear the views of the Commissioner or vice versa?

Mr. THOMPSON. Both.

Mr. O'HARA. I attended the meeting on the supposition that it was the first.

I have heard the views of the committee members many, many times.

Mr. THOMPSON. I am going to ask Commissioner Keppel to finish and without any interruption and then in the regular order we will give every one a chance to ask questions.

Mr. CAREY. Just one point, if I may. Since the point was raised as to where the national interest might lie in this program, coming from a city which has, I think, the largest problem in teacher training, we have the most proficient and again the most deficient teachers in our city. Therefore we have children not receiving education in any way, shape, or form. The State has made its major effort and cannot give us the funds we need. The only place we can turn for the improvement of our teacher training is to the Federal Government at this time, and I hope we could say to the people of New York and other cities of the country, "Hang on. Help is coming."

We are up against the worst control here which I think is ignorance and doubt as to what our children are going to learn in school in the next 10 years. Our children are not being educated where the State and local government are making the maximum effort.

I think the answer lies in the program.

Mr. THOMPSON. Mr. Commissioner, resume your comments.

Mr. KEPPEL. In emphasizing English, I was giving an example. Foreign languages, which I also discussed this morning, as well as history and the guidance counseling simply must be continued, in my judgment.

With regard to the institutes we have been discussing so far, we might, if you would be willing, turn to that later.

You could let me carry on to the second page of the material before the members of the committee on teacher-preparation programs. The proposal here is for an appropriation in the amount of \$7,500,000 for the fiscal year ending June 30, 1964, and in commenting on that, Mr. Chairman, I think it would be appropriate to turn to some questions that Mr. Taft asked about the nature of present teacher-training programs.

I have already indicated that we now have approximately 1,300 institutions of higher education engaged in the task of turning out about 116,000 men and women who will enter the classrooms next fall. Of those, 50,000 will be in the elementary schools and about 66,000 in the secondary schools. These are estimates, sir. You realize the problems of predicting now what will happen in the fall.

You will notice that in this program there are five particular points at which we think model or pilot programs might be encouraged.

From the very statistics I gave you, sir, I think it is clear that with \$7,500,000 we are not engaged in a massive enterprise directly affecting all of these 1,300 institutions of higher education. Obviously, with that amount of money, it is impossible.

The problem is to encourage developments that raise the quality of teachers and tap new sources of supply for teachers not adequately tapped today.

Just a few words on numbers 1, 2, 3, 4, and 5 in the middle of the page.

The first refers to expansion or improvement of course content and curriculums, including libraries.

One of the weaknesses of many teacher-training programs has been that the professors in the arts, the social sciences, and natural sciences have not been closely enough linked to the preparation of teachers. This, Mr. Taft, was a matter which we discussed before this morning.

It is clear in many fields and I think most dramatically illustrated

in mathematics and physics. The courses taken by future teachers, because of the advance in knowledge in those fields, deserve and must have modernization. A change in the fundamental approach to physics is the obvious example.

Grants to institutions along these lines is what we want. Obviously, that need not be done in all 1,300 institutions of higher education because you have the mechanization to make these texts available.

In the second area, you notice we suggest the increased use of other college or teaching personnel.

The point here is to encourage the type of development which takes place at the University of Wisconsin or Stanford in which professors of mathematics, for example, are jointly appointed to the teacher-training staff so that the man is both a professor of mathematics and a professor of education, with the same thing in history, the same thing in literature, and the like. This is to form that link which seems to me so essential in improving quality.

In the third category, the improvement of student teaching activities, I think there is general agreement that the most important part of the training of teachers, in the sense of preparing them for the job that they do in the classroom, is the experience of teaching in a cadet or internship fashion under the direction of skilled and experienced teachers.

This relationship between the training institutions and the schools in which this internship or clinical training takes place has not been close enough. The student in many cases has been sent out and kind of left there.

The third part here is intended to set up models of how this can be well done.

The fourth has to do with improving standards of selection. The evidence, as I think the committee knows from last year, and there is reference to it in the committee's report of last year, is that the academic quality of individuals entering elementary and secondary school teaching is unsatisfactory in comparison to those entering other fields.

Mr. THOMPSON. In that connection and referring to a point Mr. Taft raised earlier, is New Jersey's current experience unusual in that it no longer calls its teachers' colleges by that name, but rather is converting them into liberal arts institutions, and is deemphasizing greatly methodology in favor of broader course content.

I notice that the State of North Carolina has recently done the same thing.

We went from the normal school to the teachers college and now we are going to the liberal arts institution.

Is this a pretty general movement?

Mr. KEPPEL. Yes, sir, it is.

Mr. THOMPSON. I think the consensus of this committee would be that the methodology does not excite us much.

Mr. KEPPEL. It excites me, sir.

Mr. THOMPSON. I have in mind a course in how to work the zippers on snowsuits for first graders.

Mr. KEPPEL. That, I think, you can get along without. Actually if you take the names of the institutions called teachers colleges, which were very widespread in the United States 25 years ago, there are, I

believe, fewer than 100 today, and there has been a steady decline in the last 15 years as far as the name is concerned.

Mr. TAFT. Does this 1,300 figure include all liberal arts universities?

Mr. KEPPEL. Practically all.

Mr. TAFT. You are not limiting your field down to ones just for the preparation of teachers?

Mr. KEPPEL. No, these are the figures on the number of institutions which have programs which result in teachers being qualified by the States. The chairman's point is well taken here and the program that we are suggesting here is obviously in line with the development he mentioned.

No. 5, Mr. Chairman, refers to grants in support of postbaccalaureate programs for those who already have college degrees but wish to enter teaching—we use the phrase here—as a second career. This would include retired military personnel, and housewives with children who have reached the age at which it is no longer necessary for them to be at home during the schools hours. When I first looked into this, the figures were quite exciting as to the source of supply.

A study was made in the Department of Defense which shows that between now and 1970, 56,000 armed services officers will retire annually. The survey went on to ask these men how many of them would consider teaching. The phrasing was such as to ask whether they would like to be considered for teaching positions in schools or colleges upon their retirement. More than half of them said they would; 59 percent is the figure that I have in mind. This group of men with college degrees, many of them obviously trained in the sciences and many of them with substantial experience overseas in other societies and cultures, represents in the judgment of a good many of us a real source of supply of individuals who could enter the classroom. Since, as you know, their retirement age sometimes goes down into the early forties, you would conceivably have men who could teach for 15 or 20 years.

It should be emphasized before the committee that the average length of service in public school teaching today is just a little more than 10 years. This is, of course, the result of having 75 percent of the teachers being women and with marriage and childbirth many of them have to leave the classroom. This then is a source of supply which, at least in my judgment, should be vigorously supported.

There have been programs for this purpose at Duke University and at Purdue with emphasis on training men in mathematics.

These programs were partly under private auspices with some aid from the National Science Foundation and the men who took the training courses were employed just like that, both in schools and colleges. They spent a year in training and that is probably desirable because of the need to brush up in their own subject as well as go through the practice teaching.

Another example which I am sure is familiar to all of you is the source that is slowly, very slowly being tapped now of married women whose children are of an age which will permit them to teach full time or part time.

Here I do not have the kind of statistical backup that I do in the case of retiring military personnel, but I think commonsense tells us that this is a substantial proportion because of the very great interest

in the number of women who have finished their liberal arts courses in the past 10 or 15 years.

As you know, the figures show a great increase in the number of women who complete college education. I have personal evidence which is probably not satisfactory to you, but which might give an example. For example, at Harvard we wanted to test the availability and practicability of such training programs for married women whose children have come to that age where they could leave the home, and we said that we would admit six such candidates for a master-of-arts in teaching degree for the secondary schools and six for the elementary schools. We had 70 applications in 3 weeks. Now, that may be the peculiarity of the Boston area. I don't know. I can only say that I doubt it.

It looks to me as if this is a substantial source of supply and it is that sort of programs that No. 5 is aimed at.

Once again I must emphasize that we have in mind only model types of programs which we hope might be studied by other institutions which could set them up on their own afterward. Hence, the request for an amount of \$7,500,000, which clearly would not provide any large number of programs.

With regard to the third section that we have before you, the part C, which is entitled "Specialized Training for Teachers and Related Educational Personnel," may I make a distinction between this part and the first part on the institutes? You will recall that the emphasis of the programs of the institutes is directed to teachers in service to raise the quality of their grasp of their teaching field or their skill and guidance in library work. The institutes are clearly based on the purpose of having people already on the job, raise the quality of their preparedness in their own field.

Here the proposal you will notice is for individuals either already on the school staff or not yet in but trying to prepare for a new field. These programs are aimed at particular operating problems of the schools. The need is great in many cities and States for people to handle the teaching of the gifted and to handle adult problems of literacy or more effective literacy—which is obviously a serious problem.

These programs are aimed like rifles into particular areas. You take existing staff from the schools who are teachers of English or history or something else and train them to do these particular jobs or you aim at supporting programs for individuals outside of education to move in and do it.

Once again I must emphasize that it includes guidance in the slum areas, as it must, in great cities like New York.

Also, I think it must be clear, library training is appropriate and relevant for almost every one of these programs because the library is the heart of the institution and is related to the particular problems of an area such as adult literacy.

Again I must emphasize that these are model programs. The request is for \$7,500,000 and this amount could not conceivably provide the support needed throughout the country.

Once again it is a model conception.

On the last page of the material before you, Mr. Chairman, is the recommendation that the committee consider amendments to the Co-

operative Research Act. You will recall that this act of 1954 was an act authorizing the Office of Education to engage in cooperative contracts with institutions, the institutions putting up part of the funds, for the encouragement of research and development in education.

Here it is recommended that you broaden the language for two purposes: First, to make possible contracts and grants with a wider group of institutions not solely representing higher education and State departments of education. Experience has shown that it is desirable to be able to have research relationships with local school systems, and the like.

Second, to permit a grant program which does not carry the limitations involved in any so-called cooperative contract.

Also, you will notice, if I may bring your particular attention to it, and this is my last point, sir, the language in section 362 of part D. It specifically uses language such as—and I am now in the third line from the bottom of section 362—(a) “in cooperation, when appropriate, with State or local educational agencies, of the centers of programs of research, development, evaluation, and demonstration * * * .”

It would be oversimplifying it, sir, to say that what we have in mind here is the creation of the kind of centers which have been so successful in agricultural demonstrations. It is the conception that there would be available by cooperation between institutions of higher education, State departments and local school systems examples of new programs in operation in which research is under continuous, constant practice, and demonstrations are going on.

This language, as I understand it, would permit the encouragement and partial financing of such centers.

Thank you, Mr. Chairman.

MR. THOMPSON. Mr. O'Hara, now that you have heard him.

MR. O'HARA. Thank you very much, Mr. Chairman.

MR. KEPPEL, I enjoyed your statement and think your testimony is very useful to the subcommittee.

The question of Federal control has been raised. You have had experience as the dean of a very fine department of education at a major university.

Would you as dean of such a school feel that you were under Federal control if you had the opportunity to decide for yourself, within your own department, what kind of a teacher training institute would be most useful to the people that you might attract to that institute and if you had the opportunity to go ahead and set up the kind of institute you wanted to run, decide on the people you wanted to do the teaching in it, and you were free to go ahead then and make application for Federal funds to help you do this or not, as you chose. Would you feel that that was imposing a Federal control over the educational system of the United States?

MR. KEPPEL. I would not, sir, and when I did it I did not.

Now, let us take an alternative. If we are going to examine the question of Federal influence and all, it seems to me—and I want to know if you would agree or not agree with this statement—that the Federal Government exerts a good deal more influence when the U.S. Congress says, “We shall permit such institutes for teachers in the field of English but not economics,” or “We shall permit such institutes in the field of geography but not history,” than it does

if we leave these decisions to the schools establishing the institutes to decide on the basis of their own experience. Would you agree with that?

Mr. KEPPEL. I would agree, sir, that I think the freedom which we all desperately want to preserve as part of our heritage is best preserved by that means.

Mr. O'HARA. Finally, Mr. Chairman, because I want to observe the 5-minute rule, which I trust you are going to enforce—

Mr. THOMPSON. Yes. You have 30 seconds.

Mr. O'HARA. I want to say to the Commissioner of Education that I would think educational research and improving the quality of teaching is the quickest and best way of pulling ourselves up by our bootstraps. We have a problem, yes, with the quantity of educational opportunity. We have a problem with overcrowded classrooms. We have a problem with not enough teachers. But within the present limitations on the number of classrooms and the number of teachers, there are opportunities to improve the quality of instruction, I think that unless we realize these opportunities in a meaningful way we will not make the progress that we must make.

Mr. KEPPEL. I agree, sir.

Mr. Chairman, there was a professor of English at Harvard, Douglas Bush, a very distinguished scholar and fine man, who wrote an article for the New York Times magazine which implied that mass education inevitably leads to mediocrity.

I enjoyed the privilege at Harvard of disagreeing with my colleague, and I enjoy it now.

I flatly disagree with Douglas Bush. I think the great general use of the experiments that we are doing with American education is that we can have both quantity and quality.

The title, "Improvement of Educational Quality," seems to me the testimony we give to that belief and if we put it into effect we can show in fact that we can have both quantity and quality.

I believe this is one of the fundamental decisions to be made by our society, and it is clear on which side I stand.

Mr. THOMPSON. Mr. Ashbrook.

Mr. ASHBROOK. While we are on the subject of your colleagues at Harvard, do you recall Mr. Conant's statement made to Mr. Flemming in 1959 regarding the advisability of Federal aid of some type in the social sciences which I assume we could do through allowing section 202 to be as broad as it is?

Mr. KEPPEL. I think I recall the statement.

Mr. ASHBROOK. It was not so much that he was against it but pointed out that by doing it we are certainly going to open up the Federal control aspect.

Mr. KEPPEL. I know that Mr. Conant had that view. I enjoyed arguing with him then and still do. I think that Mr. Conant was being cautious as I think we all have to be cautious in preserving freedom. Freedom of thought is really what we are concerned with here.

Mr. ASHBROOK. That was more of an aside.

My basic question is the information that I would like to elicit from you regarding the substantiation of the need in these areas except for English.

I think we have all agreed English and reading have the need.

What evidence do you have with respect to these other subjects? The language requires or at least would give you the right to place the preference. What evidence is there of need in these other subject areas?

Mr. KEPPEL. May I give some examples, sir?

Mr. ASHBROOK. Certainly.

Mr. KEPPEL. First, lest there be any confusion in the record in my response to some of Mr. Frelinghuysen's questions, I want to make it very clear that English is one example, and we must continue in modern foreign languages where the gap between the need for qualified teachers and the demand is still very great.

This I can put in the record and it is in the record already from last year.

Let me take some examples in history and geography. We have all, I think, seen reports of the inability, alas, not only of the high school graduates but also of adults of being able to identify in proper sequence and in proper relationship major historical figures, essential economic, and let us say, literary facts in the sense of the history of wars. This could be put into the record on the basis of what people show they do not know by tests that have been made.

I personally, and I suspect many others are not satisfied with the grasp of straightforward history on behalf of both high school graduates and the adult population. This argument, it seems to me, sir, relates to the basic Jeffersonian argument, also expounded by other major figures in American history, of the importance of an informed electorate when it comes to its task as citizens.

We probably are better educated in a knowledge of the facts of world geography than we were 25 years ago, but I am afraid it took a war to do it.

Mr. ASHBROOK. Do you think there is widespread need in the area of geography, for example, to improve the quality of education?

Mr. KEPPEL. In my judgment, we ought to improve the teaching of physical geography in the broadest sense.

Mr. ASHBROOK. History, too.

Mr. KEPPEL. Maybe I could bring, and will gladly enter into the record, such evidence with regard to what is not now known by proportions of the population.

(The above-mentioned material follows:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

OFFICE OF EDUCATION

STAFF MEMORANDUM ON THE PUBLIC'S KNOWLEDGE OF PUBLIC AFFAIRS

The following are three items which indicate three different aspects of this problem:

[From the Public Opinion Quarterly, Vol. 26, No. 4, winter 1962]

THE POLLS: THE INFORMED PUBLIC

(By Hazel Gaudet Erskine)

Most poll questions reveal opinions and attitudes of the general public on issues of the day. Many are preceded by a screening question on whether the person has heard or read about the problem. Only occasionally have pollsters determined the actual level of accurate information their respondents possessed on the topics under discussion. This summary includes all available previously published questions asked of nationwide cross sections of the American public from 1947

to date that get at what people actually know about a news item. Earlier questions of the same ilk may be found in Hadley Cantril's "Public Opinion 1935-46."

Most of the information summarized below is courtesy of Dr. George Gallup and the American Institute of Public Opinion (AIPO). The Quarterly is also indebted to the National Opinion Research Center (NORC) and to Elmo Roper for permission to reprint some of their findings.

Subsequent issues of the Quarterly will summarize questions pertaining to general knowledge not necessarily tied to topics current in the news. Many further questions on sheer exposure to the media are also available for publication as space permits.

Dates given refer to time of publication rather than to date of interviewing. Technical questions should be directed to the authors of the survey in question, not to the Quarterly.

Topics covered include what the public knows about people, expressions, and issues in the news, and a few questions demonstrate the gap between exposure to news and actual knowledge of what the issues entail.

People in the news

[In percent]

	Reasonably correct	Incorrect, don't know
Will you tell me who Russia's foreign minister is? (Molotov) (AIPO, Sept. 14, 1947)	62	38
Will you tell me who the chief delegate to the U.N. organization is from each of these countries—United States, England, France, Russia? (AIPO, Sept. 14, 1947):		
Russia (Andrei Gromyko)	34	66
United States (Warren Austin)	11	89
England (Sir Alexander Cadogan)	2	98
France (Alexander Parodi)	(1)	100
Will you please look over this list of names and tell me which of these people you have heard of? Will you tell me who each one is or what he does? (AIPO, Nov. 8, 1947):		
Truman	98	2
MacArthur	97	3
Eisenhower	95	5
Dewey	91	9
Taft	82	18
Marshall	79	21
Wallace	75	25
Vandenberg	65	35
Byrnes	58	42
Pepper	58	42
Forrestal	53	47
Barkley	51	49
Stassen	50	50
Warren	41	59
Martin	33	67
Byrd	32	68
Here are some photographs of important men. Will you please look at the photographs and tell me their names? (AIPO, Mar. 5, 1948):		
Truman	93	7
Dewey	84	16
Eisenhower	83	17
MacArthur	76	24
Wallace	62	38
Taft	40	60
Farley	31	69
Vandenberg	27	73
Stassen	26	74
Warren	12	88
Martin	11	89
Pepper	5	95
Will you tell me the names of the presidential and vice presidential candidates for the Republican Party? Democratic Party? Progressive Party? States' Rights Party? Socialist Party? (AIPO, Aug. 24, 1948):		
Republican:		
Thomas Dewey	88	12
Earl Warren	58	42
Democratic:		
Harry Truman	91	9
Alben Barkley	49	51
Progressive:		
Henry Wallace	67	33
Glen Taylor	30	70
States' Rights:		
J. Strom Thurmond	11	89
Fielding Wright	3	97
Socialist:		
Norman Thomas	21	79
Tucker Smith	(1)	100

¹ Less than half of 1 percent.

People in the news—Continued

[In percent]

	Reasonably correct	Incorrect, don't know
Identify Franco regime (no question quoted) (AIPO, May 11, Dec. 14, 1949).		
With what country do you associate General Franco? (AIPO, Sept. 13, 1950):		
1948: November.....	53	47
1949:		
May.....	58	42
December.....	56	44
1950: September.....	56	44
November 1948 opinion, by religion:		
Protestant.....	50	50
Catholic.....	55	45
May 1949 opinion, by education:		
College.....	87	13
High school.....	66	34
Grade school.....	41	59
Will you tell me who Dean Acheson is? (AIPO, Dec. 22, 1950):		
National total.....	66	34
By political affiliation:		
Republicans.....	70	30
Democrats.....	59	41
Independents.....	73	27
Will you tell me who Marshal Tito is? (AIPO, Oct. 7, 1951).....	43	57
Will you tell me who Anthony Eden is? (AIPO, Jan. 19, 1952):		
By education:		
College.....	78	22
High school.....	45	55
Grade school.....	24	76
Will you tell me who Estes Kefauver is? (AIPO, Jan. 30, 1952).....	59	41
Will you tell me who Adlai Stevenson is? (AIPO, Apr. 16, 1952).....	33	67
Will you tell me who the Vice President of the United States is? (Barkley) (AIPO, May 31, 1952).....	69	31
Here is a list of people in the news. Will you tell me who each one is—or what he does? (AIPO, May 31, June 7, 1952):		
Dwight D. Eisenhower.....	83	17
Robert A. Taft.....	74	26
Estes Kefauver.....	67	33
Earl Warren.....	65	35
Harold E. Stassen.....	46	54
Adlai Stevenson.....	3	66
Richard B. Russell.....	30	70
W. Averell Harriman.....	25	75
Robert Kerr.....	25	75
Can you recall, offhand, the name of the Republican (Democratic) candidate for Vice President? (AIPO, Aug. 23, 1952):		
Republican (Richard M. Nixon).....	45	55
Democratic (John J. Sparkman).....	32	68
Will you tell me the name of the new Secretary General of the United Nations? (Hammarskjöld) (AIPO, May 16, 1953).....	10	90
Spelled name flawlessly.....	1	-----
Could recite name but could not spell it.....	6	-----
Could partially identify.....	3	-----
Will you tell me who George M. Humphrey is? Will you tell me who Christian A. Herter is? (AIPO, Apr. 6, 1956):		
Humphrey.....	28	72
Herter.....	10	90
Identify labor leaders (no question quoted) (AIPO, Apr. 29, 1957):		
General public:		
John L. Lewis.....	93	7
Dave Beck.....	80	20
Walter Reuther.....	70	30
Harry Bridges.....	66	34
George Meany.....	50	50
David McDonald.....	25	75
Union members' families:		
John L. Lewis.....	97	3
Dave Beck.....	86	14
Walter Reuther.....	77	23
Harry Bridges.....	69	31
George Meany.....	55	45
David McDonald.....	28	72
Can you tell me who Billy Graham is? (AIPO, June 3, 1957).....	85	15
Will you tell me who each of these men is—that is, what he does? (AIPO, Oct. 18, 1957):		
Fanbus (Arkansas).....	57	43
Gary (Oklahoma).....	3	97
Coleman (Mississippi).....	3	97
Can you tell me who is the present Secretary of Defense? (McElroy) (Roper, March 1959).....	27	73

People in the news—Continued

	Percent correctly identifying			
	National total	College	High school	Grade school
Will you tell me who each of these men is—or what he does? (AIPO, June 18, 1956):				
Stevenson.....	88	98	92	75
Kefauver.....	83	97	89	64
Harriman.....	51	81	53	29
Johnson.....	32	57	32	18
Symington.....	31	62	31	12
Lausche.....	25	50	24	12
Voters were handed a card with photographs and asked: Here are some photographs of men in the news. Will you please look at them and tell me their names? (AIPO, June 18, 1956):				
Stevenson.....	76	91	82	57
Kefauver.....	60	79	66	37
Harriman.....	25	49	26	11
Symington.....	13	29	14	4
Lausche.....	13	29	13	4
Johnson.....	8	22	7	2

Understanding of the news

[In percent]

	Reasonably correct	Incorrect, don't know
From what you've heard, what kind of an effect do you think a high American tax on foreign goods would have on our trade? (NORC, Dec. 11, 1946).....	51	49
Do you happen to know what a tariff is? What is it? (NORC, Apr. 27, 1957).....	46	54
What is your understanding of what the Wagner Labor Act provides—or is supposed to do? (AIPO, Jan. 10, 1947).....	19	81
Will you tell me what is meant by the term "portal to portal" pay? (AIPO, Jan. 17, 1947).....	41	59
What does the term "jurisdictional strike" mean to you? (AIPO, Feb. 12, 1947).....	12	88
Can you tell me what the term "filibuster" in Congress means to you? (AIPO, Apr. 5, 1947; Feb. 11, 1949):		
1947.....	48	52
1949.....	54	46
When you read about a business recession, what does that mean to you? (AIPO, May 2, 1947).....	52	48
Will you tell me what the term "veto" means to you? For example, what does it mean when the President vetoes a bill sent him by Congress? (AIPO, June 8, 1947).....	80	20
What is meant by the veto power in the U.N. organization? (AIPO, Sept. 17, 1947).....	57	43
Will you tell me what the term "cold war" means? (AIPO, Dec. 3, 1948; Mar. 22, 1950; Feb. 2, 1951):		
1948.....	54	46
1950.....	58	42
1951.....	55	45
1950 opinion, by political affiliation:		
Republicans.....	61	39
Democrats.....	53	47
Independents.....	64	36
1950 opinion, by education:		
College.....	87	13
High school.....	66	34
Grade school.....	41	59
1951 opinion, by education:		
College.....	85	15
High school.....	59	41
Grade school.....	42	58
Have you heard or read anything about the Herbert Hoover Commission report? (If "Yes") What is your understanding, in general, of the purpose of the Hoover Commission? (AIPO, May 6, 1949; Mar. 8, 1950; Aug. 9, 1951 ²):		
1949.....	28	72
1950.....	31	69
1951.....	24	76
1950 opinion, by education:		
College.....	65	35
High school.....	35	65
Grade school.....	18	82
Will you tell me what the initials "FBI" stand for? (AIPO, Aug. 21, 1949).....	78	22
Will you tell me what your understanding is of the term "wiretapping"? (AIPO, Aug. 27, 1949).....	67	33

Footnote at end of table.

Understanding of the news—Continued

[In percent]

	Reason- ably correct	Incorrect, don't know
Just in your own words, will you tell me what a "monopoly" is? (AIPO, Oct. 14, 1949).....	69	31
There has been some talk lately about the "welfare state." What does the expression "welfare state" mean or refers to as you understand it? (AIPO, Nov. 9, 1949).....	36	64
Do you happen to know any of the symptoms (signs) of cancer? (AIPO, Apr. 2, 1950):		
1940.....	38	62
1950.....	54	46
Will you tell me, offhand, what the Marshall plan is? (AIPO, May 26, 1950):		
National total.....	63	37
By political affiliation:		
Republicans.....	70	30
Democrats.....	56	44
Name 1 or more powers now occupying Germany (no question quoted). (AIPO, May 28, 1950).....	82	18
When you hear or read about the term "bipartisan foreign policy," what does that mean to you? (AIPO, June 2, 1950):		
National total.....	26	74
By political affiliation:		
Republicans.....	34	66
Democrats.....	21	79
The following 14 new terms were intended to test how well informed the average American was on the meaning of terms and phrases in the news (no question quoted). (AIPO, June 10, 1950):		
Flying saucers.....	94	6
Universal military training.....	75	25
Bookie.....	68	32
Wiretapping.....	67	33
Tariff.....	67	33
Monopoly.....	64	36
Cold war.....	58	42
Filibuster.....	54	46
Welfare state.....	36	64
Electoral college.....	34	66
Hoover Commission report.....	31	69
Reciprocal trade agreements.....	29	71
Bipartisan foreign policy.....	26	74
Point 4.....	5	95
Will you tell me what the Reconstruction Finance Corporation (RFC) is or does? (AIPO, May 6, 1951).....	42	58
Familiar with Voice of America (no question quoted). (AIPO, June 20, 1951).....	46	54
Will you tell me what the North Atlantic Treaty Organization is? (AIPO, Oct. 19, 1951).....	35	65
Will you tell me what the initials "GOP" stand for? (AIPO, May 31, 1952).....	47	53
In what city will the (Republican and Democratic Party) conventions be held? (AIPO, May 31, 1952).....	42	58
In what month will the national Republican and Democratic Party conventions be held? (AIPO, June 7, 1952).....	33	67
Just in your own words, will you tell me what is meant by the term "farm price supports"? (AIPO, Mar. 29, 1953).....	54	46
As you know, Germany today is divided into 2 zones. Can you tell me what the zone controlled by Russia is known as? (AIPO, Oct. 10, 1954).....	54	46
Would you tell me what is meant by the "fallout" of an H-bomb? (AIPO, Apr. 6, 1955; Dec. 8, 1961 ²):		
1955.....	17	83
1961.....	57	43
1955 opinion, by sex:		
Men.....	25	75
Women.....	9	91
When you hear or read about the 5th amendment, what does it mean to you? (AIPO, May 3, 1957).....	42	58

¹ The Dec. 3, 1948, Gallup release reported 47 percent "answering correctly." Subsequent releases in 1950 and 1951 reported 54 percent "familiar." Presumably all figures on this question pertain to familiarity rather than to correct definitions.

² No question quoted.

Exposure to news and knowledge of issues

[In percent]

	Heard or read about it		Totally unfamiliar
	Correct idea	Incorrect or vague	
Have you heard or read anything about the official American plan for international control of atomic energy—often called the Baruch plan? (If "Yes") Do you feel you have a fairly clear idea of the plan? (NORC, Jan. 15, 1948)-----	15	30	55
Those familiar with the Marshall plan (no question quoted) were asked: What is your understanding of the purpose of this (Marshall) plan? (AIPO, Feb. 8, 1948)-----	52	19	29
Have you heard or read anything about the Herbert Hoover Commission report? (If "Yes") What is your understanding, in general, of the purpose of the Hoover Commission? (AIPO, May 6, 1949; Mar. 8, 1950; Aug. 9, 1951):			
1949-----	28	13	59
1950-----	31	8	61
1951-----	24	20	56
Have you heard or read anything about the new hydrogen bomb? (If "yes") Will you tell me what you do know about this new bomb? (AIPO, Feb. 8, 1950)-----	52	18	30
Have you heard or read anything about President Truman's Point 4 program? (If "yes") What would you say is the main purpose of this program? (NORC, June 13, 1950)-----	5	19	76
Have you ever heard or read anything about the Bricker amendment? (If "Yes") Just in your own words, what is the purpose of the Bricker amendment? (AIPO, Jan. 27, 1954)-----	13	15	72
Have you heard or read about the trouble in Formosa and the Formosa Straits? (If "Yes") Do you happen to know how far away from the Red China mainland the islands of Quemoy and Matsu are? Do you happen to know which side holds the islands of Quemoy and Matsu at the present time? (AIPO, Mar. 27, 1955):			
Distance-----	14	63	23
Ownership-----	10	67	23
Familiar with European Common Market (no question quoted). AIPO, Dec. 17, 1961)-----	13	9	78
Those familiar with Kennedy administration's plan to increase trade with other nations (no question quoted) were asked: Just in your own words, what is your understanding of this plan? (AIPO, Apr. 8, 1962)-----	13	33	54

1 No question asked.

2 Correct, 6 percent; partly correct, 7 percent.

[From the Maxwell Graduate School, Jan. 28, 1958 (Syracuse University)]

AMERICAN STUDENTS ABROAD: GOOD WILL AMBASSADORS?

In recent years many sententious words have been written about Americans traveling beyond our borders and how they "represent" the United States. President Eisenhower himself took cognizance of the role which millions of our fellow citizens play in furthering foreign policy when he designated each recipient of an American passport as a "good will ambassador" of the United States.

How well are some of these "good will ambassadors" prepared for their new experience? Can they really handle questions about pressing issues in the United States such as racial segregation, defense spending, or juvenile delinquency? Are they prepared to discuss and honestly interpret the standard of living of Americans or their cultural values? How well can they communicate in any language except English? And do they know much about the setting, the institutions, the way of life in the very countries which they are visiting?

During the summer of 1957, with the assistance of the Council on Student Travel, the Netherlands Office of Foreign Student Relations, and the Cunard Line, the Maxwell School administered a questionnaire to passengers aboard 13 ships en route to Europe from the United States. The purpose of the questionnaire was to take a snapshot of the "mental baggage" which a large group of young, highly motivated Americans carry into their first foreign experience. An effort was made, therefore, to collect relevant biographical data, such as family background and educational experience while testing for language proficiency and "orientation" to both Europe and the United States.

The sample

More than 1,000 questionnaires were collected and tabulated by the Maxwell School. None of the respondents had ever been outside the United States—with the possible exception of a short visit to Canada or across the Mexican border—and all the respondents were on their way to Europe. These questionnaires were then carefully sifted into a fine sample of 510 determined by age grouping, educational attainments, and a complete response to the questionnaire.

This was not an "average" group of U.S. citizens casually interrogated about their language skills or their orientation to foreign countries. The sample consisted of university-level Americans with a median age of 22 years. Their parents were mainly in the professional or the upper business class of American society. No less than 80 percent came from families with incomes above the U.S. average. And every one of these 510 Americans was entering a foreign country within a few days after filling out the Maxwell School questionnaire.

Language facility

Second-generation Americans have repeatedly rejected their linguistic heritage in the pressure to melt into U.S. society and join native American peer groups. This well-known loss of foreign language communication appears even more vividly when surveying a group just about to visit the continent of their fathers. About 20 percent of the sample were the offspring of immigrants or had lived in homes where a foreign language was often spoken. Yet fewer than 5 percent of these second-generation Americans claimed to speak the language with any facility.

The most important question about foreign language skill, however, touched the preparation given for this first oversea experience by American high schools and colleges. Four hundred and seventy-two of the sample group of young Americans had had some training in a foreign language, ranging from 6 months to 6 years, the average being slightly over 2 years. Twenty percent of the respondents had studied two foreign languages. Given all the time they wanted, these 472 young men and women were asked to translate the following paragraph into any foreign language:

I am going to Europe. My mother is at home. She will write to me often while I travel. There are many interesting things to do in a foreign country. I like to eat well, walk slowly through the streets, and spend the night in a clean, inexpensive hotel.

The overwhelming number of responses were in French, Spanish, and German, with a scattering of Italian, Yiddish, and Russian. There was no appreciable difference in competence between those who had heard a foreign language used in their homes and those who came from fully English-speaking parents or relatives. The final results were scored at Syracuse University as follows:

	<i>Percent</i>
Very satisfactory.....	30
Awkward or incomprehensible.....	49
No attempt made.....	21

Of these young good-will ambassadors, therefore, all of whom had been exposed to a foreign language in secondary and/or collegiate education and all of whom had additional motivation to know a foreign language by virtue of the very trip on which they had embarked, only 30 percent could handle a simple paragraph of translation satisfactorily. One person in five did not attempt the translation or abandoned the effort after a scribble. Almost half the respondents were very faulty in elementary vocabulary or so inaccurate in word order, grammar, and sense as to be incomprehensible. These results were obtained through a written exercise without limitation of time. Certainly the instant verbalization of such phrases required by ordinary conversation would have produced even poorer results.

Orientation to Europe

Another test of the good-will ambassadors was their orientation to Europe through a series of short, factual questions such as:

Which country produces more steel annually—France or Germany?

Does Poland have more or fewer people than Italy?

Where are Serbia and Croatia?

In which cities would you find the Louvre? the Colosseum? Westminster? the Parthenon?
and so forth.

Twenty-nine questions were offered in this part of the questionnaire, touching upon geography, politics, economics, social mores, and foreign cultures. The results were scored at the Maxwell School as follows:

	<i>Percent</i>
Well oriented-----	37
Very superficial-----	56
Poorly oriented-----	7

The answers were generously graded—with no requirement of correct spelling or absolutely precise data. When, for example, the university-level respondents were asked to name any Italian novelist, poet, or painter in the last 150 years, 76 percent could not think of one, such as Manzoni, Carducci, Leopardi, Verga, D'Annunzio, or Malaparte, Levi, Silone, Moravia, or Modigliani. Almost 50 percent of the respondents could not recall a single writer from Germany in either the 19th or 20th century: such men as Goethe, Nietzsche, Hauptmann, Rilke, or Thomas Mann, to name a few.

More Americans have probably landed in France over the course of the last century than in any other country in Europe; French is still pursued more than any other foreign language in U.S. schools; there is good evidence that Americans know more about the history and literature of France than or any other non-English-speaking country. Yet 50 percent of our select sample of young Americans en route to Europe believed that divorce was not allowed by law in France. And despite the contributions of Scandinavia to the American way of life and the fact that many of these travelers would soon be setting foot in one of the three Scandinavian countries, 70 percent of them could not name one country in which the state church was Lutheran.

The questionnaire also revealed that as soon as one turned from the main landmarks of our western European heritage, orientation knowledge declined rapidly; while most of the respondents knew where the Colosseum was, few apparently had heard of Madrid's great art museum, the Prado; and very few could identify Hagia Sophia, the mosque in Istanbul, Turkey, which has been called "the supreme achievement of Byzantine art, as well as one of the world's greatest buildings." At the time of administering the questionnaires North Africa was an intensely troubled center of European and American foreign policy. Yet 90 percent of the respondents had no idea where Berbers were to be found.

Orientation to the United States

Ambassadors of good will, even university level students from the upper economic brackets who are en route to Europe, may possibly be excused for their unawareness of the history, geography, culture, or contemporary society of a foreign country. But the prime function of an ambassador is to represent his own country to the outside world. How well do our young Americans traveling abroad stack up as knowledgeable Americans?

Eleven fundamental questions were asked. Among them were:

In what year is the next U.S. presidential election?

About how many people live in the United States today?

Again the answers were scored generously. Precise figures were not sought, but some index to the image of the United States which these American travelers held and which, presumably, they might relay overseas. The results were sorted at the Maxwell School as follows:

	<i>Percent</i>
Well oriented-----	36
Very superficial-----	47
Poorly oriented-----	17

The questions not only dealt with the composition of the American population, but also asked, for example, which American novelist—or poet—or playwright—the respondent would recommend to people he met abroad in order to reflect the contemporary way of life in the United States. Ernest Hemingway, Thomas Wolfe, and William Faulkner, were cited as novelists as well as Scott Fitzgerald, Sinclair Lewis, John Steinbeck, even Paddy Chayevsky, and Howard Fast. But 30 percent of the respondents could not think of one important 20th century

American novelist. Among the playwrights the names of Arthur Miller, Tennessee Williams, Eugene O'Neill appeared most often, but about 50 percent of the respondents could think of no American playwright whom they might mention to foreign friends interested in the contemporary United States.

Comparisons between American and foreign standards of living form a vital part of understanding world politics. Pounds, francs, and lire can be translated into dollars to find out what a European family earns, but, for comparison, what is the average income of an American family? At the time of the questionnaire \$5,000 a year would have been about right, but 16 percent of the sample thought that the average was over \$7,000 a year. More than two-thirds of these young Americans en route to Europe had very little idea of the Roman Catholic or Jewish composition of the U.S. population. Any answer between 24 million and 48 million for the Catholics was counted as correct; any answer between 4 million and 12 million was counted as correct for the Jews. Guesses about the Catholics ranged up to 75 million; guesses about the Jews were consistently higher than the acceptable range. And those respondents who couldn't distinguish between thousands or millions in their answers were simply not counted in the results.

No single aspect of American society is more widely discussed overseas than the role of the Negro in the United States. There is a bitter joke current in American circles in many foreign capitals of the world that whatever discussion an American abroad may begin—whether it be budgetary controls or soil conservation—the rejoinder is likely to be, "Yes, but what about your Negro problem?" One of the questions put to the young Americans going abroad for the first time was, "About how many Negroes would you say are in the United States?" Sixty percent of the respondents could not even make a close guess: any figure between 10 million and 25 million was acceptable, but only 4 out of 10 in this selected sample of Americans going overseas had a rough idea of the number of Negroes in the United States.

Another prominent issue of American life especially interesting to people overseas is the immigration policy of the United States. These travelers en route to Europe were asked, "About how many aliens a year do you think are admitted to the United States for permanent residence?" Any figure between 75,000 and 500,000 was considered reasonable. Yet 80 percent of the sample answers either had no idea or guessed outside the allowable range.

Education and overseamanship

An orientation questionnaire is a limited device for ascertaining types of information that a respondent has at the tip of his tongue. It is not an index of intelligence, but of interest. Many of these young Americans who could not recall population figures or famous novelists might have been able to reel off dozens of batting averages in the National League, describe an infinite variety of wild flowers, or recite every popular song on this week's Hit Parade.

We have no special interest in quiz contests. The mobilization of unrelated information without any capacity for organization and judgment is a trick performance of a blotter brain. But an American citizen who goes abroad is often appraised as a representative of the United States and he does interpret, consciously or not, the institutions and mores of his society. Without some background information about the United States he flounders in a sea of serious questions put to him by his foreign associates and fails to relate his observations to a dispassionate intellectual framework. Without an appreciation of the country which he is visiting, an American may plow into shallow judgments and atrocious insults. And without some linguistic skill he is forever limited in his communication to only one way of looking at the world.

Probably no test has yet been devised to indicate the honesty, the selflessness, the humor, or the human compassion which serve an individual so well at home or abroad. None of us would assert that proper orientation assures a successful good-will ambassador. But it undoubtedly helps any U.S. citizen traveling, living, and working a foreign country.

Whether the schools and universities of the United States, engrossed with purely domestic problems or harried by the pressures for job training, have fully taken into consideration the new international content of American life is the main question. If 1½ million Americans are going abroad this year, and possibly more the next, should we not make every effort both in the academic curriculum and in special training programs to equip our "ambassadors" with the data and the discernment which promote good will?

SELECTED FINDINGS OF A STUDY OF SOCIAL SCIENCE TEACHERS IN KANSAS

It is obvious that the public will be no better informed than those responsible for teaching the public. The need for strengthening the social science background of those who teach that field is dramatically shown in the following facts taken from a study¹ based on records of 98 percent of the social science teachers at the secondary level (grades 9 to 12) in the public schools of Kansas during the academic year 1956-57:

Of 315 teachers assigned to teach world history, only 151 had any modern European history in college, only 58 had any modern world history in college, and only 27 had any Eastern and Asiatic history in college.

Of 61 teachers assigned to teach geography, only 31 had any geography in college.

Of 461 teachers assigned to teach government, only 117 or 25 percent had college courses in State and local government, only 65 or 14 percent had college courses in comparative government, and only 89 or 19 percent had college courses in international relations.

Only 45 percent of the teachers of social sciences had a college major in the social sciences. Twenty percent had a college major in physical education.

Mr. KEPPEL. The question of priority here is a very difficult one compared, let us say, to reading which is obviously need No. 1. I would not feel qualified at the moment to talk about the priorities, given the limited amount of funds proposed here.

Mr. ASHBROOK. What you are basically saying, then, is that there is probably widespread need everywhere but you are going to place priorities.

Mr. KEPPEL. Given the funds asked for.

Another example is that the amount of teaching now going on in the secondary school in non-Western culture probably does not relate sensibly in the judgment of many people to the need for knowledge of children now 10 years old when they become voters and active citizens 10 years from now.

Mr. ASHBROOK. Would you agree then that, with the funds available under the broadness of this bill, you could actually focus your attention on every aspect of education?

Mr. KEPPEL. I do not think so.

Mr. ASHBROOK. I say if the funds were available. I mean from a blossoming of this.

Mr. KEPPEL. It is always hard for me to imagine that much money, sir, because I keep going back in my mind to the fact that there are 1,800,000 teachers to ask for it.

Mr. ASHBROOK. Let me say I am sure they will ask for it. That is my last question, Mr. Chairman.

Mr. THOMPSON. Mr. Carey?

Mr. CAREY. Mr. Commissioner, I have one observation on control. There is no mechanism in this bill, nor any means by which you, as Commissioner or any Commissioner, could change, modify, or otherwise restrict or expand the curriculum of any elementary or secondary school, is that so?

Mr. KEPPEL. That is right, sir.

Mr. CAREY. So that, in the contractual relationship with the higher educational institution, again, all you could do would be to refuse to grant or grant the contract applied for by the institution?

¹ Sare, Harold V., "Background and Academic Preparation of the Social Science Teachers in the High Schools of Kansas, 1956-57," the Emporia State Research Studies, vol. 7, December 1958.

Mr. KEPPEL. That is right.

Mr. CAREY. It could not affect the quality of the program within the institution or in any way override the judgment of the institution, is that correct?

Mr. KEPPEL. That is right. The only thing is that it would be inspected by auditors for the purposes stated.

Mr. CAREY. In terms of preserving the academic freedom which is probably our greatest gift in this Nation in terms of our educational excellence, we had an outstanding example before the committee yesterday where Dr. Flanagan was testifying in connection with Project Talent which he is developing to get some of the answers about what we need in terms of basic education and how we can improve elementary and secondary education. He came up with answers that would probably be repugnant to some of the leading educational associations but the answers are on the record: for instance, that the average number of children in the teacher's class is not one of the key factors in determining quality of education. This is contrary to the testimony we have had from the National Education Association and others but it is on the record.

I think this points up the fact that we will come up with the answers if we have the institutes to improve the quality of the teachers teaching those children and if we place the basic trust not only in the Commission but the educators and teachers themselves.

I am willing to place that trust there, but I am afraid if we only give them trust and not money we are going to wind up short.

Mr. KEPPEL. I think Mr. Flanagan pointed out earlier one of the reasons why we come before you today with the institutes. Among the factors that were found to be important in Project Talent was the length of service of the teachers.

Mr. THOMPSON. He did say that and he also found a factor was the fact that they are underpaid.

Mr. KEPPEL. And their salary structure. This applies to two parts of H.R. 3000. On one part, we were before you urging that the top salaries are raised in order to keep teachers in the job longer.

This seems to me a direct logical outcome of Flanagan's researches, and the institutes that we are proposing are clearly devised for just such people.

Mr. THOMPSON. Mr. Taft?

Mr. TAFT. Mr. Keppel, is there any reason why a local or State school system today, if it had the means to finance the type of additional training for teachers that is aimed at under this bill, could not find a place to have this training done?

Mr. KEPPEL. Not in all States.

Mr. TAFT. I mean somewhere in the United States.

Mr. KEPPEL. I suppose so. That is if the same funds were distributed over the 50 States and the same type of decision is made.

Mr. TAFT. Is it not a fact that a lot of schools are running summer programs for their teaching personnel, sending them to places where they can get this training and getting it in fact without this program?

Mr. KEPPEL. We looked into these figures a couple of years ago, Mr. Taft, and I am not sure that I am correct in quoting them now, but in studying the personnel policies of local public school systems and, after all, it is the local unit of government which controls the

personnel policy, not the State so much, the number of school systems that were paying teachers to go with the same sort of stipends proposed here to institutes of higher education was very low.

Mr. TAFT. But there is nothing to prevent them from doing so and the facilities are available for them to do so if they wish to do so?

Mr. KEPPEL. The facilities are available, and we are principally speaking of summer institutes.

Mr. TAFT. Yes.

Mr. KEPPEL. Let me put it this way. They are available in the summer schools of many colleges and universities; that is, in English and history, and so forth. However, the fact of the case is that local school systems have not adopted personnel policies which provide the money to send them.

Mr. TAFT. This is something that is up to them.

Mr. KEPPEL. Mr. Taft, this is perhaps where we are in disagreement. I think this needs to be stimulated in the national interest.

Mr. TAFT. It may be stimulated but the question is whether you are going to stimulate it with Federal funds.

Mr. KEPPEL. I think this is the most effective way of stimulating it.

Mr. TAFT. There are other ways of stimulating it, are there not? I think an article from the Commissioner of Education, which I am sure has already been written, may be a means.

Mr. KEPPEL. I may say that articles and opinions from the dean of the Harvard School of Education over a period of 10 years did not have the effect.

Mr. GRIFFIN. Would the gentleman yield?

I wonder if the effect might not be to preempt what is going on in this area and duly discourage what the States might be doing on their own? That would be another possibility.

Mr. KEPPEL. I will just have to say, sir, that I think the whole history of this type of activity in the Federal Government points the other way. It has the tendency to increase.

What it does is to create new standards, school systems, saying, "By George, I will do better than the fellow next door," and off we go.

Mr. TAFT. Another question. In section 401, there is an authority to delegate any of your functions under this law or any other law to any officer or employee of the Office of Education. Do you have any other laws that you want to make any delegations under?

Mr. KEPPEL. I will have to think about that one, sir.

Mr. TAFT. Section 401.

Mr. KEPPEL. I can only say that I start as an administrator, Mr. Taft, with a certain sympathy for the delegation of something because the number of papers requiring personal signature on my desk is great.

Mr. TAFT. I want to know if there is a specific reason why it ought to be in here.

Mr. KEPPEL. No, sir.

Mr. TAFT. Moving on to section 402, there is a statement in section 402 that "nothing shall be construed to authorize any direction," and so forth.

Do you have any objection to our changing around the wording of that language to say that the Commissioner in carrying out his duties shall not exercise any direction, supervision, or control?

Mr. KEPPEL. No objection, sir.

Mr. THOMPSON. I would have no objection to that, either. I think the genesis of that language was in NDEA.

Mr. TART. I want to change it there, too, and it is directly opposite and one of the major changes from the bill of 1947.

Back under section 201, title II, the improvement of student teaching activity is indicated as one of the special projects. Is it not true that the student teaching activities here might well include almost any type of methodology approach which might be presented?

It seems to me that this is student teaching activities that you are talking about, is it not? Is there any reason why we should not eliminate that? Why the necessity of including that subparagraph (3) in the bill?

Mr. KEPPEL. I would agree that it is perhaps not necessary to have this specific language, but it is pointing a finger at an area in teacher education which many people feel can be greatly strengthened. It is a pointing-of-the-finger operation, sir. I could and would gladly enter into the record descriptions of different ways of handling this which would be more effective.

(The above-mentioned material follows:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

OFFICE OF EDUCATION

MEMORANDUM FOR THE RECORD RE TITLE II, SECTION 201(3) OF H.R. 6013

One part of the program to strengthen teacher preparation is the improvement of student teaching activities. For the prospective teacher this activity is the equivalent of the internship in medicine or clerkship in law. It is through this experience that the academic program of the college is linked with actual classroom practice. This introduction of the student to the role of teacher is extremely important and must be handled with the best of supervision and assistance from both the colleges and the schools.

Some experimental and developmental work in this area has been done. But, it must be remembered that there are 1,300 different institutions with teacher preparations programs and that only a small fraction of the 125,000 new teachers each year are benefiting from these programs.

Under title II new developments in student teaching could be funded in more of these institutions.

Some examples of new programs in this area follow:

Augustana College and Sioux Falls College have been cooperating with the Sioux Falls City school system in that South Dakota City in the operation of a 2-week summer workshop to provide special training for those local teachers who are to supervise student teachers in their classes in the fall.

Stanford University has been televising student teaching, providing immediate playback and criticism, and having students teach again immediately thereafter. This is very promising and similarly expensive.

Hunter College of the City University of New York and Mercy College in Detroit, Mich., have been experimenting with specialized intense preparation for teaching in disadvantaged neighborhoods.

The University of Atlanta has been experimenting with oversea Spanish student teaching in Columbia, and Antioch College of Yellow Springs, Ohio, has been providing student teaching in French in Montreal.

The Ford Foundation and its affiliate Fund for the Advancement of Education have supported a number of new programs in teacher education that have a new approach to student teaching. The following excerpts from an article, "The Ford Foundation and Teacher Education,"¹ by Paul Woodring, describes this new approach:

"In many of the programs which have received fund support, the conventional period of undergraduate practice teaching has been replaced by a longer

¹ Teachers College Record, vol. 62, No. 3, December 1960.

period of internship or apprenticeship during the postgraduate period. This change was based upon a conviction that the usual period of practice teaching was too brief to provide an adequate introduction to the art of teaching and a conviction that if it were extended to a semester or a year, there would not be sufficient time during the undergraduate years for liberal education and for a study of the subjects to be taught. The fifth-year internship programs have had the added advantage of being open to those who made a late decision to enter the teaching profession, and many educators who made proposals to the fund were convinced that this group included many exceptionally able individuals who should be encouraged to enter the profession. In many programs the intern receives a salary from the public school system, and this has made it possible to attract individuals who could not otherwise have financed a year of professional preparation.

"In the internships, classroom practice is accompanied by professional seminars, running concurrently and held during the late afternoons or evenings or on Saturdays. Dealing with problems of classroom instruction, these seminars are usually conducted by those who supervise the apprenticeship teaching.

"The internship also differs from conventional student teaching in that the apprentice, being present for a full day and usually a full semester, is perceived by the pupils as a 'real' teacher or a member of a teaching team rather than as a 'student teacher.' In several programs the intern spends one semester in the classroom and a second on the campus of the university, taking graduate courses in his subject field. Professional courses in educational psychology and educational philosophy may be taken during this second semester or during summer sessions.

"The extended internship represents an effort to make the apprenticeship period as realistic as possible, with the intern carrying important professional responsibilities for an extended period of time under close supervision, and to provide professional seminars closely related to the teaching experience. Teachers who have been trained under such programs appear to be almost unanimous in their enthusiastic endorsement of them."

The following descriptions of programs are taken from a Ford Foundation release of March 1963:

EXPERIMENTAL PROGRAMS IN TEACHER PREPARATION SUPPORTED BY THE FORD FOUNDATION¹

Brown University (TFAE grant—1957; FF grant—June 1960): This is a 1-year graduate program leading to a master of arts in teaching degree and teaching certification in most States. A prerequisite for admission is a first-rate liberal education with concentration in the field of specialization. The fifth-year program offers (1) advanced study in the field to be taught; (2) systematic rigorous study of education and its problems; (3) practice teaching under expert supervision; and (4) further advanced study after a period of teaching.

The program covers not only future secondary school teachers but also "veteran" teachers already in practice. Under the Brown plan, veteran teachers seeking refurbishment in the subject matter area they teach return to university studies for 1 year; they are replaced by "interns" from the graduate program. In setting up this program Brown has established a cooperative arrangement with school systems so that teachers from the participating schools serve as consultants to both students and faculty at the university.

Cornell University (1) (the TFAE grant for elementary school teachers—1957; FF grant for junior high school teachers—June 1959): Cornell, which already has a fifth-year program to train liberal arts graduates for elementary school teaching through an internship program leading to the M.A. degree, has added a program for the preparation of junior high school teachers of English, social studies, science, and mathematics. Students serve a fifth year teaching internship in Ithaca and surrounding school systems under the supervision of junior high school teachers working with the Cornell staff. The interns are encouraged to experiment with closed-circuit television, accelerated programs, novel grouping arrangements, and innovations in the teaching of specific subjects.

Cornell University (2) (cooperating with the Universities of Buffalo, Roch-

¹ FF—Ford Foundation. TFAE—The Fund for the Advancement of Education.

ester, and Syracuse—FF grant—March 1961): In cooperation with the Universities of Buffalo, Rochester, and Syracuse, Cornell has introduced a program to improve training for secondary school teachers and educational administrators.

Superior students with strong teaching motivation and outstanding liberal arts and major subject backgrounds are chosen as early as their sophomore year or as late as the completion of their B.A. degree to undertake flexible programs preparing them for senior high school teaching. Experimental combinations of independent study, tutorials, and honors programs replace all formal courses in education for students who need more challenging, less rigid preparation for teaching. In other sequences course work is retained, but is arranged in 4-week blocks designed to relate theory more directly to practice. Three schools near each of the universities serve as "teaching centers" where prospective teachers hold internships and where experimental projects, undertaken jointly by the university and the school system, introduce the students to the newest tools and arrangements for teaching.

The interinstitutional 6-year administrative internship program emphasizes the administrator's role in the improvement of instruction and includes work in psychology. One hundred able students with liberal arts backgrounds, who have completed all or most of the usual requirements of a 2-year graduate program, are selected. The prospective administrators are offered a well-planned professional seminar, related to a full-time 1-year paid internship in 1 of 24 school systems. One-half of their time is spent on instructional supervision, including work with teachers on new methods and media of teaching, and innovations in staff arrangements.

Emory University (FF grant—September 1961): The program at Emory University is open to carefully selected liberal arts graduates recruited from colleges throughout the South. These students earn a master of arts in teaching degree in 1 year of graduate work. The curricular emphasis is on the breadth and depth of academic subject-matter knowledge. Professional education is limited to the substantive subjects such as the psychology and philosophy of education. Methods of teaching are taught by specialists in subject-matter fields and include such new techniques as team teaching, television, and the use of teaching machines. Students have some teaching experience in a summer school and then serve as interns in either the De Kalb or Atlanta school systems. For prospective elementary and secondary school teachers.

George Peabody College for Teachers (TFAE grant—1953; FF grant—June 1962): The curriculum at Peabody includes greater emphasis upon academic preparation, latitude for the individualization of programs of study, and thorough grounding in contemporary learning resources and media. One special program offered by Peabody is an accelerated teacher training program for superior high school students. These students are encouraged during this undergraduate years to carry additional subjects and to attend one or more summer sessions. This enables them to complete all work and pass all exams normally required for the bachelor's degree and the teaching certificate in 3 calendar years. Peabody also offers a study-teach plan of cooperative education for elementary and secondary school teachers, beginning with the junior year. Students selected for this program (junior college graduates and Peabody sophomores) may complete both the bachelor's and master's degree and have a full year of regular employment in a selected public school system during the 3-year period embracing the last 2 years of undergraduate work, including summer sessions, and the first year of graduate work. For the graduate year each student teaches as a regular fully paid beginning teacher in a cooperating public school under the joint supervision of Peabody faculty members and public school personnel. He completes his work toward a master's degree during the following summer.

Michigan State University (FF grant—June 1959): In cooperation with community colleges in Michigan, the university has established a program to train elementary school teachers. Students take most of their college work in community colleges near their homes. In addition, students attend three summer sessions at the university. For advanced work in various subjects, the university sends staff members to the community colleges. The trainees become interns at schools located in the communities where the colleges themselves are situated. The internships provide students with the equivalent of 3 years of supervised classroom activities. During 2 years, the students earn part-time salaries. Emphasis is placed on utilization of modern means of communication and teaching, particularly educational television. Experimental programs are undertaken at

each community college and provisions are made for evaluation at each college. Within a 5-year period a student could complete all the requirements for both the B.A. degree and teacher certification. In contrast with the former curricular arrangement at the university, the new program offers eight times as much classroom observation and teaching experience, an additional 42 hours of general liberal education, twice as much work in elementary school teaching fields, and integration of formal course work with direct observation and classroom teaching experience.

University of North Carolina (FF grant—June 1959): This program gives prospective high school teachers a strong background of advanced work in their subject field. During the summer, approximately 30 liberal arts graduates receive 12 semester hours in an undergraduate program that stresses the program and purposes of the American school, learning patterns of adolescents, and techniques of teaching. During the fall semester the students are divided into 2 groups of 15 each. Students in the first group do full-time teaching as teacher aids or as members of a teaching team for a large section or a television class. The latter will be useful to teachers working with ongoing North Carolina in-school television program. The second group remains on campus for graduate courses in a subject field. In the spring semester, the two groups are reversed. Both groups also participate in a graduate seminar during both the fall and spring semesters. The following summer the students have courses in their academic field. At the satisfactory completion of the program, the students are awarded the master's degree.

Reed College (FF grant—June 1961): The program at Reed College is open to liberal arts graduates in the Portland, Oreg., area—both recent graduates and older college graduates—and enables them to earn a master's degree and obtain a certificate for secondary school teaching. The program begins with a summer session of classroom observation and practice teaching as part of a team under a master teacher and, concurrently, attendance at a course in educational psychology and a brief teaching seminar related to the classroom experience. During the academic year each student spends half of his time teaching in a high school as a paid intern and gaining experience with new instructional techniques such as the use of TV, team teaching, and audiotapes. The other half of his time is devoted to academic graduate courses in his major field or related disciplines and some professional education work connected with his teaching assignment.

Wayne State University (TFAE grant—1955; FF grant June 1959): This program's general purpose is to train three kinds of teachers who together make up a team. The focus of the program is the "career" teacher, who is head of the team, the second member is eligible for a State permanent certificate, and the third for a State provisional certificate. The team, working with 90 pupils (3 classroom groups), gives the pupils contact with the "career" teacher as well as with the 2 other teachers working under his direction. A minimum of 3 years of liberal education is provided for elementary school teachers, and 4 years for high school teachers prior to their professional education. The total timespan is 5 years, plus a sixth at full-time employment, during which there is planned supervision and followup. Liberal education continues in the fourth and fifth years. All professional work is on an internship basis and "laboratory centered," with lectures, seminars, individual study, and field observations related to practice.

Mr. TAFT. I wonder if we might try to zero in more on what we are trying to get at.

I see my time has expired.

Mr. THOMPSON. Go ahead, Mr. Taft.

Mr. TAFT. How many universities would you estimate might be affected by the benefits under these various titles?

Mr. KEPPEL. How many universities would engage in programs?

Mr. TAFT. Yes; under the amounts that are authorized.

Mr. KEPPEL. I had given some thought to this, sir, based on my experience as to the size of grants which might be made for particular programs under this title. Though I hope you will realize that this is subject to the kind of things which come up from the universities, my guess is that it might be of the order of 50 in any given year.

Mr. TAFT. This includes all titles?

Mr. KEPPEL. I am sorry, sir. I was speaking only of title II. I beg your pardon.

Mr. TAFT. How about title I?

Mr. KEPPEL. Our estimate in title I would be based on the assumption—which I think is probably a wise assumption—that the great majority of the institutes would be summer institutes. There is an obvious reason for this, Mr. Taft.

By doing a good job in 8 weeks you can provide training for far more teachers. We estimated that it might be possible to have 400 summer institutes in basic subjects, guidance, library, and so forth, with an average of 55 teachers in each institute during this 8-week summer period.

The average cost per individual we would estimate at \$1,700. This is where you come out with your figure of \$37,500,000.

Mr. TAFT. Does this include stipends and travel, and so forth?

Mr. KEPPEL. It does. This is based on prior experience with summer institutes in the languages.

Mr. TAFT. How about title III?

Mr. KEPPEL. In title III, part C, the specialized training for teachers and related educational personnel, I would estimate approximately 50 institutions. That is an average grant per annum of \$150,000.

Mr. TAFT. They might overlap with the title II universities or title I universities.

Mr. KEPPEL. They might. They might be the same institutions. That is why I intended to use the words "50 programs."

Mr. TAFT. I think that is all.

Mr. THOMPSON. We will wait for a moment for Mr. Sickles.

Mr. GRIFFIN. Mr. Chairman, in the meantime, could I ask one question?

On page 6, it refers to persons preparing to engage in educational research. This is lines 9, 10, and 11, "or other persons requiring specialized training in order to teach or engage in other activities related to provision of education," and so forth. That sort of covers the waterfront, does it not? That would include anybody who had any relationship to the providing of education, I assume, or do you have any enlightenment on that?

Mr. KEPPEL. Could I ask Mr. Muirhead?

Mr. MUIRHEAD. You are quite right that that is rather broad language. I think the Commissioner has already indicated in his testimony, however, that we do have in mind here rather a specialized purpose in these traineeships that would be directed toward what I think could be characterized as the auxiliary services in the schools; that is, the remedial reading teacher, the guidance counselor, the librarian, and the like. Although this language does, as you point out, have a much broader connotation than that, I think the intent of that title was toward the special services.

Mr. GRIFFIN. Thank you.

Mr. THOMPSON. Mr. Sickles.

Mr. SICKLES. I just have one question related back to a previous question that was asked, Doctor. Is this bill just one that it would be kind of nice to have or is there a real need for this bill? Is there

a need for the improving of our teachers' quality and their education facilities and the job is not being done?

Mr. KEPPEL. Perhaps, Mr. Chairman, I can properly be described as a somewhat prejudiced witness on this topic because I have spent so many years of my life trying to do exactly this.

I regard this aspect of the bill, which may seem undramatic and undoubtedly will have to have its payoff over a number of years, as absolutely essential if we are going to raise the quality of the performance in the elementary and secondary schools.

The present mechanism through the States and local systems does not provide the opportunity for teachers to be better prepared in their subjects or in their special skills of guidance and the like.

It has, in my judgment, been one of the greatest weaknesses we have had in American education, and therefore I come as a vigorous enthusiast for the importance of this.

I really think it is essential.

Mr. SICKLES. That is all I have, Mr. Chairman.

(The statements referred to follow:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

STATEMENT BY COMMISSIONER-DESIGNATE OF EDUCATION ON "COOPERATIVE RESEARCH, OFFICE OF EDUCATION"

A primary goal of the President's educational program is the attainment of excellence through increased research and development. In this context, excellence demands not only an educational system which will provide the opportunity for each individual to achieve his full potential, but one which will promote the social, economic, and cultural development of a free society. In education, no less than in medicine, industry, and agriculture, only as we know more about the learning process and improve curriculum materials and teaching techniques can substantial progress be made. In his budget message the President stated, "Our children are being taught poorly developed and uninteresting information at a time when the knowledge to be acquired and the challenges in its future application are greater than ever before. Yet our entire country devotes fewer resources to research in education than some individual business firms spend for research in product development." Only an imaginative program of educational research and development can provide the vision and new steps necessary for the attainment of educational excellence.

EMERGING RESULTS OF RESEARCH

In its 7-year history, the cooperative research program, Public Law 531, 83d Congress, has become the Nation's foremost program for educational research and experimentation. Significant results of the research, curriculum development, and demonstration projects supported by the program are now coming to fruition. In the important area of the learning disorders, cooperative research projects have taught the blind to "read" at four times the rate possible with braille, established the value of special classes and enriched curriculum for retarded youngsters, and clearly demonstrated that significant numbers of the children traditionally labeled as "mentally retarded" are in reality merely the products of "retarded homes." In the language arts, one cooperative research project has shown conclusively the relative complexity of sentences spoken by very young children and indicated that their vocabularies are far more extensive than previously believed; as a result reading specialists and commercial publishers are reexamining the oversimplified language of their reading textbooks. As the result of another study, several hundred school systems throughout the Nation are using a lay reader program developed under a cooperative research project. In this program, housewives with special training in English work as assistants to English teachers helping in the grading of themes and compositions. In vocational education, cooperative research has launched a demonstration program of retraining workers displaced by automa-

tion providing a means of salvaging the skills of workers otherwise lost to the economy.

Results of equal significance are constantly emerging from the over 500 studies in such areas as the identification and development of gifted students, language achievements of the mentally retarded, teaching spatial concepts to blind children, motivations of youth for leaving school, relationship of school experiences to juvenile delinquency, effects of various teaching methods on the achievement of elementary schoolchildren, cross-cultural studies of education, development of language and of reading skills in young children, economics of higher education, social climates in the schools, financing of education in urban areas, how children form social circles, and improving the effectiveness of college teaching. In each case, a research project at a college, university, or State education agency has provided these important findings.

A nationwide inventory of over 440,000 American youngsters has revealed many important facts about our pupils, their academic achievements and their community surroundings. One of the most interesting findings thus far is the evidence that the same achievement tests given to 9th and 12th grade pupils shows that the upper 25 percent of the 9th grade students scored higher than the average 12th grader. This has an obvious implication for the introduction of new curriculum materials for able students, which is a specific aim of the cooperative research program. Another recent result indicates that educational achievements associated with the school are much more related to the quality and type of students and teachers than to the size of school or its location in urban areas. There are good suburban schools and there are equally good urban schools and the difference appears to be the standard of excellence which is set by the school.

A definite conclusion is that certain factors associated with successful outcomes are teachers' salaries, teacher experience, size of school library, and expenditures per pupil. Of lesser importance are school size, size of classes, age of buildings, and suburban-urban location.

But despite the obvious promise of these important findings, much remains to be done in the critical area of introducing the results of this research into the schools. The time is now at hand to provide the means for developing an educational program for excellence based upon proven results of research. If research is to serve education, the means must be provided for getting results into the schools.

NEW CURRICULUM DEVELOPMENTS

The 1964 budget request for the cooperative research program reflects this need for an expansion of the program's activities in translating research into practice. In the area of curriculum development, where new materials for use in the schools are being developed, our experiences in projects English and social studies indicated that the schools are in desperate need of these materials. In English, so many schools have submitted applications in the curriculum development program that many have had to be turned away. Last fall, the Office of Education announced that cooperative research funds were available for the development of improved curriculums in the social studies. Within 3 months, more than 700 requests for information were received from scholars in history, economics, political science, sociology, anthropology, and geography, as well as from public school teachers and administrators at all levels. In the social studies we are now receiving 10 applications for every project we have funds to support.

RESEARCH AND DEVELOPMENT CENTERS

A new element in the program for 1964 is the initiation of five research and development centers which will focus on a wide band of research activities in crucial problem areas of education. The research and development centers represent a new facet to apply the results of research to the Nation's classrooms. As envisioned, these centers would use a number of personnel from a variety of disciplines not only to conduct research on some of education's key problems, but also to translate the results into new materials and methods that can be evaluated in school settings. The active involvement of behavioral and social scientists, subject-matter scholars, educational specialists, administrators, and teachers will insure a scholarly, well-designed product. Areas in which centers are anticipated include school dropouts, disadvantaged children, talent development, and arts and humanities.

SUMMARY

The total estimate of \$17 million provides a balance distribution of funds between projects in selected areas of education and funds which will be assigned to high priority projects in nonspecified areas. Thus, about \$9.4 million is included for specific areas including significant sums for English, talent development, social studies, and new project funds for the arts, teacher education, and learning disorders. A sum of \$7.6 million is included for the "nonprogram" areas which will permit the Office to fund those high quality projects submitted by agencies in general areas of education including sums for special curriculum projects in various areas of education; e.g., vocational education, physical and health education, and others.

TITLE III. IMPROVEMENT OF EDUCATIONAL QUALITY

PART A.—INSTITUTES FOR ADVANCED STUDY FOR TEACHERS

This part of the bill would authorize \$37,500,000 for fiscal year 1964 and such sums as Congress may determine for the next 2 fiscal years to enable the Commissioner of Education to arrange, through grants or contracts, for colleges and universities to operate institutes for advanced study for teachers of gifted children as well as other teachers, guidance and counseling personnel, library personnel, and other personnel whose activities in the educational process in elementary or secondary schools have a significant impact on the quality of that process, or supervisors of such teachers or personnel. In determining the areas of study for which institutes should be established, preference would be given to those subject-matter areas where there is a widespread need for improvement in the quality of instruction.

Teachers in any public or nonprofit private elementary or secondary school would be eligible to attend these institutes. In the case of institutes providing advanced study in modern foreign languages or for library personnel, college modern foreign language teachers and college or community librarians would also be eligible. Stipends (including allowances for dependents and for travel) would be payable to any eligible person while he is attending such an institute.

The bill would also terminate, as of the end of this fiscal year, the authorization of appropriations for counseling and guidance training institutes (part B of title V of the National Defense Education Act of 1958) and for modern foreign language institutes (part B of title VI thereof) since the authority contained in this part of the bill would include authority for such institutes (as well as others).

"TITLE III—IMPROVEMENT OF EDUCATIONAL QUALITY

"PART A—INSTITUTES FOR ADVANCED STUDY FOR TEACHERS

"AUTHORIZATION OF APPROPRIATIONS

"Sec. 301. There are authorized to be appropriated \$37,500,000 for the fiscal year ending June 30, 1964, and such sums as the Congress may determine for each of the next two fiscal years to enable the Commissioner to arrange, through grants or contracts, with colleges and universities for the operation by them by short-term or regular session institutes for advanced study, including study in the use of new materials, to improve the qualifications of individuals who are engaged, in the elementary or secondary schools, as teachers of gifted children or other children, as counseling and guidance personnel, library personnel, or other personnel whose activities in the educational process have a significant impact on the quality of that process, or as supervisors of such teachers or personnel.

"SUBJECT-MATTER AREAS FOR STUDIES

"Sec. 302. In determining the subject-matter areas in which advanced studies will be provided under this part, the Commissioner shall give preference to those areas in which he finds there is a widespread need for improvement in the quality of instruction.

"OTHER PERSONS ELIGIBLE

"SEC. 303. In the case of any institute for advanced study in a modern foreign language or for advanced study for library personnel operated under this part, college or university modern foreign language teachers and college, university, or community librarians, respectively, shall be eligible to attend.

"STIPENDS

"SEC. 304. Individuals referred to in section 203 who attend an institute operated under the provisions of this part shall, upon application, be eligible to receive stipends for the period of their attendance at such institute in amounts specified by the Commissioner in regulations, including allowances for dependents and including allowances for travel to attend such institute.

"PAYMENTS

"SEC. 305. Payments pursuant to a grant or contract under this part may be made in installments, and in advance or by way of reimbursement, with necessary adjustments (in the case of a grant) on account of previously made overpayments or underpayments; and shall be made on such conditions as the Commissioner deems necessary to carry out the purposes for which the grant or contract was made.

"TERMINATION OF EXISTING PROGRAMS

"SEC. 306. The first sentence of section 511 of the National Defense Education Act of 1958, and the first sentence of section 611 of such Act, are each amended by striking out 'five succeeding fiscal years' and inserting in lieu thereof 'four succeeding fiscal years'."

PART B—TEACHER PREPARATION PROGRAMS

This part of the bill would authorize \$7,500,000 for fiscal year 1964, and such sums as Congress may determine for the next 2 fiscal years for grants to colleges and universities, which have programs for the preparation of individuals to teach in elementary or secondary schools, to pay part of the cost of special projects to strengthen such programs through (1) expansion or improvement of course content and curriculums (including improvements in library resources needed for such programs), (2) augmentation of the faculty regularly assigned to such programs by increased use of other college or school teaching personnel (on an exchange, part-time, or full-time basis), (3) improvement of student teaching activities, (4) improvement of standards for selection of candidates for such programs and standards for continuation in and graduation from such programs, or (5) establishment or improvement of full-time postbaccalaureate programs or special programs designed to train, for teaching as their second careers, retired military personnel and other professionally trained persons, and women with prior college training whose family responsibilities will now permit them to engage in teaching.

The advice of experts in the field in which a project is requested would be secured before the Commissioner of Education made a grant for the project.

"TEACHER PREPARATION PROGRAMS

"AUTHORIZATION OF APPROPRIATION

"SEC. 321. There are authorized to be appropriated \$7,500,000 for the fiscal year ending June 30, 1964, and such sums as the Congress may determine for each of the next two fiscal years, to enable the Commissioner to make grants to colleges and universities, which have programs for the preparation of individuals to teach in elementary or secondary schools, to pay part of the cost of special projects designed to strengthen such programs through—

"(1) expansion or improvement of course content and curriculums (including improvements in library resources needed for such programs),

"(2) increased use of other college or school teaching personnel, on an exchange, part-time, or full-time basis, to augment the faculty regularly assigned to such programs,

"(3) improvement of student teaching activities,

"(4) improvement of standards for selection of candidates for such programs and standards for continuation in and graduation from such programs, or

"(5) establishment or improvement of full-time postbaccalaureate programs or of special programs designed to train, for education as a second career, retired military personnel, personnel trained in other professions, and women with prior college training whose change in family responsibilities will now permit them to engage in such a career.

"ADVICE OF EXPERTS ON PROJECTS

"SEC. 322. No grant may be made under this section for any project until the Commissioner has obtained the advice and recommendations of persons who are competent to evaluate the project as to its feasibility and its pertinence to the purposes of this part, and as to the adequacy of the resources available to carry out the project.

"PAYMENTS

"SEC. 323. Payments pursuant to a grant under this part may be made in installments, and in advance or by way of reimbursement, with necessary adjustments on account of previously made overpayments or underpayments; and shall be made on such conditions as the Commissioner deems necessary to carry out the purposes for which the grant was made."

PART C—SPECIALIZED TRAINING FOR TEACHERS AND RELATED EDUCATIONAL PERSONNEL

This part of the bill would authorize \$7,500,000 for fiscal 1964, and such sums as Congress may determine for the next 2 years for grants to and contracts with colleges and universities for training (including traineeships) of persons preparing to teach gifted children or to teach adults who cannot read or write English or have less than an eighth-grade education, persons preparing to engage in counseling and guidance or school library work in elementary or secondary schools or to be college or community librarians, persons preparing to engage in educational research, and other personnel requiring specialized training for teaching or other activities related to education in particular subject-matter areas or to education for pupils needing specialized education.

Grants and contracts under this part of the bill would cover the cost of courses of study or traineeships, or both; and the traineeships would carry stipends (including allowances for dependents and for travel to attend the courses) set by regulations of the Commissioner of Education.

"PART C—SPECIALIZED TRAINING FOR TEACHERS AND RELATED EDUCATIONAL PERSONNEL

"AUTHORIZATION OF APPROPRIATIONS

"SEC. 341. There are authorized to be appropriated \$7,500,000 for the fiscal year ending June 30, 1964, and such sums as the Congress may determine for each of the next 2 fiscal years, to enable the Commissioner to make grants to and contracts with colleges and universities for training of persons preparing to teach gifted children or to teach adults who have difficulty reading or writing English or have less than an eighth-grade education, persons preparing to engage in counseling and guidance or to be school librarians or auxiliary school library personnel in elementary or secondary schools, persons preparing to be college or community librarians, persons preparing to engage in educational research, and other persons requiring specialized training in order to teach or engage in other activities related to provision of education either in particular subject-matter areas or for other pupils needing specialized education.

"USE OF GRANTS

"SEC. 342. Any grant to or contract with a college or university under subsection (a) may be for the cost of courses of study, or for traineeships, or both. Such traineeships shall carry stipends in amounts specified by the Commissioner in regulations, including allowances for dependents and allowances for travel to attend such college or university.

"PAYMENTS

"SEC. 343. Payments pursuant to a grant or contract under this part may be made in installments, and in advance or by way of reimbursement, with necessary adjustments (in the case of a grant) on account of previously made overpayments or underpayments; and shall be made on such conditions as the Commissioner deems necessary to carry out the purposes for which the grant or contract was made."

PART D—EDUCATIONAL RESEARCH AND EXPERIMENTATION

This part of the bill would amend the cooperative research legislation (1958), which authorizes the making of contracts or jointly financed cooperative arrangements with colleges, universities and State educational agencies for the conduct of research, demonstrations, and surveys in education, to authorize also the making of grants for such purposes; and the eligible recipients would be broadened to include other nonprofit private research or professional training organizations. The amendment would also authorize grants to such universities, colleges, and other organizations for part of the costs of operation (in cooperation with State and local educational agencies, when appropriate) of centers for the conduct of programs of research, development, evaluation, and demonstration of improved instructional practices and materials in elementary and secondary schools.

"PART D—EDUCATIONAL RESEARCH AND DEMONSTRATION

"AMENDMENTS TO COOPERATIVE RESEARCH ACT

"SEC. 362. (a) Subsection (a) of the first section of the Act of July 26, 1954 (20 U.S.C. 331), is amended by striking out everything following '(a)' and inserting in lieu thereof: '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, and with State educational agencies, for the conduct of research, surveys, and demonstrations in the field of education, including grants to such universities, colleges, and other organizations to pay part of the costs of the operation in cooperation, when appropriate, with State or local educational agencies, of centers for the conduct of programs of research, development, evaluation, and demonstration of improved instructional practices and materials in elementary or secondary schools.'

"(b) Subsection (b) of such section is amended by inserting ', and no grant shall be made,' after 'shall be entered into'.

"(c) Such section is further amended by adding at the end thereof the following new subsection:

"(d) Any grant under this section for any project made from an appropriation for any fiscal year may include such amounts as the Commissioner of Education determines to be necessary for succeeding fiscal years for completion of the Federal financial participation in the cost of such project as approved by the Commissioner."

Mr. THOMPSON. Thank you very much.

The subcommittee will adjourn.

This constitutes the last of the hearings on these two bills, and we will try to arrange a meeting time for an executive session to mark up.

Thank you very much, Mr. Keppel.

Mr. KEPPEL. Thank you, sir.

(Whereupon, at 11:50 a.m., the subcommittee recessed, subject to the call of the Chair.)

(The following letters and statements were submitted for the record:)

NEW YORK UNIVERSITY SCHOOL OF EDUCATION,
New York, N.Y., May 31, 1963.

HON. FRANK THOMPSON, JR.,
*Chairman, Special Subcommittee on Labor,
House of Representatives, Washington, D.C.*

DEAR MR. THOMPSON: I would like to urge your support of the bill H.R. 6025 dealing with the improvement of educational quality by broadening the scope of the Cooperative Research Act. Educational research has long been a neglected area of investigation in this country. Our educational system has suffered because of this lack, and we feel that support of H.R. 6025 will enable us to recover lost ground.

Very truly yours,

WALTER A. ANDERSON, *Dean.*

STATEMENT BY MRS. HAZEL A. BLANCHARD, PRESIDENT, NATIONAL EDUCATION ASSOCIATION

Mr. Chairman and members of the committee, H.R. 6013, which is identical to title III, parts A, B, and C of H.R. 3000, and proposes to extend and expand the teacher institute program of the National Defense Education Act, is in accord with the established policy of the National Education Association. We urge that this proposal be retained as an integral part of a comprehensive bill to improve education at all levels.

The National Education Association suggests that the following amendments would strengthen the proposed legislation.

Title I. Section 101: The broadening of the institute program beyond the present limitations of science, mathematics, foreign language, and guidance is highly desirable. The statement of the National Council for the Social Studies, the department of audiovisual instruction, in regard to this section have the endorsement of the National Education Association.

Section 102: While in general the association applauds the purposes of the proposed section 102, we question the propriety of imposing on the Commissioner of Education the degree of discretion as provided herein. We believe an advisory committee of outside educators in accordance with past operating practices should be provided to assist the Commissioner in determining the areas in which there is widespread need for improvement in the quality of instruction. Placing unlimited discretionary power in the U.S. Commissioner would in our judgment be unwise, and might well embarrass the Office by giving rise to the charge of Federal control.

Section 103: Since restrictions on subject-matter areas are removed from section 101 it would seem logical that they also be removed from section 103, which extends the institute program to higher education personnel in foreign language and library services only. We believe other areas at the higher education level are of equal importance and should not be excluded by the restrictive language of section 103.

Title II is identical to title III, part B, of H.R. 3000 which the National Education Association supports.

While generally in favor of this proposal, the association suggests that section 202 be amended in such a way as specifically to require that "persons who are competent * * *" be other than employees of the U.S. Office of Education.

Further, section 201 should contain language providing for prior approval of the State certification authority of any program to be carried out under the provisions of this title. It would be ironic indeed if a higher education institution engaged in a special project in teacher preparation only to discover, upon the completion of the course by the student, that certification to teach is denied by the legally constituted agency responsible for issuing teaching certificates.

In proposing the above amendments the NEA is in no way negatively critical of the proposal as drafted. We have an obligation to our membership, however, to present these suggestions which have been made by various educators throughout the country who have studied the bill and whose special experience qualifies them to advise us accordingly. We believe the amendments herewith proposed will strengthen the provisions of the bill. We urge that the purposes of H.R. 6013 be included in a comprehensive bill.

STATEMENT BY MERRILL F. HARTSHORN, EXECUTIVE SECRETARY, NATIONAL COUNCIL
FOR THE SOCIAL STUDIES, NATIONAL EDUCATION ASSOCIATION

Mr. Chairman, on behalf of the 11,000 members of the National Council for the Social Studies, a department of the National Education Association, I wish to express my thanks for the opportunity to make known our views on H.R. 6013.

The National Council for the Social Studies is a voluntary professional organization whose membership is composed of teachers in the field of the social studies. These are the teachers of history, geography, government, economics, and sociology in our elementary and secondary schools. The positions taken on the various points in the statement are based on official resolutions passed by the membership of the National Council for the Social Studies at its annual meetings over the past 4 years since the NDEA was passed by Congress in 1958.

The American people are confronted today with the grave issue of the survival of our civilization, and possibly of mankind itself. We will be living in a period of serious international tensions for some time and we must find ways of alleviating such tensions, and be able to exercise leadership in building a stable world order. To meet this challenge, many proposals have been, and are continuing to be, advanced for strengthening and updating the content of American education. Most of these proposals to date suggest increased emphasis and attention on the natural sciences, mathematics, and foreign languages.

The National Council for the Social Studies is in agreement with the idea that those areas of the curriculum should be strengthened and commends action taken toward that end. However, science, mathematics, and foreign languages themselves, important as they are, cannot provide solutions to many of the grave problems that we face today. The most serious issues of our time lie in the field of human affairs. For solutions to these problems, we must look to the social sciences and humanities.

Money invested in the field of the social sciences—in an understanding of man—could in the long run result in a decrease of billions of dollars spent on weapons of warfare. Money spent in aiding other countries might be spent more effectively if we know more about people and nations than we do at the present. We are living in a world that will continue to call for new dimensions of knowledge on the part of citizens and leaders in public affairs. Funds appropriated for the extension and dissemination of knowledge in the social sciences are in reality an investment for the future—an investment that, if ignored, could lead to dire future consequences.

The present crisis demands that we strengthen every basic aspect of American education—the natural sciences, mathematics, English and foreign languages, and the field of the social studies. The ideals and aspirations of a free society and its democratic institutions depend on an educational program that is concerned with the entire breadth and depth of human experience. To this all-important objective the social studies can make a great and distinctive contribution.

Therefore, the National Council for the Social Studies urges that, in the current crisis confronting our country, sustained and vigorous attention must be given to the fundamental role of the social studies in the education of American youth.

It is imperative that we maintain balance in the school curriculum, and any action which results in creating an imbalance is to be deplored. The inclusion of specific opportunities for the support of the social studies in H.R. 6013 would help restore and maintain a balance among the basic academic areas in the curriculum.

The social studies, dealing as they do with the study of man and society, need to be strengthened equally as much as other curriculum areas. It must be obvious that man's conquest of nature will become meaningless, even less than meaningless, unless he first of all learns to conquer himself and learns to live with his fellow man in a just and decent world. Senator Fulbright, in the Senate on August 21, 1958, put it this way, "As badly as we do need scientists and linguists, we even more badly need people who are capable of evaluating the work of scientists and of making the enormously complicated decisions—which are essentially political decisions—that are called for if we are to adjust our policies and our life to our scientific progress."

Therefore, with the accelerating scientific and technological revolution, the responsibilities and needs of educators in the field of the social studies have been greatly increased.

Accordingly, we want to urge that the members of the House Committee on Education and Labor, and the subcommittees studying this legislation, give serious consideration to the void now contained in the National Defense Education Act and in part in the proposed National Educational Improvement Act of 1963—a void particularly close to us and our concern for the effective teaching of the social sciences and the building of informed citizens. We need to have citizens whose values are rooted in our democratic heritage and who are capable of making the crucially important decisions we will continue to face in the future. This is equally as important as having more scientists or engineers. In fact, our scientists, mathematicians, and linguists are citizens, too, who should also possess the loyalties and skills essential to effective participation in a democracy at home and abroad.

It is especially important that those of our citizens who travel, work, or serve in the Armed Forces overseas need, even more than competence in foreign languages, a thorough understanding of their own culture. Evidence of this need is reported in the book "The Overseas American." This book is based on a major survey conducted under the direction of Mr. Harlan Cleveland, former dean of the Maxwell School at the University of Syracuse. Mr. Cleveland today serves as Assistant Secretary of State for International Organizations Affairs.

This survey, developed under a foundation grant, was made to "inquire into the elements of effective performance on an overseas job and to trace from these findings some guidelines to American educational institutions that were increasingly faced with the demand to improve our comprehension of foreign affairs at home and in our representation abroad." One of the significant conclusions contained in this book reinforces the point just made:

"Every American planning to work abroad should know America first, learn to take delight in its pluralism, and savor the contradictions in its heritage.

"Know America first" can easily sound like the shallowest kind of jingoism; but, in our thinking, American studies occupy a central position in an overseas training program precisely because an understanding of one's own culture and institutions is a prerequisite to cultural empathy and a sense of politics abroad. Some sense of our literary and artistic life helps us relate ourselves to people in other lands who have been exposed only to the more strident voices of America. Without some prior exposure to the philosophic bases of American life, the American abroad is awkward in explaining his overseas role to others or even to himself.

"For all these reasons the overseas American needs to study the several versions of the American dream, and the stories of those who have striven to make it a reality. He may thereby learn to refrain from the quite unsporting and unproductive pastime so commonly indulged in by Americans abroad of comparing the American dream to the foreign reality."

We submit that a sober consideration of the situation facing the United States in the world today must lead one to the conclusion that a most vital ingredient in our educational program for our defense calls for an informed body of citizens, loyal to our traditions, who possess the ability to think clearly, and who can choose wise courses of action on the issues confronting our Nation. Here, programs in the social studies—especially history, geography, economics, sociology, and government—have a contribution to make to the defense of the United States that certainly is no less vital than that of other curriculum areas now supported by the National Defense Education Act.

It is noted with pleasure that the proposed legislation contained in H.R. 6013 and H.R. 3000 includes a number of provisions that could lead to providing aid to the social studies as well as other important curriculum areas. While the social studies are not specifically named in these proposals, neither are they ruled out, nor does the proposed legislation limit benefits of these proposals to any specific area of the school curriculum. Therefore, the National Council for the Social Studies is pleased to support the general concepts embodied in the proposed legislation, but we recommend that certain amendments be made. Also, if these proposals should be amended in such ways as to single out specific curriculum areas, our support would have to be withdrawn unless there is included specific proposals for the area of the social studies.

Specifically, under title I, section 102, we question the propriety of granting the Commissioner of Education the degree of personal discretion that is provided. We believe that an advisory committee of educators other than those on the Commissioner's staff should be required to assist the Commissioner in de-

termining the areas in which there is widespread need for improvement in the quality of instruction.

Under title I of H.R. 6013 it is recommended that it be broadened to include specifically institutes for teachers of history, geography, economics, government, and sociology. Certainly the need for improved scholarship on the part of teachers of these subjects is no less than that which exists in other subject-matter areas. Also, there is a real need to provide social-studies teachers with opportunities that will enable them to keep abreast of research in their field. We are living in a rapidly changing world, and teachers must keep up to date if they are to effectively meet their responsibilities. In addition, it is a fact that many teachers are inadequately prepared in certain aspects of the social studies to enable them to meet current needs. For example, a 1958 study made in Kansas reveals that of 315 teachers assigned to teach world history only 151 had had any modern European history in college and only 27 had had Far Eastern history. Throughout the Nation evidence indicates that only a small percentage of social-studies teachers have had courses in geography in their college work.

While specific research studies are not available, it may be safely asserted that most social-studies teachers have had little if any college work that would acquaint them with basic background information on Africa, Asia, and Latin America. Institutes on these areas would help provide a significant answer to this problem.

One other point should be mentioned with respect to this title. Many letters from social-studies teachers are received in my office on a wide variety of questions. One of the most frequent questions raised is "Why are social-studies teachers discriminated against in that they are not provided with study opportunities and stipends to enable them (1) to be brought up to date on new scholarships in their field, and (2) to fill in gaps in their background on subjects they did not have an opportunity to study in the college programs when they were preparing for teaching." Certainly social-studies teachers have needs here that are equally as great as those of other teachers. It seems only fair to them that they be provided with equal opportunities to improve their capacity for teaching in a field as vital as theirs to the defense of our democracy.

Consequently it is respectfully urged that the various provisions of H.R. 6013 be stated in such a way that social studies, and other major academic areas of the curriculum, are eligible to receive assistance. If categorical aid appears in the bill as it emerges from committee deliberations it is respectfully urged that the social studies be provided for in specific terms. Thus social-studies teachers now in service would be able to fill significant voids in their preparation for teaching, and preservice teacher education programs could be strengthened.

The privilege of submitting this statement is deeply appreciated. The careful consideration of the comments and suggestions made is respectfully asked of the House Committee on Education and Labor. We are convinced that there is a consensus on the part of all concerned that the Congress should not enact legislation that in any way is discriminatory, that leads to creating an imbalance in the curriculum, or omits a vital element in our educational program in defense of democracy.

STATEMENT BY EDWARD C. POMEROY, EXECUTIVE SECRETARY, AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION

Mr. Chairman and members of the subcommittee, my name is Edward C. Pomeroy, and I am the executive secretary of the American Association of Colleges for Teacher Education. Your willingness to add this statement to the record of support for the improvement of the quality of elementary and secondary education through institutes for advanced study for teachers and for teacher preparation programs, as contained in the National Education Improvement Act of 1963, is deeply appreciated. The following statement is directed primarily toward title I and title II of that part of H.R. 3000 which is currently being considered as H.R. 6013.

The American Association of Colleges for Teacher Education is a national association of 634 colleges and universities organized and dedicated to the improvement of institutional programs of teacher education. Association members represent the 50 States of the Union and Puerto Rico and exemplify all types of publicly and privately supported colleges and universities. In this organization,

small church-related, liberal arts colleges as well as large, complex universities work together at a national program aimed at the improvement of teacher education.

The association's executive committee has considered the important steps which the Federal Government has made and must continue to make if the quality of education in our schools and colleges is to reach the high level demanded by this Nation's responsibilities and commitments. The statement which follows reflects the position of the AACTE executive committee, speaking as a nationally recognized group of leaders of teacher education in colleges and universities but without the formality of an associationwide poll.

It is clear that in the national interests the 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, a fact which places a fantastically complicated decisionmaking burden on the general citizenry of our democracy, because of the challenge of the world political situation, and because the American dream calls for an educational system which provides every individual opportunity to achieve his maximum potentialities. In determining the quality of education, it is clear that the competence of the elementary and secondary school as well as college teachers is of critical importance.

In order that fully qualified teachers can be made available, it is necessary to upgrade the subject matter and professional qualifications of all who teach. This is true because 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. In addition, the preparation of many teachers has not kept pace with changing developments that are making such a rapid impact upon our society. Finally, it is clear that the rapid change which is taking place in the various fields of knowledge makes continuing study a necessity for even the most effectively and recently prepared teachers.

Most States, local school districts, and individual teachers have not been able to finance this qualitative upgrading of teacher preparation with sufficient rapidity to meet the situation. Certification requirements and salary scale inducements have helped, but these 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. The Federal Government by its establishment of the National Science Foundation and the National Defense Education Act has in fact recognized the force of the above arguments and has undertaken to discharge this responsibility, but in such a limited and one-sided manner as to distort the educational process. The teaching of science and mathematics has been helped notably, but history and the humanities have fallen behind. The Congress has sought to assure that Johnny is taught a modern foreign language competently but has largely ignored 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 secondary position as far as Federal support for improved programs of teacher preparation is concerned.

During the past 5 years, Federal support of institutes in mathematics, science, modern foreign languages, and guidance have proved to be an effective means of improving the competence of teachers. The 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. Many institutions have tried to provide, on their own, summer institutes for teachers in such fields as Asian studies and new viewpoints in American history, comparable to those operated with Federal support in mathematics, science, and guidance. Without financial assistance for the elementary and secondary school teacher participants, attendance has been disappointingly low and costs disproportionately high.

The federally subsidized institute has proven itself; it need only be extended to additional subject fields deemed by the Commissioner of Education to be in need of qualitative improvement. Such provisions as title I, "Institutes for Advanced Study for Teachers," and title II, "Teacher Preparation Programs," parts of H.R. 6013, will serve to strengthen college and university programs of teacher education by providing increased balance in the subject areas available for study by inservice as well as by prospective teachers.

I can assure you that the colleges and universities engaged in the continuing task of improving the preparation of teachers will cooperate wholeheartedly in sponsoring institutes should this amendment be provided.

I thank you for this occasion to submit this statement to the subcommittee.

NATIONAL CATHOLIC WELFARE CONFERENCE,
Washington, D.C., May 17, 1963.

HON. FRANK THOMPSON, JR.,
Special Subcommittee on Labor, Committee on Education and Labor,
Washington, D.C.

DEAR MR. THOMPSON: As you know quite well from our testimony in the past before your committee and similar committees, we are interested in equitable Federal aid to education programs if such legislation is to be enacted. It seems to me that you and your subcommittee in the light of our position have done an excellent job in the hearings conducted on the Institutes for Advanced Studies for Teachers, teacher preparation programs, and specialized training as provided for in Congressman Carey's bill, H.R. 6013, and likewise in the Congressman O'Hara measure, H.R. 6025, which is designed to improve the quality of education by broadening the scope of the Cooperative Research Act.

The quality of both pieces of proposed legislation is most encouraging to those of us who sincerely and deeply seek for equality in the search for excellence.

While appreciating the difficulties in the omnibus approach to assistance to higher education we are all the more sympathetic with the well-conceived singular approaches of Mr. Carey and Mr. O'Hara.

It was good to greet you early in February during the hearings on H.R. 3000. I trust that your own subcommittee continues to move along smoothly and productively.

With all good wishes,

Very sincerely yours,

Rt. Rev. Msgr. F. G. HOCHWALT.

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN,
Washington, D.C., May 27, 1963.

HON. FRANK THOMPSON,
Chairman, Special Subcommittee on Labor, Committee on Education and Labor,
House of Representatives, Washington, D.C.

DEAR MR. THOMPSON: We in the American Association of University Women have noted with great interest the hearings being held in your special Subcommittee on Labor on the quality of education titles of H.R. 3000. As you will remember from the testimony presented to the House Education and Labor Committee by the association last year, these titles are of serious concern to us.

It is also our earnest hope that there is significance in the fact that these hearings are being conducted in a Subcommittee on Labor for we have long entertained the belief that there is a close relationship between unemployment and underemployment not only to the number of years of education but to the quality of education. As the need for unskilled and uneducated workers will continue downward in the immediate future we welcome any evidence that efforts are being made toward remedying an otherwise horrifying unemployment problem within the next few years.

We wish to assure you of the vigorous support of the American Association of University Women for the legislation now under consideration in your subcommittee.

Sincerely yours,

DR. R. JEAN BROWNLEE,
Chairman, Higher Education Committee.
MRS. WALTER M. BAIN,
Chairman, Legislative Program Committee.
DR. MAYCIE K. SOUTHALE,
Chairman, Elementary and Secondary Education Committee.

STATEMENT OF BARRY MORRIS, CHAIRMAN, LEGISLATIVE COMMITTEE, DEPARTMENT OF AUDIOVISUAL INSTRUCTION, NATIONAL EDUCATION ASSOCIATION

Mr. Chairman and members of the committee, I am Barry Morris, assistant superintendent for finance, Fairfax County Schools, Fairfax, Va. I am also chairman of the Legislative Committee of the Department of Audiovisual Instruction of the National Education Association, and it is in this capacity that I appear before you today. On behalf of the 6,000 members of our department, I wish to thank you, Mr. Chairman and members of the committee, for this opportunity to relate the policies of our organization to this education proposal.

The department of audiovisual instruction was founded in 1923 when two established, national organizations combined to become a department of the National Education Association. Like other department of the NEA, we have our own constitution, our own governing bodies, elected officers, committees, conventions, and publications. Our 6,000 members are the audiovisual directors in the schools and colleges of America. They also include audiovisual instruction specialists in religious education, the Armed Forces, business, and industry. To a considerable degree our organization is a federation of educational media specialists including educators who are particularly concerned with such things as instructional motion pictures, educational television, language laboratories, programed instruction, audio recordings, and the instructional use of computers.

The term, "audiovisual instruction," has been in use, particularly among educators, for more than a quarter of a century. Today, however, this term is often used interchangeably with such terms as "educational media," "new educational media," and "instructional technology." By whatever designation this rapidly growing aspect of education can perhaps best be characterized by its concern with the application of technological developments to the teaching-learning process.

One of the most fundamental and striking facts in America today is the degree to which technological media of communication and technological systems for the handling of information have been developed. Indeed, these advanced resources for communication and for the handling of information are in large measure responsible for the high productivity of our society and for the accomplishment of many tasks which were undreamed of only a short time ago. The degree to which we are able to maintain a high rate of progress and to compete successfully in a world of increasingly sophisticated technology will depend heavily on our educational system—its productivity and the quality of its program.

In such a setting there is no greater need in education than our need to utilize effectively the fruits of research and technology in support of the educational process. Organized effort toward this end is centered within and around the field of audiovisual education. The whole range of graphic and auditory teaching instruments, the appropriate use of programed learning materials, and automated devices for individual study as well as group instruction are exhibiting increasing potential for educational programs of high productivity and high quality.

As the mass of man's useful knowledge increases in geometric progress the problems of storage and retrieval of information and the effective use of this information require increasingly complex systems. In fact, it is often easier and cheaper to conduct a new study or a new piece of research than it is to undertake the bibliographic search necessary to determine whether or not this study has already been done.

In a setting where automatic data processing machines handle business payrolls, inventories, transportation schedules, tax returns, orbital flights, and credit ratings, we find our professional teachers engaged for one or more working days in every month in the computation of membership and attendance data, grade averages, and similar clerical chores.

All of this points rather emphatically to the need for technological support for instruction, improved resources for individual study, and new designs for implementation of educational systems or programs.

The National Defense Education Act of 1958 is admirably designed for the stimulus and support of research and developmental activities in these areas, and our organization has supported its renewal as embodied in H.R. 3000.

We likewise support H.R. 6013. However, we would like to suggest the following changes in H.R. 6013 for your consideration as a means to make this bill more contemporary in its approach to problems in American education. A

major finding of the more than 200 research projects supported under title VII of the National Defense Education Act of 1958 has been that there is much in the field of audiovisual instruction; e.g., new educational media, that should be applied now to many of our instructional problems.

Title I, section 101, of H.R. 6013 provides for institutes for advanced study for teachers and other individuals including counseling and guidance personnel and library personnel. We urge that the term: "audiovisual personnel" be added to line 7 following the term "library personnel."

To bring to our schools and colleges the material resources and trained personnel needed for effective use of modern educational media, requires specialists in audiovisual communication as well as in library science. It requires programed learning materials, electronic recording equipment, visual projection systems, special facilities for control transmission, exhibit, and manipulation of a variety of materials used by teachers for teaching and by students in learning—individually and in groups.

A library is a place for the systematic storage and retrieval of information. It serves a basic and extensive function in education, but if storage is to be worthwhile, information must first be recorded; and if retrieval is to be effective, we must have the skill to interpret and to communicate that which was stored. It is with these functions that the audiovisual field is concerned.

For these reasons we further urge you to make these additional changes in H.R. 6013:

Title I, section 103, line 22: add "audiovisual personnel" following the term "librarians."

Title II, section 201, line 12: add "and audiovisual" following the term "library."

Title III, section 301, line 7: add "and audiovisual personnel" following the term "library personnel."

Title III, section 301, line 10: add "including audiovisual personnel" following the term "persons."

For your further consideration, I am submitting with this statement a copy of a position paper, "The Function of Media in the Public Schools," which was prepared by some 20 educational media specialists and published originally in the January 1963 issue of our Department's official magazine, Audiovisual Instruction.

(The above-mentioned position paper appears in the subcommittee files.)

