ALLIED HEALTH PROFESSIONS PERSONNEL TRAINING ACT OF 1966

HEARINGS

BEFORE THE

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE HOUSE OF REPRESENTATIVES

EIGHTY-NINTH CONGRESS

SECOND SESSION

ON

H.R. 13196

A BILL TO AMEND THE PUBLIC HEALTH SERVICE ACT TO INCREASE THE OPPORTUNITIES FOR TRAINING OF MEDICAL TECHNOLOGISTS AND PERSONNEL IN OTHER ALLIED HEALTH PROFESSIONS, TO IMPROVE THE EDUCATIONAL QUALITY OF THE SCHOOLS TRAINING SUCH ALLIED HEALTH PROFESSIONS PERSONNEL, AND TO STRENGTHEN AND IMPROVE THE EXISTING STUDENT LOAN PROGRAMS FOR MEDICAL, OSTEOPATHIC, DENTAL, PODIATRY, PHARMACY, OPTOMETRIC, AND NURSING STUDENTS, AND FOR OTHER PURPOSES

MARCH 29, 30, AND 31, 1966

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ALLIED HEALTH PROFESSIONS PERSONNEL TRAINING ACT OF 1966

TUESDAY, MARCH 29, 1966

HOUSE OF REPRESENTATIVES,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The committee met at 10 a.m., pursuant to call, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The committee will come to order.

The hearings today are on H.R. 13196, which I introduced at the request of the administration to carry out recommendations of the President made in his message on domestic health and education.

This bill is designed to increase the opportunities for training of medical technologists and personnel in other allied health professions, and to improve the educational quality of the schools training such personnel.

The bill also proposes fairly substantial modifications in the student loan programs established under the Health Professions Educational Assistance Act of 1963, as amended, and the Nurse Training Act of 1964.

The bill provides for grants for construction of teaching facilities for allied health professions personnel, provides grants to improve the quality of training centers, authorizes traineeships for training of teachers, supervisors, and specialists, and provides grants for projects to develop, demonstrate, or evaluate curriculums for the training of new types of health technologists.

The provisions relating to student loans in general would authorize the transfer of the funding of these loans to the private sector. Recent action taken by a subcommittee of the Committee on Education and Labor during its consideration of proposed amendments to the National Defense Education Act raises some questions in my mind as to whether this change would be desirable if a similar change is not made in the National Defense Education Act. I hope that this point will be developed in the hearings.

At this point there will be included the text of the bill, H.R. 13196, and agency reports thereon.

(The documents referred to follow:)

[H.R. 13196, 89th Cong., 1st sess.]

A BILL To amend the Public Health Service Act to increase the opportunities for training of medical technologists and personnel in other allied health professions, to improve the educational quality of the schools training such allied health professions personnel, and to strengthen and improve the existing student loan programs for medical, osteopathic, dental, podiatry, pharmacy, optometric, and nursing students, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Allied Health Professions Personnel Training Act of 1966".

ADDITION OF PART G TO TITLE VII OF THE PUBLIC HEALTH SERVICE ACT

SEC. 2. Title VII of the Public Health Service Act is amended by adding at the end thereof the following new part:

"PART G—TRAINING IN THE ALLIED HEALTH PROFESSIONS

"GRANTS FOR CONSTRUCTION OF TEACHING FACILITIES FOR ALLIED HEALTH PROFESSIONS PERSONNEL

"Authorization of Appropriations

"SEC. 791. (a)(1) There are authorized to be appropriated for grants to assist in the construction of new facilities for training centers for allied health professions, or replacement or rehabilitation of existing facilities for such centers, such sums as may be necessary for the fiscal year ending June 30, 1967, and each of the next two fiscal years.

"(2) Sums appropriated pursuant to paragraph (1) for a fiscal year shall remain available for grants under this section until the close of the next fiscal year.

"Approval of Applications for Construction Grants

"(b)(1) No application for a grant under this section may be approved unless it is submitted to the Surgeon General prior to July 1, 1968. The Surgeon General may from time to time set dates (not earlier than the fiscal year preceding the year for which a grant is sought) by which applications for grants under this section for any fiscal year must be filed.

"(2) A grant under this section may be made only if the application therefor is approved by the Surgeon General upon his determination that—

"(A) the applicant is a public or nonprofit private training center for allied health professions;

"(B) the application contains or is supported by reasonable assurances that (i) for not less than ten years after completion of construction, the facility will be used for the purposes of the training for which it is to be constructed, and will not be used for sectarian instruction or as a place for religious worship, (ii) sufficient funds will be available to meet the non-Federal share of the cost of constructing the facility, (iii) sufficient funds will be available, when construction is completed, for effective use of the facility for the training for which it is being constructed, and (iv) in the case of an application for a grant for construction to expand the training capacity of a training center for allied health professions, for the first full school year after the completion of the construction and for each of the nine years thereafter, the enrollment of full-time students at such center will exceed the highest enrollment of such students at such school for any of the five full school years preceding the year in which the application is made by at least 5 per centum of such highest enrollment, and the requirements of this clause (iv) shall be in addition to the requirements of section 792(b)(2), where applicable;

"(C)(i) in the case of an application for a grant for construction of a new facility, such application is for aid in the construction of a new training center for allied health professions, or construction which will expand the training capacity of an existing center, or (ii) in the case of an application for a grant for replacement or rehabilitation of existing facilities, such application is for aid in construction which will replace or rehabilitate facilities of an existing training center for allied health professions which are so obsolete as to require the center to curtail substantially either its enrollment or the quality of the training provided;

"(D) the plans and specifications are in accordance with regulations relating to minimum standards of construction and equipment; and

"(E) the application contains or is supported by adequate assurance that any laborer or mechanic employed by any contractor or subcontractor in the performance of work on the construction of the facility will be paid wages at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a–276a5). The Secretary of Labor shall have, with respect to the labor standards specified in this subparagraph (E), the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176; 64 Stat. 1267), and section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c).

"(3) Notwithstanding paragraph (2), in the case of an affiliated hospital (as defined in paragraph (3) of section 724), an application which is approved by the

training center for allied health professions with which the hospital is affiliated and which otherwise complies with the requirements of this section, may be filed by any public or other nonprofit agency qualified to file an application under section 605.

"(4) In the case of any application, whether filed by a training center or, in the case of an affiliated hospital, by any other public or other nonprofit agency, for a grant under this section to assist in the construction of a facility which is a hospital or part of a hospital, as defined in section 625, only that portion of the project which the Surgeon General determines to be reasonably attributable to the need of such training center for the project for teaching purposes or in order to expand its training capacities or in order to prevent curtailment of enrollment or quality of training, as the case may be, shall be regarded as the project with respect to which payments may be made under this section.

"(5) In considering applications for grants, the Council and the Surgeon General shall take into account—

"(A) the extent to which the project for which the grant is sought will aid in increasing the number of training centers for allied health professions providing training in three or more of the curriculums which are specified in or pursuant to paragraph (1)(A) of section 795 and are related to each other to the extent prescribed in regulations;

"(B)(i) in the case of a project for a new training center for allied health professions or for expansion of the facilities of an existing center, the relative effectiveness of the proposed facilities in expanding the capacity for the training of students in the allied health professions involved and in promoting an equitable geographical distribution of opportunities for such training (giving due consideration to population, relative unavailability of allied health professions personnel of the kinds to be trained by such center, and available resources in various areas of the Nation for training such personnel); or

"(ii) in the case of a project for replacement or rehabilitation of existing facilities of a training center for allied health professions, the relative need for such replacement or rehabilitation to prevent curtailment of the center's enrollment or deterioration of the quality of the training provided by the center, and the relative size of any such curtailment and its effect on the geographical distribution of opportunities for training in the allied health professions involved (giving consideration to the factors mentioned above in subparagraph (i)); and

"(C) in the case of an applicant in a State which has in existence a State or local area agency involved in planning for facilities for the training of allied health professions personnel, or which participates in a regional or other interstate agency involved in planning for such facilities, the relationship of the application to the construction or training program which is being developed by such agency or agencies and, if such agency or agencies have reviewed such application, any comment thereon submitted by them.

"Amount of Construction Grant; Payments

"(c)(1) The amount of any grant for a construction project under this section shall be such amount as the Surgeon General determines to be appropriate; except that (A) in the case of a grant for a project for a new training center for allied health professions, and in the case of a grant for a project for new facilities for an existing center where such facilities are of particular importance in providing a major expansion of the training capacity of such center, as determined in accordance with regulations, such amount may not exceed 66⅔ per centum of the necessary cost of construction, as determined by the Surgeon General, of such project; and (B) in the case of any other grant, such amount may not exceed 50 per centum of the necessary cost of construction, as so determined, of the project with respect to which the grant is made.

"(2) Upon approval of any application for a grant under this section, the Surgeon General shall reserve, from any appropriation available therefor, the amount of such grant as determined under paragraph (1); the amount so reserved may be paid in advance or by way of reimbursement, and in such installments consistent with construction progress, as the Surgeon General may determine. The Surgeon General's reservation of any amount under this subsection may be amended by him, either upon approval of an amendment of the application or upon revision of the estimated cost of construction of the facility.

"(3) In determining the amount of any grant under this section, there shall be excluded from the cost of construction an amount equal to the sum of (A) the amount of any other Federal grant which the applicant has obtained, or is assured

of obtaining, with respect to the construction which is to be financed in part by the grant under this section, and (B) the amount of any non-Federal funds required to be expended as a condition of such other Federal grant.

"Capture of Payments

"(d) If, within ten years after completion of any construction for which funds have been paid under this section—

"(1) the applicant or other owner of the facility shall cease to be a public or nonprofit private training center for allied health professions, or

"(2) the facility shall cease to be used for the training purposes for which it was constructed (unless the Surgeon General determines, in accordance with regulations, that there is good cause for releasing the applicant or other owner from the obligation to do so), or

"(3) the facility is used for sectarian instruction or as a place for religious worship,

the United States shall be entitled to recover from the applicant or other owner of the facility the amount bearing the same ratio to the then value (as determined by agreement of the parties or by action brought in the United States district court for the district in which such facility is situated) of the facility, as the amount of the Federal participation bore to the cost of construction of such facility.

"GRANTS TO IMPROVE THE QUALITY OF TRAINING CENTERS FOR ALLIED HEALTH PROFESSIONS

"Authorization of Appropriations

"SEC. 792. (a) There are authorized to be appropriated for the fiscal year ending June 30, 1967, and each of the next two fiscal years such sums as may be necessary for grants under this section to assist training centers for allied health professions to develop new or improved curriculums for training allied health professions personnel and otherwise improve the quality of their educational programs.

"Basic Improvement Grants

"(b)(1) Subject to the provisions of paragraph (2), the Surgeon General may, for each fiscal year in the period beginning July 1, 1967, and ending June 30, 1969, make to each training center for allied health professions whose application for a basic improvement grant has been approved by him a grant equal to the product obtained by multiplying $5,000 by the number of curriculums specified in or pursuant to paragraph (1)(B) of section 795 in which such center provides training during such year, plus the product obtained by multiplying $500 by the number of full-time students in such center receiving training in such curriculums.

"(2) The Surgeon General shall not make a grant under this subsection to any center unless the application for such grant contains or is supported by reasonable assurances that for the first school year beginning after the fiscal year for which such grant is made and each school year thereafter during which such a grant is made the enrollment of full-time students at such center will exceed the highest enrollment of such students in such center for any of the five school years during the period July 1, 1961, through July 1, 1966, by at least 2½ per centum of such highest enrollment, or by three students, whichever is greater. The requirements of this paragraph shall be in addition to the requirements of section 791(b)(2)(B)(iv) of this Act, where applicable. The Surgeon General is authorized to waive (in whole or in part) the provisions of this paragraph if he determines, after consultation with the Council, that the required increase in enrollment of full-time students in a center cannot, because of limitations of physical facilities available to the center for training, be accomplished without lowering the quality of training for such students.

"Special Improvement Grants

"(c)(1) From the sums appropriated under subsection (a) for any fiscal year and not required for making grants under subsection (b), the Surgeon General may make an additional grant for such year to any training center for allied health professions which has an approved application therefor and for which an application has been approved under subsection (b), if he determines that the requirements of paragraph (2) are satisfied in the case of such applicant.

"(2) No special improvement grant shall be made under this section unless (A) the Surgeon General determines that such grant will be utilized by the recipient

training center to contribute toward provision, maintenance, or improvement of specialized functions which the center serves, and (B) such center provides or will, with the aid of grants under this part, within a reasonable time provide training in not less than three of the curriculums which are specified in or pursuant to paragraph (1)(A) of section 795 and are related to each other to the extent prescribed in regulations.

"(3) No grant to any center under this subsection may exceed $100,000 for any fiscal year.

"Application for Grants

"(d)(1) The Surgeon General may from time to time set dates (not earlier than in the fiscal year preceding the year for which a grant is sought) by which applications for basic or special improvement grants under this section for any fiscal year must be filed.

"(2) A grant under this section may be made only if the application therefor is approved by the Surgeon General upon his determination that—

"(A) it contains or is supported by assurances satisfactory to the Surgeon General that the applicant is a public or nonprofit private training center for allied health professions and will expend in carrying out its functions as such a center, during the fiscal year for which such grant is sought, an amount of funds (other than funds for construction as determined by the Surgeon General) from non-Federal sources which are at least as great as the average amount of funds expended by such applicant for such purpose in the three fiscal years immediately preceding the fiscal year for which such grant is sought;

"(B) it contains such additional information as the Surgeon General may require to make the determinations required of him under this section and such assurances as he may find necessary to carry out the purposes of this section; and

"(C) it provides for such fiscal control and accounting procedures and reports, and access to the records of the applicant, as the Surgeon General may require to assure proper disbursement of and accounting for Federal funds paid to the applicant under this section.

"(3) In considering applications for grants under subsection (c), the Surgeon General shall take into consideration the relative financial need of the applicant for such a grant and the relative effectiveness of the applicant's plan in carrying out the purposes of such grants, and in contributing to an equitable geographical distribution of training centers offering high-quality training of allied health professions personnel.

"TRAINEESHIPS FOR ADVANCED TRAINING OF ALLIED HEALTH PROFESSIONS PERSONNEL

"SEC. 793. (a) There are authorized to be appropriated for the fiscal year ending June 30, 1967, and each of the next two fiscal years such sums as may be necessary to cover the cost of traineeships for the training of allied health professions personnel to teach in any of the allied health professions, to serve in any of such professions in administrative or supervisory capacities, or to serve in allied health professions specialties determined by the Surgeon General to require advanced training.

"(b) Traineeships under this section shall be awarded by the Surgeon General through grants to public or nonprofit private training centers for allied health professions.

"(c) Payments to centers under this section may be made in advance or by way of reimbursement, and at such intervals and on such conditions, as the Surgeon General finds necessary. Such payments may be used only for traineeships and shall be limited to such amounts as the Surgeon General finds necessary to cover the costs of tuition and fees, and a stipend and allowances (including travel and subsistence expenses) for the trainees.

"DEVELOPMENT OF NEW METHODS

"SEC. 794. There are authorized to be appropriated for the fiscal year ending June 30, 1967, and each of the next two fiscal years such sums as may be necessary for grants to public or nonprofit private training centers for allied health professions for projects to develop, demonstrate, or evaluate curriculums for the training of new types of health technologists.

"DEFINITIONS

"SEC. 795. For purposes of this part—

"(1) The term 'training center for allied health professions' means a department, division, or other administrative unit (in a college or univerity)—

"(A) which provides, primarily or exclusively, programs of education leading to a baccalaureate or equivalent degree or to a higher degree in the medical technology, dental hygiene, or any of such other of the allied health professions curriculums as are specified by regulations,

"(B) which provides training for not less than a total of twenty persons in such curriculums,

"(C) which, if the college or university does not include a teaching hospital, is affiliated (to the extent and in the manner determined in accordance with regulations) with such a hospital,

"(D) which is (or is in a college or university, which is) accredited by a recognized body or bodies approved for such purpose by the Commissioner of Education, and

"(E) in the case of an applicant for a grant under section 793, which, if the college or university does not include a school of medicine or a school of dentistry, as defined in paragraph (4) of section 724, or both, as may be appropriate in light of the training for which the grant is to be made, is affiliated (to the extent and in the manner determined in accordance with regulations) with such a school,

except that an applicant for a grant for a construction project under section 791 which does not at the time of application meet the requirement of clause (B) shall be deemed to meet such requirement if the Surgeon General finds there is reasonable assurance that the unit will meet the requirement of clause (B) prior to the beginning of the academic year following the normal graduation date of the first entering class in such unit, or, if later, upon completion of the project for which assistance is requested and other projects (if any) under construction or planned and to be commenced within a reasonable time.

"(2) The term 'full-time student' means a student pursuing a full-time course of study, in one of the curriculums specified in or pursuant to paragraph (1)(A) of this section, leading to a baccalaureate or equivalent degree, or to a higher degree, in a training center for allied health professions; regulations of the Surgeon General shall include provisions relating to determination of the number of students enrolled at a training center on the basis of estimates, or on the basis of the number of students enrolled in a training center in an earlier year, or on such basis as he deems appropriate for making such determination, and shall include methods of making such determinations when a training center was not in existence in an earlier year.

"(3) The term 'nonprofit' as applied to any training center for allied health professions means one which is a corporation or association, or is owned and operated by one or more corporations or associations, no part of the net earnings of which inures, or may lawfully inure, to the benefit of any private shareholder or individual.

"(4) The terms 'construction' and 'cost of construction' include (A) the construction of new buildings, and the acquisition, expansion, remodeling, replacement, and alteration of existing buildings, including architects' fees, but not including the cost of acquisition of land (except in the case of acquisition of an existing building), off-site improvements, living quarters, or patient-care facilities, and (B) equipping new buildings and existing buildings, whether or not expanded, remodeled, or altered."

PER DIEM FOR ADVISORY COUNCILS

SEC. 3. (a) Section 725(c) of the Public Health Service Act is amended by striking out "$50" and inserting in lieu thereof "$100".

(b) Section 841(c) of such Act is amended by striking out "$75" and inserting in lieu thereof "$100".

LOAN REIMBURSEMENT PAYMENTS FOR HEALTH PERSONNEL

SEC. 4. (a) Section 741(f) of the Public Health Service Act is amended by adding at the end thereof the following new sentence: "In the case of a physician, the rate shall be 15 per centum (rather than 10 per centum) for each year of such practice in an area in a State which for purposes of this subsection and for that year has been determined by the Secretary, pursuant to regulations and after

consultation with the appropriate State health authority, to be a rural area characterized by low family income; and, for the purpose of payments pursuant to this sentence, an amount equal to an additional 50 per centum of the total amount of such loans plus interest may be canceled."

(b) Section 741 of the Public Health Service Act is amended by inserting at the end thereof the following new subsection:

"(j) In order to encourage students who have obtained a loan under this part to refinance such loan through the student loan program carried out under part B of title IV of the Higher Education Act of 1965, and likewise to encourage students to obtain new loans under such part B program in lieu of obtaining such loans under this part, a student who does so with the approval of the educational institution involved shall, with respect to so much of the loan under such part B as—

"(1) is a refinancing of a student loan made by the institution under this part, or

"(2) in the case of a loan under such part B obtained in lieu of a loan from the institution, does not exceed the amount which he was eligible to borrow from the institution,

be entitled, in accordance with regulations of the Secretary, to have the following loan reimbursement payments paid to him by the Secretary where such person—

"(1) engages in the practice of medicine, dentistry, optometry, or osteopathy in an area in a State determined by the appropriate State health authority, in accordance with regulations prescribed by the Secretary, to have a shortage of and need for physicians, optometrists, or dentists; and

"(2) the appropriate State health authority certifies to the Secretary, in accordance with regulations prescribed by the Secretary, that such practice helps to meet the shortage of and need for physicians, optometrists, or dentists in the area where the practice occurs, then an amount equal to 10 per centum of the total amount of each such loan shall be paid for each year of such practice, up to a total of an amount equal to 50 per centum of such loan. In the case of a physician, the annual amount shall be 15 per centum (rather than 10 per centum) for each year of such practice in an area in a State which for purposes of this paragraph and for that year has been determined by the Secretary, pursuant to regulations and after consultation with the appropriate State health authority, to be a rural area characterized by low family income, and for the purpose of payments pursuant to this sentence, an amount equal to an additional 50 per centum of any such loan may be paid.

No payment shall be made under this subsection for service performed more than fifteen years from the execution of the note or written agreement evidencing it."

(c) Section 823 of the Public Health Service Act is amended by inserting at the end thereof the following new subsection:

"(f) In order to encourage students who have obtained a loan under this part to refinance such loan through the student loan program carried out under part B of title IV of the Higher Education Act of 1965, and likewise to encourage students to obtain new loans under such part B program in lieu of obtaining such loans under this part, a student who does so with the approval of the educational institution involved shall, with respect to so much of the loan under such part B as—

"(1) is a refinancing of a student loan made by the institution under this part, or

"(2) in the case of a loan under such part B obtained in lieu of a loan from the institution, does not exceed the amount which he was eligible to borrow from the institution,

be entitled, in accordance with regulations of the Secretary, to have paid to such student by the Secretary, as loan reimbursements, an amount equal to 10 per centum of the total principal amount of any such loan for each complete year of service as a full-time professional nurse (including teaching in any of the fields of nurse training and service as an administrator, supervisor, or consultant in any of the fields of nursing) in any public or nonprofit private institution or agency, up to a total of an amount equal to 50 percentum of such loan. No payment shall be made under this subsection for service performed more than fifteen years from the execution of the note or written agreement evidencing it."

(d)(1) The second sentence of section 435(a) of the Higher Education Act of 1965 (relating to the definition of "eligible institution") is amended to read as follows: "Such term also includes any public or other nonprofit school of health or school of nursing, and any school which provides not less than a one-year

program of training to prepare students for gainful employment in a recognized occupation and which meets the provisions of clauses (1), (2), (4), and (5)."

(2) Such section 435 is further amended by striking out all that follows subsection (a) and inserting in lieu thereof the following new subsections:

"(b) The term 'school of health' means a school which meets the accreditation requirements of clause (5) of subsection (a) and which provides training leading to a degree of doctor of medicine, doctor of dentistry, or an equivalent degree doctor of osteopathy, bachelor of science in pharmacy, or doctor of pharmacy, doctor of podiatry, or doctor of surgical chiropody, or doctor of optometry, or an equivalent degree.

"(c) The term 'school of nursing' means a collegiate, associate degree, or diploma school of nursing.

"(d) The term 'collegiate school of nursing' means a department, division, or other administrative unit in a college or university which provides primarily or exclusively an accredited program of education in professional nursing and allied subjects leading to the degree of bachelor of arts, bachelor of science, bachelor of nursing, or to an equivalent degree, or to a graduate degree in nursing.

"(e) The term 'associate degree school of nursing' means a department, division, or other administrative unit in a junior college, community college, college, or university which provides primarily or exclusively an accredited two-year program of education in professional nursing and allied subjects leading to an associate degree in nursing or to an equivalent degree.

"(f) The term 'diploma school of nursing' means a school affiliated with a hospital or university, or an independent school, which provides primarily or exclusively an accredited program of education in professional nursing and allied subjects leading to a diploma or to equivalent indicia that such program has been satisfactorily completed.

"(g) The term 'accredited' when applied to any program of nurse education means a program accredited by a recognized body or bodies approved for such purpose by the Commissioner of Education.

"(h) The term 'eligible lender' means an eligible institution, an agency or instrumentality of a State, or a financial or credit institution (including an insurance company) which is subject to examination and supervision by an agency of the United States or of any State.

"(i) The term 'line of credit' means an arrangement or agreement between the lender and the borrower whereby a loan is paid out by the lender to the borrower in annual installments, or whereby the lender agrees to make, in addition to the initial loan, additional loans in subsequent years."

ENCOURAGING PRIVATE CAPITAL FOR LOANS TO STUDENTS IN SCHOOLS OF MEDICINE, OSTEOPATHY, DENTISTRY, PHARMACY, PODIATRY, AND OPTOMETRY

SEC. 5. (a) Part C of title VII of the Public Health Service Act is amended by inserting at the end thereof the following new sections:

"ENCOURAGING PRIVATE CAPITAL FOR STUDENT LOANS

"SEC. 746. (a) For the purpose of substituting for direct Federal support to the maximum extent practicable private and other non-Federal funds for student loans, the Secretary is authorized to provide the following forms of assistance, upon such terms and conditions as he may deem appropriate, for the benefit of students attending schools of medicine, osteopathy, dentistry, pharmacy, podiatry, and optometry:

"(1) If such a school borrows non-Federal funds (or otherwise receives or makes available repayable non-Federal funds) for deposit in a student loan fund established under this part, the Secretary may (A) guarantee timely repayment of all or part of such funds (plus interest thereon), (B) agree to reimburse the school for up to 90 per centum of the loss to it from defaults on student loans made from such funds, and (C) agree to pay to the school the amount of the interest differential (as defined in subsection (c)) with respect to such funds.

"(2) If such a school arranges for a student assistance organization (as defined in subsection (c)) to make loans to students attending the school, the Secretary may enter into an agreement with the organization upon the terms set forth in section 740 and may (A) guarantee timely repayment of funds (plus interest thereon) borrowed by the organization for deposit in its student loan fund established under this part, (B) agree to reimburse the organization for up to 90 per centum of the loss to it from defaults on student loans made from such borrowed funds, and (C) agree to pay to the organization the amount of the interest differ-

ential with respect to such borrowed funds. A student assistance organization with which the Secretary makes an agreement pursuant to this paragraph shall be deemed to be a school described in section 740(a) for purpose of applying the other provisions of this part.

"(3) If such a school enters into arrangement with one or more lenders pursuant to which the lender makes loans (upon terms and conditions set forth in section 741) in such amounts and to such students as the school may determine on the basis of the criteria set forth in subsections (a) and (b) of section 741, the Secretary may (A) guarantee to the lender timely repayment of the loans (including amounts thereof which are canceled), and (B) agree to pay to the lender such amount as the Secretary determines will give the lender, considering the interest on the loan, a reasonable rate of return on such loan. The Secretary shall condition any such assistance upon agreement by the school to pay the Secretary promptly an amount equal to 10 per centum of the amount paid by him to the lender on account of defaults on such student loans.

"(b) The assistance provided by the Secretary pursuant to subsection (a) shall be subject to the following limitations:

"(1) If the interest on an obligation is exempt from income taxation by reason of section 103(a) of the Internal Revenue Code of 1954, the Secretary shall not guarantee timely payment of that obligation except during such time or times as it is held beneficially by a holder which is exempt from income tax because it is a State or an instrumentality of a State or because of section 501(c) of such Code.

"(2) No payment shall be made under this section with respect to a loan if the rate of interest on that loan exceeds such per centum per annum of the principal obligation outstanding as the Secretary (after consultation with the Secretary of the Treasury) determines to be reasonable, taking into account the range of interest rates prevailing in the private market for similar loans and the rate of interest the borrower pays or would have to pay with respect to other loans of a similar duration.

"(c) For purposes of this section—

"(1) the term 'interest differential' means the excess of (A) the amount of interest paid by a school or organization with respect to sums deposited by it as capital contributions to a student loan fund established under this part, over (B) the amount of interest received by it on student loans made from such funds,

"(2) the terms 'student assistance organization' means a nonprofit organization authorized to make loans to students in one or more schools of medicine, osteopathy, dentistry, pharmacy, podiatry, or optometry.

"REVOLVING FUND; APPROPRIATIONS AUTHORIZED

"SEC. 747. (a) There is hereby created in the Treasury a separate fund (hereinafter in this section called 'the fund') which shall be available to the Secretary without fiscal year limitation as a revolving fund for making deposits into the student loan funds of schools which have agreements with the Secretary under this part but which for legal or other reasons are unable (as determined by the Secretary) to take adequate advantage of assistance under section 746. Deposits made from the fund shall be made upon such terms and conditions as the Secretary may deem appropriate, and they may be made without regard to the allocation provisions of section 742(b). There shall be deposited into the fund all amounts appropriated pursuant to this section, all amounts appropriated pursuant to section 742(a) and not obligated prior to the date of enactment of this section, all amounts received by the Secretary as repayments of sums deposited by him in student loan funds, and any other moneys, property, or assets derived by him from his operations in connection with the fund, including any moneys derived directly or indirectly from the sale of assets, or beneficial interests or participations in assets, of the fund. There shall be paid from the fund all expenses and payments of the Secretary in connection with the sale (through the Federal National Mortgage Association or otherwise) of participations in obligations acquired under this part. If at any time the Secretary determines that moneys in the fund exceed the requirements of the fund, such excess shall be transferred to the general fund of the Treasury.

"(b)(1) There are authorized to be appropriated $22,000,000 for the fiscal year ending June 30, 1967, and such sums for the succeeding fiscal year as may be necessary for making payments into the fund established under subsection (a).

"(2) In order to receive deposits from the fund (and notwithstanding section 741(g)), a school must agree to require each student who receives a loan financed

from such capital contributions to authorize in writing assignment to the Secretary of the note or other evidence of that loan, and the note or other evidence of each prior loan made by the school to the student under this part, and the school must agree to assign to the Secretary so much of these notes or other evidence of loans as he may determine. The school shall continue to collect, as agent of the Secretary and for so long as he may determine, payments of principal and interest with respect to any such notes or other evidence of loans which may be assigned. Ten per centum of such payments with respect to notes or other evidence of loans which have been assigned shall be retained by the school and 90 per centum of such payments shall be paid to the Secretary.

"(c)(1) For any fiscal year, the aggregate of (A) the amount of loans which may be guaranteed under clause (A) of paragraph (1), (2), or (3) of subsection (a) of section 746, (B) the amount of any other loans with respect to which the Secretary agrees to pay the interest differential authorized by section 746(a), (C) the amount of deposits to student loan funds made from the fund established under subsection (a), and (D) the amount of loans with respect to which the Secretary may be required, by virtue of section 741(j), to make loan reimbursement payments, may not exceed such maximum amount as may be authorized by an appropriation Act, except that this amount in turn may not exceed the amount authorized to be appropriated for that year by section 742(a). Whenever a specified maximum amount is so authorized by an appropriation Act, there shall be established on the books of the Treasury as indefinite appropriations such sums as may be necessary from time to time to enable the Secretary to make payments required by a contract of guaranty or by any other undertaking made by him pursuant to section 746 with respect to such maximum amount.

"(2) For any fiscal year, the share of the maximum amount determined under paragraph (1) which shall be available for students attending any school shall be determined by the Secretary by allocating such maximum amount among schools and organizations with which he has agreements under this part in a manner which he deems to be consistent, considering the availability of student assistance under title IV–B of the Higher Education Act of 1965, with the provisions of section 742(b)."

(b) Section 743(b) of such Act is amended to read as follows:

"(b) After September 30, 1966, each school with which the Secretary has made an agreement under this part shall pay to the Secretary, not less often than quarterly, 90 per centum (or such lesser proportion as the Secretary may deem to be equitable in light of the relative contributions to the loan fund) of the amounts received by the school after that date in payment of principal or interest on student loans made from the student loan fund established pursuant to such agreement, and the remainder of such amounts shall be retained by the institutions."

ENCOURAGING PRIVATE CAPITAL FOR LOANS TO STUDENTS IN SCHOOLS OF NURSING

SEC. 6. (a) Part B of title VIII of the Public Health Service Act is amended by inserting at the end thereof the following new sections:

"ENCOURAGING PRIVATE CAPITAL FOR STUDENT LOANS

"SEC. 829. (a) For the purpose of substituting for direct Federal support to the maximum extent practicable private and other non-Federal funds for student loans, the Secretary is authorized to provide the following forms of assistance, upon such terms and conditions as he may deem appropriate, for the benefit of students attending schools of nursing:

"(1) If such a school borrows non-Federal funds (or otherwise receives or makes available repayable non-Federal funds) for deposit in a student loan fund established under this part, the Secretary may (A) guarantee timely repayment of all or part of such funds (plus interest thereon), (B) agree to reimburse the school for up to 90 per centum of the loss to it from defaults on student loans made from such funds, and (C) agree to pay to the school the amount of the interest differential (as defined in subsection (c)) with respect to such funds.

"(2) If such a school arranges for a student assistance organization (as defined in subsection (c)) to make loans to students attending the school, the Secretary may enter into an agreement with the organization upon the terms set forth in section 822(b) and may (A) guarantee timely repayment of funds (plus interest thereon) borrowed by the organization for deposit in a student loan fund established under this part, (B) agree to reimburse the organization for up to 90 per centum of the loss to it from defaults on student loans made from such borrowed

funds, and (C) agree to pay to the organization the amount of the interest differential with respect to such borrowed funds. A student assistance organization with which the Secretary makes an agreement pursuant to this paragraph shall be deemed to be a school of nursing for purpose of applying the other provisions of this part.

"(3) If such a school enters into an arrangement with one or more lenders pursuant to which the lender makes loans (upon terms and conditions set forth in section 823 (b)) in such amounts and to such students as the school may determine on the basis of the criteria set forth in section 823, the Secretary may (A) guarantee to the lender timely repayment of the loans (including amounts thereof which are canceled), and (B) agree to pay to the lender such amount as the Secretary determines will give the lender, considering the interest on the loan, a reasonable rate of return on such loan. The Secretary shall condition any such assistance upon agreement by the school to pay the Secretary promptly an amount equal to 10 per centum of the amount paid by him to the lender on account of defaults on such student loans.

"(b) The assistance provided by the Secretary pursuant to subsection (a) shall be subject to the following limitations:

"(1) If the interest on an obligation is exempt from income taxation by reason of section 103(a) of the Internal Revenue Code of 1954, the Secretary shall not guarantee timely payment of that obligation except during such time or times as it is held beneficially by a holder which is exempt from income tax because it is a State or an instrumentality of a State or because of section 501(c) of such Code.

"(2) No payment shall be made under this section with respect to a loan if the rate of interest on that loan exceeds such per centum per annum on the principal obligation outstanding as the Secretary (after consultation with the Secretary of the Treasury) determines to be reasonable, taking into account the range of interest rates prevailing in the private market for similar loans and the rate of interest the borrower pays or would have to pay with respect to other loans of a similar duration.

"(c) For purposes of this section—

"(1) the term 'interest differential' means the excess of (A) the amount of interest paid by a school or organization with respect to sums deposited by it as capital contributions to a student loan fund established under this part, over (B) the amount of interest received by it on student loans made from such funds.

"(2) the term 'student assistance organization' means a nonprofit organization authorized to make loans to students in one or more schools of nursing.

"REVOLVING FUND; APPROPRIATIONS AUTHORIZED

"SEC. 830. (a) There is hereby created in the Treasury a separate fund (hereinafter in this section called 'the fund') which shall be available to the Secretary without fiscal year limitation as a revolving fund for making Federal capital contributions to schools which have agreements with the Secretary under this part but which for legal or other reasons are unable (as determined by the Secretary) to take adequate advantage of assistance under section 829. Federal capital contributions made from the fund shall be made upon such terms and conditions as the Secretary may deem appropriate, and they may be made without regard to the allocation provisions of section 825. There shall be deposited into the fund all amounts appropriated pursuant to this section, all amounts appropriated pursuant to section 824 and not obligated prior to the date of enactment of this section, all amounts received by the Secretary as repayments of sums deposited by him in student loan funds, and any other moneys, property, or assets derived by him from his operations in connection with the fund, including any moneys derived directly or indirectly from the sale of assets, or beneficial interests or participation in assets, of the fund. There shall be paid from the fund all payments to schools required by section 823(c) with respect to student loans financed from capital contributions from the fund, and all expenses and payments of the Secretary in connection with the sale (through the Federal National Mortgage Association or otherwise) of participations in obligations acquired under this part. If at any time the Secretary determines that moneys in the fund exceed the requirements of the fund, such excess shall be transferred to the general fund of the Treasury.

"(b)(1) There are authorized to be appropriated $15,000,000 for the fiscal year ending June 30, 1967, and such sums for the succeeding fiscal year as may be necessary for making payments into the fund established under subsection (a).

"(2) In order to receive capital contributions from the fund (and notwithstanding section 823(b)(7)), a school must agree to require each student who

receives a loan financed from such capital contributions to authorize, in writing, assignment to the Secretary of the note or other evidence of that loan, and the note or other evidence of each prior loan made by the school to the student under this part, and the school must agree to assign to the Secretary so much of these notes or other evidence of loans as he may determine. The school shall continue to collect, as agent of the Secretary and for so long as he may determine, payments of principal and interest with respect to any such notes or other evidence of loans which may be assigned. Ten per centum of such payments with respect to notes or other evidence of loans which have been assigned shall be retained by the school and 90 per centum of such payments shall be paid to the Secretary.

"(c)(1) For any fiscal year, the aggregate of (A) the amount of loans which may be guaranteed under clause (A) of paragraph (1), (2), or (3) of subsection (a) of section 829, (B) the amount of any other loans with respect to which the Secretary agrees to pay the interest differential authorized by section 829(a), (C) the amount of capital contributions to student loan funds made from the fund established under subsection (a), and (D) the amount of loans with respect to which the Secretary may be required, by virtue of section 823(f), to make loan reimbursement payments, may not exceed such maximum amount as may be authorized by an appropriation Act, except that this amount in turn may not exceed the amount authorized to be appropriated for that year by section 824. Whenever a specified maximum amount is so authorized by an appropriation Act, there shall be established on the books of the Treasury as indefinite appropriations such sums as may be necessary from time to time to enable the Secretary to make payments required by a contract of guaranty or by any other undertaking made by him pursuant to section 829 with respect to such maximum amount.

"(2) For any fiscal year, the share of the maximum amount determined under paragraph (1) which shall be available for students attending any school shall be determined by the Secretary by allocating such maximum amount among schools and organizations with which he has agreements under this part in a manner which he deems to be consistent, considering the availability of student assistance under title IV–B of the Higher Education Act of 1965, with the provisions of section 825."

(b) Section 826(b) of such Act is amended to read as follows:

"(b) After September 30, 1966, each school with which the Secretary has made an agreement under this part shall pay to the Secretary, not less often than quarterly, 90 per centum (or such lesser proportion as the Secretary may deem to be equitable in light of the relative contributions to the loan fund) of the amounts received by the school after that date in payment of principal or interest on student loans made from the student loan fund established pursuant to such agreement, and the remainder of such amounts shall be retained by the institutions."

(c) Paragraph (1) of section 806(c) of the Public Health Service Act is amended by inserting "(A)" after "year" and by inserting the following before the semicolon at the end of such paragraph: ", or (B) a loan of $100 or more (i) pursuant to section 823(f) (except so much as refinances a loan) or (ii) pursuant to section 829(a)(3)".

AUTHORIZING LOAN INSURANCE FOR LOANS TO REFINANCE LOANS MADE FROM FEDERALLY ASSISTED STUDENT LOAN FUNDS

SEC. 7. A loan by an eligible lender (as that term is defined in section 435 of the Higher Education Act of 1965) shall also be insurable by the Commissioner of Education, or by a State or nonprofit private institution or organization, under the provisions of title IV–B of that Act if it is made for the purpose of enabling the borrower to repay one or more student loans obtained by him from a loan fund established under title VII or VIII of the Public Health Service Act. The Commissioner of Education shall promulgate such regulations as he may deem appropriate to assure that loans which are insurable by virtue of this section shall be used for the purpose for which they are made. A loan shall be insurable by virtue of this section only if it is evidenced by a note or other written agreement which meets the requirements of section 427(a)(2) of the Higher Education Act of 1965, except that if the repayment period has begun for any loan which is to be repaid, the new loan may not be insured unless its repayment period begins when the loan is paid to the borrower. The amount of any loan which is made insurable by virtue of this section shall not be included in determining whether a student has exceeded the annual or aggregate limits set forth in section 425(a)(1) or section 428(c)(1)(A) of such Act.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
Washington, D.C., March 23, 1966.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request of February 4, 1966, for a report on H.R. 13196, the Allied Health Professions Personnel Training Act of 1966.

This bill embodies the provisions of a draft bill transmitted by us to the Congress in order to carry out the recommendations on assistance for training in the allied health professions contained in the President's message to the Congress on domestic health and education.

A more detailed justification for this legislative proposal will be presented in testimony before your committee.

We urge that your committee give favorable consideration to this bill and that it be enacted by the Congress.

Sincerely,

WILBUR J. COHEN, *Under Secretary.*

U.S. DEPARTMENT OF LABOR,
OFFICE OF THE SECRETARY,
Washington, D.C., March 24, 1966.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Department of Labor on H.R. 13196, the "Allied Health Professions Personnel Training Act of 1966."

The Department of Labor strongly favors measures which would help in meeting the critical and growing shortage of medical services in our Nation. H.R. 13196 is designed to help meet this important need and is intended to carry out some of the recommendations made by President Johnson in his March 1, 1966, domestic health and education message to the Congress.

We note with approval that the bill appropriately protects the working standards of laborers and mechanics employed on projects authorized under its terms.

The Bureau of the Budget advises that there is no objection from the standpoint of the administration's program to the submission of this report.

Sincerely,

W. WILLARD WIRTZ,
Secretary of Labor.

DEPARTMENT OF THE NAVY,
OFFICE OF LEGISLATIVE AFFAIRS,
Washington, D.C., March 28, 1966.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

MY DEAR MR. CHAIRMAN: Your request for comment on H.R. 13196, a bill to amend the Public Health Service Act to increase the opportunities for training of medical technologists and personnel in other allied health professions, to improve the educational quality of the schools training such allied health professions personnel, and to strengthen and improve the existing student loan programs for medical, osteopathic, dental, podiatry, pharmacy, optometric, and nursing students, and for other purposes, has been assigned to this Department by the Secretary of Defense for the preparation of a report thereon expressing the views of the Department of Defense.

This bill would amend the Public Health Service Act to increase the opportunities for training of medical technologists and personnel in other allied health professions. It would provide for grants for new construction or rehabilitation or improvement of existing training centers, and improvement of the educational quality of the schools training such personnel. It would further improve the existing loan programs for students of medicine, osteopathy, dentistry, pharmacy, podiatry, optometry, and nursing.

The Department of the Navy, on behalf ot the Department of Defense, would have no objection to the enactment of H.R. 13196; however, we would defer to the

Department of Health, Education, and Welfare as the agency having primary interest in the bill.

This report has been coordinated within the Department of Defense in accordance with procedures prescribed by the Secretary of Defense.

The Bureau of the Budget advises that, from the standpoint of the administration's program, there is no objection to the presentation of this report for the consideration of the committee.

For the Secretary of the Navy.

Sincerely yours,

M. K. DISNEY,
Captain, U.S. Navy, Director, Legislative Division.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., April 4, 1966.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

DEAR MR. CHAIRMAN: This is in response to your request of March 7, 1966, for a report of our Office on H.R. 13196.

The bill would provide assistance to colleges and universities with training programs in the allied health professions by authorizing grants for (1) construction of teaching facilities for allied health professions personnel, (2) basic and special improvements in the quality of training centers, (3) traineeships for advanced training of allied health professions personnel, and (4) development of new training methods. It also would amend portions of the Health Professions Educational Assistance Act of 1963, the Nurse Training Act of 1964, and the Higher Education Act of 1965 relating to educational loans to students pursuing a full-time course of study leading to a degree in medicine, dentistry, osteopathy, pharmacy, podiatry, or nursing, encourage the use of private capital for student loans, and establish revolving funds for the health professions and nursing student loan programs.

Section 2 of the bill would amend title VII of the Public Health Service Act by adding a new part G which provides grants for construction (sec. 791) and for improvement of the quality of teaching and training facilities (sec. 792). Although these sections authorize appropriations to carry out the legislation they do not specify the amount of funds authorized to be appropriated for each of the programs. Also, sections 793 and 794 of the bill, providing grants for advanced training of health professions personnel and development of new curriculums, respectively, do not specify the amount of funds to be appropriated. The above-cited sections of the bill do not contain a specific requirement for the maintenance of accounting records by grant recipients, except for section 792, and for access to such records for audit purposes. The committee may wish to amend the bill to establish the amounts to be authorized for each of the programs, and to include a provision for access to records and audits. On the latter point we suggest inclusion in the bill of language similar to that contained in section 304 of the Clean Air Act, approved December 17, 1963, Public Law 88–206, which requires maintenance of prescribed records and that access to such records be afforded to the Secretary of Health, Education, and Welfare and the Comptroller General, or their duly authorized representatives, for the purposes of audit and examination. See, also, section 909 of the Public Health Service Act, as added by Phblic Law 89–239.

Section 4 of the bill would amend titles VII and VIII of the Public Health Service Act to increase the annual loan cancellation percentage for physicians who choose to practice in rural areas and to make an additional 50 percent for a total of 100 percent of the loan eligible for cancellation. To encourage students to obtain new loans or to refinance existing student loans with loans from private lending institutions insured under the Higher Education Act, this section would further provide loan reimbursement payments. These reimbursement payments would be comparable to the loan cancellation privilege available under the Public Health Service health professions and nursing loan programs. According to information on the bill furnished to us by Public Health Service officials, the reason for encouraging the transfer and refinancing of student loans and the making of new loans under the insured program of the Higher Education Act is to substitute the use of private funds for direct Federal appropriations which would also result in additional funds being available in the student loan programs for the health professions and nursing loans.

Under the loan provisions of the Health Professions Educational Assistance Act (sec. 741(e)) and the Nurse Training Act (sec. 823 (b)(5)), the interest rate which may be charged the borrower is limited to 3 percent per annum or the going Federal rate (as defined in the acts) at the time the loan is made, whichever rate is the greater. Under the Higher Education Act (sec. 428 (a)(2)) the Federal Government pays the first 3 percent of the interest due on the borrower's loan. Therefore, the refinancing of existing loans and the making of new loans under the Higher Education Act will result in increased net interest costs to the Government. Also, increased administrative costs can be expected in connection with loan refinancing transactions.

Sections 5, 6, and 7 of the bill would amend existing title VII and title VIII of the Public Health Service Act to encourage the use of private or other non-Federal funds to meet student loan needs by allowing the Secretary of Health, Education, and Welfare to (1) guarantee timely repayment of funds borrowed from private institutions, (2) reimburse the school for up to 90 percent of losses on loan defaults, and (3) make payments to the school for the difference between the interest payments received from student loans and the interest which the school or a student-assistance organization pays to borrow the funds. Moreover, the proposed legislation would authorize the Secretary, Health, Education, and Welfare with certain exceptions to guarantee and subsidize interest paid on a bank loan made to any student on the same terms as if made under one of the federally supported loan programs. Since the interest rates charged by private lenders probably would be higher than those provided for loans made from student loan funds, the Government may incur greater costs for the interest differential than would be incurred if appropriated funds were used for loan-making purposes.

The bill would provide no criteria by which consideration would be given to the financial ability of the student or his family in determining whether all or a portion of the interest differential should be subsidized. The committee may wish to consider criteria for inclusion in the bill similar to that stipulated as a condition for student loans under section 428(a)(1)(C) of the Higher Education Act.

The bill would create two revolving funds for the purpose of financing loans to students under titles VII and VIII, respectively, of the Public Health Service Act. These funds would be used to make deposits into student loan funds at those schools which are unable, for legal or other reasons, to take advantage of private capital with Federal assistance. The use of revolving funds to finance activities under the pertinent provisions of the bill would represent a departure from the regular annual review and affirmative action through the budgetary and appropriation processes and, accordingly, would result in a lessening of congressional control. Whether adequate justification exists for this departure we are not in a position to state, but suggest the matter be fully evaluated in the consideration of this bill.

We note the bill would provide no limitation on the total amount of deposits into student loan funds which could be outstanding at any one time. If the revolving fund provisions are retained in the bill, the committee may wish to consider the desirability of establishing such limitations.

Also, under the proposed legislation student notes would be assigned to the Secretary who could sell participations in obligations so acquired (through the Federal National Mortgage Association or otherwise) to secure capital funds from the private market for deposit in the revolving funds. In effect, the Secretary, Health, Education, and Welfare, would be authorized to borrow funds directly from the public to finance a portion of its student loan operations without showing such borrowings as part of the public debt. Also, since the bill provides that if at any time the Secretary determines that moneys in the funds exceed the requirements of the funds, such excess shall be transferred to the general fund of the Treasury, funds could become available for use for general Government purposes from borrowings not shown as part of the public debt.

The rate of interest which would be paid by the Secretary on the participation obligations would be dependent on market conditions at the time the loan obligations are offered for sale. Consequently, it is not determinable at this time to what extent, if any, the interest costs of financing through the issuance of participation obligations would exceed the interest cost of financing through congressional appropriations and the related public debt obligations. However, to the extent that the interest rates on the participation obligations may be larger than the interest rate on public debt issues having comparable maturity, there would be added cost to the Government.

In reports to the Congress on our audits of the Export-Import Bank of Washington for the fiscal years 1962, 1963, and 1964, we described sales by the Export-Import Bank of participation certificates to commercial banks. The interest rates on the participation certificates sold in fiscal years 1962 and 1964 were at least one-fourth of 1 percent higher than the interest rates on Treasury securities with comparable maturities issued at a comparable time. However, the interest rate on the participation certificates sold in fiscal year 1963 were about the same as the interest rates on Treasury securities with comparable maturities.

Section 3(a) of the bill proposes an amendment to section 725(c) of the Public Health Service Act. It appears the reference should be to section 725(d). The last line in section 7 of the bill cites section 428(c)(1)(A) of the Higher Education Act of 1965, but the reference should be section 428(b)(1)(A).

We have no other comment or recommendation to offer.

Sincerely yours,

FRANK H. WEITZEL,
Assistant Comptroller General of the United States.

The CHAIRMAN. When you stop to think about it, optimum use of present day medical knowledge could cut the death rate in half. That is how important the bill is. In the face of medical capabilities today, poor health is the greatest disgrace to our vaunted American regard for the human welfare.

It has been said that disease causes more hospitalization of our fighting men in Vietnam than wounds. It has been said that the ratio is 4 to 1 on the casualty lists.

I am glad to see that our Secretary of Health, Education, and Welfare and our Surgeon General are both back from Saigon safely. We welcome you back. We are glad to have you at the hearings. They must have decided, Dr. Stewart, that they did not need doctors so badly or they would not have let you come home.

Our first witness this morning will be the Secretary of Health, Education, and Welfare, Hon. John W. Gardner.

STATEMENT OF HON. JOHN W. GARDNER, SECRETARY OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY DR. WILLIAM STEWART, THE SURGEON GENERAL OF THE PUBLIC HEALTH SERVICE; DR. PHILIP LEE, ASSISTANT SECRETARY FOR HEALTH AND SCIENTIFIC AFFAIRS; AND JAMES KELLY, COMPTROLLER

Secretary GARDNER. Mr. Chairman, members of the committee, I am happy to appear here today to express the Department's strong and enthusiastic support for H.R. 13196, the proposed "Allied Health Professions Personnel Training Act of 1966," introduced by the distinguished chairman of this committee, Mr. Staggers.

Mr. Chairman, in the past 3 years the Congress has enacted a number of major pieces of health legislation that will contribute significantly to improvement in the quantity and quality of our health manpower resources.

Most of this legislation came from this committee. You have written into law the Health Professions Assistance Act of 1963 and the 1965 amendments; the Nurse Training Act of 1964; the Heart, Cancer, and Stroke Amendments of 1965, and other important measures.

Under the Health Professions Educational Assistance Act of 1963, and the 1965 amendments, and under the Nurse Training Act of 1964, steps are being taken to narrow the gap between the supply and demand for physicians, dentists, nurses, optometrists, podiatrists, and

pharmacists. Grants under these programs to date will result in the addition of 885 new first year places in medical schools, 372 new places in dental schools, and 1,125 new places in nursing schools.

Every one of these new health laws was a major step forward, and a necessary one—necessary because as a nation we are committed to nothing less than providing the very best in health care to every American.

The extent and complexity of that commitment requires that we utilize all of our health resources as efficiently and effectively as possible.

H.R. 13196 is one step toward that end. It is one part of our overall approach to the complex and changing health care picture. It would carry out one of three major health proposals made by the President in his March 1 message on domestic health and education. Those recommendations related to modernizing obsolete health care facilities; revitalizing State and local public health services, and training highly qualified people in the allied health professions.

It is, of course, toward this last objective that H.R. 13196 is directed. The goal would be to meet a growing need for supervisors of subprofessional workers, for teachers in the allied health professions, for highly skilled technical specialists and for new types of allied health professionals.

The proposed legislation would authorize a 3-year program to provide Federal assistance to schools and students for the expansion and improvement of baccalaureate and advanced degree training. The bill also extends additional loan forgiveness to doctors practicing in poor rural areas.

And it provides for conversion of the health professions and nurses student loan programs to a more flexible approach allowing both Federal subsidy and guarantee of privately financed loans as well as direct Federal loans.

Mr. Chairman, the demand for health care in this country is growing, and will continue to grow, and here are some indicators.

The annual expenditure on health and medical services in this country increased from $13 billion in 1950 and $27 billion in 1960 to approximately $40 billion last year. Private spending for personal health care in this country in 1965 was more than $26 billion—about 6.1 percent of personal consumption expenditures.

Many factors are at work to enlarge the demand: rising incomes, better education, urbanization, population growth, the changing age structure of the population, and new mechanisms of payment for services, including private insurance coverage and public programs.

Although physicians, dentists, and nurses form the nucleus of the health manpower team, we rely for services on an increasing number and variety of other health workers. There is a need for allied health professionals to extend the reach of services, both in terms of quantity and quality that can be provided by physicians and dentists. There is a need for a virtual army of health workers at the subprofessional level who will require training and supervision to provide needed services.

Within the past 3 years, public or private agencies in many States have published studies pointing to shortages of health manpower, and the need for new and expanded training facilities.

For example, a survey by the Georgia Hospital Association, reported on February 23 of this year, revealed 1,574 immediate openings in the paramedical area in hospitals and nursing homes.

The shortages included a need for 20 medical record librarians, 30 dieticians, 58 medical technologists, 22 X-ray technologists and 15 physical therapists, and 6 occupational therapists.

In another example, the Health Careers Council of Illinois reported in November 1965 that: "All doubts about the extent of personnel vacancies in Illinois hospitals have been removed by the just released study of budgeted hospital personnel vacancies, conducted by the Illinois Hospital Association. Total budgeted vacancies have increased 79 percent from 1,950 vacancies reported in 1963 by 284 hospitals to 3,485 reported in 1965 by only 270 hospitals."

Estimates based on studies by the Public Health Service and by professional groups show that to meet our needs in some of these fields would require that before 1975 American schools graduate annually an estimated:

Twice the present number of medical and X-ray technologists;

Three or four times the number of dental hygienists;

Eight or ten times the number of medical record librarians, physical therapists, and occupational therapists.

Mr. Chairman, an excellent appraisal of the overall situation was made by the National Commission on Technology, Automation, and Economic Progress, which only a few weeks ago published its first report. In assessing the application of new technology to meeting the Nation's health needs, this distinguished Commission said:

> The gap between the technological potential and our ability to apply it effectively is partly due to the lack of a significant improvement in the proportion of physicians to population.
>
> We have also not developed the proper manpower training programs for the new technologies. We have continued to hold on to our traditional and basic training programs in the various health and medical fields without analyzing the new technologies available and the real possibility of training new categories of manpower who can perform many of the functions now carried out by highly skilled and scarce professional personnel.
>
> One solution lies in restructuring our training programs with current scientific and technological developments. The only solution, in the long run, is an increase in the number of trained medical personnel, physicians, nurses, and medical technicians in all categories. For this we need an extensive planned program of Government support for the creation of more schools, expansion of enrollments, knowledge and technology can be most effectively applied, and as seems likely, training of new categories of health personnel to supplement and complement those already in existence.

It will require an expansion of existing programs, and the development of new programs such as the one proposed in H.R. 13196, to meet the growing demand for health workers. We are, as you know, expanding our efforts to support the education of physicians, dentists, nurses, podiatrists, and optometrists.

We are also expanding our support of programs to train subprofessional, prebaccalaureate health workers, such as practical nurses, nurses aids, dental assistants, cytotechnologists, medical assistants, and laboratory assistants.

At the present time, substantial Federal aid is being made available for the support of health occupations training at the vocational and technical level.

Under the Office of Education's vocational education program, preparatory training is provided for some 56,000 persons annually in

the subprofessional health occupations, including practical nurses, nurses aids, dental assistants, medical assistants, and laboratory assistants.

This represents an almost tenfold increase in the past 10 years. Supplemental vocational training upgraded the skills of another 18,000. Additional technical personnel are trained under MDTA and various special-purpose programs such as cancer control.

One of our best training programs for the allied health professions has been in the Vocational Rehabilitation Administration. These programs have trained people in physical therapy, occupational therapy, speech and hearing, and rehabilitation counseling, among others. H.R. 13196 would permit the construction of teaching facilities which is not possible under present VRA authority. We intend that the new program, if enacted, will complement the program now carried out by VRA and will be fully coordinated with it. We believe it is important to integrate closely as far as possible, training for the allied health professions. In the implementation of this legislation the VRA and other agencies of the Department would participate fully in the planning of the program and the review and approval of applications under the program.

In order to provide supervisors and teachers for subprofessional workers and to provide workers to carry out highly skilled, specialized professional tasks we must expand and improve the present training programs for allied health professionals at the baccalaureate and advanced degree levels.

TRAINING FOR THE ALLIED HEALTH PROFESSIONS

In 1963 the last year for which official reports from the schools are available, there were some 5,000 graduates at the baccalaureate and about 2,000 more at the advanced degree levels in medical technology, X-ray technology, physical and occupational therapy, dental hygiene and other health professions.

On the basis of information obtained from professional organizations in these fields, we estimate that there has been only a slight increase in the last two academic years. Under the proposed 3-year program in H.R. 13196, training capacity for these and similar groups might be increased by 3,000 to 4,000 depending on the size of the appropriation and the speed with which the schools are able to respond to this stimulus.

H.R. 13196 would authorize:

1. Grants for construction of teaching facilities;
2. Grants for schools for educational improvement;
3. Traineeships to help prepare teachers, administrators, supervisors, and other personnel in specialized practice; and
4. Project grants to develop, demonstrate, or evaluate curriculums for training new types of health technologists.

The construction grants are patterned after those now available for medical, dental, and certain other health professions schools under the Health Professional Educational Assistance Act, and to nursing schools and under the Nurse Training Act.

I think it is important to emphasize the qualitative aspects of this bill, especially in view of the limited number of people it deals with in relation to the total demand. We are seeking to encourage the crea-

tion of broad, multidisciplinary training programs and to encourage the expansion of high quality existing programs and in many colleges and hospitals.

At the minimum, a project for expansion would have to result in an enrollment increase of 5 percent. By focusing on colleges and universities which now provide this kind of training for a minimum of 20 students, we are seeking to create and improve major centers for the education of this segment of health personnel.

There are wide disparities between geographic regions today in their capacity to train these people, and we hope through this program to secure a more balanced distribution.

The improvement grant provisions of the bill closely resemble the educational improvement grants authorized by the Health Professions Educational Assistance Amendments of 1965.

Each eligible school would receive a basic grant of $5,000 times the number of allied health professions curriculums plus $500 times the number of full-time students. Special improvement grants up to $100,000 would be awarded to selected schools with three or more interrelated allied health professions curriculums to help them maintain, provide, or improve their specialized functions.

Some universities with medical centers have developed comprehensive groupings of health curriculums in a college within the university, with programs that provide clinical training in the university and its affiliated hospitals. The curriculums included in these groupings may include medical technology, physical theraphy, occupational therapy, X-ray technology, or a variety of others. Thirty-eight programs now train three or more categories. Such programs now exist in a number of States: for example, at the University of Florida, the Medical College of Virginia, the State University of New York at Albany, and the University of California at Los Angeles.

In coordinated programs such as these, individuals who will later work together in providing health care are trained together. Duplication in administration, faculty, and facilities are minimized. And schools based on medical centers are the logical place to provide advanced training for urgently needed supervisors, administrators, and teachers for the skilled health professions and their related subprofessional groups.

Because it is necessary to expand enrollments in these centers, where they exist, the bill provides that a minimum enrollment increase of 2½ percent (or three students) is a precondition to receiving a basic or special improvement grant. But the fact alone that this assistance is labeled as an "improvement grant" demonstrates the clear intent that these funds will in general be used to upgrade the quality of education within the training centers.

The traineeships proposed in the bill would help prepare teachers, administrators, supervisors, and specialists in the various allied health professions. Like the traineeships now provided for advanced training of professional nurses, they would be administered through grants to schools, and would cover tuition and fees and a stipend and allowances for the trainees. Schools to be eligible would be required to include or be affiliated with a medical or dental school and a hospital.

The traineeship would make it possible for many people now working in these allied health professional categories to return to school for limited periods to obtain the further training which is necessary to fit them for teaching or supervisory duties. In this way we will

be making the fullest and most efficient use of our previously trained manpower to expand the educational base so urgently needed.

The project grants proposed in H.R. 13196 are for the purpose of developing, demonstrating, or evaluating new curriculums to train new types of health technologists. One of the unknown quantities in health care is that we do not today have job descriptions for all of the kinds of people we will have to train and employ.

The organization and technology of health care will continue to change. Specially trained bioengineering technologists will make possible both use and development of radically new diagnostic and therapeutic equipment. Technologists to work with physicians to extend these services will require specifically designed training. And this will require changes in the training of allied health professions personnel. The development grants proposal would allow educators sufficient flexibility and room for experimentation to anticipate these new requirements—to stay one step ahead of the game.

LOAN FORGIVENESS

Mr. Chairman, we have set our national health goals high. As I have said, it is our goal to provide every American with the best health care possible. In many of the poor rural areas of this country, the manpower problem goes beyond the lack of technical personnel—people cannot get doctors.

The President, in his January 25 message on rural poverty, recommended increased loan forgiveness for physicians who practice in poor rural areas. H.R. 13196 contains provisions which would fulfill that recommendation by extending an additional 5 percent per year of loan forgiveness to physicians who practice in such areas and making possible a total of 100 percent forgiveness for such service. I hope that this incentive will be sufficient to attract doctors to these areas. It is certainly desirable to see whether total loan forgiveness at the accelerated rate specified in this bill would provide the necessary attraction. But, as you well know, there are other factors involved which apparently outweigh purely financial concerns.

STUDENT LOAN CONVERSION

Finally, Mr. Chairman, H.R. 13196 contains provisions for the conversion of health professions student loans from direct Federal financing to a guaranteed and subsidized basis.

H.R. 13196 would amend the current provisions for the health professions and nurses student loan programs primarily by authorizing additional means by which schools might obtain funds which would be available for students loans. Four such methods are provided in the bill which leaves intact through fiscal year 1969 the existing authority for direct Federal appropriations:

1. A school might borrow money from non-Federal sources for deposit in its student loan fund and for making loans to eligible students. The Secretary would be authorized to guarantee repayment of such borrowings (provided the interest paid to the lender is not tax-exempt income); to reimburse the school for up to 90 percent of the loss to it from defaults on student loans made from the fund; and to pay the school the amount of "interest differential"; that is, the amount by which the interest paid by the school on its borrowing needs exceeds the interest paid to the school by students.

2. A school might arrange for a nonprofit student assistance organization to make loans to students, in which case such an organization could borrow funds from non-Federal sources for this purpose and would be entitled to the same kinds of guarantees, reimbursements, and payments just described.

3. A school might arrange with one or more lending organizations for the latter to make loans to students on the same terms on which the school itself is entitled to make loans under the two programs. In such cases the Secretary would be authorized to guarantee to the lender repayment of such loans (including any portion which was canceled), and to pay to the lender an amount which will give the lender a reasonable rate of return after considering the interest the student borrower is obligated to pay. The Secretary could guarantee repayment of loans under this third method only if the school agreed to pay the Secretary 10 percent of the amount of the losses on these loans. This payment would put the school in the same position it would have been if the losses had been on loans made under the regular health professions or nurses student loan program.

4. If a school, for legal or other reasons, is unable to take adequate advantage of one or more of the first three methods of financing its student loan needs, the Secretary would be authorized to make a capital contribution to the student loan fund of the school from a revolving fund created in the Treasury. A school would be entitled to receive such capital contributions only if it agreed to require any student who received a loan financed from this capital to authorize assignment to the Secretary of his notes for that loan and any previous loans. The revolving fund would be financed from appropriations made for this purpose in fiscal years 1967 and 1968. From repayments of Federal fund deposits received from student loan funds of schools and from the sale of beneficial interests or participation in student notes assigned to the Secretary.

These provisions, Mr. Chairman, are the same as those which the President proposed this year in the higher education bill. This proposal, insofar as it applies to the NDEA loans, has already been the subject of hearings in the House before the Special Subcommittee on Education of the Committee on Education and Labor.

As a result of the concern expressed by the members of that subcommittee, we have agreed that for fiscal 1967 the President will request the funds necessary to make up the difference between the funds available from private financing, and the full amount necessary, then up to the full authorization, to finance all of the student loan programs as they now exist.

However, we believe the loan conversion provisions in H.R. 13196 will encourage a more flexible system of financing, and that they should be considered by this committee. It is our hope that the legislation will encourage educational institutions and student lending organizations to seek private capital—but it would not force them to do so. It would be purely permissive.

To the extent that educational institutions and student lending organizations were able to secure private financing, we could reduce the amount of appropriations requested; if no private financing were secured, we would in that event seek the full amount necessary to fund the loan programs.

In closing, Mr. Chairman, I wish again to express the Department's strong support for H.R. 13196 and to urge its enactment.

I am accompanied by Dr. William Stewart, the Surgeon General of the Public Health Service; Dr. Philip Lee, Assistant Secretary for Health and Scientific Affairs; and Mr. James Kelley, the Comptroller for the Department.

We will be pleased to answer any questions the committee may have.

The CHAIRMAN. Thank you, Mr. Secretary. I wonder if you would furnish the committee the cost estimates for the 3-year life of the program. Do you have that figure now?

Secretary GARDNER. Do you want it for each of the subcategories?

The CHAIRMAN. Yes; if you would.

Secretary GARDNER. Let me give you the totals for the training of the allied health professional personnel—$8 million for 1967; $18 million for 1968, and $26 million for 1969.

I can break that down if you like.

The CHAIRMAN. No; that is all right. Give me the heading again.

Secretary GARDNER. The allied health professions personnel. These are the construction grants, improvement grants, traineeship and development, everything except the loan part of the bill.

The CHAIRMAN. What about the rest of it?

Secretary GARDNER. Our figure for the student loans is $16 million for 1967 and $40 million for 1968.

The CHAIRMAN. How much for 1968?

Secretary GARDNER. $40 million.

The CHAIRMAN. That is the total amount of the bill?

Secretary GARDNER. Yes, sir.

The CHAIRMAN. Could you present those figures and the breakdown of them for the record, please?

Secretary GARDNER. Yes, sir; we will submit these for the record.

(The information requested follows:)

Estimated new obligation authority required for fiscal year 1967–69 under Allied Health Professions Personnel Training Act of 1966 (H.R. 13196)

[In millions]

New obligation authority	Fiscal year 1967	Fiscal year 1968	Fiscal year 1969
1. Training of allied health professions personnel	$8.0	$18.0	$26.0
(a) Construction grants	2.0	6.5	10.0
(b) Improvement grants	4.5	8.0	11.0
(c) Traineeship grants	1.0	2.0	3.0
(d) Developmental grants	.5	1.5	2.0
2. Student loans	16.1	40.0	----
(a) Health professions	9.5	20.0	----
(b) Nursing	6.6	20.0	----
Total	24.1	58.0	26.0

NOTE.—The projections contained in this table represent departmental predictions and do not represent the administration position on the future program or budget requirements. Personnel requirements will be dependent on program developments and budget factors which at this time cannot be fully predicted.

The CHAIRMAN. Now on page 6 of your statement you mention the training for the allied health professions:

In order to provide workers to carry out highly skilled specialized professional tasks we must expand and improve the present training programs for allied health professionals at the baccalaureate and advanced degree levels.

Describe for us what you mean by the allied health profession?

Secretary GARDNER. I think I might ask the Surgeon General to respond.

Dr. STEWART. The allied health professionals are a large group of technologists who do the technical support work for the physician, dentist or nurse. There are about 30 occupational groups we are talking about. I have a list of them. I might give you some examples.

The CHAIRMAN. If you would, please.

Dr. STEWART. A bloodbank technologist. A cytotechnologist, dental hygienist, dietician, hospital administrator, medical illustrator, medical record librarian, medical technologist. These are the types of allied professionals we are talking about. It is really the type of individual who has evolved because the technology of medicine has advanced.

Somebody has to do the specialized techniques that have been developed in order to carry out laboratory work or X-ray procedures.

If you have had X-rays taken in the doctor's office it is usually the X-ray technician who takes your picture. They are experts on how to position the patient, what dose to use in taking the picture.

The physician then is the interpreter of the X-ray, what it shows. It adds that information which goes into the diagnosis. In the laboratory the physician does not do all the blood tests and the other tests. These are done by technologists who are skilled in doing the various tests. With the advances in science and medicine in the last 25 years the number of technologists is increasing yearly.

The CHAIRMAN. These are allied health professionals. Would you supply a complete list for the record?

Dr. STEWART. Yes, I can.

May I amplify one bit? The word technologist has now come to stand for the person who has had somewhat more advanced training than the technician. A technician is a person who generally has 1 or 2 years of training who does the bulk of the work in the technical area, that is a sort of mass work, llke the blood counts, this sort of thing. The technologists are generally trained at the baccalaureate and masters levels; they are the ones who do the more complicated technical work, and who supervise the technicians. They also teach the technicians. This is what has evolved.

We will be glad to supply this for you.

The term "allied health professions" has come to be used to cover a variety of technically trained people. They sometimes form themselves into professional groups and others have stayed as a technical group. These are words really.

The CHAIRMAN. All iight.

Secretary GARDNER. Mr. Chairman, we will provide a list for the record.

The CHAIRMAN. I wish you would because these two words "professional" and "technologist" could mean exactly the same.

(The information requested follows:)

LIST OF ALLIED HEALTH PROFESSIONS

With the rapid pace of new medical discoveries and technological developments, the roles, potentialities, and names of the allied health professions are being added to continually. New specialties emerge in response to new developments. The following list of 30-plus professions is grouped into four categories. The first three are not fixed or rigid. The fourth includes those professions now covered under HPEA or NTA.

1. Professions for which preparation is now offered in one or more centers for the training of the allied health professions:

Clinical psychologist	Mycologist
Cytotechnologist	Nuclear medical technologist
Dental hygienist	Nutritionist
Dietitian	Occupational therapist
Food technologist	Physical therapist
Hospital administrator	Rehabilitation counselor
Immunohematologist	Speech pathologists and audiologists
Medical illustrator	Virologist
Medical record librarian	X-ray technologist
Medical technologist	

2. There are some allied health professions which, at present, are not administered or taught by health or medical departments of the colleges or universities. Though medical in orientation, the basic preparation for these professions is such that other departments offer the major portion of training. The courses which are medical or biological in nature could be offered through the school of allied health professions:

Biostatistics	College degree awarded by the math department.
Bioengineering	Do.
Computer programing	Do.
Health administrator	Graduate work in schools of public health.
Health economist	Do.
Health educator	Do.
Manual arts therapist	College degree with major in industrial arts, agriculture, or related field.
Music therapist	Baccalaureate degree in music.
Recreation therapists	Baccalaureate degree in recreation or in physical education with courses in art, music, and drama.

3. Other professions for which all or part of the training might be provided in schools of allied health professions:

Medical social worker	Radiation engineer
Psychometrist	Radiobiologist

4. Professions covered under Health Professions Education Act or Nurse Training Act.

Nurse	Pharmacist
Optometrist	Podiatrist

Dr. STEWART. Allied health professions covers the groups I was calling technologists. The ones requiring the baccalaureate degree or master's degree. This is distinguished from the technicians who are trained mainly in the vocational schools or in the community colleges throughout the country, at a 1- or 2-year level.

This is the distinguishing mark I think between the two groups.

Secretary GARDNER. I think that most professionals would describe this level as subprofessional actually. I would.

The CHAIRMAN. We will accept your description.

I seem to have read somewhere that some one of our professionals said that we succumb to disease, we do not wear out. Is this a sensible statement, that we succumb to disease, we do not were out?

Dr. STEWART. Mr. Chairman, I missed the first part of your question.

The CHAIRMAN. We succumb to disease, we do not wear out. Would that be correct?

Dr. STEWART. Well, I think there is an aging process that goes on, whether one wants to describe it as wearing out or not. There are changes in one's physiology and psychology which occur with age which cannot be ascribed to a particular disease.

Now when these aging processes manifest themselves in something which is visible or can be measured or something like that, then we usually label it a "disease." But there are two different processes. One, the disease may have its own scientific—its own specific cause, whereas the aging process is part of human development—well, the other end of human development in a sense. The two are interrelated but they are two different things.

The CHAIRMAN. I believe this statement came out of a study of the elderly and aging process and I thought I would mention it. It says, again, that if we make the greatest use of our medical knowledge today that we can cut the death rate about in half.

Mr. Friedel.

Mr. FRIEDEL. I was very much impressed with your statement, Mr. Secretary.

Secretary GARDNER. Thank you.

Mr. FRIEDEL. I would like to know more about the student loans. Are they for families that are poor who would not be able to send their children on for further education or would family background be considered?

Secretary GARDNER. You are speaking now of loans, not the traineeships?

Mr. FRIEDEL. Student loans.

Secretary GARDNER. I am going to ask Mr. Kelly to comment on that because he has given special attention to it.

Mr. KELLY. The law requires that the institution making the loan determine that the student requires the loan in order to enter or continue his education. The institution has only limited funds available to it. They are in relatively high demand, therefore it has to determine a method for that institution to allocate its funds to its most needy students. The law does not prescribe a specific requirement as to what the income limit will be. It merely requires that the institution determine that the student needs the loan in order to pursue his education.

Mr. FRIEDEL. I have had inquiries from parents where they applied for a student loan and they were turned down, some that could not further their education unless they had a loan but the school said they were out of funds.

I am a little perplexed here. As I understand it now any student who wishes to further his education has to apply to the school for a loan, and the school itself may in turn make the loan if it has the funds available. Here you mention private loans. That is where I am a little confused.

Mr. KELLY. Under the present arrangement, the only loans that the Federal Government is participating in are direct loans which the Federal Government makes to the contribution of the educational institution. The educational institution puts up one-ninth of the funds and they in turn make a loan to the students.

Last year the Congress enacted the Higher Education Act of 1965 and introduced a new concept which augmented and extended these loan programs which made it possible for States, for private institutions, or direct arrangements between the Federal Government and financial institutions to make loans through private financial institutions to students, these loans being both insured by the Federal Government and the interest being subsidized by the Federal Government.

This new program of insured loans and subsidized loans which was authorized last year is just now getting underway.

No student has yet gotten a loan. The regulations are now in the process of being cleared and discussed with States, the financial institutions and the various loan associations. Twenty States are now ready to enter into agreements, to participate in this private loan program. So that students who have heretofore been turned down because there were inadequate loan funds available and because the family was of a higher income than those who were getting the loans will be able to participate in these insured loans.

Mr. FRIEDEL. Thank you. That is all.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

Mr. Secretary, on this provision that you have about the forgiveness of their loans to doctors in poor rural areas, who is going to determine that means test?

Who is going to determine what is a poor rural area?

The means test of what constitutes a poor rural area, who is going to determine that?

Secretary GARDNER. Dr. Lee will answer that.

Dr. LEE. I think that will be determined primarily at the State level. The State health officer would be one of the people involved in the decision.

Dr. STEWART. The bill provides that the Secretary determines them on the recommendation of the State health authorities.

Mr. YOUNGER. You have provided here 10 percent a year which goes up to a hundred-percent forgiveness. Who is going to determine that, whether you are going to give a 50-percent forgiveness or a hundred percent?

Secretary GARDNER. Under this bill a total of a hundred-percent forgiveness will be possible if the doctor continues to practice for an appropriate length of time in a designated area. I believe it is now 50 percent; is it not?

Dr. STEWART. Yes. At the present time it is 10 percent per year for 5 years which makes it 50 percent. The proposed bill will increase that to 15 percent per year up to 100 percent; at that rate it would take about 6 or 7 years to forgive the whole loan.

Mr. YOUNGER. Now one thing that is rather disturbing to me, and remains unanswered, and you make a very good case of the tremendous shortage of facilities, teachers, technicians, doctors, nurses, every classification.

You make a good case for that big shortage in this country. Yet the bill that we had recently on the training for Foreign Service, which includes training about 800 or a thousand a year, would provide for tuition, per diem expenses, and everything if you want to go into Foreign Service.

There is no requirement for the trainee going into Foreign Service. How are you going to put that load into the schools and into the training programs and at the same time try to satisfy this tremendous shortage that is local?

Where are you going to get the teachers for both of those programs, one right on top of the other? And one of them where you subsidize their entire education complete with per diem and everything else and the other you are not?

Secretary GARDNER. I would like to ask the Surgeon General to comment but first I would like to make one or two basic points. First, the international program does not involve as many physicians as you indicated.

It would be closer to 400. The second thing is——

Mr. YOUNGER. Just a minute. As I recall the testimony—I am not talking about physicians, I am talking about the total personnel—as I recall the figure was given of between 800 and 1,000 at the time of the testimony.

Dr. LEE. Mr. Younger, the international health programs will include a number of other types of health workers—sanitarians, public health workers, and a variety of other types. That is right.

Mr. YOUNGER. But they are all to be trained under the program?

Dr. STEWART. Mr. Younger, under the international health bill the training was beyond the M.D. degree. They would already be doctors. Under that program they would be trained in international health work. That bill was dealing with professionals: doctors, dentists, nurses. This bill here is talking about the allied health professions which is a different group of people.

Mr. YOUNGER. Yes, but you have to have facilities to train them. You have to have teachers to train them.

Dr. STEWART. The Health Professions Educational Assistance Act and the amendments of 1965 are building medical schools and dental schools, and the Nurse Training Act is building nursing schools. We are expanding our capacity for doctors, dentists and nurses. We do not have the capability of training a person in international health work after he has become a doctor, dentist, or nurse.

Mr. YOUNGER. You do not have the facilities?

Dr. STEWART. No. We do not have the training programs. We do not have the means to send the people to those training programs. That is what the international health bill is for.

Mr. YOUNGER. But you would have to provide that, normally it would be in the medical schools would it not?

Dr. STEWART. It may be in medical schools. It could be in schools of public health.

Mr. YOUNGER. Schools of public health or whatever, you have only so many facilities for training. It would not make any difference whether the doctor was already a doctor, he has got to be trained, he has to have a facility to be trained in.

Dr. STEWART. Yes, but I think you are thinking of a medical school as a facility. A university medical center now may be a whole complex of facilities.

Mr. YOUNGER. That is right.

Dr. STEWART. It may be a variety of schools. It may include a nursing school, dental school, and health allied professions school.

Mr. YOUNGER. True. In every one you are short today, in every training facility. I don't care what it is, whether it is a podiatrist or who it is, you are short on training and you are short on personnel.

Dr. STEWART. That is correct.

Secretary GARDNER. May I comment, Mr. Younger?

Mr. YOUNGER. Yes.

Secretary GARDNER. I think your point is well taken. We are short everywhere, we have very, very pressing demands on us. I would simply make the point that with our scarce resources and with the need to allocate those scarce resources we must not only have then in mind the very important tasks of helping sick people in rural areas but we have to try to construct the kind of world in which our youngsters don't have to go to war every generation.

One of the main purposes of the international health act was to initiate the process of international collaboration in an area in which we could work peaceably with people, or mutually understood and agreed upon objectives, in the hope that this kind of peaceful activity could knit together a world that is now torn with war. That too is important.

Mr. YOUNGER. Well, as Shakespeare said that is a "consummation devoutly to be wished," but our experience with foreign aid does not bear out much hope for progress in that field. My 5 minutes are up, Mr. Chairman.

Mr. FRIEDEL (presiding). We are going to adhere to the 5-minute rule.

Mr. Dingell.

Mr. DINGELL. Thank you, Mr. Chairman. Mr. Secretary, I note in your statement that this language appears on page 10:

> It is certainly necessary to see whether total loan forgiveness can be accelerated. Rates specified in this bill will provide the necessary attraction but as you well know there are other factors involved which apparently outweigh purely financial concerns.

Now in the past, Mr. Secretary, this committee has supported partial forgiveness of loans, as you well know. I think the committee might well consider supporting the total forgiveness of the type you have indicated here if it were pretty clear that the committee could expect that it would work.

Your statement here indicates a rather clear reservation as to whether or not this loan forgiveness will in fact work or not;

What I am saying, Mr. Secretary, is that you appear to have hedged your bet on this point. What I am asking is, How on the basis of the reservations that you indicate can you expect the committee to support total forgiveness as embodied in H.R. 13196.

Secretary GARDNER. I would simply say that we tried to state what we regarded are the facts as honestly as we could. I would not say that we doubt that it will work. I think we were trying to state as clearly as possible that it is a partial solution and in a situation of this sort it is a very difficult situation, partial solutions are well worth turning to.

Mr. DINGELL. Do you have any statistical evidence or basis of experience that you can communicate to the committee at this time that would indicate that this will help meet the shortage of the particular kind of people referred to, the shortage of medical personnel, the type referred to in the act?

Dr. LEE. We have some evidence from certain programs that have been going on in States and we can certainly get that information and make it available to the committee. We do not have it immediately available.

(The information requested follows:)

STATE SCHOLARSHIP-LOAN PROGRAMS FOR MEDICAL STUDENTS, AS AN INCENTIVE FOR PRACTICE IN RURAL OR OTHER SHORTAGE AREAS

Some States for a number of years have supported programs for loans to medical students, repayable wholly or in part by practice in areas of physician shortage. The loan programs vary in their provisions, but a common pattern is to require 1 year of service in a rural or other shortage area in exchange for every year of loan aid.

Although there is little published information on the effectiveness of such programs in recruiting needed personnel, available data suggest that their success is mixed. Some loan recipients perform their obligated service as intended; others choose to repay the loans in cash. Of those who do perform obligated service, by no means all remain to make a career In the area.

For example, of 222 students receiving Virginia rural physician scholarships between 1942 and 1964, and entering practice during that time (i.e., no longer performing military service or completing internships), 94 or about two-fifths have repaid all or part of their indebtedness through practice in an approved location. A slightly higher proportion have repaid their loans in cash and the remaining cases are pending. A recent followup survey of University of Virginia and Medical College of Virginia graduates who aid obligated service showed that somewhat over half were still engaged in general practice in the same area.

Experience in other States has tended to be similar, with some variation in the proportion of graduates meeting service requirements. Among the deterrents to rural practice are reported to be the desire to enter specialty practice, professional isolation in small towns, lack of nearby hospital and laboratory facilities, heavy workload of rural general practitioner, and preference for city living.

The following reports give some idea of experience to date:

ALABAMA—MEDICAL SCHOLARSHIPS PROGRAM

(Information from Ira L. Myers, M.D., Secretary, Alabama Board of Medical Examiners, February 1966)

In the years 1953–59, 46 scholarships were awarded. Seventeen of this number, or about 40 percent, have repaid their loan in money rather than service. Several are delaying their repayment pending military service or special training obligations.

The experience since 1960 is incomplete since these obligations have not yet become due.

There has been considerable disappointment with the program as a device for inducing physicians to work in sparsely populated areas. In May 1965, the program was amended to provide for relatively shorter service requirements for persons practicing in communities of less than 5,000 population, among other changes.

ARKANSAS—MEDICAL STUDENT LOANS

(Office of Education Survey of State Scholarship and Loan Programs, 1960–62)

Of 27 medical students awarded loans in the 5-year period 1953–58, 2 had already repaid their loans in cash and 3 had had loan payments canceled by medical practice in rural communities (as of 1960).

FLORIDA—MEDICAL SCHOLARSHIPS PROGRAM

("A Brief Summary of Florida's Medical Scholarship Program, Nov. 18, 1965." Obtained from Dr. Robert V. Schultz, Training Coordinator, Florida State Board of Health)

Since 1955, 123 scholarships have been granted to medical students, including 6 to osteopathic students. Of these students, 87 have graduated; and the status of the graduates is as follows:

Twelve have engaged in practice in areas of need, as designated by the State board of health, repaying all or part of their indebtedness in this way.

Eight are serving internships.

Twelve are pursuing residency training (one in violation of scholarship contract).

Fifteen are in military service.

Thirty-eight have repaid in cash, are in the process of repaying, or are subject to collection proceedings.
Two are pending.

GEORGIA—MEDICAL STUDENT LOANS

(Office of Education Survey of State Scholarship and Loan Programs, 1960–62)

During the 9-year period 1953–62, 343 medical students received loans. By July 1, 1962, 13 physicians had completely repaid loans totaling $36,500 through service in the smaller Georgia communities, 23 were serving 1-year residencies, 13 were in the Armed Forces, and remainder were still in medical school, serving internships, or fulfilling their obligations through service or monetary repayment.

Letter from L. R. Siebert, secretary of State Medical Education Board of Georgia, June 24, 1960:

"At the present time there are approximately 30 doctors who are repaying their scholarships by practicing in rural areas. There will be approximately 15 additional doctors to begin practice on July 1, 1960 * * *.

"We feel that the program. * * * is a very effective means to provide the State with much needed physicians * * *."

KENTUCKY—RURAL MEDICAL SCHOLARSHIPS

(OE Survey of State Scholarships and Loan Programs, 1959–62)

As yet experience with the loan cancellation option of the program has been so limited that it is not yet possible to tell what effect it will have on supplying physicians to the counties most in need of medical service.

Letter from J. P. Sanford, secretary, Rural Kentucky Medical Scholarship Fund, June 21, 1960:

"Medical students receiving loans since the inception of the program total 197. Of this number, 115 have completed medical school. Of the 56 practicing in rural areas, 27 have fulfilled their moral obligation to the fund and 29 are now in process."

MISSISSIPPI'S MEDICAL-STUDENT LOANS

(D. S. Pankratz and Julis C. Davis. "A Review of Mississippi's Medical Education Program." Journal of Medical Education, April 1960.)

Of a total of 609 participants in the program, 511 had graduated and their status was as follows:

Total	[1] 511
Completed obligated service	115
Still performing obligated service	181
Practiced 2 or more years and repaid balance of loan	61
On military leave, in internship or residency training	86
Deviated from contract	78

[1] Excludes students who failed or withdrew, died, or were still in school.

NOTE.—Since 1960, loan recipients in Mississippi must do obligated service and also repay loans plus interest.

NORTH CAROLINA—LOANS FOR STUDY IN SELECTED HEALTH PROFESSIONS

(Information provided by William F. Henderson, Executive Secretary, North Carolina Medical Care Commission, Feb. 9, 1966)

Of 184 medical students who received loans since the beginning of the program in 1945, 138 had graduated and their status was as follows:

Twenty-seven were in postgraduate training or military service.
Seventy-six had completed obligatory practice (51) or were engaged in it (25).
Thirty-five had defaulted on their service obligations.

SOUTH CAROLINA—MEDICAL SCHOOL SCHOLARSHIPS

(Information provided by Dr. G. S. T. Peeples, South Carolina State Health officer, Feb. 3, 1966)

Of the students granted scholarships (eight annually), only about 10 percent have fulfilled their service contracts to date. About 70 percent have repaid the money with interest.

VIRGINIA—STATE RURAL PHYSICIAN SCHOLARSHIPS

(Letter from Mack I. Shanholtz, M.D., State health commissioner, Department of Health, Commonwealth of Virginia, Jan. 7, 1966, and attachments)

Since 1942 Virginia has had a program of scholarships to medical students who agree in return to practice in rural or certain other shortage areas for a specified length of time. The program currently provides for 20 scholarships annually to the University of Virginia School of Medicine, 20 to the Medical College of Virginia School of Medicine, and 10 to the Virginia State College for Negro students attending Meharry Medical College.

Originally the law provided that the scholarship could be repaid as a loan, but this item was deleted in 1948. In the current law, provision for repayment as a loan is allowed if the recipient withdraws from the program before graduating, if he fails to maintain his scholastic standing, if he becomes permanently disabled, or if at any time he "demonstrates a peculiar and unusual ability and aptitude in a special branch of the medical sciences and, in the opinion of the faculty * * * would be a loss to the field of medical research and science if he did not go into that branch of medical science for which he has demonstrated extraordinary ability." The latter provision has been used three times.

As of May 1965, experience with practice obligations among medical students through the 1964 class was as follows:

	Medical College of Virginia		University of Virginia		Meharry Medical College	
	Students	Percent	Students	Percent	Students	Percent
Total	99		87		44	
Approved practice location	50	51	39	45	5	11
Approved repayment	30	30	42	48	32	73
Pending	13		4		7	
Failed	6		2			

Mr. DINGELL. Now there are some other questions here that I would like to discuss with you, and in referring now to the student loan provisions, is it fair to say that it is the experience of the Department of Health, Education, and Welfare that NDEA student loan provisions have worked well over the years in terms of stimulating educational activity?

Secretary GARDNER. Yes, sir.

Mr. DINGELL. Is it also fair, Mr. Secretary, in saying that this particular program has operated with fairly limited cost to the Federal Government?

Secretary GARDENER. Yes, sir.

Mr. DINGELL. One of the virtues of this particular program, as I understand it, has been the relatively simplicity of the program. Am I correct?

Secretary GARDNER. Reasonably—reasonable simplicity; yes. It has not always been simple for the colleges to administer these programs. And it certainly will not be simple in the future as the number of loans, the number of students covered rises rapidly.

Mr. DINGELL. I understand that. But in terms of legislative drafting and having to apply for and belong to only one program it has been a fairly simple and effective program, has it not?

Secretary GARDNER. Yes.

Mr. DINGELL. Mr. Secretary, I notice you are setting forth in your statement, as embodied within the provisions of the legislation before this committee no less than four alternatives which would now be available to participating institutions under this particular program?

Am I correct?

Secretary GARDNER. Yes, sir.

Mr. DINGELL. This is somewhat a proliferation of different programs to accomplish the same end. Am I correct?

Secretary GARDNER. Well, accomplishing an end which we regard as more advantageous. We think we are getting something for these complexities.

Mr. DINGELL. Can you fairly say that this is going to make for simple administration?

Secretary GARDNER. No, sir. I think that this in some cases may be fairly complex. But I think in some cases it may enable the college, which is not, after all, primarily a lending institution, to unburden itself of some rather complex administrative obligations—complex now and certain to become more burdensome as the load of student loans rises.

Mr. DINGELL. Do you anticipate or can you give this committee some idea of the rise in loans you anticipate or rise in student loan demand under NDEA or similar programs so that we can perhaps understand the wisdom of the four alternatives to the present device?

Secretary GARDNER. Let me just say that one of the basic reasons for moving in this direction is to expand the number of student loans, to permit more students to be covered under the load provisions than could be covered if we simply relied on Federal financing.

Mr. KELLY. I would like to say, Mr. Dingell, that we are endeavoring to parallel in the health profession and nurse program student loans the concepts that are being proposed with respect to all of the college student loan programs.

The health profession student loan program would not be expanded. It would be at the amount authorized and estimated as the amount required but it would parallel the program in which there would be very great expansion. It is anticipated that there will be somewhere between $500 and $900 million worth of additional loan funds made available as a result of last year's enactment of the Higher Education Act which provided for a loan insurance program with subsidized interest and that all that we are endeavoring to do is move in the direction of the use of that program to the maximum extent possible and minimizing the use of the program which requires Federal outlays.

Mr. DINGELL. What you are saying essentially then is that you are trying to increase the availability of loans and made more simple the participation by institutions of higher learning in this type of program?

Mr. KELLY. That is right.

Mr. DINGELL. Can you submit to the committee some statistical basis on which we can make a judgment that this in fact will happen and perhaps set aside the fears that have been expressed by—to me by some of the educators in my district that this kind of program

would be essentially a device to get the Federal Government out of the business of assisting students who seek Federal loans under the old NDEA program?

Mr. KELLY. I think there was a great misunderstanding with respect to it. I don't think the Government is stepping out of the assistance but making the assistance available to a larger number of students by use of the insured loans and subsidized interest.

Mr. DINGELL. Thank you.

Mr. FRIEDEL. Mr. Nelsen.

Mr. NELSEN. Thank you, Mr. Chairman. I have a question pertaining to the interest rates involved in this proposal. As I recall your statement, Mr. Secretary, if a student is financed through a lending institution, such as a local bank, and if the interest that the local bank charges the school is greater than the interest that the student pays the school, then the program will make up the difference. Is there any way of knowing whether this local interest rate might suddenly climb to unpredecented heights because of the knowledge that there is a backstop to it?

Is there any way to regulate that under the bill?

Secretary GARDNER. Mr. Kelly?

Mr. KELLY. We wrote the provision in the act in such a way that it would not freeze into law a figure and require legislation to change it. But the concept is that there will be a careful determination that the interest rate is the prevailing interest rate for this kind of loan and that because of the guarantee feature that there will not be an accelerated interest.

The Higher Education Act of 1965 provided that the interest rate would be 6 percent except under certain unusual circumstances where the Commissioner of Education could authorize 7 percent.

Mr. NELSEN. Thank you. The National Defense Education Act—I am not on the Education and Labor Committee but as I recall the forgiveness features in this bill would apply only to certain types of services, for example, teaching in science, is that not true?

Secretary GARDNER. Teaching.

Mr. NELSEN. Yes. Is it possible that a wider range of forgiveness should be written into the National Defense Education Act so that the premed students and prenursing aids would be encouraged to move into these professions?

Has that been given any thought?

Dr. STEWART. I don't think at the present time there is any lack of students to go into nursing, medicine, or dentistry. The problem is that our capacity for education is not large enough to take all the students. So, an incentive to go into medicine or into dentistry or nursing which loan forgiveness under NDEA provides, is really not necessary at this point.

Mr. NELSEN. I notice that it was suggested that the National Defense Education Act, would apply to a greater number of persons, but how does that square with the fact that the Budget Bureau has cut back drastically the amount of money available under the National Defense Education Act?

How do you take in more if you have less money with which to do it?

Secretary GARDNER. You are referrring to the money available for student loans?

Mr. NELSEN. Yes.

Secretary GARDNER. The Budget Bureau has now stated that it will seek authorization or that it will seek funds up to the total amount of the authorization if they are needed for these student loans. This has been worked out with the education committee.

Mr. NELSEN. Fine. I think that is a great step.

Secretary GARDNER. I will say that part of the anxiety which was mentioned earlier by Mr. Dingell on the part of the universities and colleges was the early impression that there would be an abrupt transition away from a well-known and liked program.

Later discussion and negotiations with Mrs. Green's committee have cleared that up, I believe, completely. We now have the basis for a clear and workable transition which will not force anything and which will permit the NDEA to remain in effect to the full amount needed.

Mr. NELSEN. Thank you. I have no more questions, Mr. Chairman.

The CHAIRMAN. Mr. Rogers.

Mr. ROGERS of Florida. Thank you, Mr. Chairman. Mr. Secretary, in the program are you including the junior colleges as well as the baccalaureate?

Secretary GARDNER. Not in this particular program.

Mr. ROGERS of Florida. Why not?

Secretary GARDNER. This is an attempt to provide the seed corn. These are the people who will be the sort of people who will eventually teach in the junior college programs. As you know, the 1-year, 2-year, 3-year programs have expanded tenfold in the past 10 years. There has been an amazing increase in the production——

Mr. ROGERS of Florida. Excuse me. I did not get that figure.

Secretary GARDNER. These programs have expanded tenfold in the past 10 years under the vocational education provisions. This is quite a remarkable development. It must expand even further but they need teachers. This is an attempt to work down from the Health Professions Act, the training of the next level of educational performance. Out of this group will come the individuals who will be able to supply the need for teachers in the 2-year colleges.

Mr. ROGERS of Florida. As I understand it this is only a training program for teachers? Is that what you are saying?

Secretary GARDNER. No, it is both.

Mr. ROGERS of Florida. Now you don't use the junior colleges for actually training the dental technicians or the X–ray technicians or the——

Secretary GARDNER. Do you want to answer this, Dr. Lee?

Dr. LEE. Yes, Mr. Rogers. They train a large number of technicians. One of the problems, of course, is teachers for the technicians.

Mr. ROGERS of Florida. As I understand the Secretary, he said for teachers they would go to the baccalaureate, the graduate schools. I understand this. I am talking about the people you want to train and increase the personnel.

How are we going to use our junior colleges in the program?

Dr. LEE. At the present time their programs are being expanded fairly rapidly. One of the problems with respect to this expansion is the shortage of teachers in these programs. One of the objectives of this program is to create the teachers. There are two other purposes of this program: one is to develop supervisors, for example, the

supervisors of nonprofessionally trained laboratory technicians and, finally, to develop highly specialized technologists (chemistry, microbiology) and so forth.

Mr. ROGERS of Florida. All right. Then you don't include your junior colleges at all even in the training of the personnel as such?

Dr. LEE. Not in this particular bill but in the programs that the Department administers, particularly those through the Office of Education there are programs in the junior colleges which are being expanded for the training of technical people, cytotechnologists, for example.

Mr. ROGERS of Florida. Let me ask you this, and we are limited in time here so I have to get in a number of questions if I may. Why is it a junior college could not get a construction grant if they are able to handle the program. If they make a showing then they can train the people, why should they not be able—not be eligible to get it? What we want to do is produce the personnel to meet the problem of the critical shortage.

Dr. LEE. We have existing programs and they do get construction grants.

Mr. ROGERS of Florida. We have had existing programs to train these people too in the health profession field.

Dr. LEE. The existing programs for the allied health professions, at baccalaureate and advanced degree, except in a few specific areas such as physical therapy, is limited.

Mr. ROGERS of Florida. You have the authority to do it though, you say iucrease their student body 2½ percent and so forth. Haven't we agreed to train people that can be used to teach nursing?

This is what you told us in the Nursing Training Act.

Dr. LEE. In this field, like medical technology, there are great shortages and we are expanding programs to meet that need.

Mr. ROGERS of Florida. Now we are providing that for the training of these teachers. What I am getting at is why won't you let the junior colleges which have the capacity to train people immediately participate in this program?

Why not, when the capacity is here? This has been one of my main concerns. We turn this accrediting program in nursing over to the National League of Nursing, a private institution, to determine whether public institutions are going to get Federal tax funds. We don't decide it here in the Federal Government. You have turned it over to a private group. You let the private group determine who is going to get Federal funds under your program.

Now in your State the State has said to the junior colleges, "We want you to be accredited by a State or regional accrediting agency." There is no objection to that. But to come down to make you accredit every program is what the board of education does not want in Florida.

So, you are not going to allow the junior colleges of Florida to participate where they are now turning out nurses and can help iron our nurses, increase the program, when we have one of the most fantastic shortages in the health field in the nursing area.

You are not taking advantage of the program because you are letting the National League of Nursing say, "Well, we are not going to accredit you unless you come and do what we want you to do."

Dr. LEE. We have a committee in the Department under the Under Secretary——

Mr. ROGERS of Florida. Unfortunately the committee has not done much good. Now they have met and they have said, "We are still going to use the National League of Nursing." Which is all right, I think it is fine to work with the nurses to try to keep as high standards as we can but we have to be more imaginative and to use these facilities to turn out nurses, dental technicians, and they are doing an excellent job in training in this area, and we don't want to get out of the old pattern.

This is what strikes me as being unimaginative in the Department now. Mr. Secretary, this is a sincere concern, that here is a facility of some 700 junior colleges, in the country, more now, who can really do a job for you.

But this needs to be gone into thoroughly. It does not mean you have to lower standards. But we have to get around some way of turning over decision, and actually they all have to pay so much and—so much money and I think it goes up to $650 to get a team down there eventually in the second year to be accredited.

I don't know if this ought to be required for Federal funds, to have a private agency be the ones to decide if they are going to get them. I think we are overlooking a great reservoir of the supply of nurses, dental technicians, and all your paramedical particularly, in not cranking in the junior colleges in the Nation. I think this is the biggest deficiency in your whole program.

I am a strong supporter of what you have to do. We have got to do it. I hope you can give some personal attention to this problem because I am not satisfied that it has been handled properly because we have just told them—we have just followed the old pattern, Mr. Secretary.

Secretary GARDNER. Mr. Chairman, I have a great deal of sympathy with what Mr. Rogers has said. I have been a long-time friend of 2-year colleges and I have recognized their potential. I happen, personally, to believe that it would be most regrettable if the Federal Government ever got into accreditation of these institutions.

So we really are led to seek other bodies. It is very, very difficult when a profession such as nursing has traveled the long hard road of raising its standards to bypass them cavalierly.

Mr. ROGERS of Florida. I understand. I don't think you have to bypass it. I think it can be in conjunction somehow with some different approach. I don't think we have it yet. With the tremendous shortages that we have I think we have got to use these facilities. In our State the graduates of the junior colleges nursing programs are placing at the top of the list in the examinations. Now I would be hopeful that you could work out something where the junior colleges have to work with a hospital maybe a year before they are given, I think it is essential. But in this program I would think particularly this could be done.

One other question and then I will conclude because I know my time is up. I wonder if we are really requiring enough increases in student bodies to warrant the aid we are giving, a 2½-percent increase for this or three students is a minimum, and 5 percent in construction loans. Most of these schools are probably turning out 20 to 80 students, aren't they?

Dr. STEWART. Much smaller than that. The average technology school now is 5 to 7 students.

Mr. ROGERS of Florida. You are talking about increasing how many?

Dr. STEWART. One, two or three at this time.

Mr. ROGERS of Florida. This is not very imaginative or doing much good, I would stay.

Dr. STEWART. This is one of the reasons why——

Mr. ROGERS of Florida. I think this is a sop to the committee to think that we are increasing something when we really are not.

Dr. STEWART. No, sir; it was not intended that way.

Mr. ROGERS of Florida. I don't mean that you were but I think to us it is.

Dr. STEWART. That is one of the reasons why the requirement of 20 students had to be in the curriculum to even qualify, because the numerous small schools cannot produce the personnel you are talking about. It is difficult to talk about a faculty of a school for five students.

Mr. ROGERS of Florida. Could you not look over this and see if this could not be increased before we act on this bill?

Dr. STEWART. Yes, sir.

Mr. ROGERS of Florida. Thank you, Mr. Chairman. I have other questions but I will pass them now.

The CHAIRMAN. Mr. Kornegay.

Mr. KORNEGAY. Thank you, Mr. Chairman. First, Mr. Chairman, I would like to echo the sentiments of my colleague from Florida regarding the great job that technological and technical institutes of this country can do. Last Friday I had the pleasure of spending most of the day in an outstanding technical institution and college in my State, the Guilford Technical Institute. This extremely fine educator who is president of the institute went into great detail with me about his struggle to go into a program to train practical nurses.

He finally was able to get the approval of the State nurses committee to put in a program. He had the teachers, he had the facility. He had everything he needed. The committee was extremely reluctant to let him go into it, saying he had not graduated anybody so they couldn't approve it.

He ran into all kinds of redtape. Finally, when he did get permission, they said he would have to restrict it to 20 students. He said, "I could train 50 just as well as 20."

They are the things that are happening down on the homefront. They are the things that are—that Mr. Rogers and I hear about and know about. If there is this dire shortage, something ought to be done to cut through all that redtape and all those stumbling blocks that the people on the homefront have to contend with, the people who are trying to do something to alleviate the shortage.

Now on this business of getting people, particularly doctors from rural areas, I don't know that adding to the forgiveness feature of the bill is going to add much to it because a few thousand dollars is not a whole lot of money to a doctor.

What generally happens, and I have gone into this in my State, the doctor goes to a rural area and while I mean no offense to the lady present, what happens is that after 3 or 4 months his wife gets tired of it. They don't have the social opportunities that they have in the big cities and the first thing you know the poor fellow is caught between the patients and his wife.

He throws his hands up and says, "Honey, we will go back to Charlotte, Richmond, or Palm Beach."

That is what is happening. My suggestion may sound on the surface as being somewhat facetious but we need to get the medical schools of the country to give more consideration to admitting more of the country boys and country girls, people who are raised in the rural and remote areas. There is always a natural inclination for folks to go back to where they came from. I think that would solve a great problem rather than trying to say we are going to give financial awards for going into these particular areas.

Let me ask you this. In 1963, Mr. Secretary, we passed H.R. 12, the Health Facilities Act, and can you give us a report at this time on the increase in the production of doctors, dentists, opticians, all these people who were included under that bill.

Secretary GARDNER. Mr. Kornegay, on the first page of the report I indicated that under the health professions assistance act grants to date will result in the addition of 885 new first-year places in medical schools, 372 new places in dental schools, 1,125 new places in nursing schools.

Mr. KORNEGAY. I am glad to see that, because I think that as Mr. Rogers indicated, it is one of the things we are really interested in, production, turning out the medical personnel to do the job.

Now this bill, as I understand it, or this proposal, which you offer here will in effect supplement the acts we have already passed.

Secretary GARDNER. Yes, sir.

Mr. KORNEGAY. The bills we passed, H.R. 12, the nursing act, and maybe others to take care of people in the paramedical field. Does this bill include physical therapists?

Secretary GARDNER. Yes, sir.

Mr. KORNEGAY. Is there any area of the health field that this does not cover?

Secretary GARDNER. Pardon me.

Mr. KORNEGAY. Is there any specialty in the health field that this does not cover?

Secretary GARDNER. Let us ask the Surgeon General.

Dr. STEWART. It covers the allied health professions that require a baccalaureate or masters degree in their field.

Mr. KORNEGAY. Do you have to have a baccalaureate degree to be a physical therapist or a general technician?

Dr. STEWART. As I tried to explain earlier there are two levels of people who work, say, in a laboratory. There are technicians who are getting their training in the community colleges. Then there is the technologist who runs the place. There is a difference between the training that goes on in the community colleges—where some 40,000 or 50,000 people being trained now at the technician level—and the person who is going to get the technology training of the baccalaureate or masters degree who will be the supervisor of this group, where at the present time the schools graduate around 5,000 each year.

Mr. KORNEGAY. What about nurses?

Dr. STEWART. The same thing is true in nursing.

Mr. KORNEGAY. In other words, under this program a person has to have a baccalaureate degree.

Dr. STEWART. For this particular program. If you fit it into the context of all the programs including those of the Office of Education

then it is filling a gap which is not covered by the programs or the Health Professions Assistance Act.

Mr. KORNEGAY. This fellow I was telling you about at Guilford Technical Institute said what he was trying to do is train people who take care of the sick.

I yield to my colleague.

Mr. DINGELL. Isn't it true that we have supervisory nurses who have degrees from 2-year colleges who provide precisely the kind of supervisory function within the hospital and health institutions that we are discussing right now?

Dr. STEWART. I think that is true. I think it would be highly desirable if they had more training.

Mr. DINGELL. Except that they are providing service. They are certified by the States and hospitals to provide this service and they are doing so satisfactorily.

Isn't that so?

Dr. STEWART. Well, I think that the feeling is that the nurses who are going into the higher supervisory levels or into the teaching levels should have a baccalureate or masters degree. These are highly responsible positions which supervise a large number of nurses in the hospital and have a major effect on the quality of nursing care in that hospital.

Mr. KORNEGAY. We are trying to get nurses now.

Dr. STEWART. The programs are designed to increase large sums—large numbers of nurses. The Nurses Training Act covers several levels of nursing. The Office of Education covers the practical nursing training.

Mr. KORNEGAY. Our concern is the production of numbers, to get the people who are required. I had a 2-week stay in the hospital several months ago. Some of the best nurses who looked after me had not been any closer to a college than I have to a convent.

Dr. STEWART. I don't mean any disrespect, Mr. Kornegay, but I an not sure you are a good judge of what is good nursing care.

Mr. KORNEGAY. Well, they got me well in a hurry.

Let me ask the Secretary one question. This may be a little bit afield but it is of great interest to me and my people. Mr. Secretary, if this bill becomes law do you propose to promulgate the same type of rules and regulations in carrying it out as you have under the Elementary and Secondary Education Act?

Secretary GARDNER. Do you refer to any specific regulations?

Mr. KORNEGAY. I am talking about these guidelines that were promulgated the other day by the Commissioner of Education.

Secretary GARDNER. I would assume so; yes, sir.

Mr. KORNEGAY. That's all I want to hear

Secretary GARDNER. Mr. Chairman, may I say a word about the levels of training?

This is a battle that I have fought for many, many years. It is perfectly clear that we can no longer function in a situation in which we have people who are only trained at the level of the Ph. D. and the M.D. and postdoctoral specialties of various kinds.

It is equally clear that we can't shoot entirely for numbers and low levels of training. We must constantly think in terms of varying levels of expertness, in a kind of hierarchical or team relationship, each taking his role in the team according to his level of expertness. This is simply a bill designed to hit a middle level of expertness.

It has to be seen then in the context of earlier efforts to deal with higher levels of expertness and lower levels.

We would not wish to diminish the importance of any other level.

The CHAIRMAN. Mr. Pickle.

Mr. PICKLE. Thank you, Mr. Chairman.

Mr. Secretary, I was not here to hear your full statement, so the questions I have may have been asked. But briefly, when you make reference in this measure to openended appropriations were you asked specifically how much was involved for both training and development?

Secretary GARDNER. Yes, sir.

Mr. PICKLE. I have been told that you estimate the total of $42 million on a 3-year basis for training and $56 million under the loan program for the years 1966, 1967, 1968 or a total of $98 million. Is that right?

Secretary GARDNER. The figures I have here are $8 million for the training of the allied health profession personnel for 1967, $16 million for the student loans for 1967. A total of $24 million.

Mr. PICKLE. I am speaking now of the total for both the training and the loans in all phases.

Secretary GARDNER. Yes.

Mr. PICKLE. I am told it is more than that, that they total $98 million.

Secretary GARDNER. You are speaking of the 3 years, 1967, 1968, and 1969?

Mr. PICKLE. Yes.

Secretary GARDNER. Yes; it runs to about $108 million.

Mr. PICKLE. About $108 million. Now is there an understanding on your part that this will be spelled out specifically in sums rather than open-ended amounts?

Secretary GARDNER. Yes, sir.

Mr. PICKLE. Did I understand you to say that Congresswoman Green would be for this measure or do you have any idea?

Secretary GARDNER. I cannot speak for Mrs. Green.

Mr. PICKLE. You don't know whether she would be opposed to it or for it?

Secretary GARDNER. I talked to her in Portland last Monday. She gave me a copy of the letter from the Budget Bureau which she appeared to believe cleared up the misunderstanding which had arisen and established the basis for an orderly transition, a permissive transition, from the NDEA loans to privately financed loans.

Mr. PICKLE. Is it the intent of this bill to start this transition so that in time this type of program would supersede and replace the NDEA program?

Secretary GARDNER. I am afraid I did not fully understand the question.

Mr. PICKLE. You said this would be a good transition or a beginning. Is the purpose of it to put additional funds in such measures as represented by H.R. 13196, which would eventually replace the NDEA program?

Secretary GARDNER. I would like to ask Mr. Kelly to respond to that one.

Mr. KELLY. I think, rather, Mr. Pickle, what we are suggesting as the transition is the transition from a district Federal loan to a loan

which is procured from a private financial institution but with a Government guarantee and a subsidy of interest.

Mr. PICKLE. Then you envision the same type of NDEA program, plus this program which would be represented more by the Government underwriting private loans?

Mr. KELLY. Then I think that we would envision that both the NDEA program and the health profession loan program would be continued but with emphasis on private rather than public financing.

Mr. PICKLE. That is a good point but I think we are going to run into the question, probably on the floor, are we proliferating these training programs rather than putting them under one? This we probably will be faced with.

Mr. KELLY. That is right. What this legislation does, Mr. Pickle, is continue the exact same number of loan programs as now exist and merely place the emphasis on private financing. It does not increase the number of loan programs nor decrease them.

Mr. PICKLE. If it does not increase or decrease the number of loan programs how many more people do you think would be under this measure H.R. 13196 than are presently being trained?

Mr. KELLY. From the sutdent loan standpoint?

Mr. PICKLE. Yes. Let us take student loan first. From a student loan standpoint this would not increase the number of loans made because then it would merely convert those loans from direct Federal loans to the private insurance loans.

With respect to the student loan program under the National Defense Education Act and the Higher Education Act of 1965 there would be a very substantial expansion in the number of student loans that could be made.

More specifically, what I am asking is, How many more people will be trained under this measure than are presently being trained?

Dr. LEE. For the allied health professions, Mr. Pickle, it is difficult to estimate at this time. We estimate it may be as many as 3,000 or 4,000 a year more who will be trained annually as a result of this program once it is in full swing.

Mr. PICKLE. As much as 3,000 to 4,000?

Dr. LEE. In the allied professions.

Mr. PICKLE. I am glad to get that number.

I have one other question. Is this money that will be specifically outlined, $108 million in the budget, in the President's budget?

Secretary GARDNER. It is in the 1967 budget.

Mr. PICKLE. Thank you, Mr. Chairman.

The CHAIRMAN. At this time I would like to clarify something if I might on the purposes of this bill. I think there has been some misunderstanding. The Secretary's statement says: "In order to provide supervisors and teachers for subprofessional workers and to provide workers to carry out the highly skilled space professional tests we must expand and improve the present training programs" and so on.

Does this mean the ordinary nurse at the nursing level or one who has graduated from a hospital or 2-year school?

Mr. STEWART. No, sir; it does not include nurses per se.

The CHAIRMAN. That is what I wanted to clarify. This does not include that type. Nurses have specifically been brought up. We need them, of course, but there are other programs which will turn

them out. If we would include nurses under this bill would not this duplicate another act we have?

Dr. STEWART. Now, yes; because the Vocational Education Act now provides funds for the training in the community colleges and the Nurses Training Act provides for the nurses under the 3-year programs. This bill is aimed at baccalaureate-masters for those three purposes you read just a moment ago.

The CHAIRMAN. That is the reason I want to clarify it now. This is not intended to cover the 2-year school. I have a 2-year college in my hometown. I used to teach there and was the athletic director. I have a daughter going to nursing school at the university for the very reason I thought she should get a baccalaureate degree. I certainly would not want someone who goes to a 2-year college to be on the same level as her. This bill is to provide for those who do train at a higher level?

Dr. STEWART. You are quite correct, Mr. Chairman.

The CHAIRMAN. If they were included it would duplicate programs that are now in effect?

Dr. STEWART. That is right.

The CHAIRMAN. Mr. Murphy.

Mr. MURPHY. Mr. Secretary, has the AMA expressed a position on this legislation?

Dr. LEE. I have discussed this with Mr. Taylor, who is on the staff of the AMA. They have had the bill reviewed by their council on medical education, but it has not yet been reviewed by their council on legislative activities. Until the councils have reviewed and approved the bill the AMA will not take any official position.

Mr. MURPHY. Mr. Kornegay and Mr. Rogers worked on this one particular point but where people have been in the profession of nursing for years, do they get any on-the-job-training credit toward their degree?

Let us say one of the registered nurses, fully accredited by the community and accepted and on the staff of a hospital, do they get any credit toward a degree, say for so many years of service in either an operating room or running a ward or maybe teaching within their facility?

Dr. STEWART. There may be exceptions but the answer generally is, "No," they do not.

Mr. MURPHY. Is there any reason why they don't?

DR. STEWART. Well, this is the requirement—this is a practical experience, on the job experience. When one gets into what qualifies one for baccalaureate degree we are not inclined to give credit for experience in the other places. This is true not only in nursing but in many fields, too.

Mr. MURPHY. We have a critical need for these personnel not only in the city areas but our veterans' hospitals cannot get adequate nurses and technicians in the New York area. In the upstate rural areas we run into the same problem that Mr. Kornegay brought up, how are you going to get them down on the farm after they have seen Charlotte?

You just can't keep doctors and trained people out in the rural areas. You really have a problem to try to meet that.

Dr. LEE. We might make one comment on the Veterans' Administration. There is legislation now pending before Congress that will

permit them to train more of these allied health professions, particularly in medical technology so that they will be better able to meet some of their own manpower needs.

The CHAIRMAN. Mr. Mackay.

Mr. MACKAY. Mr. Secretary, I want to thank you for this fine statement in support of this bill. As you know, I have a citizens' panel in my district which is heavily oriented toward the health professions. They have screened the bill and think it is a good bill.

However, Chairman Godwin who has just been president of the Fulton County Medical Society has written a letter to Dr. Lee raising the point which reflects the community hospital point of view. He states:

> This bill directed toward the university programs is good. However, it reflects the lack of understanding that most people are treated in the community hospitals and that the major training of paramedical personnel is in nonuniversity hospitals and the community hospitals need assistance to carry out the programs which will improve the level of practice throughout the country since most of the patients are cared for in these institutions.

Now I come from an urban district, and the community hospital is a tremendous instrument for providing health services and training. Does this bill reflect a lack of understanding or disagreement with what Dr. Godwin stated here?

Secretary GARDNER. Mr. Mackay, Dr. Lee has spent some time with Dr. Godwin. I would like to have him comment.

Dr. LEE. Mr. Mackay, I spent a good part of Sunday with Dr. Godwin. We went over this in great detail. I think he will testify before this committee in support of this legislation. It is very clear that the community colleges and the community hospitals together can very definitely participate in this program.

There are many 4-year colleges, such as some in Atlanta, that are training members of the allied health professions. Many of these students have their clinical training, their fourth year in medical technology, for example, in community hospitals.

They would very much be part of this program.

Mr. MACKAY. Does this letter reflect a misunderstanding as to the provisions of the bill on his part?

Dr. LEE. This letter reflected Dr. Godwin's review of the bill prior to our reviewing it in detail together. I think you can ask him when he is here testifying to get his detailed impressions of the bill, but I think it is different now than it was at the time he wrote the letter.

Mr. MACKAY. Do you know if this is the same thing that came in in the heart and cancer discussion, that the community hospitals were neglected and the university hospitals were favored?

You are stating this is not the case as the bill is now drawn.

Dr. LEE. That is correct. One of the purposes of the bill is to improve the geographic distribution of these types of personnel so that that is one of the factors the Surgeon General will consider in the rules and regulations.

Mr. MACKAY. Thank you. I have no further questions, Mr. Chairman.

The CHAIRMAN. Mr. Farnsley.

Mr. FARNSLEY. Thank you, Mr. Chairman. Mr. Secretary, I tried not to commit myself on this but your program has my unqualified support. I am not only a freshman but I am a lame duck. That

is pretty low but we are still operating on one man, one vote so I have one vote but I don't have much leverage.

If you want to say something real bad about something—I am a lawyer but I am not practicing—you can tell me and I can't tell anybody you told me but I can say it on the floor of the House. Then I can't get in a stew and you can't get in trouble. Also I can put things in the Record. I have a good staff. Right now about all they do is answer letters from people who don't want the Surgeon General to keep on chopping up dogs.

This is partly my fault. I am the only Congressman who has to generate mail. When they asked me if they should quit sending me letters, I said send me lots of letters and write other Congressmen, so they are doing it. But my people still have time to send out propaganda to improve street lights which cut crimes of violence in half, delinquency in half, and automobile accidents by one-third—50,000 fatalities and 35 times that in injuries. But we can take time off from doing that. We don't get out a newsletter. I did not even do it when I was running. We will be glad to send out newsletters for you. My frank still works, so far as I can tell. The letters don't come back. We have a thing called the monster, the latest type of automatic typewriter, in another room. It is pretty noisy. Being in the old Cannon Building, you can see how obsolete I am. They are trying to get me in the Longworth Building. I can also borrow another man's office. He will let us use his monster in its spare time. So if you have any mail you want to get out, I will be delighted to help you. I think it is legal.

Secretary GARDNER. Mr. Farnsley, I have a very strong impulse to move down to your district and vote for you.

Mr. FARNSLEY. Thank you.

The CHAIRMAN. Mr. Adams.

Mr. ADAMS. Mr. Secretary, I want to compliment you on an excellent statement and for being a very good witness before the committee. I don't want to repeat the inquiries of Mr. Kornegay, or Mr. Rogers. I think we are greatly concerned about the level of activity.

I notice on page 9 that you mention under "Project grants" the following quote:

> One of the unknown quantities in health care is that we do not have job descriptions for all the kinds of people we have to train and employ.

Could you answer me this? Following the questions that they (Mr. Kornegay and Mr. Rogers) asked, who sets the standards of whether or not, for example, a dental hygienist has to have 5 years in order to supervise another dental hygienist to determine whether or not somebody's mouth is open?

Secretary GARDNER. May I ask the Surgeon General to answer that.

Dr. STEWART. Much of the accreditation of the allied health professions is done by the American Medical Association in conjunction with the organizations that represent the group.

Mr. ADAMS. In other words, you have mentioned blood bank technicians, dieticians, physical and occupational therapists, dental hygienists among others in this group. What we are concerned about, as I think you have seen from the questions, is stratification that has occurred within the entire hierarchy. We are facing a situation in

our overall programs of basic unemployment at the lower levels and what we are trying to determine is, are we building in through this a stratification that continues to move up the requirement for qualification in health areas so that more and more people cannot qualify for the lower levels?

Is this part of a whole movement up?

Dr. STEWART. Part of it is the fact that the quality of care and the need for knowledge, the technological aspects, are complicated, it is moving upward all along the way.

There is a stratification. There are these educational levels that the Secretary talks about, all up and down the ladder. There is a concern sometimes, and I have expressed it myself, over the inability to move from one level to the next, that we have roadblocks which are not included in this legislation but we do have this difficulty.

There was mentioned in part a nurse who goes to a hospital as a registered nurse, works for our 5 years, is excellent, and wants to get a baccalaureate, virtually has to start over again in order to do this.

There is no career ladder in a sense. This bill is not aimed at that. This is aimed at a gap, a much-needed type of person. These people are now being produced but with the shortages that we are talking about, the estimate of the need of doubling this in the next 10 years at all levels, this particular level needs to be increased a great deal because they provide the quality control in a sense of what goes on in a laboratory, of what goes on in the physiotherapy part of it.

Mr. ADAMS. And this will continue to be set then in the same fashion that presently these categories are set. I am trying to determine what the secretary has in mind. To what degree are you going to attempt to improve the stratification system that is set forth on page 9, in other words, will you try to produce new job descriptions and so on.

Will these project grants be carried as part of the educational program of the college?

Dr. STEWART. No, sir. I think the reference on page 9 was the fact that we do not know all the technologies that are going to be from now on but they are evolving and emerging now, new technologies, new groups.

This project grant provides a means for a school to experiment with the development of a new type curriculum or something like this.

For example, there is now emerging a specialist in running heart-lung machines who is in operating rooms. Many of these up to now have been trained on the job by the surgeons who are using heart-lung machines.

Now they are becoming nomenclatures. One needs a curriculum that needs to develop a person who is an expert in running heart-lung machines they are used now so often in operating. Tomorrow it may be something else. The science, the technology, of medicine is advancing so fast.

This provides a flexibility to experiment with developing new curriculums, new types of technology.

Mr. ADAMS. This is curriculums within the particular schools you are referring to?

Dr. STEWART. That is right.

Mr. ADAMS. For example, if we are successful at sometime in the future in breaking the present roadblocks—well, let us take hospital

hierarchy, between intensive care, convalescent care, intermediate care, home nursing care, this will provide funds for school and hospital administration that might experiment with one type of breakdown you might have?

Dr. STEWART. That is right. At this educational level that this bill is addressing itself to, this is not going to cover the waterfront but it would fit right in with what you are saying.

Mr. ADAMS. I think that would be an excellent program of addition. In other words, this can operate in the hospital administrator level as well as the specific health profession mentioned in here.

Dr. STEWART. If it is related into a college situation now.

Mr. ADAMS. In other words, the college or hospital administration?

Dr. STEWART. At this level of person that we are talking about.

Dr. LEE. I think we must emphasize the opportunity for flexibility that is possible by working with the colleges or the universities in the development of health manpower. I think we share your own concerns about the present problem and the need to develop more flexibility and that is why this is done through the college or the university, not only to permit the institutions to develop new types of allied health personnel but also to develop common curriculums for various types of allied health professions that now exist. We hope it will be possible to break down some of these rigid boxes that we are in at the present time.

Mr. ADAMS. I don't think any of us have advocated a lowering of care. We are also greatly concerned about the fact that, well, for example, registered nurses and other highly qualified personnel are used across the board particularly in the average hospital now to provide services that are far below their skills.

We don't see the others moving in.

Thank you very much, Mr. Chairman. I have nothing further.

The CHAIRMAN. Mr. Gilligan.

Mr. GILLIGAN. No thank you, Mr. Chairman.

The CHAIRMAN. I want to clarify one thing about the Vocational Education Act. Does that act provide assistance for the training of the allied health professions personnel in 2-year schools?

Dr. STEWART. Yes, sir.

The CHAIRMAN. In other words, if we expand this bill to include 2-year schools, we will duplicate programs under the vocational educational act.

Secretary GARDNER. Yes, sir.

The CHAIRMAN. If we do, we will be trespassing on another committee's jurisdiction that provides for vocational education.

Dr. STEWART. I don't really know.

The CHAIRMAN. I am reasonably certain we would be. We are in the health services field and not in the other part of it. Mr. Pickle.

Mr. PICKLE. Thank you, Mr. Chairman.

I want to ask the Secretary, Is the American Bankers Association, or organizations who might serve as suppliers of private capital, in favor of this measure?

Secretary GARDNER. Mr. Pickle, we have long and complex discussions with them. I would like Jim Kelly to comment.

Mr. KELLY. With respect to the health professions student loans I don't believe that they have commented but with respect to the conversion of the National Defense Education Act programs to insured loans, they favored the enactment of the Higher Education

Act of 1965, they have expressed some concern on the rapidity of trying to move from the direct Federal loan to the insured loan in terms of the amount of credit that exists now but they have evidenced that they favor the principle that is behind this and are concerned only with the speed of its transition.

Mr. PICKLE. I assume that they have not cared to make the individual loans or general education loans in the past as a matter of inconvenience, among other things. I am not sure that they would want to get into these loans even on this basis unless they could loan a lump sum to a college or an institution to administer.

In effect what this does, as I understand it, is instead of the Federal Government providing funds, private capital is providing it with Government guarantee. But my question is, Is private capital willing to put up this money?

Mr. KELLY. Only experience will tell you the answer. But I think there are several reasons why we believe this will occur.

One, we have talked to bankers who indicate that it is highly desirable from their standpoint if they are able to make a secured loan, and this in effect is a secured loan because of the insurance behind it, to establish a relationship with the professional people who are at an early stage in their career, during their educational period, to establish with them a relationship that will be continued during their professional career.

We think it is also of interest to both the banking institutions, to the students, and to the educational institutions to arrange for the collection process to occur through a financial institution rather than through educational institutions. So that we feel a sense of confidence that the funds will be available.

As a matter of fact, I think you could feel a much greater sense of confidence that they will be available with respect to the health profession student loans than with respect to others because it is so clear that the borrower will be a person who will have a continuing interest in this—with financial institutions throughout his career.

Mr. ROGERS of Florida. Mr. Chairman.

The CHAIRMAN. Do you have a question?

Mr. ROGERS of Florida. Yes, I do.

The CHAIRMAN. You go ahead. Then I will recognize Mr. Springer next.

Mr. ROGERS of Florida. Let me get this clear, too, because I am somewhat confused now on how this applies. It is my understanding that the bill is not just going to teach teachers on how to do these things but it is going to take students and start them right in the first year of college.

Secretary GARDNER. Yes, sir.

Mr. ROGERS of Florida. Don't you start a program here of trying to train dental technicians right in the first year of college?

Secretary GARDNER. Yes, sir. But this program is designed for those students who are going then on to 4 years.

Mr. ROGERS of Florida. I understand that. You have restricted it to a 4-year college?

Secretary GARDNER. Yes, sir.

Mr. ROGERS of Florida. In the definition of what your school would be, that I understand. But the point I was trying to make—I knew the bill did not include it but why is it that some program cannot

be also coordinated with your other facilities, your junior college facilities which you do include in your nursing training program, do you not?

Secretary GARDNER. I think I will ask the Surgeon General to answer this.

Dr. STEWART. Mr. Rogers, at the University of Florida now you have a school of allied health sciences which is training for the bachelor's degree. The intent here is severalfold.

One of the more important ones is that in training at this level you want to train within a medical setting. The students are trained along with the doctors and the dentists, and this is the group they are going to work with, and the nurses.

In the community college they do not have this setting to be involved in at all. They are trained at the technician level and then they go on to a practical experience thereafter. They are the practitioners in a sense. So they have two different levels of training in the technician level.

This particular bill is aimed at this baccalaureate or masters degree level because it seems to be the biggest gap in the total program of training. The Vocational Education Act is training about 40,000 to 50,000 people now at the technician level in the 1- to 2-year programs.

Mr. ROGERS of Florida. In the 4-year colleges as well? Does not NDEA cover it in the 4-year college?

Dr. STEWART. The NDEA would cover anyone in the 4-year college on a loan program, yes.

Mr. ROGERS of Florida. Certainly. Then why is it necessary to duplicate this?

Dr. STEWART. The only student aid in this proposed bill is for traineeships for people who are going on to serve as teachers or administrators, or to serve in fields requiring specialized training. This is not providing a stipend to the individual for the first year of a baccalaureate degree. The bill is more importantly, I think, aimed at creating the training situation, helping build the buildings, providing the support of the teaching situation.

The attempt here is really to capitalize on a movement which has been occurring in the country: the development of allied health professions schools or allied health schools within the medical complex so that these students will be trained with the people they are going to work with. You get quality of training in the situation.

There are some 30,000 to 38,000 of these schools now. This effort needs to be accelerated a great deal, supported a great deal more, because we know that the 2-year training, 1-year training, is going to double probably in the next 5 to 10 years.

Mr. ROGERS of Florida. If we support it.

Dr. STEWART. Through the Vocational Education Act.

Mr. ROGERS of Florida. Yes; but don't they have to be accredited in our nursing program, they have to be accredited to come in under the Nurses Training Act?

Dr. STEWART. The technicians requiring 1 to 2 years of training would come under the Vocational Education Act. This is the group that will have to be expanded and about doubled; but we need to add a ratio of supervisors, of highly specialized technicians, of teachers, to this increasing pool of people.

This is what this bill is attempting to do.

The nursing program you mention comes under the Nurses Training Act.

Dr. LEE. Most of the people who go into these special fields such as medical technology begin to specialize after their second year in college, the third and fourth years when they take special courses related to these fields rather than the first 2 years where they get their general education.

Mr. ROGERS of Florida. I noticed, too, that you have a provision in the bill to increase the per diem here from $50 and $75 to $100 for the Council?

Secretary GARDNER. Yes; we have that.

Mr. ROGERS of Florida. Is there any reason why this is necessary?

Mr. KELLY. Mr. Rogers, as you know many of the statutes which provide the compensation for members of panels and councils were established at the time that the Federal pay rates were considerably lower.

They were originally conceived as authorizing up to the highest levels in pay rates. We are now authorized to employ consultants at a figure I think of $98 a day which I think is the highest pay which can be made.

We have statutes that authorize this for newly authorized councils and not for the old ones. We are trying to make it uniform throughout all legislation.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. I just want to get my oar in on the junior colleges. Actually you are going to be tremendously short in your facilities for training. Many of the junior colleges are going on up now to the 4-year degree. You can't just say a junior college is the old classification.

We have one that used to be called a junior college which changed its name and they are working on up to the 4-year course. They have good facilities to furnish nurses training. I think we have to use all of the facilities, not part of them.

That is all.

The CHAIRMAN. Mr. Springer.

Mr. SPRINGER. I have no questions.

Mr. CHAIRMAN. I would like to again state that we do have the Vocational Education Act which comes under another committee of this Congress. That act provides this vocational training and turns out the people who actually get into the working areas.

I want to thank all you gentlemen for coming and contributing to this program. You have done an excellent job. This concludes our hearings until tomorrow morning at 10 o'clock.

Secretary GARDNER. Thank you, sir.

(Whereupon, at 12:10 p.m., the committee recessed, to reconvene at 10 a.m., Wednesday, March 30, 1966.)

ALLIED HEALTH PROFESSIONS PERSONNEL TRAINING ACT OF 1966

WEDNESDAY, MARCH 30, 1966

HOUSE OF REPRESENTATIVES,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The committee met at 10 a.m., pursuant to recess, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The committee will come to order.

Yesterday when the committee adjourned we were having hearings on H.R. 13196, Allied Health Professions Personnel Training Act.

Resuming this morning, we will have as our first witness Dr. Samuel Martin, provost of the University of Florida, Gainesville, Fla., representing the Association of American Medical Colleges. Dr. Martin, I see you have an associate with you. Will you identify him and then you may start in with your testimony. You may present your statement in its entirety in the record and summarize it or do as you wish.

STATEMENT OF DR. SAMUEL P. MARTIN, PROVOST, THE UNIVERSITY OF FLORIDA, GAINESVILLE, FLA., ON BEHALF OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Dr. MARTIN. Mr. Chairman and members of the committee, my name is Samuel P. Martin. I am provost of the University of Florida, which is located in Gainesville, Fla. I appear today in behalf of the Association of American Medical Colleges, a voluntary, nongovernmental body, which includes in its membership all of the accredited schools of medicine in the United States.

I am grateful for this opportunity to present our views on H.R. 13196.

This bill, Mr. Chairman, involves two separate and quite distinct proposals. The first suggests measures designed to increase the number and quality of medical technologists and personnel in other allied health professions. With this proposal and the measures suggested herein, our association is in wholehearted agreement. It has our enthusiastic support.

The second proposal in the bill has to do with basic changes in the ongoing program of loans to students of medicine, dentistry, nursing, and other health professions. For these suggestions, our reaction cannot be called enthusiastic.

I am not going to read the testimony. I prepared this for you. I would just like to speak for a few minutes on this particular problem. You are acutely aware, I am certain, of the problem that we face in the area of health. In the last 50 years there has been a marked shift from the acute disease to the chronic diseases, diseases which are involved in taking considerable toll of our population.

In this room every one of us on a statistical average will have two chronic diseases. This has been shown by a study done by the Commission on Chronic Illness. Half of those diseases will be of a substantial nature and half of these that are of a substantial nature could be prevented with adequate care given at the proper time.

Therefore, I think you in Congress have recognized the gravity of this wave of chronic illness and you also recognize the need for intervention into chronic illness. So, you have supported patient care and in this legislation you are supporting training in preparation for a cadre of people to approach this problem.

In the training you have supported the physicians in the past. This bill, as I see it, supports the allied health professions. When one looks at the allied health professions one divides them into two large groups, one group that deals with theory and skill and applies theory and skill to the problem.

The other group is people who apply skill to a problem. One group could classify themselves as technologists. The other as technicians. This bill supports the training of the technologists and more importantly I feel this bill has provisions for training teachers in this field because if we are going to meet our need we must train teachers.

Section 781 to section 794 is well designed to cover support construction, it covers support, basic support of these institutions, and I think more importantly it has a place for special support whereby these health professions can come together, develop common core curriculums and even develop adequate training programs so that we can facilitate training larger numbers of these very skilled people who can help us in the care of patients.

Again, the advanced traineeship I think is particularly important because of our great need for teachers and the competition that education has with the work situation for the teachers.

On page 18 of the bill we deal with the forgiveness features of the bill. I think these are very good. The forgiveness feature has never worked very well with the medical student because of his high earning capacity once he leaves. We in medical education are acutely concerned as to how we can get the doctor to the outlying individual and see that this individual gets care.

It would be our feeling that if we could extend it to the health related personnel there would be a great encouragement to get health related personnel into these areas, and by putting health related personnel in the area we would in turn make it an attractive situation for the physician.

A physician has learned to use these people and have them help him with care, and when he goes to an isolated area he very frequently does not have any of these people to help him, and therefore he turns to an easier situation where health personnel are available.

So that I think consideration should be given to the forgiveness feature to the health related personnel, because we believe in the long run this will help the people in the related areas.

Now the second part of this deals with the present financing and source of loans.

In addition to being a provost, I am a director of a bank, so that when I noted this bill I immediately started my tour of the banking directors about the possibility of picking up the older paper and extending new credit, and I find that, as you well know, sources of money in banks—there are great demands on this, and it will take us considerable time to develop a reservoir of credit to transfer this to private banking.

Being a bank director I might say that I have an interest in its being ultimately in the private sector. I think there are certain problems, that there is so much administrative work with these small loans, that you might even in the long haul, increase the cost of making these kinds of loans by passing it to the bank.

But the association would agree with the position taken by the American Council on Education when they testified about the forgiveness—about the loan feature in the education bill, and that we feel it would be catastrophic to pass this feature at this time, not giving us time to find sources to finance these students from a private source.

This is the essence of my response. I want to thank you very kindly for giving me the opportunity to appear here.

(The complete statement of Dr. Martin follows:)

STATEMENT OF SAMUEL P. MARTIN, PROVOST, UNIVERSITY OF FLORIDA

Mr. Chairman and members of the subcommittee, my name is Samuel P. Martin. I am provost of the University of Florida, which is located in Gainesville, Fla. I appear today in behalf of the Association of American Medical Colleges, a voluntary, nongovernmental body, which includes in its membership all of the accredited schools of medicine in the United States. I am grateful for this opportunity to present our views on H.R. 13196.

This bill, Mr. Chairman, involves two separate and quite distinct proposals. The first suggests measures designed to increase the number and quality of medical technologists and personnel in other allied health professions. With this proposal, and the measures suggested therein, our association is in wholehearted agreement. It has our enthusiastic support.

The second proposal in the bill has to do with basic changes in the on-going program of loans to students of medicine, dentistry, nursing, and other health professions. For these suggestions, our reaction cannot be called enthusiastic. The facts of fiscal life in this year of ever-tightening credit force us to view these suggested changes in a highly successful program with some trepidation.

Turning now to the first point, we would express our agreement with the administration's contention that our country is faced with a decided shortage of medical and health-related personnel—a shortage which cannot be met without prompt and effective Federal assistance to those institutions responsible for training such personnel.

There is no doubt but that we are short physicians. Our institutions, with your help, are doing their level best to remedy that situation. Nevertheless, with the constant growth of new knowledge and the consequent growth of new demands on the profession, we will not be able to meet the need for more physicians fully in the foreseeable future. It is of tremendous importance that the skills of the physicians we have and the many more physicians we will have be utilized in the most efficient ways possible.

This, gentlemen, means that we must greatly increase the available supply and quality of medical technologists and of people in allied health professions at both professional and technical levels. When we make available to the individual physician the optimum number of health-related personnel to round out his health services team, we confer upon him additional sets of arms and legs and ears and eyes. We enable him to treat many more people and to treat them better. We enable him to husband his resources and take on personally only those tasks which require his peculiar skills and arts.

Sections 791 through 794 of the bill before us seem well designed to increase the number and quality of health-related personnel. The programs of construction grants, basic improvement grants, special improvement grants, and grants for the development of new methods parallel quite closely similar programs already in existence for the training of medical personnel.

The latter programs have proved both effective and acceptable to the profession, the schools, and the public. The newly proposed programs should prove equally satisfactory. We urge their enactment.

We are here asking a group of schools, many are new and most of them woefully underfinanced, to take on new and heavy burdens in the national interest: to meet a serious national problem. If the schools agree—and I am sure they will though the undertaking means additional headaches tempered only by the satisfaction of responding to the country's need—if the schools agree then Government must realize that it too is entering into a commitment. Congress should make a moral commitment to continue to defray its share of the costs of school expansion not just during the year when the Congress enthusiastically endorses the program but through those many years when the schools will be carrying their unglamorous burdens. Short of complete national fiscal emergencies, these sort of commitments must be kept.

Mr. Chairman, I have mentioned three of the four programs through which the bill proposes to increase the number and quality of health-related personnel. I have not mentioned the program of traineeships for the advanced training of such personnel to serve as teachers, as supervisors and administrators or to serve in new specialities. With this program we are also in hearty agreement. I single it out merely to highlight its importance. In these particular fields, the problem of shortages is not only serious but it is aggravated by the fact that to get people competent to teach or supervise it will be necessary to recruit people already working in these fields, in very short supply, and fully employed. If they are to be recruited, the suggested traineeship program is a must: an absolute minimum.

Mr. Chairman, let me now make a transition from the first phase of the bill to the second by making reference to a matter which would involve both. When we turn to the loan reimbursement provisions of the bill beginning on page 18, we find a proposal designed to attract physicians to rural areas of doctor shortage characterized by low-family incomes. It is to be done by means of an increase in the rate of foregiveness of loans made medical students who subsequently practice in such areas. We certainly have no objections to such a provision though I doubt its efficacy as a persuasive factor in motivating physicians to locate in such areas. If they do, and we shall certainly urge them to, it will be primarily for far different reasons.

I would point out, however, that it is in precisely such areas of physician shortage that it is most important that we provide a full complement of health-related personnel to aid whatever physicians are practicing in such areas. I would point out also that since health-related personnel are frequently women and largely salaried, a bonus forgiveness feature in a loan program would be very meaningful financially to such personnel and could prove a real inducement to serve in such areas. The health-related personnel are, of course, now eligible for student loans just as are other undergraduates. They are not, however, eligible for the forgiveness features offered students of medicine.

I would urge that this committee give very serious consideration to extending to medical technologists and personnel in other allied health professions precisely the same loan forgiveness benefits for serving in shortage areas as are now offered physicians or nurses and as are proposed for physicians and nurses in this bill.

You want the physician in the shortage area, of course, but you also want his arms and his legs to be there and that's exactly what health-related personnel represent.

Now, Mr. Chairman, permit me to comment briefly on the loan provisions of the bill.

The administration's higher education bills have been considered by a subcommittee of the House Committee on Education and Labor. Those bills contain provisions similar to those in the bill we are now considering: provisions designed to encourage students to refinance existing loans and to finance future loans through the commercial lending market.

The American Council on Education, which represents over 1,100 colleges and universities and some 231 educational organizations—of which our association is one—testified on the loan provisions of those other bills.

As regards attempts to encourage students to refinance their previous loans, the American Council on Education stated that while it saw no particular disadvan-

tage to the student resulting from such an undertaking, it believed the attempt might adversely affect the new guarantee loan program.

The council said—and I quote—"In view of the tight credit situation we believe the banks and other lending agencies will do well if they can make loans to the sizable number of new borrowers who are certain to be turning to them for assistance. To ask the banks to pick up old paper as well seems unreasonable and to the extent that they did so, we believe they would have to restrict sharply the money that should be available to new borrowers" unquote. We concur in the council's view and believe it is equally applicable to the corresponding provisions in this bill.

Finally, our association strongly supports the position taken by the American Council on Education with respect to proposals to substitute commercial for Federal financing of student loans. We, too, accept and endorse the principle. We insist, however, that any attempt to force the transition precipitously could be disastrous. We do not know how promptly or to what extent commercial lenders are prepared to offer these student loans. We do not know the nature or types of arrangements our institutions would have to enter into nor the length of time it would take to work out the many legal problems involved. Yet our schools must make commitments to our students and our students must make firm financial arrangements in the very immediate future.

We share the administration's concern over the impact on the budget of continued large annual appropriations for both the NDEA and medical student loan programs. We believe the administration's proposals merit the most serious consideration. We urge, however, as did the American Council on Education, and, again, I quote, "that if changes are to be adopted, they be delayed until fiscal 1968, so that the Congress, the banking community, and the higher education community may better assess their impact."

In any case, and, in conclusion, Mr. Chairman, I would point out that most of our schools of medicine are identified with institutions of higher education. Consequently, it is important that the provisions for financing loans finally adopted by the Congress as applicable to schools of medicine be consonant with those finally agreed upon in the higher education acts. We urge the committee, which of course is autonomous and will make its own decisions, to give careful consideration to whatever decisions are arrived at by the Committee on Education and Labor as regards those acts.

We greatly appreciate this opportunity to express our views and, if we can be of further assistance to the committee, we shall be most happy.

Dr. MARTIN. I have here some material for anyone who is interested to review. It is the experience that we have had at the University of Florida with the College of Health Related Professions where we train a large number of these people under one roof.

We have found this very successful. We believe that people who are trained together work together. In other words, if we can train our technologists under the same roof with our physicians we find when they go into the field they understand each other, they communicate better, and they work better.

Thank you for the opportunity. If you have any questions I will be glad to answer them.

The CHAIRMAN. I would like to say, Dr. Martin, we appreciate your giving us the benefit of your views and the way you have given them. It has been in a very fine manner and most understandable.

Do you have enough of these books to give to each member of the committee?

Dr. MARTIN. Yes, sir.

The CHAIRMAN. I am certainly interested in your version of the training of these personnel at the University of Florida.

I am interested, too, in this loan program. You say that you are not wholeheartedly in support of this, being a banker, that you kind of got the idea that you thought it could be put off and until a later time when you are ready for it.

Dr. MARTIN. Yes, sir; I think it can be put off until later. The only problem that worries me is that banks, as you recognize, have a

certain amount of paperwork with each loan that they make. Here I am testifying as a banker and I must not.

I am a health educator. But there is paperwork with each loan. We have set up in the administrative part of a university a mechanism for handling paperwork and unless we are careful the bank will have to duplicate this. This is why I am posing the problem.

The CHAIRMAN. Doctor, in this bill this loan program is not compulsory.

Dr. MARTIN. That is right.

The CHAIRMAN. It is only permissive?

Dr. MARTIN. That is right.

The CHAIRMAN. It would not hurt to pass it. As you become able to participate you could as time went by. We would not have to come back and pass another law.

Dr. MARTIN. The big problem is, don't turn us off now until we can have the transition. That is all I am saying.

The CHAIRMAN. These loans would continue in the same manner unless private financing could come in. As you develop this capability then you could take over and it is there for you to do.

Dr. MARTIN. That is right.

The CHAIRMAN. I would think that it would be wise to leave that in the bill and let it be passed now. It does not make it compulsory on private financing at all.

Dr. MARTIN. Would we have an appropriation to cover our present program?

The CHAIRMAN. I would assume this would continue exactly as is and then private industry or private financing can come in, as I understand it, the intent of the bill.

Mr. Jarman.

Mr. JARMAN. No questions at this time, Mr. Chairman.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

Dr. Martin, you were speaking of the loan reservoir for loans. The AMA on their guarantee loan program have been quite successful. Last year in California they guaranteed loans of over a million dollars to students. They apparently have found a ready reservoir of credit in banks on their guarantee.

Dr. MARTIN. I think it just takes time to develop this. That is what I am saying.

Mr. YOUNGER. There must be a lot of banks now interested in these loans already through the AMA. They must have the machinery set up, that is my point. As far as the money, the banks have the money. It is a question of whether they are interested in doing this. As I take it from the AMA report, they have found the banks quite willing to make guaranteed loans.

In fact, the banks are willing to make any kind of loan if they are guaranteed they will not suffer loss.

Dr. MARTIN. Yes. I think it is really the transition because you are moving a large number over now that we did not have in this category before.

Mr. YOUNGER. The question was asked the Secretary that rather disturbed me. It seems to me that you have to have the teachers first.

Dr. MARTIN. This is right.

Mr. YOUNGER. I gathered from the Secretary of HEW that they want 1,000 or 2,000 or 5,000 students immediately to go into training as technologists, and so forth. Where are you going to get the faculty to train them?

It looks to me; that is, the horse must be put out in front of the cart first. Am I right on that?

Dr. MARTIN. You are right. This is Operation Bootstrap. There is no doubt that it has to be this kind of thing. It is the hen-and-egg analogy and any other "where do you start." You have to have the hen to have the egg and you have to have the egg to have the hen. And it is a circle.

By your subsidy here of teacher training you will allow us to take some of our people off the production line admittedly but in 1 year we can take a person with a bachelor's degree and move them to a position of teaching, and by the efficient drawing together of these units we have been able to increase our effectiveness.

Now even the bachelor level personnel trains the skilled group so that our production here is moving in this but we will have to make certain sacrifices the first year to teach, and then we will build up our core not only of service people but teachers.

Mr. YOUNGER. How many additional students could you handle now?

Dr. MARTIN. Sir, in our existing facilities we would have great difficulty markedly increasing our class. We could increase five in each of our curriculum program probably. We are anticipating before our State legislature a large increase in our facilities and then we will double each of these classes with a new facility.

Mr. YOUNGER. It will take approximately a year though to do that.

Dr. MARTIN. That is right. But we can increase our class now with your kind of support which we could give the faculty. The faculty is a problem. Space is a problem.

Mr. YOUNGER. How much of an increase could the paramedical colleges take on top of what they have in the way of doctor training at the present time?

Dr. MARTIN. You are asking me a question that I did not come today prepared to speak on because there are people who are far better able to speak on this. This would vary from school to school. Some schools cannot take another student. There are other schools that with proper support could enlarge their class.

The University of Florida, with the bill that you passed last year, will increase its classes, probably even more than the bill is going to require us to. We are anxious to increase our output. I think that you as a spokesman for society are going to have to take a very broad look at this and recognize that you are supporting now a team and that turning out people in the health profession, there are a number of these who can, each time you produce them, double the potential productivity of your physician.

If one looks at what a physician does in a day one finds many things that he does that, if he had an adequately trained team, these people could allow him to see more people and give better service to the people.

So this bill, this kind of support is the same kind of support you gave to increasing the size of the class of medical students.

Mr. YOUNGER. Thank you.

The CHAIRMAN. Mr. Rogers.

Mr. ROGERS of Florida. Thank you very much.

I am particularly pleased to see you again, Dr. Martin. We are very proud of the work you are doing. Of course, I think all in our State are particularly proud of the leadership that our medical colleges, certainly in the medical field all over the country, are doing; we are very proud of it. This is a sample, I think, of what you have already done in the paramedical field.

Dr. MARTIN. We have 25 in occupational therapy, 25 in physical therapy, 25 in medical technology. Then we have about 30 men we are training in rehabilitation counseling. We have about 30 we are training in clinical psychology. We are training in smaller numbers speech therapists, people who deal with speech and hearing and communicative disorders. We have then our college of pharmacy, our college of nursing, Our college of nursing has about 50 students.

Because of lack of facilities we have actually had to reduce, turn away students, suitable applicants for nursing in our institution.

We have about 30 students in training, nurses in training to train themselves to be teachers in junior colleges.

Here again facilities stopped our recruiting in this area and we actually had to turn away people going for advanced degrees.

Mr. ROGERS of Florida. Now the provisions of this bill you feel will be helpful to you as far as facilities are concerned and getting a sufficient staff to help train this type of personnel?

Dr. MARTIN. And I think to all of those things and one other thing in your special support will be an encouragement for the educators to plan new ways of educating these people. In other words, new common core curriculum for a number of these health professions.

Mr. ROGERS of Florida. I was somewhat concerned in discussing this that they envision, according to the department, that this should only apply to the 4-year colleges. It would seem to me that some help and aid should be given to junior colleges to help in this area. What would be your thinking along this line?

Dr. MARTIN. I would hope that within the—and I am sure you think when we come to see you we always have some new problem—I would hope that the next time around or as soon as we get a core of teachers that we do prepare to ask you to support the training of the skills that are carried out in the junior colleges and the technical high schools.

Medicine is America's third largest industry. If you want to call it an industry—I think it is an industry, it is the third largest industry and there are going to be needs for vast numbers of people in the skills that will come from the junior colleges and from the technical high schools.

Mr. ROGERS of Florida. I was wondering if it would not be possible now, for instance, because of the need for personnel to allow the junior colleges to participate in this bill where they can increase their facilities, their curriculum and their teaching staff, because they can help the 4-year colleges by helping to funnel in people after their first 2 years.

Dr. MARTIN. I think you are supporting them to a great extent under the Regional Education Act; isn't this true, vocational?

Mr. ROGERS of Florida. Some. But it is quite questionable as I understand it as to how much real aid has been given them.

Dr. MARTIN. Yes. This I am not certain of. I thought you were supporting this under the Vocational Education Act.

Mr. ROGERS of Florida. I presume there is some of that. I presume there is help under the NDEA for all of the colleges in this field.

Dr. MARTIN. And I think this is the point that Congressman Younger brought up. We want to train the teachers and pass them to the junior colleges to train the skills.

Mr. ROGERS of Florida. Do you see that the traineeships are more geared toward the teaching part of it?

Dr. MARTIN. Yes.

Mr. ROGERS of Florida. This is what I thought. Then the other phases are actually getting personnel?

Dr. MARTIN. When you train a physical therapist or occupational therapist a percent of them at bachelor level will participate in training the skilled people. So you are training teachers and at that level. But the traineeship is really the important thing in giving us a core of teachers.

Mr. ROGERS of Florida. That is what I thought. That is why I could not see why they would not let the junior colleges participate with their reservoir of people and their potential in helping to turn out dental assistants and so forth.

Dr. MARTIN. This I think is because of the 4-year, their bachelor programs. Of course, the college at the prebachelor gives the student well over 2 years of training.

Mr. ROGERS of Florida. Yes. But they could then move to a senior college. It seems to me working in conjunction they could help solve the problem much easier than excluding them from the program.

Dr. MARTIN. I am for anything that increases the junior college potential. I think that the junior college in Florida, as you know, has an excellent system of junior colleges.

We look forward to this solving most of our health professional problems at the skill level.

Mr. ROGERS of Florida. Thank you very much, Doctor. Your testimony has been most helpful. Thank you, Mr. Chairman.

Mr. FRIEDEL (presiding). Mr. Nelsen.

Mr. NELSEN. Thank you, sir.

In H.R. 12 we sought to give some assistance to the training of doctors and dentists. In this bill the other health professions are included. I am wondering, has there been a great increase in the tuition charges to the student?

When the Federal Government comes in with a program providing bricks and mortar and other assistance to the universities, has this resulted in an upward trend in tuition? This is a factor, too, so far as the students going into training are concerned.

Dr. MARTIN. I know of only a few private schools who have increased their tuition. So I would not be able to comment on this in a statistical sense. I would have to do it in an instance sense. I know two or three private schools who have increased or are contemplating. I don't believe one has noted any increase generally in the State school tuitions.

Mr. NELSEN. I am hopeful that there will be sufficient assistance provided by the Government to the medical schools to pick up the slack between the added cost of the schools so that the student does not have to assume that liability.

I thank the gentleman for his fine statement. Thank you very much.

Mr. FRIEDEL. Mr. Satterfield.

Mr. SATTERFIELD. No questions, Mr. Chairman.

Mr. FRIEDEL. Mr. Broyhill.

Mr. BROYHILL. No questions.

Mr. FRIEDEL. Mr. Adams.

Mr. ADAMS. No questions.

Mr. FRIEDEL. Thank you very much, Dr. Martin.

Dr. MARTIN. Thank you very kindly.

Mr. FRIEDEL. Now I have the pleasure of introducing the next witness. She is from Baltimore, a lady who has an outstanding record. I know she was one of the first ones to perform the successful operation on blue babies. She is from Johns Hopkins in Baltimore and her residence location is in Baltimore, Md.

STATEMENT OF DR. HELEN TAUSSIG, PRESIDENT, AMERICAN HEART ASSOCIATION, BALTIMORE, MD.

Dr. TAUSSIG. Thank you very much, Mr. Chairman.

It is a pleasure to be here today. I am here today representing the American Heart Association and testifying in favor of your bill, H.R. 13196.

Mr. Chairman, the American Heart Association has repeatedly testified before Congress concerning the shortage of both medical and paramedical personnel.

Last year our president, Dr. Carleton B. Chapman, when testifying before Congress on S. 596, the bill to establish regional medical complexes for research and training in heart disease, cancer, and stroke, said, and I quote directly from his testimony:

> By far the most important and pressing aspect of the bill is related to the staffing and training.

Immediately after that, at the beginning of his testimony needed for training personnel and the role of the medical schools, Dr. Chapman said:

> If the proposal to establish regional medical complexes is enacted, a large number of highly trained people physicians and nonphysicians, medical and paramedical, will be needed to staff them. At the present time these people are not available in sufficient numbers and there is only one source from which they can come: the medical schools and their affiliated teaching hospitals (medical centers). Then it follows inescapably, therefore, that if this proposal is to succeed, its most immediate effect must be to strengthen and expand the role of the medical schools and the affiliated hospitals in the training of physicians and other health personnel. Without such people in adequate numbers, no amount of physical construction, or any other provision, will make the proposal to establish the regional medical complex, or even begin to approach its goal.

Similarly last week Dr. James Warren, chairman of the Legislative Advisory Committee of the American Heart Association, in his testimony before Congressman Fogarty on the National Heart Institute appropriations, again emphasized the great need for increasing the training of medical manpower. To quote directly from that testimony, he said, "The training of medical manpower is of paramount importance." In our testimony of last year we emphasized this, and the events of the year support the validity of this concept. We are desperately short of all kinds of hands for health.

We need more physicians and nurses to run the hospitals and the clinics that a progressive nation expects to have available. But we also desperately need more scientifically trained people to help in the various activities that are not so apparent to most people, such as the laboratories that do the research which is vital to progress. Finding and training competent medical and paramedical people is a costly task; but it is one that, one way or another, must be done if we are going to make available to the American people the kind of health protection we have been promising them.

The only testimony which the American Heart Association has given that could possibly be construed as suggesting that we had adequate manpower is that which I personally presented a week or so ago on behalf of H.R. 12953, the International Health Act.

In that testimony I made no pretense that we had adequate manpower but I did maintain that the International Health Act was extremely important. The importance was shown by the fact that Secretary of State Dean Rusk had said that, in a world fraught with the means to destroy mankind, cooperation in all areas in which cooperation is possible is not only desirable but essential. Medicine is assuredly one area of common interest in which we could cooperate for the welfare of mankind. Furthermore, in comparison with the manpower and the money our country is pouring into our war effort, the manpower and money requested for the peace and cooperation which would be established through the International Health Act, was trivial.

Indeed there is no question that such an investment of money and manpower is a sound investment for this country. Therefore we should be willing to contribute some of our present manpower to the field of international health, even if we are short of manpower.

We cannot deny other countries even though we are somewhat short ourselves, because they need manpower even more than we do.

Everyone who has made a study of the number of doctors graduated yearly from our medical schools and the number of additional doctors who will be graduated by the expansion of our medical schools and the contemplated new medical schools, will realize when account is taken of our population explosion that the total number of doctors will scarcely keep pace with the present ratio of doctors to people. Therefore, if we are to meet the demands of the people for better medical care, expansion of our paramedical personnel is essential. H.R. 13196 is designed for that purpose.

Section 791 concerns grants for the construction of teaching facilities for the allied health personnel. This is essential.

Section 792 concerns grants to improve the quality of training centers for allied professional personnel. Surely there can be no argument as to the necessity and our desire to maintain and improve the quality of our medical personnel, as they are the people who must be given increasing responsibility in the health of our country.

Section 793 concerns traineeships for advanced training of allied health professional personnel. This is both an essential and a forward-looking part of the plan. Obviously it is impossible greatly to increase the paramedical personnel unless we can increase the number of qualified people to teach them.

Section 795, subsections 5 and 6, deal with the methods to encourage private capital loans for students in medicine, osteopathy,

dentistry, pharmacy, podiatry, and optometry, and also students in the schools of nursing. All of this is obviously necessary if we are to begin to meet the manpower needs of the medical and paramedical professions.

I am not a banker and I do not speak about the technicalities of the loan, but I should think that some loans in some form are obviously necessary if we are going to begin to meet the manpower needs of the medical and paramedical profession, because many people are really excluded from the training by lack of finances.

Indeed, my only recommendation would be that in addition to the urgent need for the training which has been stated above, there is a great need for the training of practical nurses and household helpers. Therefore I would recommend that these categories of paramedical personnel might be included in the bill.

Finally, I have had the opportunity to read over the testimony which you are going to hear from the Medical Society of Medical Technologists. I wish to say that I heartily endorse every word of their support.

The only objection I can see really, myself, to the bill is the question on money and the question of how much funds we need.

Gentlemen, this country has the right to demand that good medical care be available for all, but good medical care costs, and it is not to be had for free.

Good medical care requires a large force of well trained medical and paramedical personnel. If the country demands medical care, it must be ready to pay the cost of obtaining the people to give that care. Therefore, the American Heart Association wholeheartedly endorses this bill.

Thank you for permitting us to testify in behalf of the bill H.R. 13196. Gentlemen, this concludes my prepared testimony. If there are any questions that I can answer, I shall be glad to do so.

Mr. ROGERS of Texas (presiding). It is a pleasure to have you before this committee. I thank you for your statement.

Mr. Friedel, do you have any questions?

Mr. FRIEDEL. I did want to compliment Dr. Taussig for a very fine statement. I have one brief question. How many additional doctors will graduate from Johns Hopkins this year under the legislation we have already passed?

Dr. TAUSSIG. I don't know the exact number but I know they have, in each of the schools, tried to increase the number, but again, the big problem is getting the staff for the new schools and keeping them going. I think we are pushing ahead as fast as we can.

Mr. FRIEDEL. Thank you.

Dr. TAUSSIG. If the dean were over here he would be glad to give you the exact figures.

Mr. ROGERS of Texas. Mr. Springer.

Mr. SPRINGER. Dr. Taussig, are you connected with the institution?

Dr. TAUSSIG. I am professor emeritus of the Institute of Pediatrics of the Johns Hopkins School of Medicine.

Mr. SPRINGER. You mentioned here that this bill did not include the training of practical nurses. Is there any interest in Baltimore in a large practical nurse program over there?

Dr. TAUSSIG. I don't know if there is as much interest as there should be. It seems to me that with our shortage of nurses, practical

nurses have to come in—practical nurses for the home. Massachusetts has a very good program for household helpers who are trained people to go in and held take care of the mother when she comes home from the hospital with a new baby, and also to feed the children breakfast before they go off to school.

Mr. SPRINGER. I think, Dr. Taussig, that is a most worthwhile program. May I say if you would care to investigate I am sure that the city of Baltimore does have a good manpower retraining act. Now all they have to do is to expand that to take in a school of practical nursing.

I will give you one which I know about which happens to be across the street from my home in Champaign, Ill. Under the Manpower Retraining Act they rented a large home and they are in the process of training over a 9-month period. This is continuous and has been for over 2 years.

They turn out about 80 to 100 nurses every 9 months. These are practical nurses and they are people who formerly had no skills except probably they could do household work. In that community we have two of the larger clinics in the country. We have a tremendous demand in that immediate vicinity for practical nurses.

This has been the solution to the problem in our community and it is one of the finest manpower retraining features that I know anything about. That is under the Manpower Retraining Act.

Thank you, Dr. Taussig, for a very fine statement.

Dr. TAUSSIG. Thank you, Mr. Springer.

Mr. ROGERS of Texas. Mr. Jarman.

Mr. JARMAN. I am very much interested in your statement. I am certainly in complete agreement with you that our Nation must concentrate on an accelerated program of training medical personnel at all levels of the profession. One thing that troubles me some is with reference to the subject on which you commented on page 2 and that is the contribution of some of our present medical manpower to the field of international health.

With the recognized shortages, the very real medical shortages, that we have here in the United States, I am having real difficulty in my own mind in coming to any conclusions as to how much we are justified in contributing medical personnel outside this country until we have achieved a better balance, a better supply in the United States.

I would be interested in any further comments you have to make.

Dr. TAUSSIG. I think my answer there would be that we have a better supply of manpower than most of the other countries and certainly a better supply than the countries for whom we are planning international programs. We also are a debtor country. We are bringing in more doctors from foreign countries than we send out to foreign countries.

We have an enormous number of doctors trained in the other countries who every year are coming into this country.

It seems to me that we are only giving a little in proportion to the amount we are receiving. We are drawing enormously on our medical manpower—I am not against it—which is going over in our war effort. But it seems to me it would be well to put something in their country in an effort toward good will and peace on the other side.

It is going to bring up the health of the foreign communities and that is going to bring peace and not unrest in the countries to whom we are exporting medical manpower. And it is not a very large number

who are going. They are trying to get people to go over to train the people over there to work cooperatively with them.

Mr. JARMAN. Of course what is proposed is our own Government's program of getting additional personnel into the international field. Now the manpower that you see—that you speak of coming to us from abroad—isn't most of that on a personal decision basis rather than any foreign government sponsored program?

Dr. TAUSSIG. Yes, I think it is. I speak by general experience. Most of it is personal. I have trained a great many foreign doctors in the days when we were allowed to have foreign fellows through the International Health, and those who came over, recommended by their governments, wanting to be trained, have overwhelmingly gone back.

Mr. JARMAN. Thank you.

Mr. ROGERS of Texas. Mr. Devine.

Mr. DEVINE. I have no questions.

Mr. ROGERS of Texas. Mr. Rogers.

Mr. ROGERS of Florida. Thank you, Mr. Chairman.

I appreciate your statement, Dr. Taussig. I think you have made a very excellent point about the need for training practical nurses. I share your feeling that perhaps these people should be included in this sort of training bill. I have been trying to find out why they have not wanted to use the facilities of junior colleges for any training. What is your feeling on that?

Dr. TAUSSIG. I think the junior colleges might go into high schools and stimulate the students to do practical nursing. I know of instances where they have gone out into rural high schools. I go to Cape Cod in the summer and they have some very excellent young people who were stimulated in high school to go into training to be medical technicians.

Mr. ROGERS of Florida. For instance, I know in the nursing program, the junior colleges in my State are turning out students who are doing very well with—in the State examinations. They are in the top category. Yet we seem to not be willing to use this vast resource for getting people fairly quickly who can be put to work under the supervision of more highly trained people.

Dr. TAUSSIG. Yes, there are many places in home nursing, many places in the hospital that a practical nurse can help.

Many a time at home, the person just needs help.

Mr. ROGERS of Florida. With the medical care program coming into existence this will accentuate the need I would think for home nurses and for nursing care.

Dr. TAUSSIG. I am sure it will. I have of course been in favor of medicare, as you know, for some time but it has shown up the tremendous need. I know in Massachusetts I was shocked to see the figures when they said that 20 percent of the hospitals and 80 percent of the nursing homes would not qualify for medicare and that there are practically no visiting nurses to send to the home.

The people are going to be disappointed for the lack of service they can get. It seems to me it is up to us to bring in service as promptly as we can.

Mr. ROGERS of Florida. Yes, I share that feeling very strongly.

On this international health bill that was mentioned, actually we could probably stand some help from some other country. Our infant mortality rate is still quite high, is it not, for a country which has supposed to have reached the medical competence we have here? I understand some of the Scandinavian countries have reduced their infant mortality far beyond ours.

Dr. TAUSSIG. I am sure when we go and work with our foreign doctors we learn, too. We bring back good ideas to our country. This is not a one-way street we are sending those people out on.

Mr. ROGERS of Florida. Thank you very much.

Mr. ROGERS of Texas. Mr. Broyhill.

Mr. BROYHILL. No questions.

Mr. ROGERS of Texas. Mr. Kornegay.

Mr. KORNEGAY. Thank you, Mr. Chairman. Dr. Taussig, it is certainly a pleasure to have you before the committee.

Dr. TAUSSIG. Thank you.

Mr. KORNEGAY. It is always a great gratifying experience for us to have one who has distinguished herself, as you have, in your chosen field of medicine.

I congratulate you on the wonderful work you have done over the years.

I, like some of my colleagues on the committee, have some misgivings about this bill. You point up the question of money. I think some of us are concerned over whether or not this particular legislation actually gets to the heart of the problem, and that is training people to look after the sick. We see it quite often in the doctor training program, the productivity is very limited. I want to congratulate you and thank you for coming over and giving us the benefit of your knowledge.

Dr. TAUSSIG. It seems to me with the increasing demand for medical care, although it may be possible, it is very difficult to speed up greatly the training of the doctors. We tried it during the war. We can speed up the training of the paramedical and we can increase use of the paramedical people. I feel this is a very important area of legislation in order to really be able to come give the people the care they want and to give it to them promptly. That is why I think the money is well invested.

Mr. KORNEGAY. There is a great need for paramedical personnel, practical nurses, people who are—whose training is not so extensive and whose educational background need not be as intensive as that of the doctors or dentists.

Mention was made of the Manpower Redevelopment Training Act. It is doing wonderful things in training people.

Mr. ROGERS of Texas. Thank you.

Mr. Satterfield.

Mr. SATTERFIELD. No questions.

Mr. ROGERS of Texas. Thank you very much, Dr. Taussig.

Dr. TAUSSIG. Thank you, Mr. Chairman.

It was a pleasure to be here.

Mr. ROGERS of Texas. The next witness who will testify is Dr. Rovelstad along with Dr. Mann.

STATEMENT OF DR. HOMER D. ROVELSTAD, DR. WILLIAM R. MANN, BEN F. MILLER, AND BERNARD J. CONWAY, ON BEHALF OF THE AMERICAN DENTAL ASSOCIATION AND AMERICAN ASSOCIATION OF DENTAL SCHOOLS

Dr. ROVELSTAD. My name is Dr. Homer D. Rovelstad of Grand Forks, N. Dak. In addition to maintaining a private practice, I am a member of the American Dental Association's Council on Legislation.

With me here today are Dr. William R. Mann, dean of the University of Michigan School of Dentistry; Mr. Ben F. Miller III, assistant secretary of the American Dental Association's Council on Dental Education; and Mr. Bernard J. Conway, chief legal officer of the American Dental Association.

We are testifying on behalf of the American Dental Association and the American Association of Dental Schools.

The associations we represent, Mr. Chairman, believe that passage of H.R. 13196 can be of some benefit in improving the quality of training of dental auxiliary personnel. There can be no question but that assuring an adequate supply of highly trained health personnel in the years to come is one of the most pressing responsibilities facing the Nation.

The proposal presently before you is a step in the total effort to meet this responsibility. With your permission, I will ask Dr. Mann to comment in detail on the provisions of H.R. 13196.

Dr. MANN. Mr. Chairman, H.R. 13196, as we understand it, would authorize a new 3-year program providing grants for construction of training centers for the allied health professions, grants to improve the quality of such centers, traineeships for advanced training to prepare personnel for teaching, supervision, and other specialized functions and project grants to training centers to develop, demonstrate, or evaluate curriculums for training of new types of health technologists. The bill is limited in applicability to training centers that provide programs "leading to a baccalaureate or equivalent degree or to a higher degree" with priority going to those that provide three or more of the curriculums to be specified in regulation of the Surgeon General.

Given this latter limitation, the bill is not applicable to all three dental auxiliary categories. The dental laboratory technician, the dental assistant, and the dental hygienist. Neither the dental laboratory technician nor the dental assistant is trained at the baccalaureate level.

In addition, there exists both 2- and 4-year training programs for the dental hygienist and thus not even all of these training programs would qualify under the terms of the bill.

It would be a mistake, then, to view H.R. 13196 as mounting a program for the allied professions parallel in scope to that provided dentistry and medicine by the Health Professions Educational Assistance Act. The thrust of the bill we are considering today is toward supplying more teachers and administrators to staff existing and projected educational programs and will not substantially reduce the present and growing shortage of dental auxiliaries.

There are at present 16 universities that have well-defined health science centers that probably would qualify immediately under H.R.

13196 as training centers for dental hygienists. In addition, we would judge that some of the other existing programs would be able to qualify within a short period of time.

With regard to new programs, it should be noted that the American Dental Association and the American Association of Dental Schools both have policy urging that all dental schools do establish dental hygiene programs. About 20 of the schools do not now have such programs but some of these might be expected to react to the stimulus provided by this bill.

While precise statistics are not available, it is believed that the 4-year dental hygiene programs contribute substantially to providing the personnel needed for teaching and dental public health. At the present time, there are three graduate programs in dental hygiene that are primarily designed to prepare supervisors and administrators for both 4- and 2-year curriculums.

Of the six exclusively 4-year curriculums, only one is structured and so designed as a total of 4 years of dental hygiene education. The others represent the completion of 2 years of dental hygiene education and 2 years of additional general education in the arts and sciences.

Experimentation in the design of the 4-year curriculum is, then, desirable and the provisions of H.R. 13196 for curriculum design and experimentation seems appropriate to this purpose. Such experimental programs could include—

1. Teacher training programs for the development of instructors and teachers in a 2-year dental hygiene, dental assisting, and dental technology programs.

2. Four-year curriculum development for the training of public health dental hygienists.

3. Experimental investigations into the expansion of the duties of presently recognized auxiliaries, based upon the educational experience of graduates from 2-year dental hygiene programs.

With regard to the improvement grants section, we believe that the availability of such funds will prove useful in enabling the schools to enhance the quality of their offerings. Similarly the traineeship provision should have the effect of broadening the opportunities of selected dental hygienists and make it possible for these superior students to prepare themselves for specialized service in the educational and administrative fields.

H.R. 13196, then, is well designed to make some contribution to the health manpower needs of the Nation and we support these aspects of the bill.

We would also like to comment on section 4 of the bill which increases the loan forgiveness for physicians who practice in low income rural areas. There also is a serious and well-documented shortage of dentists in many rural areas throughout the country and we believe the bill should be amended to provide equal inducements as between physicians and dentists.

Finally we, would like to comment on that section relating to student loans. While our association does not feel competent to comment on the relative fiscal merits involved in these alternate forms of financing, we are concerned that nothing be done to jeopardize the continuing provision of loans to dental students.

There are many students who are now in dental schools who could not continue their education without loans under this program.

We believe, consequently, that funds should be appropriated under present arrangements until such time as this new proposal be implemented without interruption of the program.

Mr. Chairman, the American Dental Association and the American Association of Dental Schools are grateful for this opportunity to appear before your committee on these vital matters. We would be glad now to try and answer any questions you or committee members may have.

(The complete statement of the American Dental Association and the American Association of Dental Schools follows:)

STATEMENT OF THE AMERICAN DENTAL ASSOCIATION AND THE AMERICAN ASSOCIATION OF DENTAL SCHOOLS

Mr. Chairman and members of the committee, my name is Dr. Homer D. Rovelstad of Grand Forks, N. Dak. In addition to maintaining a private practice, I am a member of the American Dental Association's Council on Legislation. With me here today are Dr. William R. Mann, dean of the University of Michigan School of Dentistry; Mr. Ben F. Miller III, assistant secretary of the American Dental Association's Council on Dental Education, and Mr. Bernard J. Conway, chief legal officer of the American Dental Association. We are testifying on behalf of the American Dental Association and the American Association of Dental Schools.

The associations we represent, Mr. Chairman, believe that passage of H.R. 13196 can be of some benefit in improving the quality of training of dental auxiliary personnel. There can be no question but that assuring an adequate supply of highly trained health personnel in the years to come is one of the most pressing responsibilities facing the Nation. The proposal presently before you is a step in the total effort to meet this responsibility. With your permission, I will ask Dr. Mann to comment in detail on the provisions of H.R. 13196.

Dr. MANN (commenting). For some 5 years now, this committee has been deeply immersed in the plans being made cooperatively by private and public agencies to increase the Nation's overall capability, both qualitatively and quantitatively, for training health professionals. Throughout this time, the committee has exercised its leadership in a prudent yet vigorous way, making real progress possible. The passage of the Health Professions Educational Assistance Act in 1963, and the amendments to it passed in 1965, are landmarks in the history of health legislation. Together with the Nurses Training Act, it constitutes the heart of our effort to assure that the American Nation has an adequate supply of highly qualified professional health manpower.

The legislation passed thus far, however, has related primarily to what might be called the major professions, those who bear the ultimate responsibility for the well-being of the patient himself. I refer here especially to the dentist and the physician. We have, of course, long recognized that the dentist and the physician are not the only professional workers in the health field. They receive vital assistance, assistance they must have, from many allied or auxiliary personnel.

In the field of dentistry, three such categories of personnel can be identified. First of all, there is the dental hygienist. The dental hygienist, who is licensed in every State, is trained to carry out certain procedures inside the mouth that are necessary to the maintenance of oral health such as oral prophylaxis, taking X-rays, and applying topical fluorides and these aspects of the hygienist's work is done under the supervision and direction of a dentist. Education of the dental hygienist is conducted at the college level. In 1965, there were 56 2- and 4-year dental hygiene curriculums and enrollment was approximately 3,850. Thirty of these programs are in dental schools; 12 are in 4-year institutions and 14 are in junior colleges.

The second of the three dental auxiliaries is the dental assistant. Her responsibilities are more directly related to the functions of the dentist himself. She works at this side, assisting him in providing dental care to each patient. In addition, the dental assistant typically will have some tasks to discharge in the area of office management. In 1965, there were 64 1- and 2-year post-high-school technical-training programs for dental assistants. Approximately half are located in junior or community colleges. The total enrollment was approximately 2,800.

Given what we know about the new number of programs now being readied, by the end of this year we can estimate that enrollment will be raised to between 3,400 to 3,800 students.

Finally, there is the dental laboratory technician who has as his primary responsibility the fabrication of prosthetic devices, such as fabrication being carried out on the basis of detailed specifications ordered by the dentist. There were, in 1965, five accredited schools of dental technology with a training capacity of 334 students. Seven additional schools have applied for and are in the process of accreditation. In the instance of all three auxiliaries, it should be noted, the accreditation is by the Council on Dental Education of the American Dental Association.

The American Dental Association and the American Association of Dental Schools have long recognized the important role that these auxiliary personnel play in enabling dentists to provide better dental service and to care for more people on a more efficient and economical basis. Indeed, if there has been a change in the character of dental practice within the past decade or so, it is because many dentists have been able to accomplish this result by employing formally trained auxiliaries to whom can be delegated necessary services that do not need the dentist's personal attention.

There is a shortage of formally trained auxiliaries in all three categories. While the dental profession and other interested groups have been involved for some time in vigorous efforts to remedy these shortages, it has become increasingly clear that more intensive assistance is needed.

H.R. 13196, as we understand it, would authorize a new 3-year program providing grants for construction of training centers for the allied health professions, grants to improve the quality of such centers, traineeships for advanced training to prepare personnel for teaching, supervision and other specialized functions and project grants to training centers to develop, demonstrate, or evaluate curriculums for training of new types of health technologists. The bill is limited in applicability to training centers that provide programs "leading to a baccalaureate or equivalent degree or to a higher degree" with priority going to those that provide three or more of the curriculums to be specified in regulations of the Surgeon General.

Given this latter limitation, it is obvious that the bill will not be applicable to the dental assistant, the dental laboratory technician or, immediately, to all dental hygienists. It would be a mistake, then, to view H.R. 13196 as a mounting program for the allied professions parallel in scope to that provided dentistry and medicine by the Health Professions Educational Assistance Act. The thrust of the Allied Health Professions Personnel Act of 1966 is toward supplying more teachers and administrators to staff existing and projected educational programs and will not substantially affect the present and growing shortage of dental auxiliaries.

There are at present 16 universities that have well-defined health science centers that probably would qualify immediately under H.R. 13196 as training centers for dental hygienists. In addition, we would judge that some of the other existing programs would be able to qualify within a short period of time.

With regard to new programs, it should be noted that the American Dental Association and the American Association of Dental Schools both have policy urging that all dental schools establish dental hygiene programs. About 20 of the schools do not now have such programs but some of these might be expected to react to the stimulus provided by this bill.

While precise statistics are not available, it is believed that the 4-year dental hygiene programs contribute substantially to providing the personnel needed for teaching and dental public health. At the present time, there are three graduate programs in dental hygiene that are primarily designed to prepare supervisors and administrators for both 4- and 2-year curriculums.

Of the six exclusively 4-year curriculums, only one is structured and designed as a total of 4 years of dental hygiene education. The others represent the completion of 2 years of dental hygiene education and 2 years of additional general education in the arts and sciences. Experimentation in the design of the 4-year curriculum is, then, desirable and the provisions of H.R. 13196 for curriculum design and experimentation seem appropriate to this purpose. Such experimental programs could include:

1. Teacher training programs for the development of instructors and teachers in 2-year dental hygiene, dental assisting, and dental technology programs;
2. Four-year curriculum development for the training of public health dental hygienists;
3. Experimental investigations into the expansion of the duties of presently recognized auxiliaries, based upon the educational experience of graduates from 2-year dental hygiene programs.

With regard to the improvement grants section, we believe that the availability of such funds will prove useful in enabling the schools to enhance the quality of their offerings. Similarly, the traineeship provision should have the effect of broadening the opportunities of selected dental hygienists and make it possible for these superior students to prepare themselves for specialized service in the educational and administrative fields.

H.R. 13196, then, is well designed to make some contribution to the health manpower needs of the Nation and we support these aspects of the bill.

In addition to these comments on the Allied Health Professions Training Act, Mr. Chairman, the American Dental Association would like to direct the committee's attention to section 4 of H.R. 13196, which is concerned with loan repayments by health personnel. This section would amend existing provisions of the Public Health Service Act to increase annually from 10 to 15 percent the amount of a student loan that will be canceled for each year a physician practices in a rural area characterized by low income. It also allows the total amount of the loan, rather than 50 percent, to be canceled. The association opposes this amendment in its present form as being discriminatory.

The purpose of the loan cancellation provision, as we understand it, is to help persuade health practitioners to establish practices in an area where there is now a shortage. Setting different cancellation rates for physicians, as compared to dentists, is unjustified without a clear showing that there is a substantially more serious shortage of medical practitioners than dental practitioners.

We know from our own surveys that there is a serious problem with respect to the geographical distribution of dentists. For example, in a State such as California, with a very favorable dentist-to-population ratio of 1 to 1,600, four counties range from 1:4,500 to 1:6,600. Again in Illinois, where there is a favorable statewide ratio of 1:1,600, 14 counties range from 1:3,500 to 1:9,300. Similar situations exist in most States.

Finally, we would like to comment on section 5 of H.R. 13196. While our associations do not feel competent to comment on the relative fiscal merits involved in these alternate forms of financing, we are concerned that nothing be done to jeopardize the continuing provision of loans to dental students. There are many students now in dental schools who could not continue their education without loans under this program. We believe, consequently, that funds should be appropriated under present arrangements until such time as this new proposal be implemented without interruption of the program.

Mr. Chairman, the American Dental Association and the American Association of Dental Schools are grateful for this opportunity to appear before your committee on these vital matters. We would be glad now to try and answer any questions you or committee members may have.

Mr. ROGERS of Texas. Thank you very much, Dr. Mann. Dr. Rovelstad, there is one question I would like to ask now. We are speaking of the American Dental Association. How many other dental societies or professional associations are there in America, in the dental profession?

Dr. ROVELSTAD. There are two, I believe. Is that right, Mr. Miller?

Mr. MILLER. I think there are a number of allied dental organizations. You mean organizations such as the American Academy of Dental Practice and general organizations, such as the American College of Dentists?

Mr. ROGERS of Texas. What I mean are the other groups. Wasn't there an American Association of Dentists that was formed, made up of dentists who disagreed with the legislative policies of the American Dental Association?

Dr. ROVELSTAD. Yes, sir.

Mr. ROGERS of Texas. How many of those groups are there—different groups?

Dr. ROVELSTAD. May I refer that to Mr. Conway, please?

Mr. ROGERS of Texas. Yes.

Mr. CONWAY. That is the only organization of that type that we know of, Mr. Rogers.

Mr. ROGERS of Texas. What I am getting at is this: Percentagewise, how many of the practicing dentists in the United States does the American Dental Association represent?

Mr. CONWAY. The American Dental Association represents more than 90 percent of the practicing dentists in this country.

Mr. ROGERS of Texas. I gather some of those are simply not members of any association or any group?

Mr. CONWAY. I would assume that. I believe that even this organization which dissents from the American Dental Association policies requires its membership to be in the American Dental Association or to be ethically entitled to membership in the association.

Mr. ROGERS of Texas. I wondered, have you discussed this legislation with those other groups?

Mr. CONWAY. No, we do not follow a policy of discussing with them.

Mr. ROGERS of Texas. Do you know their position on it?

Mr. CONWAY. I do not know their position on this bill. Generally, I think it is on record that they have opposed Federal aid to education in any way.

Mr. ROGERS of Texas. But 90 percent of the dentists in the United States are members of the American Dental Association and the American Dental Association is the one you are speaking for today?

Mr. CONWAY. That is true. I might point out, Mr. Chairman, that this organization, the Association of American Dentists, to which you refer, has never revealed its membership and refuses to do so for some reason.

Mr. ROGERS of Texas. Now is the same true, Dr. Mann, of the American Association of Dental Schools? Are all the dental schools members of that association?

Dr. MANN. Yes, all the dental schools of the United States and Canada.

Mr. ROGERS of Texas. When you speak you speak for them?

Dr. MANN. That is right.

Mr. ROGERS of Texas. Mr. Rogers, do you have a question?

Mr. ROGERS of Florida. Thank you, Mr. Chairman.

You have pointed up here some of the concerns I have about this legislation. It very obviously does not meet the need of what it was implied it would, in my own mind anyhow. It is—it looks like what it has turned out to be is an education bill rather than a bill to turn out some practical medical people to help solve the health problem of the Nation.

I am not sure that this has even come to the right committee if we get into jurisdiction. It might be that this ought to go to Education and Labor.

What you have pointed up I think is one of the great defects of the bill, and I hope we can get the Department of Health, Education, and Welfare to look this over and see about letting some of the other institutions participate, because, as you say, it would not get to the problem of even helping dentists really, would it?

Dr. MANN. Insofar as stimulating a significant increase in the number or supply of dental auxiliaries I agree with you. To be specific with our dental hygiene program, only about 10 percent of the people being trained now are obtaining a baccalaureate degree. So the bulk of these people are being trained in 2-year programs. Junior

colleges and community colleges are entering more and more into this training, and this would not encourage them.

Mr. ROGERS of Florida. This would not help their situation or encourage them to increase their capacity to turn out these needed people?

D.r MANN. That is right.

Mr. ROGERS of Florida. How many colleges, is it 16 dental colleges?

Dr. MANN. Dental schools?

Mr. ROGERS. Dental schools.

Dr. MANN. There are 50 of them.

Mr. ROGERS of Florida. About how many dentists do you turn out a year?

Dr. MANN. I will ask Mr. Miller to answer that.

Mr. MILLER. About 3,400.

Dr. MANN. Yes.

Mr. ROGERS of Florida. What do you estimate the actual need is for dentists?

Mr. MILLER. A number of estimates have been made of need, not only for today but for up to 1970 and 1980. I think the figure that was pretty generally agreed upon, was that by 1975 or 1980 we should just about double the number of the present output of the dental schools.

Mr. ROGERS of Florida. What are the prospects for meeting that goal?

Mr. MILLER. I think currently there are some very good prospects as the result of the Health Professions Educational Assistance Act. Many of our schools are currently expanding their enrollments. Several new schools are now either in planning for new construction or about to begin construction.

Mr. ROGERS of Florida. This is encouraging.

Mr. MILLER. Yes, it is.

Dr. MANN. I think Mr. Rogers, H.R. 12 has been most helpful. My own school is in the process of expanding.

We will take 53 percent, 54 percent more students, jumping from 97 to 150.

Mr. ROGERS of Florida. Many of the medical schools have not been able to take very many new people. I think it would be helpful for the record if you could supply what the dental schools have done as a result of that legislation then and how we would meet the goal?

Dr. MANN. We will be glad to supply that.

(The information requested follows:)

At the end of the current fiscal year 14 applications from new or existing dental schools will have been funded under the Health Professions Educational Assistance Act program. These facilities will provide 426 new places for dental students.

It is estimated that if the full amounts authorized are appropriated during the next 3 years a total of 700 new places will have been added.

Mr. ROGERS of Florida. Would you agree then that it would be well to have this legislation apply to, say, junior colleges where the 2-year schools can benefit from this construction program?

Dr. MANN. If I were writing this I would make it apply to the 2-year dental hygiene programs which would include many dental schools, junior colleges, community colleges, and I would not insist that these people who are being effectively trained in 2 years necessarily now be trained over a 4-year period.

Mr. ROGERS of Florida. Because you have found that sufficient in many areas?

Dr. MANN. Yes.

Mr. ROGERS of Florida. Thank you. You have been most helpful.

Mr. ROGERS of Texas. Mr. Broyhill.

Mr. BROYHILL. I agree with the gentlemen from Florida this is a very excellent statement which you gentlemen have given us. I know that a lot of us have been very much concerned over the need for physicians and dentists and of course the health professions go along with these professional people.

I am very impressed with your statement that you felt that this legislation we are considering here makes some contribution to these needs. But, as I gather the thrust of your statement, it is that then it really does not go very far toward meeting these needs.

Dr. MANN. We feel it falls short.

Mr. BROYHILL. How many do you feel that will be trained under this program in the field of dental hygiene?

Dr. MANN. I did not understand your question.

Mr. BROYHILL. How many do you feel will be trained under this program, additional personnel, for your profession of dental hygiene?

Dr. MANN. The number being trained in existing facilities probably would remain quite nearly the same. We do not think that existing facilities could absorb many more students. We feel that perhaps five or six schools might be inclined to move toward 4 year, initiate 4 year baccalaureate degree programs.

So this would probably mean 100 to 150 students a year increase.

Mr. BROYHILL. That would take, of course, some years?

Dr. MANN. It would. And that is a small number. We are now graduating each year about 1,500. We feel that probably that number should be doubled as quickly as possible.

Mr. BROYHILL. Thank you very much, Mr. Chairman.

Mr. ROGERS of Texas. Mr. Kornegay.

Mr. KORNEGAY. Thank you, Mr. Chairman.

Dr. Rovelstad, thank you for your fine statement this morning. I know that you and your colleagues will be interested in hearing, if you don't already know, that a junior college and technical institute in my home county in North Carolina, received the first grant under the Manpower Development and Retraining Act 2 or 3 weeks ago for dental hygienists.

The program calls for training 60 dental hygienists. They have already within 2 weeks recruited or had 40 applicants for it. I portend a great future in this particular area.

I appreciate your statement.

Mr. ROGERS of Florida. Will you yield?

Mr. KORNEGAY. Yes.

Mr. ROGERS of Florida. Don't you think it would be perhaps wise to consider amending this bill by adding an additional section to assist junior colleges and hospitals in the training of allied health personnel rather than to have to wait and anticipate another act coming up?

Dr. MANN. We would have no objection to that.

Mr. ROGERS of Florida. Thank you.

Mr. ROGERS of Texas. Mr. Satterfield.

Mr. SATTERFIELD. No questions.

Mr. ROGERS of Texas. Mr. Mackay.

Mr. MACKAY. No questions, Mr. Chairman.

Mr. ROGERS of Texas. Mr. Gilligan.

Mr. GILLIGAN. Mr. Chairman, I have no questions. Off the record, I would like to comment.

(Discussion off the record.)

Mr. ROGERS of Texas. Mr. Adams.

Mr. ADAMS. Dr. Mann, on page 2 you refer to three categories. I thought the dental hygienists included all the ladies in white that wander around the office.

Dr. MANN. That is not true.

Mr. ADAMS. Who trains the assistants and the dental laboratory technicians as opposed to the dental hygienists?

Dr. MANN. The dental assistants are largely trained on the job, in dental offices. This is something which is changing and the dental profession is doing everything in its power to change. It is developing and we are encouraging the development of formal programs of training, either 1 or 2 years in length, and primarily developing in junior colleges.

This again would even be something that to us would be a great help, some possibility of assisting junior colleges and community colleges, to prepare these people with a formal education to become dental assistants in their own home localities where they will eventually work.

But right now most of the training is going on in the dental office.

Mr. ADAMS. In these 1- and 2-year technical training programs, who is there to tell these young ladies what they are going to do?

Dr. MANN. Usually a local dentist.

Mr. ADAMS. A local dentist goes in rather than a 4- or 6-year dental hygienist coming back and telling them how to do it?

Dr. MANN. A dental hygienist does not, ordinarily. Their duties are different from those of a dental assistant. Her education is not necessarily preparing to be a teacher of dental assistants. A dentist with some experience, and dental assistants are usually doing the teaching in these programs.

Mr. ADAMS. A laboratory technician, now you mentioned there are only five of those schools in the country. Who is telling the dental technician how to perform his functions? Is this again somebody with a 5- or 6-year college education?

Dr. MANN. Generally the program would be headed by a dentist again and helped by a technician, a skilled technician. The reason I keep saying these programs are headed by dentists is that not only do we think this is ethically proper but so many times it is hard to find the dental assistant with the academic background necessary for appointments in our junior colleges and so forth.

Mr. ADAMS. In other words, these programs to train the categories of the people, with the exception of the dental hygienists, which I will come back to in a minute, but the people who are actually working in the office at the lower level-type activities are trained by others who are in the field and not necessarily by educators who have been through a full 6- or 5-year college program?

Dr. MANN. That is right.

Mr. ADAMS. In other words, one of the other witnesses this morning talked about practical nurses helping people at home. Most of her education is from another practical nurse who has done it and is

telling another one how to do it rather than an elaborate educational program?

Dr. MANN. Yes.

Mr. ADAMS. And therefore if we simply train more people for 4 and 5 years both at the baccalaureate and masters level we may well drain away some people who would otherwise stay in offices and work?

Dr. MANN. Yes. As far as dentistry is concerned you would help to some extent with the further education of the dental hygienist and to no other extent other than the preparation of teachers for dental hygienists and dental assistants. You would not increase the supply appreciably.

Mr. ADAMS. Is there some other type of examination or accrediting system for dental assistants and dental laboratory technicians?

Dr. MANN. There is an accreditation program for training.

Mr. ADAMS. If somebody comes out to be a dental laboratory technician, in X city does it vary State by State and county by county as to whether or not he can go to work?

Dr. MANN. If you will permit me I would like to ask Mr. Miller, who works in this field daily, to answer that.

Mr. MILLER. There are two certification programs for the dental auxiliaries, for the dental assistants and for the dental laboratory technician.

However, these are voluntary certification programs and they are not conditions of employment. They would indicate competence and skill beyond the average dental assistant or dental laboratory technician if a person were certified. There are national certifying boards for both auxiliaries.

Dr. MANN. If somebody is trained either in junior college or community college or by a dentist to be a dental assistant and goes to a dentist's office and says I am a dental assistant and can perform, there is no board to be passed or no particular license.

No compulsory requirement.

Mr. ADAMS. Thank you, Mr. Chairman.

I have no further questions.

Mr. ROGERS of Texas. Thank you, gentlemen.

Dr. ROVELSTAD. Thank you, Mr. Chairman.

Mr. ROGERS of Texas. The next witness is Miss Ruth Hovde, Division of Medical Technology of the College of Medical Sciences of the University of Minnesota, representing the American Society of Medical Technologists.

Miss Hovde, it is nice to have you before the committee and you may proceed.

STATEMENT OF MISS RUTH HOVDE, PROFESSOR AND DIRECTOR, THE DIVISION OF MEDICAL TECHNOLOGY, COLLEGE OF MEDICAL SCIENCES, THE UNIVERSITY OF MINNESOTA, ON BEHALF OF THE AMERICAN SOCIETY OF MEDICAL TECHNOLOGISTS

Miss HOVDE. Mr. Chairman and members of the committee, my name is Ruth F. Hovde. I am professor and director of the Division of Medical Technology in the Department of Laboratory Medicine of the College of Medical Sciences at the University of Minnesota.

As a past president of the American Society of Medical Technolo-

gists, I am appearing on behalf of this organization whose active membership consists of 10,000 professional medical technologists whose standards of education and certification meet the requirements of the Council on Medical Education of the American Medical Association as well as the National Commission on Accrediting.

A medical technologist has an educational background of 4 years of academic and professional study in basic sciences related to health. Three of these years are in college with the final year in a hospital laboratory approved for clinical training.

As an educator for the past 20 years in medical technology, I am pleased to appear here in support of this bill (H.R. 13196) which provides for improvement of the quality of educational programs and increase in educational opportunities for students in the allied health professions.

You are all well aware of the overall factors involved in the tremendous task of providing total health care to the people of this Nation and of the major problems of an adequate supply of qualified personnel, and adequate facilities for service, education, and research.

I am here today to speak specifically about only one of the allied health professions, medical technology, which can be defined briefly as "the application of principles of natural, physical, and biological sciences to the performance of laboratory procedures which aid in the prevention, diagnosis, and treatment of disease."

In the last 15 to 20 years the amount of knowledge in all basic sciences related to health and disease has expanded at an incredible rate. Even without the impact of medicare and the regional medical complexes, it has been estimated that the utilization of laboratory services has been increasing between 10 and 30 percent annually.

This increase in service is not merely an increase in numbers of existing procedures but reflects also the introduction of new methodology and instrumentation making possible more precise and accurate determinations in less time. Contrary to popular opinion such methods and instruments require more, not less, scientific education.

The critical shortage of medical technologists has developed primarily because of lack of sound educational programs under good instruction, lack of adequate facilities for classrooms and laboratories, and lack of financial support for educational opportunities in medical technology.

The early development of laboratory services relied on personnel with on-the-job or apprenticeship training. Now with the increasing sophistication of modern science in methodology and utilization, this pattern of training is outmoded, inefficient, and inept. To meet today's and, indeed, future needs, educational programs for medical technology require emphasis on sound academic curriculums properly balanced with clinical experience to prepare the graduate for demands being made of him.

The quality of any medical laboratory service depends on the quality of the personnel. First and foremost, of course, is the individual who must possess the intelligence, the devotion, and the integrity to do the job. But this individual, however otherwise qualified, must also have the basic scientific knowledge and skills with which to work.

This is obtained through a strong academic and professional program under the best instructors available. But no matter how excellent a program may be in content and instruction, it must also be

given in proper physical facilities. To go further, good programs, instruction, and facilities are meaningless without students.

Opportunities for loan, scholarship, or traineeship programs for students in medical technology at the collegiate or graduate level have been practically nonexistent. Financial assistance for students must be made available if the shortages are to be corrected.

To my knowledge there are no current valid figures regarding exact needs in medical technology education specifically or in allied health fields generally. Therefore I am going to draw on my experience at one university, the University of Minnesota, on the assumption that this situation is not unique but rather is representative of the whole.

For the past year I have served as a member of the ancillary professions subcommittee of a large committee on the future planning for the health sciences at the University of Minnesota. This subcommittee was charged with the responsibility of envisioning future activities in the ancillary health professions under optimal programs with reference to faculty, to facilities, to space needs and location, and to student numbers and services, and with special consideration to local and national health needs.

This committee has completed a preliminary study on 14 ancillary disciplines; 7 are established teaching programs and 7 include partially developed or proposed programs.

Although these following data are strictly preliminary and in some instances incomplete at this time, they are significant. From the survey it is estimated that for the ancillary programs in 5 to 10 years, 40 percent increase in physical facilities—classrooms, laboratories, et cetera—over present facilities will be needed with a 100-percent increase in 15 to 20 years.

It is estimated that student enrollments in the ancillary professions will increase 75 percent over the present numbers in the next 10 years and up to 120 percent in the next 15 to 20 years.

It is estimated that an 80 percent increase in academic faculty over the present numbers will be needed in 5 to 10 years, with a 175 percent increase in 15 to 20 years.

These estimates—and again, I must emphasize these figures are preliminary and incomplete—point up dramatically the immediate need and urgency in providing for better facilities and for more teachers in these areas.

In the United States today there are only 10 universities offering graduate education in medical technology. Only at the University of Minnesota and Temple University are teaching methods and education courses incorporated with the scientific course of study to provide graduates specially trained as teaching supervisors and instructors for medical technology.

These qualified teachers are needed in the 780 hospital laboratories to teach the fourth year of clinical training for the medical technologist, and other specialized courses.

It is obvious that two graduate schools cannot begin to provide the number of instructors needed for these expanding educational programs, even if they were filled to capacity. Here again, may I borrow from the experience of the University of Minnesota.

Since our graduate program was established 7 years ago, only 28 applicants have been accepted. Of these 28, 4 have completed the

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requirements for the M.S. degree, 5 are currently matriculating, and the remaining 19 were unable to remain in school because of lack of funds.

There have been no traineeships available for them, and they had to rely on part-time employment to support themselves and sometimes their families. Holding a job while meeting scholastic and academic demands of graduate school is difficult.

During these 7 years there were 66 other applicants for the graduate program in medical technology, 40 or roughly 60 percent, were not accepted because of inadequate undergraduate preparation, and 26, or roughly 40 percent, who were adequately prepared were refused admission because of lack of space and faculty advisers.

To me these figures emphasize again the urgent need for funds for improvement of undergraduate programs as well as funds for facilities, faculties, and traineeships on the graduate level.

Another area of need in medical technology education arising from the expanding scientific knowledge and methodology is in the emerging role of the specialist as an essential and integral part of laboratory services. Fortunately, the sound basic academic preparation in medical technology provides the foundation on which the person can then build his acquisition of knowledge and use of skills within the area of the specialty.

Programs specially designed to train the immunohematologist, virologist and mycologist are examples. The inclusion in the legislation of grants to develop new or improved curriculums for training is farsighted.

We cannot speak of responsibilities of educational institutions without including provisions for continuing education. As professional people, medical technologists are well aware that education does not and cannot end with a degree at the baccalaureate or graduate level but rather is a continuing process. The scientific discoveries and changing methodologies applied to laboratory medicine intensify the need for seminars, symposia, workshops, tutorials, institutes, and so forth, on a short-term basis. But again, such programs are expensive and need support for both the participant and the institution. Schools should be encouraged and assisted in developing a well-integrated system of continuing educational programs.

On behalf of the members of the American Society of Medical Technologists, I thank you for this opportunity to give some of their views on medical technology education. Ours is a young profession and your understanding of the related manpower and education needs is sought.

Your approval of assistance in developing educational programs, opportunities for students, teaching facilities, and expansion of educational facilities will enable medical technologists to continue giving high-quality service on an expanded level.

Mr. ROGERS of Texas. Thank you, Miss Hovde. Mr. Rogers, do you have any questions?

Mr. ROGERS of Florida. Thank you, Mr. Chairman.

I think your statement is exeellent. You point up here an area that does need help, I am sure, as we try to find increased services for the people in this country. Do you have any program for training of medical technologists, say in the junior college program—2 years and then 1 year in a laboratory, or any such program?

Miss HOVDE. At our particular institution we do have a training program for medical laboratory assistants. There are about a hundred such programs throughout the country at this subcollege level or vocational level.

Mr. ROGERS of Florida. Would there be any reason why it would not be feasible to include those in this legislation?

Miss HOVDE. It is my understanding that legislation under the Vocational Manpower Act, for example, has provided for this type of person. One of the reasons why, in my opinion, some of these programs have had great difficulty in getting off the ground is that they have had no one to teach in them.

Mr. ROGERS of Florida. Yes, I can understand this problem, but while we are trying to teach, we also want to try to produce them at the same time. I wonder if it would not be wise to at last make available the benefits of this law to any reasonable institution that can help contribute.

Miss HOVDE. I am strictly in favor of anything that is going to help us in this total problem of providing qualified laboratory personnel.

Mr. ROGERS of Florida. Now you say there are only two colleges that are doing graduate work in the training.

Miss HOVDE. Including education. There are 10 universities that give graduate work in medical technology, emphasizing one of the basic sciences areas, and 2 of the 10 include in their curriculum specifically courses in educational administration and educational methods.

Mr. ROGERS of Florida. How many do you think would be encouraged to do this as a result of this bill?

Miss HOVDE. As I say in our own experience we had to turn down all of these applicants because we did not have space and money for them. It was a good group.

Mr. ROGERS of Florida. I mean how many institutions do you think would be encouraged as a result of this legislation?

Miss HOVDE. I think there would be many institutions that would be encouraged to do this if they had space, faculty, facilities to do this. I believe this is an important part of your legislation, to encourage the development of new programs and new curriculums.

Mr. ROGERS of Florida. Thank you very much.

Mr. ROGERS of Texas. Mr. Nelsen.

Mr. NELSEN. I wish to welcome a fellow Minnesotan before this committee. I might mention that the name Hovde rings a bell with the Golden Gophers.

Miss HOVDE. That is right.

Mr. NELSEN. What percent of the students who have finished your medical school in Minnesota stay within the State?

Miss Hovde. The majority of our graduates in medical technology stay within the State of Minnesota. I would say roughly 60 percent at least would stay in the State.

Mr. NELSEN. What about the School of Public Health Nursing? I think we pioneered in that program. Many leave the State, do they not?

Miss HOVDE. I am sorry, I have no information on that.

Mr. NELSEN. Of course the reason I ask the question is to emphasize that it would seem justified that there be some assistance through the Congress to the medical school and to a school of public nursing because some of the students who are trained in these schools go to other States which do not have such facilities.

Miss HOVDE. It is of interest, if I may include this little bit of information, as I stated the four people who completed their masters of science degrees in medical technology have gone to institutions of higher learning to four other States to fill a need there.

Mr. NELSEN. I was interested in your testimony on page 4. What do you mean by the term immunohematologist?

Miss HOVDE. Immunohematologist is a person trained specifically in immunological procedures—well, the closest I come to it would be in allergies, the whole field of human sensitivities that we are hearing so much about now and in the whole field of blood transfussions. All of this comes into work of an immunohematologist.

Mr. NELSEN. I think we all agree that a great stimulation could result from some additional Federal funds as would be provided in this proposal. However, we always seem to find ourselves with more requests that we have dollars. Sometimes after a program has become established, funds are cut off. For example, in the land-grant colleges areas, the school milk program, and so forth.

At the present time there is some possibility that these may be cut back. It may be restored. However, with programs of this kind we always have to anticipate that the faucet will be turned off, and you may be left with the program on your own.

Be that as it may, we are happy to have your testimony. Certainly there appears to be a great need in these fields.

Thank you so much for coming in from the great State of Minnesota to address the chairman who is from the lesser State of Texas—we will change the record later, Walter.

Mr. ROGERS of Texas. I was wondering if the gentleman would care to identify the Golden Gophers.

Mr. NELSEN. Yes; our great football team at the University of Minnesota is known as the Golden Gophers.

Mr. ROGERS of Texas. Mr. Kornegay.

Mr. KORNEGAY. I have no questions.

Mr. ROGERS of Texas. Mr. Adams.

Mr. ADAMS. Miss Hovde, I have very much enjoyed your statement. Again you have defined for us these various levels of medical technicians. I should ask again the same question that I did of the prior witness.

Do we by emphasizing in our programs too heavily the terms of the educational requirements place on our students a burden that they cannot follow through financially and, therefore, would we not be better off, for example, in the community college system, to go to the European gymnasium system of developing technicians?

Miss HOVDE. I am very much opposed to this type of education for the graduate professional medical technologist.

Mr. ADAMS. Where do we break them? Apparently you have this broken down into training educators and training them to train those who actually work in the field?

Miss HOVDE. There are two classes of laboratory personnel, those who are called laboratory assistants who usually have 1 year of training or 2 years of training in programs being developed within the junior colleges. The other class of medical technologists is the 4-year professional medical technologist.

Anything beyond that is just as any other profession, a step beyond.

It is true that many of our baccalaureates, many of them do conduct the actual teaching in the hospital. That is true.

Mr. ADAMS. In other words, they would be aided by this in producing people who would go back into either the junior colleges or the other areas and instruct the laboratory assistants as opposed to technologists?

Miss HOVDE. That is right. I think the time has passed for us to wait for our educators and administrators to rise through the ranks by reason of experience alone to do this.

Things are moving too rapidly. We have to provide some provisions to give these people some assistance in providing instructors for laboratory personnel. In my own opinion I think it is very unwise to talk about increasing the auxiliary personnel without providing instructors for these personnel.

Mr. ADAMS. This is one of the problems we have, our production of the various strata. We find this not only in the medical field but all over, a series of strata have come down historically from the past to prevent the production at the lower level of a number of people who may not be qualified financially, motivewise, and a lot of other ways, to do the more complicated jobs.

We are using highly trained personnel to do these jobs. We want to avoid using skilled personnel for lower level jobs. This is what we are searching for.

Miss HOVDE. That is right. We do need the laboratory assistant. We need them very badly because there are many areas within laboratory work that are repetitive, that require a certain degree of skill that we can train to do this type of thing; thus, we relieve the technologist for the more demanding skills in chemistry and in other areas.

Mr. ADAMS. You feel this bill will produce the people who can do this instruction?

Miss HOVDE. Yes; I do.

Mr. ADAMS. Thank you. I have no further questions.

Mr. ROGERS of Texas. Thank you, Miss Hovde, for you statement and your kindness in answering the questions.

That concludes the testimony this morning. The committee will stand adjourned until 10 o'clock in the morning.

(Whereupon, at 11:45 a.m., the committee adjourned, to reconvene at 10 a.m., Thursday, March 31, 1966.)

ALLIED HEALTH PROFESSIONS PERSONNEL TRAINING ACT OF 1966

THURSDAY, MARCH 31, 1966

HOUSE OF REPRESENTATIVES,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The committee met at 10 a.m., pursuant to recess, in room 2123, Rayburn House Office Building, Hon. Harley O. Staggers (chairman) presiding.

The CHAIRMAN. The hearing will come to order.

Yesterday when we adjourned we were having hearings on H.R. 13196, the Allied Health Professions Personnel Training Act of 1966. We resume hearings today. I am going to call on our colleague from Atlanta, Ga., Jim Mackay, to introduce our first witness, who is a constituent of his from the State of Georgia.

Mr. MACKAY. Thank you, Mr. Chairman.

Dr. Godwin happens to be more than a constituent. That is why I wanted to make a few remarks about him. A little more than a year ago when I was just taking my position as a freshman Congressman, Dr. Godwin was taking up his responsibility as president of the Fulton County Medical Society, which is the largest society of physicians in Georgia.

We are neighbors, friends, fellow church members. We were talking about the fact that there had sometime ago been a misunderstanding between the medical profession and the Congress.

I challenged him to work closely with me in an effort to assess all of the matters affecting the medical profession. As a result he graciously accepted that challenge. I don't know whether he is glad he did or not because he has received everything that has come before this committee touching on health with the result that he almost has had to quit practicing medicine to read the literature that has come across his desk from my office.

In the course of this year he has developed a very close acquaintance with Dr. Phillip Lee and others in Health, Education, and Welfare and has worked closely with me. I consider him almost as an auxiliary member of this committee because of the kind of commitment, thought and energy that he has given to this assignment.

The Surgeon General told me when he was here the other day that he was very grateful for the contribution that Dr. Godwin had made because he recognized his department did not have all the answers and they needed the counsel of the highly qualified physician who was out in the field.

As I mentioned Monday, Dr. Godwin is not in a university center type situation but is in one of the finest community hospital situations in our State.

He does bring a point of view that comes from an area in which most of medicine is practiced, on the people of America. So I am very proud of the contribution he has made. It is a great privilege to present him here. He actually is here in his capacity as representative of the American Society of Clinical Pathologists and is a member of the ASCP Board Register of American Technologists which annually examines more than 3,500 graduates of professionally approved schools and certifies upward of more than 3,000 medical technologists in the country annually.

I don't know anyone who can come before the committee better qualified to speak on this legislation than Dr. Godwin. I appreciate this opportunity to make these remarks about him.

The CHAIRMAN. Dr. Godwin, you may proceed.

You may insert your statement in the record and summarize it if you care to or if you would prefer to read it you may do so.

STATEMENT OF DR. JOHN T. GODWIN ON BEHALF OF THE AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS

Dr. GODWIN. Thank you very much, Mr. Chairman. I would like to thank Mr. Mackay for his very kind and generous remarks.

I wish to thank you, Mr. Chairman, for the opportunity to appear before the committee regarding H.R. 13196.

I have followed the activities of this important committee for many months and in particular during the 1st session of the 89th Congress. You will recall the passage of many health bills. Many of these are importantly related to the bill under discussion. Certainly it will not be possible to implement bills presently in effect unless the trained personnel are available to perform the functions required.

This is apparent in the personnel required in the Harris bills (H.R. 6881) relating to mental retardation, (H.R. 2985) staffing of mental health facilities, (H.R. 2986) community health, and others including the Appalachia program, PKU testing, medicare, heart disease, cancer, and stroke, and others.

New bills now under consideration such as H.R. 12453, the International Health Act; H.R. 12976, the Adult Health Protection Act; H.R. 13197, Comprehensive and Public Health Services Act of 1966; H.R. 13198, Hospital and Medical Facilities Modernization Amendments of 1966, will require large numbers of allied health personnel.

H.R. 13196 finally represents recognition of the need for adequate numbers of well trained paramedical personnel. It represents the culmination of effort on the part of many who have tried to bring attention to this need for many years.

In 1960 a proposal was submitted to the Public Health Service to perform most of the functions called for in this bill. The answer at that time (1960), and I quote from a letter from the Secretary's Office, stated:

> The research training programs of the National Institutes of Health have not been designed to fill a training function of the kind you envision. Certainly medical technologists are vital to a satisfactory program of medical service, and they are of importance in medical research.
>
> Nevertheless, the research training programs have been designed to train investigators themselves rather than the supporting personnel.

I believe we are now ready to recognize the fact that we cannot do good research, render good patient care or preventive care without sufficient, well-trained supporting paramedical personnel.

The need has been amply documented by the Community Health Service Conference Fora, the White House Conferences on Health and International Cooperation, by the President's Commission on Heart Disease, Cancer, and Stroke, and on a local level by Cameron Fincher, of Georgia, the Community Council of Atlanta, and the Georgia Hospital Association.

The Subcommittee on Manpower of the Heart Disease, Cancer, and Stroke Commission stated:

* * * The subcommittee has concluded that the manpower needs for physicians and other highly skilled health personnel, caused by our expanding economy, our enlarging population, and our increased opportunities, are so great as to be unattainable during the next decade.

* * * We must take all possible steps to assure that the potentials of existing facilities and institutions are used effectively for training manpower.

The subcommittee also indicated an urgency in their recommendations which included an immediate and massive program for new construction and enlarged operations including institutions for the training of auxiliary personnel.

* * * We must expand the basic resources and facilities for educating and training health personnel.

* * * We must develop increased opportunities for education and training leading to careers in the health occupations. We must increase the efficiency and effectiveness of the highly skilled health manpower now available.

Who constitutes allied health personnel other than nurses? It includes cytotechnologists, histologic technicians, X-ray technologists, radioisotopic technologists.

Mr. FRIEDEL. What is that first word?

Dr. GODWIN. Cytotechnologists. They are individuals who examine cell preparations; for example, the Papanicolaou smear, which is a routine screening procedure performed throughout this country. We need many of these individuals.

Mr. FRIEDEL. I did not know what the word meant.

Dr. GODWIN. Cytology, meaning study of cells.

Medical record librarians, occupational and physical therapists and many others also constitute allied health personnel, in addition to new categories now under consideration. Medical technologists constitute one of the largest groups. There are now 40,000 active medical technologists registered by the American Society of Clinical Pathologists. We need approximately one medical technologist for each 15 to 20 general hospital beds.

There are about 1,500,000 patients hospitalized each day indicating a demand for 70,000 to 100,000 medical technologists. This does not include the number required in research institutes, public health laboratories, physicians' offices, international projects, and other facilities.

Medical technologists may be responsible for the life or death of the patient—perhaps a member of your family—by determining whether or not blood is compatible for administration to a patient.

If this is done by improperly trained or motivated individuals, serious consequences or death may ensue. The simplest laboratory procedure which is performed in a hospital or physician's office—the

examination of urine—can take on serious significance when improper results are obtained. The findings may be misinterpreted and lead to unnecessary and hazardous examinations which could seriously affect a patient.

The medical technologist under the pathologist's supervision is responsibile for the examination of all types of specimens obtained from the body and the care of all patients is dependent in varying degrees upon laboratory findings.

The physician can perform no better than the personnel upon whom he depends for laboratory examinations, X-ray examinations, radioisotopic studies, ECG studies, and others.

Laboratory examinations are becoming more numerous and more complex and, oftentimes, automated, which require more and better technologists. The medical technologist has a basic training which can be directed into many facets of the medical team. A medical technologist's training can serve as the basis for the branching off into many other paramedical fields.

This bill purports in part to increase the opportunities for training of medical technologists and personnel in other allied health professions, and to improve the educational quality of the schools training such allied health professions. This is to be done in a training center which is a department, division, or other administrative unit (in a college or a university) which provides, primarily or exclusively, programs of education leading to a baccalaureate or equivalent degree or to a higher degree in medical technology, dental hygiene, or any of such other of the allied health professions' curriculum as are specified by regulations.

It would appear that the bill would apply only to programs which are an integral part of a college or university. This would apply to only a small proportion of schools of medical technology. Most of the 780 schools are in the community hospitals with a capacity of about 6,000 of the 6,822 available student places.

Many of the community hospitals' schools are loosely affiliated with colleges or universities, but do not require or award a degree. These schools are approved by the council on medical education of the American Medical Association and the National Commission on Accrediting.

There are 145 schools with 1,107 students currently enrolled that have no college affiliation.

Possibly clarification of equivalent degree as meaning registration or certification under existing standards after 3 years of college and 12 months internship would satisfy the requirements in medical technology since this is the presently approved program of training. Other programs such as X-ray, radioisotopes, dental hygiene, histologic technic, cytotechnology, and others do not require or lead to college degrees.

The actual training of personnel is performed in a hospital, most often a community hospital. Medical technologists spend 3 years in college and 1 year in a hospital.

The hospital is responsible for the training program and frequently offers a stipend of $50–$100 or more in addition to facilities, teaching staff, and teaching materials. This adds to hospital patient costs. An equitable distribution of grant funds should be made to the hospital for its teaching responsibilities.

The administrative relationship between the college or university and the community hospital would presumably be very flexible as it is at the present time.

It is hoped that the community hospitals would be able to participate in the traineeships and development of new categories of personnel.

Could the bill be modified to define the community hospital, with approved programs, as a training center and make the same grants available to those programs enrolling 20 or more students in various categories?

This would truly stimulate the output of various categories of allied personnel and give direct support to the institutions training the greatest number of students, and thereby reduce hospital costs and provide better trained personnel where the need is greatest. The problem of channeling money through a college or university to an affiliated hospital may be administratively difficult. Also, many students may already have a B.S. degree or originate from a school not affiliated wtih the hospital.

Recruitment of personnel, next to enhancement of allied personnel salaries, is the most important area to be considered.

To exemplify this point I would like to mention the experience of the Georgia Scholarship Commission, which this fiscal year has a budget of about $500,000. As of yesterday only $165,000, or 31 percent of the total, had been allocated. These funds increase to $1 million in 2 years. This will certainly require diligent recruitment in order to utilize the scholarships available.

Although nationwide, our schools have a capacity of 6,822 medical technology students, only 3,283 were graduated in 1965. Some consideration should be given to the designation of funds for recruitment, possibly under development of new methods or special grants to extend recruitment activities. If appropriate community hospitals are considered as training centers, direct funds could be made available for this purpose since local recruitment is the most effective recruitment and must be done by the hospital pathologists throughout the country.

It is evident that we have a serious and urgent need for increased numbers, improved quality, and new categories of allied health personnel to supply present needs in this country. This bill can enhance our chances of supplying the need. The modification or interpretation of the meaning of the bill to include the larger community hospital programs will augment our chances to more quickly reach our goal.

I believe Dr. Philip Lee indicated in his remarks that it is not the intent of the bill to exclude the 2,650 students taking their fourth year of clinical training in the 600 or so hospitals which, while affiliated with colleges, are not administratively a part of the college. I believe this is a most important point and should be clearly understood if the present language of the bill is not modified.

Thank you for your kindness in permitting me to appear before you.

The CHAIRMAN. Thank you, Dr. Godwin. We appreciate your coming and giving us the benefit of your views. They have been very clear and very precise.

I am sure it will be helpful to the committee in their consideration of the bill when we start to consider the bill as a whole.

Dr. GODWIN. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Friedel, do you have any questions?

Mr. FRIEDEL. No questions. I just want to compliment Dr. Godwin for his very fine, precise statement.

Dr. GODWIN. Thank you, Mr. Friedel.

Mr. FRIEDEL. And for the wonderful introduction our colleague gave you.

Mr. MACKAY. Thank you.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

On page 10 of your statement you state that—

> recruitment of personnel, next to enhancement of allied personnel salaries is the most important area to be considered.

Do you consider the recruitment of students more important than developing teachers? Or do you feel that we have an ample supply of teachers now to take care of the possible increase of students?

Dr. GODWIN. We do not have an ample supply of teachers. We need to develop teaching supervisors. All, I think, go hand in hand.

Mr. YOUNGER. Does it go hand in hand? Can you go out and recruit a thousand students to come in when you do not have the teachers to teach?

Dr. GODWIN. For a period of time this may create some difficulties but we must start somewhere. I think that this can be done.

Mr. YOUNGER. I agree you have to start somewhere. It seems to me that you have to have teachers in supply. As I understand, Mr. Martin yesterday claimed insofar as his interpretation that this bill is fundamentally to train teachers because recruitment you can have all right, you can get the students, all of those can be supplied, but you have to have the teachers and the facilities for the teachers to work in before you can go out and recruit a lot of students.

Dr. GODWIN. I do not believe the advance will be so rapid in recruitment and developing of the schools such that we cannot at the same time begin the training of additional teachers.

I do not believe that the bill is totally related to the training of teachers. There are really four components of the bill and it includes other facets, such as basic improvement grants for facilities, and funds to assist in the development of the program based on the number of students available.

Mr. YOUNGER. That is all, Mr. Chairman.

The CHAIRMAN. Mr. Moss.

Mr. MOSS. Mr. Chairman, I have no questions at this time.

The CHAIRMAN. Thank you, Dr. Godwin. Again I want to say thank you to you. I want to say that you certainly have a great supporter in your own Congressman up here. He has often mentioned your name.

Dr. GODWIN. Thank you, sir.

The CHAIRMAN. He certainly has complete faith in you. I can see why after hearing your testimony this morning.

You are to be congratulated on having a Congressman of the stature and ability of Mr. Mackay.

Dr. GODWIN. Thank you, sir.

The CHAIRMAN. Our next witness is Dr. Coon.

Dr. Coon, were you accompanying Dr. Godwin?

Dr. COON. Yes, sir.

The CHAIRMAN. Do you have a statement, sir?

Dr. COON. Yes, sir.

The CHAIRMAN. You may proceed. Dr. Robert W. Coon, the University of Vermont School of Medicine, Burlington, Vt. You may proceed, sir, inserting your statement in the record and summarizing it or reading it.

STATEMENT OF DR. ROBERT W. COON, CHAIRMAN OF THE DEPARTMENT OF PATHOLOGY, THE COLLEGE OF MEDICINE, THE UNIVERSITY OF VERMONT

Dr. COON. I am Dr. Robert Coon, representing the National Committee for Careers in Medical Technology, which is a joint committee of the three professional organizations most involved in recruiting and maintaining adequate standards of education for all medical laboratory personnel—the American Society of Clinical Pathologists, the American Society of Medical Technologists, and the College of American Pathologists.

The committee, which is 12 years old was formed at a time when enrollments in medical technology schools were going down, the demand for medical laboratory services was going up, and the complexities of both tests and equipment were increasing. In our first years we reversed this trend, and have since more than doubled enrollment of medical technologists, now increasing the annual output to nearly 4,000. Even so, we have not quite kept pace with the increase in utilization of laboratory services which doubles every 5 to 7 years.

In 1963 to alleviate this situation we formally created a second echelon of medical laboratory workers, the certified laboratory assistant, and developed a 12-month post-high-school training program. We have since introduced this program into 113 schools which are currently training 641 students in 34 States. Incidentally we worked then with the U.S. Office of Vocational Education, on the development of "A Suggested Guide for a Training Program—Medical Laboratory Assistant," which has been distributed to all existing schools, is being used to encourage the development of new schools, and is currently on its way through the Government Printing Office to be made available to vocational schools, junior colleges, and affiliated hospitals to help guide them in the development of laboratory assistant programs.

For the past 9 months we have also been working with Manpower in the Department of Labor, toward the development of laboratory assistant programs for disadvantaged groups, and currently there are 24 such Government financed schools training laboratory assistants, and more are in the planning stages.

However, today we are talking about an entirely different level of of laboratory personnel, the medical technologist, who is a professional, trained at a college level, having the equivalent of 4 full years of college. Her (for 85 percent of MT's are women) curriculum includes 3 years of academic work, focusing on such courses as biology, chemistry, bacteriology, virology, and physiology, plus a final 12 months of training in a clinical pathology laboratory where she learns to apply

these basic sciences to the treatment of disease while still continuing her science studies.

To keep the record straight between professional requirements for the medical technologist, the certified laboratory assistant, and in fact some of the specialties such as cytology, I have appended to my testimony a little fact sheet which explains requirements for laboratory personnel starting with the pathologist who studies for 12 or 13 years in college, medical school, internship and residency; the medical technologist who studies for 4 years at the college level; the cytotechnologist with 3 years post high school, and the laboratory assistant who studies for 1 or 2 years post high school.

With the exception of medical technologists, education for all the above categories of medical laboratory personnel is being directly supported by existing legislation. Training for the cytotechnologist at the post junior college level is generously financed with $1.3 million through the cancer control program of the U.S. Public Health Service.

Training for the certified laboratory assistant, at the post-high-school level is supported under the Vocational Education and Manpower Acts. While the laboratory assistant will have a big part to play in easing the medical laboratory shortage by helping the medical technologist and the specialist by doing the easier and less crucial tests in the laboratory, they cannot function without professional supervision, if quality standards are to be maintained.

The big bottleneck, and the one we are here to discuss today, is the medical technologist, who has many important roles to play in a medical laboratory, ranging from performing the more intricate and difficult tests to supervisory roles, teaching and specialization.

The medical technologist, is in short supply and with the onrush of medicare and the other Government legislation requiring supportive staffing in clinical laboratories, we are frankly overwhelmed.

H.R. 13196 with its promise to "increase the opportunities for training medical technologists and personnel in other allied health professions" is indeed welcome, and it would appear to be a piece of legislation that will have the long-term effect of helping alleviate personnel shortages by fostering educational programs for teaching supervisors and instructors, more specialists to make fullest use of automation and the more sophisticated medical laboratory techniques, as well as more supervisory personnel to make fullest use of laboratory personnel with lesser training.

In the past, most medical technology teaching supervisors and instructors have come into their educator's role because someone left and they inherited the job. While most if not all of them have scientific expertise, they have learned to teach on the job as it were, which as you know leaves much to be desired. The use of films and audio-visual materials comes easier to the medical technologist than do the techniques of preparing lectures, writing examination questions, etc.

Improvement of all aspects of teaching would appear to be the intent of H.R. 13196, as well as provision for developing new and improved curriculums, which I personally consider to be very important. In fact our own organization is now studying all levels of medical laboratory education with the expectation that we will recommend changes that will bring educational programs into line with present and future utilization practices. This is being done, incidentally, on a $191,893 grant from U.S. Public Health Service

made possible by the supplementary appropriation act of last year which implemented the recommendations of the Heart Disease, Cancer, and Stroke Commission.

Similarly the chief technologist and the section chiefs, in the medical laboratory who are responsible for the continuing accuracy of the tests performed have usually come into their roles by inheriting the jobs. Many of them need more training in order that they are themselves able to perform the more intricate tests, let alone supervise others.

For example, many of the enzyme tests now performed on a patient suspected of having had a heart attack have been developed within the past few years and are technically difficult.

While I am on this subject of new developments, I would like to digress for a moment and speak of automation, which would appear on the surface to be an easy solution to all our problems. I am often told these days that all I have to do is to put a little vial of blood into a machine, press a button, and a few minutes later get reports on a dozen tests for a variety of diseases.

Now let's look at what really happens. Most of these instruments are based on complex physiochemical principles and are complicated machines. They require constant attention, monitoring, standardization and adjustments. Even a tiny variation may profoundly affect the results.

It is easy to see that more, not less education and experience is needed to run one of these magnificent machines. It can do a great job, if it is watched carefully by someone who knows the principles on which it works. But it can't run itself. It reminds me of a New Yorker cartoon of two businessmen standing before an enormous computer machine and one is remarking to the other:

"Amazing, it would take 4,000 mathematicians 4,000 years to make a mistake like that."

Actually in our own case, automatic blood testing equipment can be well handled by a medical technologist who has specialized in chemistry. Although if one had one's "druthers" such training should be augmented by electronics which is a field for training that might very well be explored under that portion of your bill that relates to developing and demonstrating curriculums for training new types of health technologists.

I would like to speak appreciatively about another portion of H.R. 13196 which is much needed for our medical technologist training programs. This is the provision for construction allowances for real teaching laboratories for the clinical phase of the training. We need to replace our make-do facilities that pass for classroom space in the midst of the busy hospital laboratories. The need for teaching laboratory space was demonstrated in a survey made 6 years ago of directors of 250 hospital schools of medical technology in which one-fourth replied that their paramount need was for "classroom facilities." Such facilities would have an immediate effect on the quality of medical technology education provided. Whereas the clinical phase of the medical technologist's training must take place in a hospital setting, so as to allow students to observe and have access to patients with real, not simulated diseases, special laboratories within the framework of the hospital setting designed exclusively for teaching purposes would improve the teaching program as well as increase the numbers who could be trained.

The importance of this 12-month hospital-based program to the medical technologist who has already had three academic college years of preparatory science courses, cannot be overestimated. It is here that she not only has the opportunity to apply her college biology, chemistry, and so forth, in diagnostic tests and treatment procedures, but this is where she comes to feel that the test she is doing is really an integral part of the care of the patient. It's a far cry from a college laboratory where the impersonal test tubes and microscopes and fluids are just that and no more. The clinical training program inculcates into the medical technologist a feeling of responsibility for the patient, that cannot be stimulated in make-believe situations. I don't know how I can tell you how important this is. A mistake in a school lab is just another mistake. Maybe it means a B instead of an A. A mistake in a hospital laboratory can mean the patient's life.

There has been a great deal of talk about what the vocational schools and the junior colleges can and can't do when it comes to training medical laboratory personnel. I, for one, am all for the junior colleges, and I am right now developing a 2-year certified laboratory assistant program in Vermont that will turn out young people who are equipped to do the simpler routine tests, under the supervision of professional medical technologists whose greater educational background makes it possible for them to appreciate the significance of abnormal results or to spot trouble when it develops in a test. This is mighty important when the test happens to be on you, or on some other person whose life is in the balance.

While there are shortages at all levels in the medical laboratory, we are here discussing a very special sort of person, the medical technologist. This is the person trained to take supervisory and teaching responsibilities and to perform the more sophisticated and difficult tests of the laboratory. For example, identification of the exact defect in faulty blood coagulation can be approached by some of the same technical procedures used in determining the ordinary coagulation time, but is based on a vastly advanced understanding of the complicated coagulation mechanism. A unit of blood prepared for a surgical patient is typed and crossmatched by means of the same technically simple tests used by Landsteiner in 1900, but the final crossmatch verification involves six to eight highly sensitive and specific determinations in addition to the familiar testing for blood groups A, B, and O.

The crucial need in the medical laboratory today is for medical technologists. One of the major needs is for professionally oriented coordinators within the college framework for medical technology and other allied health professions. It is here that the grants to such allied training centers, as are mentioned in H.R. 13196, could be very useful.

If every college preparing students for the allied health professions could have a teaching supervisor for the allied health careers on campus, we would not lose so many students at this level. This was most clearly revealed in a study made in 1962 by Cameron Fincher, Ph. D., of "Nursing and Paramedical Personnel in Georgia," which showed that an average of 44 percent of college enrollees in medical technology do not complete college as medical technology majors. On the other hand, once they get into the hospital phase of their training only 1 of 10 medical technology students drop out—as compared to 1 out of 4 nurses. A study made by our committee—

NCCMT—at about the same time showed that the big factor influencing these college changeovers was that the coordinators, or advisers in more than half of the affiliated colleges knew little and cared less about the health professions and were indeed doing no more than registering and keeping lists, since their primary responsibility was to teach biology, or chemistry, or some other subject. Only 61 of the 352 colleges answering the questionnaire had a medical technologist on the staff as advisor. An outstanding program of this type is that at Fairleigh Dickenson University in New Jersey, which has developed affiliations with 20 approved hospitals for the fourth year of clinical training with combined capacity for 97 medical technology students.

There is another reason why hospital schools of medical technology with capacities of around 6,822 are only graduating 3,283 or half that many students. This has to do with the cost of their first 3 years in college which even in a plublc college or university averages around $1,560 a year. Of help in financing the cost of college will be the provisions of the new Higher Education Act providing low cost loans for families having an adjusted income of less than $15,000. All these things help, but it seems to me that medical technology is a crucial area that should be afforded at least the same degree of loan forgiveness that is suggested for physicians. On page 18 of H.R. 31196 we find a proposal on "loan reimbursement payments for health personnel" designed to attract physicians to rural areas by means of an increase in forgiveness of loans made to medical students who subsequently practice in such areas at the rate of 15 percent a year for 5 years, for a total of 50 percent.[1] As a physician, I doubt that it will be a very persuasive factor in motivating physicians—who can make enough more by practicing in larger communities within a few years to repay a large part of any college loan. But think what this forgiveness feature might mean to medical technologists, whose median income is somewhere between $5,000 and $6,000, whether working in the country or the city. Or better, if medical technologists enjoyed the same forgiveness as teachers under the Higher Education Act of 1965, 10 percent a year up to a maximum of 50 percent over a 5-year period, or if locating in a hardship area, 15 percent a year up to 100 percent over a 7-year period.

Certainly this would have a salutory effect on patient care in 50- to 100-bed hospitals, most of which are located in rural areas where there are few doctors, fewer specialists, and where the medical technologist is likely to be a "loner" in the laboratory.

In fact, even in Minnesota, which has outstanding professional approved medical technology programs, a study done 7 or 8 years ago showed that the urban hospitals all with a full-time complement of pathologists employed most of the registered medical technologists, whereas a large proportion of the laboratories in rural hospitals, where there was little or no medical supervision, were staffed by laboratory assistants.

In conclusion, we would like to urge favorable consideration of the provisions and intent of the proposed legislation. Thank you for the opportunity of presenting our views and comments.

[1] In a later revision of his statement, Dr. Coons deleted his references to "5 years" and "50 percent," whereby his remarks would read: "at the rate of 15 percent a year up to the total of the loan."

(The fact sheet referred to in Dr. Coon's statement follows:)

A FACT SHEET—CAREERS IN THE MEDICAL LABORATORY

The practice of modern medicine would be impossible without the tests performed in the medical laboratory every day. Here, a medical team of pathologists, medical technologists, cytotechnologists, technicians, and laboratory assistants work together to track down causes of disease and determine the presence, extent, or absence of cancer, diabetes, polio, tuberculosis, or other diseases.

This work requires an array of precision instruments: microscopes, centrifuges, electronic counters, automatic analyzers, incubators, autoclaves, spectrophotometers, colorimeters, microtomes, balances capable of weighing to one ten-thousandth of a gram.

Some diseases, such as diabetes and leukemia, can be positively identified solely by laboratory methods. Cytologic examinations, such as the "Pap" smear tests, can discover cancer in its early stage, making cure quicker add surer. And it is in the laboratory that blood-matching tests requiring life-or-death precision are made when a patient must receive an emergency blood transfusion.

As a result of the growing number and complexity of laboratory tests due to recent advances in medicine, demands for laboratory service have increased tremendously. But the supply of trained personnel has been unable to keep pace.

The laboratory offers limitless career opportunities at every level, according to the individual's ability, aptitude, and interest. Positions are available in all parts of the country, in hospitals, clinics, physicians' offices, public health agencies, the armed services, industrial and pharmaceutical medical laboratories, and public and private medical research programs. Many women return to work when their children are grown, others work beyond the usual retirement age. The laboratory also provides a rewarding career for many handicapped persons, since not much physical activity is required.

YOUNG PEOPLE INTERESTED IN LIFE SAVING CAREERS IN THE PATHOLOGY LABORATORY MAY DIRECT THEIR FUTURE GOALS TOWARD ONE OF THESE OPPORTUNITIES ON THE MEDICAL TEAM

The pathologist

The director of the laboratory is a pathologist—a physician trained to employ laboratory methods to aid in the diagnosis and treatment of disease by scientifically testing the patient's blood, tissues, body fluids, and excretions. The pathologist reports and interprets these findings to the family physician or other attending specialists.

Laboratory directors are often specialists in clinical pathology, which finds clues to disease by analyzing body fluids and tissues. Anatomic pathology emphasizes the structural changes brought about by disease in tissues removed during surgery or at autopsy. Forensic pathologists are concerned with procedures associated with legal proceedings, such as toxicology, gunshot wounds, etc. Pathologists also teach in medical schools and engage in research.

To be a pathologist and become eligible for certification by the American Board of Pathology requires 3, often 4 years of premedical training in college, 4 years at medical school, 1 year of internship, and 4 years of pathology residency. Incomes of pathologists are comparable to those of other certified medical specialists. More than 5,000 pathologists have been certified, but twice this number will be needed by 1970 to keep pace with the demands of laboratory medicine in health care.

Details on pathology as a career may be found in "Should You Be a Pathologist?" a pamphlet available without charge from New York Life Insurance Company, Box 51, Madison Square Station, New York, N.Y., 10010. For other information, write to Intersociety Committee on Pathology Information, 1785 Massachusetts Avenue, NW., Washington, D.C., 20036.

(Careers outlined below are described more fully in the succeeding pages.)

Medical technologist

It is the medical technologist who usually performs the chemical, microscopic, bacteriologic, and other medical tests used in the laboratory.

Three years of college and a year's training in an AMA-approved school directed by a pathologist are the minimum educational requirements.

Widespread opportunities exist for medical technologists to advance as teachers, supervisors, specialists, and scientific research assistants.

Cytotechnologist

Cytotechnologists screen slides in the search for abnormalities that are the warning signs of cancer. Cytotechnology is a restricted specialty in the broader field of medical technology, requiring 2 years of college, 6 months of training at an AMA-approved school of cytotechnology, and 6 months' supervised experience in an acceptable laboratory.

Laboratory assistant

High school graduates may become laboratory assistants by attending a 1-year course in a hospital or laboratory school approved for such training under medical auspices. National examinations given at the end of such training will certify the ability of graduates to perform many of the simpler diagnostic tests and laboratory procedures in urinalysis, chemistry, hematology, serology, bacteriology, and histology.

Registered Medical Technologist—MT(ASCP)

THREE YEARS OF COLLEGE PLUS 12 MONTHS OF PROFESSIONAL EDUCATION

Medical technology is one of the newest and fastest growing professions associated with modern advances in medical science. Medical technologists perform the scientific fact-finding tests in the clinical pathology laboratory that help track down the cause and care of disease. They are the indispensable, top-level laboratory workers—the supervisors, the specialists, the teachers—for a wide range of complex diagnostic and treatment procedures.

For example, they examine the blood chemically for cholesterol, and microscopically for leukemia. They culture bacteria to identify disease-causing organisms, analyze the chemical composition of urine for diabetes and of spinal fluid for polio. And now that nuclear medicine has opened new areas of study, some technologists are using radioactive isotopes to help detect cancer and other diseases.

Because of their thorough scientific training and education, medical technologists know not only how to perform a test but the theory behind it, and they understand the scientific fundamentals of its performance. With this background they are able to apply their skill and knowledge accurately and reliably to the supervision and performance of an ever broadening scope of laboratory procedures.

Scholastic requirements

To become a medical technologist requires at least 3 years of college, including 16 semester hours each of approved chemistry and biology courses, and one course of mathematics, followed by 12 consecutive months in a school of medical technology approved by the American Medical Association. There are 784 AMA-approved schools (see box), located throughout the country.

Almost all these professional schools are affiliated with a college or university in a degree program that prepares the student to acquire a B.S. academic degree from the college, as well as the professional MT(ASCP) certification given to graduates who pass the examination of the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists most AMA-approved schools charge no tuition, and many offer room, board, laundry, and a small monthly stipend as a type of scholarship to the student. Other scholarships also are available in many areas for college and professional study.

In these professional schools, a minimum ratio of one instructor to every two students is maintained for laboratory practice, and the students learn to perform laboratory procedures on actual specimens from hospital patients. Because their learning is thus related directly to real persons and their illnesses, the students develop an important professional ingredient of medical technology—a sense of responsibility toward the patient.

There are no shortcuts to becoming a medical technologist. It takes 4 years after high school to become a professionally recognized medical technologist. Only graduates of AMA-approved schools are eligible for MT(ASCP) certification, which means that they have met the professional standards recognized by the medical profession. What can happen when students are inadequately trained is described in articles in the October 1963 Harper's Magazine and May 1965 McCall's.

Shortage of medical technologists

Today, there are 40,000 registered MT(ASCP)'s in the United States. However, more than 7,000 are currently not working, and many health facilities are seriously understaffed. Looking ahead to 1975 with increased population and medical facilities, a need for 75,000 medical technologists is foreseen. This includes technologists in hospitals, clinics, public health and doctors' offices, but many more also are needed for research laboratories and pharmaceutical and industrial companies.

Salaries and future opportunities

Salaries are increasing steadily. In the past 10 years, they have risen nearly 50 percent, to a median annual salary for a full-time MT(ASCP) of $5,190 in 1963. Almost 25 percent of working medical technologists received $6,000 or more and 7 percent earned more than $7,200. (Median income of all woman college graduates was about $3,190 in 1961, latest year figures are available.)

Promotion to administrative and supervisory positions is gained through experience and self-improvement. Unlimited opportunities exist for teachers in training hospitals, and research in medicine and industry offers more and more opportunity for original or collaborative investigation.

Medical technology training also provides an excellent background for graduate work leading to advanced degrees in bacteriology, biochemistry, hematology, and other laboratory sciences. In addition, a few universities offer master's degrees in medical technology for those wishing to specialize in teaching and administration.

Continuing opportunities for professional growth are provided by seminars and workshops sponsored by pathology groups and by the American Society of Medical Technologists, professional organization for MT(ASCP)'s, which now has 10,000 members.

Certified Laboratory Assistant—CLA

HIGH SCHOOL DIPLOMA PLUS 12 MONTHS OF TRAINING IN AN APPROVED SCHOOL

Properly trained personnel at the post-high school level are urgently needed to perform the simpler, more routine tests in the laboratory. With such assistants, the professional medical technologists can spend more time on the complex, highly technical laboratory procedures, many of them involving college-level science.

A new training program, initiated in 1963 by the American Society of Clinical Pathologists and the American Society of Medical Technologists, provides standardized training and national certification under medical auspices for certified laboratory assistants.

Currently, the Board of Certified Laboratory Assistants is accrediting hospital and laboratory schools to provide qualified high school graduates with 1 year of practical and technical training in routine laboratory work, at a level less advanced than that necessary for the professional medical technologist. Graduates of these schools who pass an examination given under the board's direction may place the letters CLA after their names, indicating their certification as qualified laboratory assistants.

Duties of laboratory assistant

The laboratory assistant works under the direct supervision of the medical technologist and a pathologist or other qualified physician, performing routine laboratory procedures in bacteriology, blood banking, chemistry, hematology, parasitology, serology, and urinalysis. Specific tasks might include collecting blood specimens, grouping and typing blood, preparing and staining slides for microorganisms, concentrating specimens for parasitologic study, analyzing blood and body fluids for chemical components, microscopic examination of urine, blood, and body fluids, and taking electrocardiograms and basal metabolism tests.

Graduation from an accredited high school, preferably with ability and interest in science and mathematics, is required for admission to an approved school for certified laboratory assistants. The course of training is 12 months long, and includes a minimum of 100 hours of formal instruction, plus 40–44 hours per week of laboratory training, with one instructor for every two students.

In almost every city, town, and rural area, hospitals urgently need these trained laboratory assistants. A 1962 statewide survey, projected nationally, suggests total estimated need for 100,000 laboratory assistants by 1975. Pay scales vary, but compare favorably with other paramedical jobs at the same level.

Whereas the national salary median for a registered medical technologist (3 years college, 1 year professional training) is $5,190, the trained laboratory assistant usually earns $1,200–$1,800 less.

Approved schools for laboratory assistants are being set up in nearly every part of the country. For further information write: Secretary, Board of Certified Laboratory Assistants, 9500 South California Avenue, Evergreen Park, Ill., 60642.

CYTOTECHNOLOGIST—CT(ASCP)

TWO YEARS OF COLLEGE PLUS 12 MONTHS OF TRAINING

Hundreds of skilled scientific assistants are needed in pathology laboratories to work as cytotechnologists, screening slides on which there are human cells to look for the abnormalities that are the warning signs of cancer.

Peering at slides of cell samplings under the microscope, the expert eyes of the cytotechnologist trace clues to disease in the delicate patterns of cytoplasm and nucleus, stained with special dyes to make them stand out brightly, and magnified a thousand times.

Training required

There are about 80 AMA-approved schools of cytotechnology in the United States at present, currently training some 400 cytotechnologists but with room for about 100 more. Minimum prerequisites include at least 2 years of college with 12 semester hours in biology. The prescribed cytotechnology course provides for a minimum of 12 months' education and training, with 6 months in an approved school and the balance working under supervision in a cytology laboratory acceptable to the director of the school.

A number of schools receive grants from the cancer control program of the U.S. Public Health Service, which provide student scholarships up to $225 a month for 6 months. American Cancer Society and other scholarships also are available.

Upon the successful completion of the 12 months' formal curriculum and apprenticeship, the student is eligible to take the certifying examination given by the Registry of Medical Technologists. Those who pass may place the letters C.T.(ASCP) after their names. As of August 1965, 1,252 persons had been certified as C.T.(ASCP)'s, plus 5 specialists.

Opportunities for cytotechnologists

Those completing a basic course usually can find employment as screeners at an apprenticeship level. They screen the slides and mark any unusual or atypical cellular findings, so that the attention of the pathologist reporting the case to the patient's physician will be brought to these areas. The more adept they become, the more responsibility they are given. Some become supervisors and teachers. Others go into research.

Cytotechnologists are needed in almost every part of the country, to screen the growing number of cervical smears taken from women over 21, who recognize the value of regular examination in preventing deaths from this type of cancer. Tests on approximately 10 million women were made last year, and this number is increasing each year. With more personnel, laboratories could perform twice as many tests, but would still fall short of checking the 57 million American women in this high-risk age group. A recent survey indicated that there is a national shortage of about 900 cytotechnologists right now, and that a shortage will continue to exist for some years to come.

A list of AMA-approved schools of cytotechnology and additional information on this field are available from the Registry of Medical Technologists, Box 2544, Muncie, Ind.

More details on cytology may be found in "Cell Examination—New Hope in Cancer," 25 cents, Public Affairs Committee, 381 Park Avenue South, New York 10.

OTHER CERTIFICATION BY BOARD OF REGISTRY OF MEDICAL TECHNOLOGISTS, ASCP

1. *Specialist certification.*—Specialist in a specific science—those in chemistry, for example, would be listed: Spec.C.(ASCP).

Must have master's or doctorate degree in specialty, plus 3 years' experience in acceptable medical laboratory; pass registry examination.

2. *Blood banking technologist*—MT(ASCP)BB.—MT(ASCP) with 1-year training in blood banking school approved by the American Association of Blood Banks; pass registry examination.

3. *Chemistry technologist*—C(ASCP).—Must have B.S. in chemistry, plus 1 year's experience in chemistry in acceptable medical laboratory; pass registry examination.

4. *Certificate in microbiology*—M(ASCP).—Must have B.S. in bacteriology, plus 1 year's experience in microbiology in acceptable medical lab; pass registry examination.

5. *Nuclear medical technologist*—NMT(ASCP).—MT(ASCP) with 1 year in acceptable clinical radioisotope laboratory; or B.S. in biologic sciences or chemistry plus 2 years' experience as above; or 2 years of college with specified science courses plus 4 years' experience; or B.S. in physical sciences with specified science courses, plus 2 years' experience; or high school diploma plus 6 years' experience (these qualifications remain through 1966); and pass registry examination.

6. *Histologic technician*—HT(ASCP).—A job opportunity in the laboratory that requires a less formal type of post-high-school education is that of histologic technician.

The Board of Registry of Medical Technologists gives limited certification, following examination, for histologic technique. This requires a high school diploma plus a year of supervised training in a clinical pathology laboratory. As of August 1965, the registry had certified 2,517 persons as H.T. (ASCP)'s.

The histologic technician cuts and stains tissues which have been removed from the body, so that they can be examined microscopically by the pathologist for any signs of malignant or questionable cells.

Individuals interested in becoming histologic technicians may contact the pathologist in their local hospital about the possibility of learning this specialty.

Mr. FRIEDEL (presiding). Doctor, I want to compliment you on a very fine statement. You have cleared up a number of points I was in doubt about.

Congressman Moss.

Mr. Moss. Doctor, I am very much interested in your comment on page 3 of your statement, wherein you state, "I for one am all for the junior colleges and I am right now developing a 2-year certified laboratory assistant program."

Dr. COON. Yes, sir.

Mr. Moss. It appears to me that your reference here to junior colleges is also as a terminal education. The truth is to the contrary, is it not?

Dr. COON. I have not made an exhaustive study of this. My understanding is that there is variation. I think there are some where one can go straight on and acquire another 2 years and acquire a bachelor's degree. I think the concept of many is that they offer terminal programs and therefore one can't automatically transfer.

Very frankly this is one of the difficult problems that I am wrestling with right now since our 2-year program will actually be under the university and the university will grant the associate degree. The problem is that of transfer of a student from the 2-year program to the 4-year program, admission requirements, admission standards—there are many problems.

Mr. Moss. I am very much concerned over the direction of programs that have come before members of this committee in recent years where I think we are ignoring the role, the appropriate role, of a well financed, properly conceived junior college system.

I believe my State has such a system in the State of California.

Dr. COON. Yes, sir. Yours is the outstanding example.

Mr. Moss. We have about 90 junior colleges. We have approximately 18 State colleges operating at the moment. Others are in the planning stage. And there are nine campuses of our State university in addition to some other very fine schools. Yet as these programs

are proposed, the junior college is carefully excluded even though in many, many instances, the junior college provides the lower division work and the State college or university the upper division work.

There is a great deal of continuity in planning and in the curriculum available. Do you think under those conditions it is appropriate to exclude the junior college?

Dr. COON. I think you have an outstanding example of a junior college system in California. I think that if all programs were comparable we would not have quite the same problem. I think the real need, as I see it, in medical technology is for the better trained and by this I mean those who can become supervisors who can go on and do graduate work. We need really the teachers, the instructors; we need to improve the training facilities.

I would think in a situation where a junior college "feeds" into another institution so that a student can complete the 3 years of the preclinical work required and then continue the clinical training program, I think this should be considered an integral part of the total training process. I think that a 2-year program, where the individual completes his training within the 2-year program, trains a medical laboratory worker at a different level. By and large these persons need more continuing supervision.

Mr. Moss. You are talking about an institution as an institution for terminal education, where they complete the course and have an associate degree and the student goes out and takes employment?

Dr. COON. Right.

Mr. Moss. At that level?

Dr. COON. Right.

Mr. Moss. I am talking about the role of the junior college in providing a broader educational opportunity, aiding in attracting in the field of medical technology many students who have not the resources to start immediately at a university and frequently the junior college is able to accept the students who maybe are just marginal on being accepted at the university. In the University of California it is an A–B average. They will take them in the junior college system with a C under present conditions.

You have very high productive persons who maintain a C average through much of their life. It is not always in the interest of society to exclude them from opportunities to go on, is it?

Mr. COON. No. If I understand your question, I am in complete sympathy with your thoughts here. I strongly believe that we should be training laboratory workers at the 2-year level, which would include, to my way of thinking, 1 year of general, cultural-type courses, preliminary courses, science courses, and 1 year which could be oriented as clinical training, laboratory oriented.

However, I do not believe that that same person could go on without considerable additional work and fulfill what I expect of a medical technologist, which is considerably more understanding of science considerably more aptitude and background in the various fields as well as the ability to accept more responsibility both for supervision of others, for recognizing abnormalities, appreciating the significance of findings, and having the responsibility to "follow through."

I think there are many people who are in this C level that do well.

Mr. Moss. I think Winston Churchill was—most of his life—until he became a politician.

Dr. COON. That is correct. I do not like to see an absolutely terminal program where a person cannot go on.

We must work out ways for people to continue to advance and there have been several conferences here on that topic. I attended the conference recently held by the Department of Labor and HEW. There is a very real need to develop mechanisms so that we can encourage qualified people to go on and seek additional education so that they can accept these responsibilities.

Mr. MOSS. Your statement on page 2 talks of the generously financed program at the junior college level, $1.3 million. Now really that is a very meager program even if they only applied the $1.3 million to the approximately 90 junior colleges in my State, is it not?

Dr. COON. This refers to the training of cytotechnologists. There is $1.3 million for training cytotechnologists and the projection would seem to indicate that this may well be sufficient in order to meet the requirements as we anticipate them and as the need seems to be growing.

It does not cover the entire allied health field by any manner of means.

Mr. MOSS. I would not want this record to reflect by a failure to speak out on my part any agreement with a statement which tends to infer that the junior colleges are not faced with serious financial problems because this normally is part of an educational system based upon revenues derived almost solely from the ad valorem tax levees. In my community at the moment where we support a system of three community colleges, the property owners are being asked to vote an additional override, to approve a level of tax in excess of that permitted by State law, in order to continue to meet the needs of our junior college system.

I would like to see, as we undertake programs to assist other institutions of higher learning, a recognition of the appropriate role. For instance, you point out the need to take many of these technologists back and give them courses upgrading their skills and their knowledge.

I believe in many of the communities with a good system of junior colleges that special courses could be provided there to meet the needs of the technologists in the area and I think that this type of flexibility and greater utilization is what we should attempt to achieve and not erect barriers in these programs and barriers created by the very narrow view of some of those now administering the programs which exclude this important and increasingly important part of our higher educational system.

Mr. FRIEDEL. Thank you, Mr. Moss.

Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman.

I want to add my bit also in behalf of the junior colleges of California. With the shortage of facilities we have for the training we should utilize all of the facilities we have including the junior colleges.

I am particularly pleased to see you emphasize the necessity for the training of the teachers and the supervisors. To my mind you have to have those before you get the others.

On page 7 how do you interpret, "Families having an adjusted income of less than $15,000," to be eligible for a low-cost loan?

Dr. COON. As I understand the Higher Education Act it provides for low-cost loans to assist students in acquiring their education where

the families have an adjusted gross income of less than $15,000. I interpret this to mean that it will be feasible for many students to borrow the money to acquire a complete education, the 4-year baccalaureate program, including students who in the past may not have been able to afford such a costly program.

I hope this will make it easier for students, including those in the allied health professions, to acquire baccalaureate-level educations.

Mr. YOUNGER. But you understand that that is supposed to be changed now and converted to guaranteed loans?

Dr. COON. Yes, sir.

Mr. YOUNGER. At a higher interest rate, in this legislation which you are recommending?

Dr. COON. I had not understood that this would replace that existing legislation.

Mr. YOUNGER. That is the idea, to convert the direct lending to loans from the private sector on a guaranteed basis; you did not understand that?

Dr. COON. I am not clear. As I understood there was some provision in there for a guarantee of the difference in the loan rates between the commercial sources and those from the Government; is that right?

Mr. YOUNGER. I am like you; I am a bit confused about it myself. I am trying to get your understanding as a technician who will have to apply this, because the colleges are supposed to make these loans, as to what your interpretation of this bill is.

Dr. COON. I think it is confusing.

Mr. YOUNGER. Do you think it ought to be cleared up a bit?

Dr. COON. Yes, sir.

Mr. YOUNGER. On that same page you have a forgiveness of loans at the rate of 15 percent a year for 5 years for a total of 50 percent.

I am a little confused over the calculation there. If you get a 15-percent forgiveness each year for 5 years, isn't that 75 percent?

Dr. COON. It would seem to multiply out that way. As I read it there was a 15 percent per year, it was increased from the previously recommended 10 to 15 percent.

Mr. YOUNGER. With a limitation of a maximum of 50 percent, is that the way you understood it?

Dr. COON. Yes.

Mr. YOUNGER. That is not the way you stated it. You don't say there is a limitation. But a maximum of 50 percent forgiveness is all that they can have, is that your interpretation?

Dr. COON. That was my interpretation unless they located in a poverty stricken area.

Mr. YOUNGER. This forgiving is for those who go into the practice in such areas which are considered as the areas where there is a great need for health facilities and represent more the poor rural areas as they call them.

I understand from the definition that Dr. Martin gave us that he understood that the bill provided that those areas were to be determined by the State medical authorities, not by the Federal authorities. And if they practice there for 5 years and you give them a reduction of 15 percent a year that would be 75 percent unless you put in a limitation. Now is it your idea that the forgiveness should be limited to 50 percent of the loan as it is in the National Defense Education Act and the Medical Facilities Act?

Dr. COON. Yes.

Mr. YOUNGER. That is all, Mr. Chairman.

Mr. FRIEDEL. Congressman Mackay.

Mr. MACKAY. Thank you, Mr. Chairman.

I would like to address this question to both gentlemen. I have Dr. Godwin's letter which expressed concern about the language of the bill as not adequately taking care of the community hospital. Dr. Lee said he had had extensive discussions with you, Dr. Godwin, and you appeared to be satisfied with the language of the bill.

I would like to ask whether you feel that the language is adequate really to assure the use of the type of facilities which you represent because it seems to me if we are too strict in applying this to university related hospitals that we shall fail to provide what Dr. Coon said, enough opportunities for technologists in the actual hospital situation.

Are you suggesting any amendment to this bill or do you approve the bill as it is now before the committee?

Dr. GODWIN. I made certain statements in reference to clarification of the bill by defining:

> Equivalent degree as meaning or possibly meaning registration or certification under existing standards after 3 years of college and 12 months' internship which would satisfy the requirements in medical technology.

Also, if the bill were to be modified I made this statement:

> Could the bill be modified to define the community hospital with approved programs as a training center and make the same grants available to those programs enrolling 20 or more students in various categories.

I thought this would truly stimulate the output of various categories of allied personnel and give direct support to the institutions training the greatest number of students thereby reducing hospital costs and providing better trained personnel where the need is greatest.

I thought there might be some problem in channeling money through a loose affiliation with the college or university as it is at the present time.

Mr. MACKAY. I would like to request that you confer further with the representatives of Health, Education, and Welfare on language because we have a situation now in our community under the Mental Health Facilities Act which we thought was a pretty good act last year but the regulations have become so restrictive that I have been told by the leaders of the State health department that we may not be able to really get some things going that need to get to going.

I think it is important that the law be so clear that we won't be confronted with regulations that in a sense defeat the very objective of the bill.

Dr. GODWIN. In our discussions this past Sunday, that is with Dr. Philip Lee, it was his understanding and interpretation of the bill that there would be great flexibility—this was a point that he made—whereby the community hospitals would participate through the affiliation with the colleges.

I think this would work with that understanding. I believe also he made this very clear in his remarks that it is not the intent of the bill to exclude the 2,650 students taking their 4th year clinical

training in the numerous community hospitals while affiliated with colleges and not administratively a part of the college.

This bill can work with this understanding. In my original thoughts about this bill I reflected this in reference to grants being made directly to the community hospitals because in the past community hospitals have not had the support necessary to obtain adequate space, microscopes, and other equipment necessary for training.

We have not had the funds to pay stipends to students for their living costs which may amount to $100 per month. And we have not had the funds to obtain teaching supervisors where these might be available.

So this is where I think we need some help in the community hospitals in order to do these things.

Now it can become very confusing as to the portion of a grant which is given to the college, as to how much of this might then go to the community hospital. It may be that the community hospital receives only two or three students in that particular affiliated college.

Well, this means a very small sum. This would be insignificant probably in an overall program. So, if the bill is modified then I would think that consideration should even be given to grants directly to the community hospital programs which have a sufficient number of students to make them what we consider a better school.

And we do have figures to show that schools which have a certain number of students perform better on the examinations, their enrollment is greater and they have fewer failures on the registry examinations, and now there is another small point that I just learned about in recent days and that is that the Veterans' Administration hospitals are being or will be supplied with funds to augment their training programs.

I have not seen this bill but I believe it is one that was presented by Mr. Teague. In this bill they planned to establish additional numbers of schools. Out of this the technology students will receive a stipend of $152 per month and this is above and beyond what we have been able at this time to supply students in our training program.

This then means that we will be again in a competitive situation with the Veterans' Administration hospitals so far as stipends to students are concerned. In Atlanta where we are constructing and completing a very large Veterans' Administration hospital the students would more likely lean toward going to a school where the stipend is greater.

In other words, in comparing a stipend which I have to offer at the present time of $80, per month, it is likely that the student would prefer the $152 per month.

Mr. MACKAY. I would like to again state that if you will consider what language might be explicit without being too rigid, I would like to see this offered by way of amendment.

Dr. GODWIN. Are you suggesting modification in reference to the——

Mr. MACKAY. The community hospital, with regard to the matters you mentioned in your statement.

Thank you, Mr. Chairman.

I have no other questions.

The CHAIRMAN. Mr. Gilligan.

Mr. GILLIGAN. No, thank you.

The CHAIRMAN. Mr. Devine.

Mr. DEVINE. No questions.

The CHAIRMAN. Thank you, gentlemen.

Mr. Kinsinger, Director of the Community College Health Careers Project of the University of the State of New York, representing the American Association of Junior Colleges. Have a seat, sir, you may insert your statement in the record and summarize it or you may read it, as you wish.

STATEMENT OF ROBERT E. KINSINGER, DIRECTOR OF THE COMMUNITY COLLEGE HEALTH CAREERS PROJECT OF THE UNIVERSITY OF THE STATE OF NEW YORK, STATE EDUCATION DEPARTMENT, ALBANY, N.Y., ON BEHALF OF THE AMERICAN ASSOCIATION OF JUNIOR COLLEGES

Mr. KINSINGER. Thank you, Mr. Chairman and members of the committee.

My name is Robert E. Kinsinger, and I am currently serving as director of the Community College health careers project of the University of the State of New York, State Education Department, Albany, N.Y. I am here on behalf of the American Association of Junior Colleges.

The burden of this statement is that legislation, such as H.R. 13196, intended to assist in alleviating shortages of personnel in the allied health professions, should also recognize the need and provide for support of education and training for health service technicians.

The Allied Health Professions Personnel Training Act of 1966 is clearly based on recognition of the fact that the traditional health team of doctor, dentist, and nurse can no longer serve, without assistance, the health needs of patients. Therefore, there is no need to labor the point. However, to bring the picture dramatically up to date in terms of the magnitude of change in the composition of the modern health team, a quotation from the recent Coggeshall report, "Planning for Medical Progress Through Education," is appropriate:

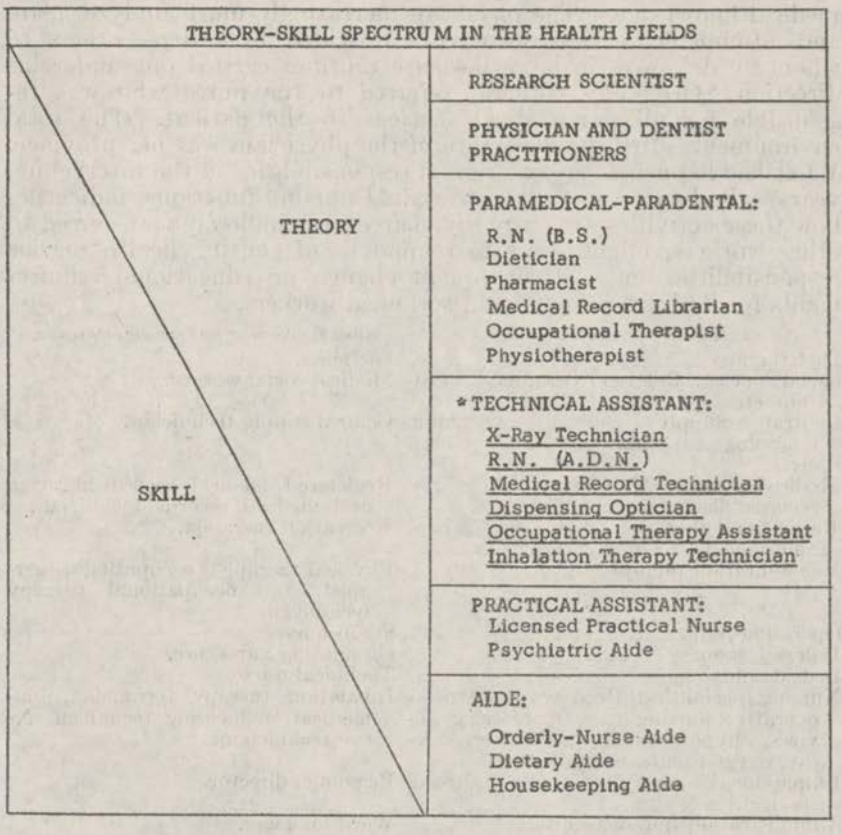
> Once it took only one doctor to resign himself and the child's parents to the inevitable death of a blue baby. It now takes a team of medical specialists and auxiliary personnel to correct the congenital abnormality of a baby's heart to insure the child a normal life span. At least 15 persons, including 4 surgeons, are needed in the operating room for the repair of a congenital lesion of the heart. More than 100 medical specialists, nurses, and skilled technicians are involved in preparations for, and performance of, the operation and in the post-surgical care of the patient.

The reference in this quotation to skilled technicians is of particular significance. It takes many more skilled hands to apply modern medical knowledge. The physician increasingly must analyze, plan, and administer services which are provided by others—others to whom he delegates in large measure routines carried out under his direction. Originally "others" referred to the nurse who was responsible for all paramedical services to the patient. The total environment, after the departure of the physician, was her province. What has happened to her original responsibilities in the intervening years? Perhaps a short list of original nursing functions, indicating how these activities are currently shared or completely transferred to other workers, might serve to remind us of shifting health service responsibilities and the consequent changes in educational requirements for both professional and technical workers.

Original RN functions and activities	*Allied health worker now providing the service*
Diet therapy	Dietician.
Social Service: Related to disability, hardship, etc.	Medical social worker.
Central Supply Service: Cleaning, wrapping supplies, sterilizing, packs, etc.	Central supply technician.
Medical records: Maintenance of charts, records, discharges, abstracts, etc.	Registered medical record librarian and medical records technician.
Recreation therapy: Activities, games, amusements, reading materials, etc.	Recreation therapist.
Rehabilitation therapy	Physical therapist, occupational therapist, and occupational therapy technician.
Operating room	Scrub nurse.
Delivery room	Circulating nurse, etc.
Bedside nursing	Technical nurse.
Nursing specialities: Recovery room, postoperative nursing care, monitoring devices, hypothermia, pacemakers, X-ray, oxygen tents, cannula, etc.	Inhalation therapy technician, biomedical engineering technician X-ray technician.
Employment interviews (for nursing service).	Personnel director.
Administration (nursing unit)	Ward manager.

If other existing allied health professions, both professional and technical, are added to this list as well as those still emerging or anticipated, a vast and complex educational job is indicated. Some of the most enlightened planners are undertaking a careful analysis of the skills and knowledge currently being demanded of a worker to function safely and effectively in each allied health profession. Constant review will be necessary because functions are wed to the art and science of medicine and these are continually changing. Not only must individual curriculums change as medical practice changes, but planners must be alert to demands for new categories of personnel. To help relate specific levels of preparation and service to the broad spectrum of health service personnel—professionals, technicians, and practical aids—the following chart has been prepared.

(The chart referred to follows:)



*Generally require two years of post-secondary education

Mr. KINSINGER. I would like to show you this chart to indicate the level of which I am speaking. Some of you can see it. If you can't, this chart appears in my formal statement. The bill as it presently is constituted is concerned with the area here, paramedical and paradental.

We run from one end of the continuum in the health field, from down here where we have ordinarily aids and so forth who are primarily involved in motor skills and very little with background. In other words, it is the how to do something, not so much of the why of doing it. As you move up the scale you get less of the motor skills, the how, and more of the background, the physical and biological science base.

At this level, the technical assistance level, the junior colleges are primarily concerned. Here theory and skill are broken down about half and half. The level with which this bill is concerned is the paramedical level. There are some problems with a chart of this sort. One of them that I run across most frequently is someone looking at this chart and seeing how little skill is indicated up here at the physi-

cian and dentist level and they are concerned that their surgeon has only this much skill with his hands.

So you can see the problems inherent in this kind of a chart.

A trend toward recognition of the responsibility of professional practitioners to utilize more effectively the skills and knowledge of technical personnel has been spearheaded by the dental profession. With financial help from the Federal Government, dental schools have instituted programs specifically designed to teach graduates how they can serve public health needs better through a careful sharing of appropriate functions with dental auxiliary personnel.

The Surgeon General recently highlighted this important aspect of health service. At the 1965 White House Conference on Health he stated, "Year by year, our top professional personnel are being trained to perform still more complex tasks. How long can each profession afford to hang onto its simpler functions—the routine filling of a tooth, for example, or the several easily automated steps in a medical examination? How can we train the physician or dentist to make full use of the skills available in other people, freeing himself to perform only those duties for which he is uniquely qualified?"

There is an increasing movement toward interagency and multidiscipline planning for education and training in the health field. The recent Joint Conference on Job Development and Training for Workers in Health Services sponsored by the Department of Labor and the Department of Health, Education, and Welfare is a case in point. A division of the U.S. Office of Education has had a standing Advisory Committee on Health Occupations Training for many years. The work of the National Commission on Community Health Services generated 70 recommendations regarding health manpower. Also extremely promising are two newly formed interorganization committees on health technology education: one between the American Association of Junior Colleges (AAJC) and the National Health Council on Medical Technology Education. The AAJC and the National League for Nursing have had a similar interorganization commlttee for many years. Writing on "The Increasing Role of Paramedical Personnel" in the September 1965 issue of the Journal of Medical Education, Dr. Robin Buerki states "It would seem that junior colleges across the country offer the most appropriate and the most immediate solution to the problem of training in specialty areas where shortages exist. Technical education in many paramedical specialties could easily be accomplished in a 2-year curriculum which would also provide an opportunity for * * * llberal arts subjects." In the light of this statement it is important to note that the first task the AAJC–NHC committee has set or itself is that of writing guidelines for the development of sound educational programs for health technicians at the junior college level.

The knowledge explosion has overwhelmed the professional and escalated his responsibilities. A large bulk of the services carried on under professional direction must be rendered by technicians and assistants. The list of supporting technicians is long and some of the names such as medical laboratory assistants, X-ray technicians, opticians, inhalation therapy technicians, and dental assistants are well known. Others, many others, are doing work, but their role as medical and dental assistants is less well developed. They not only assist the physician and the dentist, but, in this expanding field of

knowledge and service, there is need for technical assistance for the professional nurse, the physical and occupational therapist, the medical record librarian, the dietitian, and many others.

The American Association of Junior Colleges has recently established a special office with a full time professional staff to assist the more than 600 colleges that constitute the AAJC membership to plan sound programs for health service technicians. To be most effective this national effort on the part of the junior colleges should be supported by Federal legislation for allied health personnel in the light of the vast numbers of workers required in the health field—workers who require approximately 2 years of postsecondary education for beginning positions.

Our society is faced with a growing and shifting need for technicians and assistants in the health field. Community junior colleges have already demonstrated their ability to successfully prepare health technicians and have indicated a willingness to expand their activities. The extent of that expansion will be partially dependent on financial support such as that envisoned in the Allied Health Professions Personnel Training Act of 1966.

Because a well-prepared corps of teachers is the heart of any educational program, it would be possible to materially strengthen educational programs for health service technicians by adding only four words to the present wording of the bill. If line 13 on page 14 were changed by adding, "health service technicians or", between the words "teach" and "in", authorization could be provided for traineeships for allied health professions personnel who would be prepared to function as teachers in community junior colleges. Each new teacher, thus prepared, would be enabled to vastly expand his contribution to the public welfare through the minds and hands of the many health service technicians he could teach within the framework of a community junior college program for health technicians.

Mr. Chairman, in response to a question that was raised the other day by Representative Rogers, we have submitted—that is, the Junior College Association has submitted—a statement. A letter was sent to Representative Rogers, and members of this committee now have copies of this letter and I wanted to call your attention to the letter.

I do not believe you would want to take the time to read this letter. If I may read one paragraph which gives the essence of this.

> The picture, in brief, is that only a few people are being trained at the junior college or equivalent level with vocational education funds that most of these being trained are in practical nursing, that many are part-time people who are taking upgrading courses, and that very limited Federal funds are available in any case. What is more, I am told by State officials who administer junior college programs that in many States junior colleges receive little or no vocational education funds for health-related programs or any other programs. The bulk of the money goes to the secondary level, and many of the State boards appear to be secondary school oriented. The Federal law is permissive, not mandatory, and leaves it up to the State board whether to include junior colleges or other postsecondary institutions.

The complete letter follows.

Thank you, Mr. Chairman.

(The document referred to follows:)

MARCH 29, 1966.

PAUL G. ROGERS,
Rayburn House Office Building,
House of Representatives, Washington, D.C.

DEAR CONGRESSMAN ROGERS: In today's hearings before the Interstate and Foreign Commerce Committee on H.R. 13196, the Allied Health Professions Personnel Training Act of 1966, there was considerable discussion as to whether the proposed legislation should be broadened to include Federal support for programs below the baccalaureate level, and specifically at the level of the junior college, since so many thousands of health-related technicians are being trained in these institutions and new programs are being rapidly developed in most parts of the United States.

In the testimony of the Secretary of Health, Education, and Welfare, John W. Gardner, on page 5, Mr. Gardner stated that "substantial" Federal aid is being made available at the subprofessional level to train health occupations personnel, through the Vocational Education Act. He stated that some 56,000 persons are being trained annually in such areas as practical nursing, nurses aids, dental assistants, medical assistants, and laboratory assistants.

During questioning by yourself and other Members of Congress, Mr. Gardner continued to support the statement that vocational education is providing for this level of training at the junior college, and that, therefore, this new program should "fill the gap" which exists at the baccalaureate level.

In response to questions after the meeting by yourself and by Mr. Robert Smith of your staff, I am submitting the following information on this subject, which was furnished to me today by personnel of the Bureau of Adult and Vocational Education of the Office of Education.

The picture, in brief, is that only a few people are being trained at the junior college or equivalent level with vocational education funds, that most of these being trained are in practical nursing, that many are part-time people who are taking upgrading courses, and that very limited Federal funds are available in any case. What is more, I am told by State officials who administer junior college programs that in many States junior colleges receive little-or no vocational education funds for health-related programs or any other programs. The bulk of the money goes to the secondary level, and many of the State boards appear to be secondary school oriented. The Federal law is permissive, not mandatory, and leaves it up to the State board whether to include junior colleges or other postsecondary institutions.

To cite a few statistics: For the fiscal year 1964, the most recent year on which there is reasonably good information, about 67,000 students in health-related curriculums were partially supported by VEA (Vocational Education Act) funds. About 42,000 of these students were enrolled on the postsecondary level and about 15,000 on the secondary level.

About 32,000 of the 42,000 postsecondary students—about three-fourths—were enrolled in practical nursing courses. This means that only about 10,000 students in the whole United States were partially supported by Federal funds in any other health-related field at this level.

What is more, many of the 42,000 students were part-time students, adults who are employed and taking a few courses. While the Office of Education did not have exact information, it appears that most of the 16,000 or 17,000 part-time students were postsecondary, which means that still fewer people are being trained in any curriculum at this level.

Funds are limited. In that fiscal year, $4,760,000 in Federal funds were made available for training these 67,000 students. If they were all full-time students, this would provide about $70 per student per year. Assuming a reasonable course load for part-time students, the figure might rise to $88 per student per year.

This figure of $70 to $88 per year must be compared with costs per student which may run to many hundred dollars per year, and to the suggested formula of $500 per student which would be provided by the proposed legislation, in addition to funds per curriculum of $5,000, and other funds available under other titles of the bill.

In other words, baccalaureate students are to be supported at $500 plus per student per year, while junior college students may possibly be supported at a figure of $70 to $88.

The data for fiscal 1965 is not complete but indicates the same general pattern.

It is also important to emphasize, once again, that the Vocational Education Act permits, but does not require, a State to make funds available at the junior college or other postsecondary level. In the fiscal year 1964, again the latest for which there is reasonably complete information, Federal VEA funds amounted o $18,645,020 for secondary education support and $4,600,117 for postsecondary support—a ratio of about 4½ to 1.

Similarly, in that year the Office of Education estimates that 2,140,756 students were enrolled in federally aided VEA programs at the secondary level and only 400,485 at the postsecondary level—a ratio of over 5 to 1.

In many States, very little VEA money was spent at the postsecondary level, and very few students were enrolled. For example, in New York in that year about 230,000 secondary students were partially supported by VEA funds, but only 17,000 postsecondary students. The comparable figures for a few other States: Florida, 90,000 secondary, 16,000 postsecondary; Illinois, 75,000 secondary, 12,000 postsecondary; North Carolina, 108,000 secondary, 24,000 postsecondary; Virginia, 66,000 secondary, 7,000 postsecondary; West Virginia, 20,000 secondary, 852 postsecondary.

Three other points must be emphasized in analyzing these statistics. "Postsecondary" courses do not mean junior-college-level courses alone, 2-year programs which provide "an organized occupational curriculum" and usually lead to an associate's degree or the equivalent. Rather, any postsecondary education provided in any way is included. Second, these very limited VEA funds are for all occupational and technical programs which are supported, not for health-related programs alone. Thus, only a small part of available Federal funds goes to health-related programs in any case. Third, a large number of "adult" students are also trained with assistance of VEA funds. These are, for the most part, adults taking a few courses in the evening. Some of them take courses in junior colleges or as part of an organized curriculum, but many do not.

Therefore, the conclusion still stands that very little VEA money goes to junior colleges or to other postsecondary programs of a comparable kind, and even less goes to support health-related programs.

It would be a relatively simple matter to amend this bill to include associate-degree or junior-college-level students, and it would not be very expensive—a few million dollars in a multibillion-dollar budget.

It was suggested at the committee hearing that if this is a "vocational education" matter it is not within the jurisdiction of this committee. However, if the committee is so deeply involved in the support of health programs at the graduate, undergraduate, and nursing levels, it is unquestionable "in education" in this field. It would therefore seem very appropriate for the committee to consider this as a matter of health education, and therefore suitable for committee action.

I have prepared this brief statement in answer to your request for more information. Please let me know if I can be of further assistance.

Mr. Robert Kinsinger will appear before the committee on March 31 on behalf of the American Association of Junior Colleges, and will be able to answer your questions in more detail.

Sincerely,

JOHN P. MALLAN,
Director of Governmental Relations.

The CHAIRMAN. Thank you, Mr. Kinsinger.

Mr. Moss, do you have any questions?

Mr. MOSS. Yes, Mr. Chairman. First, let me say that I think you have covered quite well the one problem of expanding this program for training of medical support personnel but do you envision that as the only role of the junior college?

Mr. KINSINGER. Not at all. As you indicated in your earlier discussion with the witnesses, the importance of the junior college as the first 2 years of a 4-year program shall be noted. I also felt that this should be emphasized. Junior colleges have a multiplicity of roles, one of the major ones is the occupationally oriented program of the type that I have been discussing here, but equally important is their role in providing the first 2 college parallel years moving on into baccalaureate programs.

Mr. Moss. In many instances the course available at junior colleges would exactly parallel similar courses at such universities or other colleges in lower division work?

Mr. KINSINGER. Yes, sir; they do. In fact that is required of them in order to insure that their students will be able to move on because many of them come to the junior college merely as a less expensive way to prepare themselves during the first 2 years.

Mr. Moss. There seems to be a little inequity in the proposal then that would give to one institution because it grants a baccalaureate degree aid in maintaining a course and deny it to another?

Mr. KINSINGER. Yes. I would subscribe to that position completely.

Mr. Moss. So we would have to amend, on page 15 of the bill also under section 795, definitions?

Mr. KINSINGER. Yes. You could, by inserting one phrase say, "which provides primarily or exclusively programs of education leading to" and insert "an associate degree or equivalent" and then go on "a baccalaureate or equivalent."

It could be done by inserting "associate degree" in there.

Mr. Moss. Thank you.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. Thank you, Mr. Chairman. I have no question. I do want to compliment the witness on a very fine plea for the junior colleges which we are certainly interested in so far as California is concerned.

The CHAIRMAN. Mr. Pickle.

Mr. PICKLE. Thank you, Mr. Chairman.

I am wondering if Mr. Kinsinger could give me any indication of the cost involved if this program was enlarged to include junior colleges for these traineeships?

Mr. KINSINGER. No, I cannot. I would not attempt it and I will have to equivocate on that question. I have not attempted to make any estimate on the cost that would be involved. My proposal, on the last page of my prepared statement, was that we provide for traineeships for baccalaureate level people who in turn are going to become teachers of junior and community colleges.

At this time, I have just been involved in setting up two educational programs for the preparation of teachers for community colleges at the State University of New York at Buffalo and City University of New York. In both cases support for trainees is a problem. We need just the kind of traineeship that this bill would provide for to attract to these educational programs individuals who are willing to convert their vocation from a paramedical practitioner to a teacher of health techniques in a community college.

We somehow have to provide finances for them while they are going through this process of transition. To answer your question, specifically, I have not made any projection of the increased cost that this would involve.

Mr. PICKLE. Is it your idea to take whatever funds have been specified or will be specified in the bill and spread them equally to junior colleges as well or would you envision an increased amount?

Mr. KINSINGER. I am sure it would require an increased amount of money.

Mr. PICKLE. Then how much would it require?

Mr. KINSINGER. That, I am not prepared to answer. Had I anticipated this question I might have been able to make some estimates of it, but I simply will have to beg off on the question.

Mr. PICKLE. Would you think it would be a sizable amount in view of the fact that there are so many junior colleges all over the country?

Mr. KINSINGER. If you were going to restrict this just to the preparation of instructors for the community college I would not see this as a sizable amount. If you were to add, as Mr. Moss suggested, putting in under definition "an associate degree" it would then open up the whole field and it could be a very sizable amount of money.

Mr. PICKLE. I can understand, Mr. Kinsinger, your desire to offer this training on the junior college level and you have raised some good points. We are limited though on how far we can go at this time. This is, of course, part of the overall problem.

Mr. KINSINGER. That is why I restricted myself—my specific suggestion to merely changing the wording on page 14 which would permit us to prepare instructors for community colleges.

Mr. PICKLE. Have you or your associates talked with the Surgeon General about this?

Mr. KINSINGER. Yes, sir.

Mr. PICKLE. What did he tell you?

Mr. KINSINGER. I had better not put words in his mouth. As of this morning I talked to one of the members of the staff and indicated the suggestion that I was going to make—that the wording be changed on page 14. I talked to Dr. Silver of Dr. Phillip Lee's staff. He felt that this was their intention all along and that this change would specifically make it possible to do this.

Mr. PICKLE. Thank you.

Mr. Moss. Mr. Chairman, will the gentleman yield?

Mr. PICKLE. Yes, I will yield to the gentleman from California.

Mr. Moss. Mr. Chairman, I would like to request at this point that the Department prepare some figures dealing with any additional cost covered by the amendment proposed in the statement of the witness as well as an amendment which I will propose on page 15 to expand the number of eligible applicants for this program. I thank the gentleman for yielding.

The CHAIRMAN. The committee will ask for that.

(The information requested follows:)

COST ESTIMATES FOR PROPOSED MOSS AMENDMENTS TO H.R. 13196

I. To add the words "health services technicians or" between "teach" and "in", page 14, line 13 (i.e., specifically mentioning teachers of health services technicians in the provisions relating to traineeships for advanced training).

Although the purposes of the traineeship section as originally proposed included the training of teachers, $1 million has been added to the original cost estimates to reflect increased emphasis on this expanded aspect of the traineeship program.

II. To add the words "associate degree" to page 15, line 18.

Attachment A shows estimates of—

	Million
1967	$8.0
1968	12.5
1969	16.0

The assumptions on which the estimates were made were as follows:

1. Only associate degree programs were included. (It is assumed that the junior college practical nurse and other less than degree programs would continue to be funded by vocational education.)

2. Associate degree nursing programs are not included.

3. In calculating the number of students in allied health curriculums, as a basis for estimating the cost of basic improvement grants, only the final year enrollment was included. (The first year is usually general education.)

4. Rate of program growth was estimated to be about the same as all vocational education programs from 1950 to 1965, and as the growth of AA programs in nursing from 1962 to 1966.

5. The following figures were used for number of schools, programs, and second-year students:

Year	Schools	Programs	Students
1967	140	200	3,500
1968	160	250	4,000
1969	180	300	5,000

6. Construction was estimated as an average grant of $250,000 per institution—8 schools in 1967, 20 in 1968, and 28 in 1969.

7. Traineeship grants were estimated as in I above.

8. Developmental grants were estimated at $0.5 million, $1.5 million, and $2 million. It seems reasonable to provide the same amount of funds for developmental grants for junior colleges as previously estimated for developmental grants for baccalaureate and graduate level programs.

ATTACHMENT A

Estimated new obligation authority required for fiscal years 1967–69 under amendment making junior college associate degree programs eligible for participation under Allied Health Professions Personal Training Act of 1966 (H.R. 13196)

[In millions of dollars]

New obligation authority	Fiscal year 1967	Fiscal year 1968	Fiscal year 1969
(a) Construction grants	2.0	5.0	7
(b) Improvement grants	4.5	5.0	6
(c) Traineeship grants	1.0	1.0	1
(d) Developmental grants	0.5	1.5	2
Total	8.0	12.5	16

HEALTH OCCUPATIONS TRAINING PROGRAMS IN JUNIOR COLLEGES UNDER VOCATIONAL EDUCATION AUTHORITY

Under the Smith-Hughes Act, and until the Vocational Education Act of 1963, vocational education funds were available only for training at less-than-college grade. It was not until 1965 that there was an official ruling on funding health occupations at the junior college level.

In 1965, of a total of $5.6 million vocational education funds expended for health programs, $900,000 was expended on junior college programs, with an enrollment of about 9,000: 2,000 in associate degree programs and 7,000 in practical nurse programs and other less-than-degree programs.

The following preliminary figures show the relation of junior colleges to the total health occupations training effort of the vocational education program in 1965:

Health occupations enrollments under vocational education programs, 1965 (preliminary figures)

Preparatory:	
High school and short term	12,000
1–2 year post high school	44,000
Junior and community colleges	9,000
Vocational and technical schools	35,000
Supplemental	18,000
Total enrollments	74,000

In 1966, the share of the total vocational education funds going to the health occupations has increased, as has the share to junior college health programs. It is anticipated that in 1967 the funds expended for junior college health programs will at least double with an attendant doubling of enrollments.

Under Public Law 88–210 authority for construction of area schools providing training in at least 5 occupational fields, 208 facilities were under construction at the close of fiscal year 1965. Of this number 43 were junior or community colleges. Opportunities for an additional 4,500 students in health occupations will be provided in the 208 facilities. (The figures for junior colleges alone are not yet available.)

Projections for fiscal year 1966 show that an additional 200 new area school facilities will be constructed, with increased emphasis on postsecondary and junior college facilities for vocational and technical education and increased emphasis on health occupations.

The CHAIRMAN. Is that all?

Mr. PICKLE. That is all, Mr. Chairman.

The CHAIRMAN. Mr. Devine?

Mr. DEVINE. Mr. Chairman, I have no questions other than to compliment Mr. Kinsinger for his testimony. We don't have many junior colleges in our State but I have a daughter attending a junior college and I have one that graduated from a junior college.

Mr. KINSINGER. You are starting some, sir. You have some new ones.

The CHAIRMAN. Mr. Kornegay?

Mr. KORNEGAY. I want to compliment Mr. Kinsinger for a fine statement and to assure him of my interest in the junior colleges and the wonderful role that they do play in the educational system.

The CHAIRMAN. Mr. Mackay?

Mr. MACKAY. Thank you, Mr. Chairman.

I would like to compliment him on his statement. The community colleges of Georgia are becoming a tremendous resource. I hope that your group will keep pressing for the use of this resource. Someone said that educational orthodoxy is much more acute and rigid than religious orthodoxy, and I believe it.

I think that if we fail to use this new educational resource in training these people we are not going to do what the intent of this bill clearly is. So I just want to say thank you for what you have done. That is all, Mr. Chairman.

The CHAIRMAN. Mr. Gilligan?

Mr. GILLIGAN. Thank you, Mr. Chairman.

Mr. Kinsinger, some of the questions I have in mind have already been asked. You anticipated one by picking up in your letter to Mr. Rogers a question concerning the statement of the Secretary about the training of health-related technicians under the Vocational Education Act.

I note that on page 3 of that statement you say that in a given fiscal year about $4\frac{3}{4}$ million Federal funds were made available for the training of 67,000 students, most of whom were not carrying a full curriculum course.

In the Secretary's statement the other day he proposed expenditures under this bill of approximately $8 million for 1967, $18 million for 1968 and $26 million for 1969. Aimed at solving a relatively narrow problem. Presumably then to include this vast new field at the community college level, junior college level, it would require a substantial increase in these appropriations.

Would you say that if the appropriation did not match the scope of the bill, amending it as you would have amended, that it would

be a mistake to attempt the program when it would be obviously inadequate to begin with?

Mr. KINSINGER. Yes. I will have to speak for myself and not for the American Association of Junior Colleges. I would feel this way. If this bill is going to be restricted in funds, the important aspect which has been proposed for this bill, which is to provide the base of baccalaureate level personnel, which in turn can provide our basis for a teaching staff—and this is fundamental to an expansion of the associate degree program—should have priority. If that were all that could be done I would say that ought to be done first.

Now the answer to my plea is not necessarily in this bill. If it can be envisioned in this bill, if it is possible that funds can be made available and that this bill can enable this, that would be ideal. If the whole field of health services technicians on the junior college level could be funded through this bill, we would be very fortunate.

If there are limited funds the solution might lie in strengthening the Vocational Education Act so that it has meaning for the junior college health field.

In other words, I know what I think ought to be done. The legislators know how it can be done.

Mr. GILLIGAN. You recognize, Mr. Kinsinger, that this is authorizing legislation and that we are not actually appropriating money. At the same time all of us have listened to lengthy debates on the floor of the House in the last few weeks about what is suggested as an imperative necessity to cut back Federal spending now in domestic programs.

It occurs to me that if this committee were to broaden the scope of the bill and not at the same time express its willingness to properly fund a much broader program, that by adding the community colleges within the scope of the bill, its operation, the result might be to impair the entire program so that we would not be doing either part of the program very well.

I do not ask you to agree or disagree but this is a point that occurred to me. Thank you, sir.

The CHAIRMAN. Mr. Farnsley.

Mr. FARNSLEY. Thank you, Mr. Chairman. Thank you, Mr. Witness. I am for any aid to education by the Federal Government or any other government because I know that any money which we spend on education is invested and will come back to the Government many times over in the extra income tax we get from the people who have been through the institutions.

The CHAIRMAN. Thank you very much.

Mr. Moss. Mr. Chairman, I have a couple more questions that I feel I must ask.

Your dialogue with Mr. Gilligan I think needs to be clarified because you definitely limited your remarks as an expression of personal opinion and not of the association for which you speak.

Now in my questions to you I think that I tried to make clear that we are talking about two things. One, your statement deals with expanding the scope of the proposed program.

We both agree that that was desirable.

Mr. KINSINGER. That's right.

Mr. Moss. And that is where we might have a substantial increase in the number of dollars required. We also discussed another

important matter and that was the expanding of the number of qualified institutions through a change in the definition, in recognition of the fact that many of the junior colleges currently provide parallel courses.

Now you would not want to see anything happen that would prevent that change or that modification in the bill.

Mr. KINSINGER. That is correct, sir. That would not increase the cost substantially. It would just be saying that you are not restricting your support to those institutions that take them all 4 years but rather that they could start at the junior college and be financed there and then go on.

I wholeheartedly support this.

Mr. Moss. We might call that the fairness doctrine in this field of education. Thank you.

Mr. YOUNGER. Will the gentleman yield?

Mr. Moss. Yes, I will be happy to yield.

Mr. YOUNGER. Is it not also true that it is not necessary to increase the amount but to allow them to participate in whatever amount is allocated for that purpose?

Mr. Moss. Just put one more plate on the table.

Mr. YOUNGER. That is right.

Mr. Moss. Thank you.

The CHAIRMAN. Mr. Rogers.

Mr. ROGERS of Florida. I would share that feeling too that our facilities, the junior colleges, which actually are a great reservoir of manpower, should be used. We pointed out, and had pointed out time and time again, the critical shortage in this country. For us to overlook the use of this vital reservoir is, I think, absurd. I share the feelings that have been expressed by my two colleagues. Junior colleges should be used under this program.

I hope that we can do something about it.

Thank you.

The CHAIRMAN. Thank you, Mr. Kinsinger.

Mr. MURPHY. Mr. Chairman.

The CHAIRMAN. Excuse me.

Mr. Murphy has come in so we will call on him for some questions.

Mr. MURPHY. I am sorry I was not here to hear your full statement, Mr. Kinsinger.

I was in a hearing on maritime personnel which is in critical shortage because of the Vietnam crisis. In line with Congressman Rogers' questions, we do have a 2-year college program in New York State and these colleges certainly contribute a great deal to the medical technicians and just technical, let us call it, reservoir of personnel in our State.

We certainly think they should be included for consideration under this act.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very kindly.

Mr. KINSINGER. Thank you, Mr. Chairman.

The CHAIRMAN. Our next witness is Miss Lucy Blair, the executive director of the American Physical Therapy Association.

STATEMENT OF MISS LUCY BLAIR, EXECUTIVE DIRECTOR, THE AMERICAN PHYSICAL THERAPY ASSOCIATION

Miss BLAIR. Good morning.

The CHAIRMAN. Any statement you may have you may insert in the record and summarize if you wish or read it in its entirety.

Miss BLAIR. Thank you. Members of the committee, as the chairman indicated, I am the executive director of the American Physical Therapy Association and this morning I am speaking for that organization.

Over 10,000 members are distributed in 50 States, the District of Columbia, Commonwealth of Puerto Rico, Panama, and the Virgin Islands; also some of our members are out of the country on military assignments, in the Peace Corps, and one recently was sent to Honduras through the Organization of American States to give guidance in a restorative program after a recent polio epidemic which is quite foreign to us in this country these days.

Although the bill, H.R. 13196, does not name physical therapy or physical therapists as such it is my understanding that the profession of physical therapy is included among the health professions covered by the proposed legislation.

Physical therapists participate in the evaluation of disabilities of patients resulting from illness or injury and administers treatments for the alleviation of pain and for correction or improvement of their conditions.

They instruct the patient, his family, and other personnel. Physical therapists receive referrals from licensed physicians and maintain contact with physicians regarding progressive care of patients.

They work with physicians and other health personnel such as nurses, speech and occupational therapists in contributing to the comprehensive care of patients through direct service to them as well as through participation in community and regional planning.

There are over 5,000 facilities in this country including hospitals, rehabilitation centers and public health agencies with organized physical therapy services. With the advent of medicare these facilities will be required to extend their services to more people and more over a greater geographic area. The qualified manpower services must be doubled in the foreseeable future to meet patient care needs and to train supervisors and teachers.

For effective implementation of such responsibilities, preparation of physical therapists is provided in universities at the bachelor or postbachelor level. A strong foundation in general education followed by basic professional courses and professional experience is provided in the educational program.

The association has supported the establishment of educational programs in physical therapy in universities which also have a medical school and the opportunity of using primary teaching and affiliated clinical facilities.

At the present time there are 42 programs in physical therapy accredited by the Council on Medical Education of the American Medical Association in collaboration with the American Physical

Therapy Association. Six additional programs are being developed in colleges and universities.

Approximately 900 students in physical therapy graduate from these programs each year but twice the number should be graduated to meet the health service needs of people in relation to the increasing population of the United States. This is not to say that we have been unmindful of these needs nor that Federal and voluntary assistance in the form of grants, loans, and scholarships has not been forthcoming.

But other kinds of support are needed as well as financial assistance for students. For years physical therapists have been carrying on their fight in the area of rehabilitation with then all the indications of maintaining or assisting in restoring functional ability so that the man or woman could return to work or the child could have his handicap alleviated and that he could grow up to be a contributing member of society. The Vocational Rehabilitation Administration has given increasing financial support through grants to the American Physical Therapy Association, and in 1955 an institute for teachers and clinical instructors was initiated through the VRA grant fund.

At present they are supporting a study of physical therapy education which will be completed by 1968. This study will have a significant effect in the education for physical therapy in the future. Since 1958 grant funds from the VRA have been made available for physical therapists to pursue graduate education in a variety of fields, and anatomy, physiology, psychology, education, and public health.

The grant funds are administered through the American Physical Therapy Association and the traineeship awards are made with the advice and counsel of the National Committee on Graduate Study.

Approximately 125 physical therapists have had such assistance in pursuing master's or doctor's programs. In 1962 the VRA instituted assistance to students in physical therapy to ease the rising cost of tuition.

This has continued to expand each succeeding year and indeed we have been most grateful. I should like to make clear to the committee that of the several needs in expanding high quality physical therapy service in this country the major one is for assistance in construction and to expand the training resources of physical therapy schools.

The present training grant programs of VRA are filling great need for help to undergraduate students and for preparing more teachers and administrators. But these could be further expanded through additional Federal funds.

The acute problems in expanding the physical therapy plants in the university and for related teaching call for prompt action such as that proposed in H.R. 13196. The directors of schools of physical therapy are reporting that requests for admission to some of the presently approved programs in physical therapy have had to be denied because of limitations in classrooms, laboratory facilities, and the delay in obtaining qualified faculty.

A year ago a representative of a Midwest State university which had one of the approved programs in physical therapy made an urgent plea for resources for building funds to assist in relocating several of the educational programs for the health professions in one structurally sound building on the campus of the university medical center.

To many this was imperative to facilitate classroom and laboratory quarters and to permit the sharing of instructional staff.

He has a conviction that a division for the allied health professions, physical therapy being one of them, was of priority importance in his area of the country.

Recently a letter addressed to the association president, Miss Mary Elizabeth Cole, was received from the president of the council of physical therapy school directors which I would like to read into the record.

As president of the council of physical therapy school directors I wish to express the council's interest in H.R. 13196, Allied Health Professional Personnel. Training Act of 1966, which is under consideration by the Committee on Interstate and Foreign Commerce. The schools of physical therapy currently graduate over 900 students per year.

With your present faculties and educational facilities the maximum of final year students which could be accommodated without lowering the quality of instruction is less than 1,100. In order to meet the health needs of our expanding population we must educate increasing numbers of professional physical therapists.

To do this expansion of physical therapy educational faculties is essential, H.R. 13196 would provide financial assistance for this needed expansion of physical therapy education programs. We urge support then of these provisions of the bill. The increasing cost of tuition is a factor which markedly influences enrollment. Although there is some scholarship assistance available for students enrolled in course work of the final 1 or 2 years of a physical therapy educational program, assistance is not generally available to students during the first 1 or 2 years of a 4-year undergraduate physical therapy curriculum.

In light of the existing legislation which makes provision for forgiveness of loans to nurses, teachers, physicians, dentists, optometrists, podriatists and others it is difficult to understand why this bill to increase the opportunities for training of allied health personnel does not make provision for cancellation of loans made to students in allied health professions.

We urge that consideration be given to amendment of H.R. 13196 to include such provisions.

Sincerely,

GRACE PHILLIPS.

Health power manpower needs are great. Distribution and utilization of skilled personnel and available facilities and institutions are important and immediate factors to be considered for expansion and strengthening. It is imperative that the program envisioned in this proposal be coordinated closely with existing Government programs which are doing a fine job of leadership in our field.

I refer particularly to the Vocational Rehabilitation Administration, I might say the Children's Bureau and the Public Health Service. All of these have had long supported not only teachers but supervisors and researchers as well.

The American Physical Therapy Association supports H.R. 13196 wholeheartedly and earnestly hopes the initial amendments or clarification will improve student loan programs for physical therapy students as are provided for other disciplines identified with the health profession.

The importance of cooperation and coordination between governmental and professional organizations such as ours are welcomed to prevent duplication of effort when there is so much to be done in meeting the health needs of people.

Thank you very much.

The CHAIRMAN. Thank you, Miss Blair. The essence of your testimony is that you are in favor of the bill?

Miss BLAIR. I am.

The CHAIRMAN. You do favor some amendments?

Miss BLAIR. We think that there might be clarification. In the regulations that might come out if the bill is passed or some of them might come out in clarification in expediting the bill.

The point that I raise particularly has been brought to our attention particularly from the Council of Physical Therapy Directors; of course they are the group who are primarily interested and are attached to our educational institutions.

The question of providing for forgiveness for clarification of loans, they believe was of great importance to be considered.

The CHAIRMAN. Mr. Moss?

Mr. MOSS. I have no questions, Mr. Chairman.

The CHAIRMAN. Mr. Younger?

Mr. YOUNGER. No questions.

The CHAIRMAN. Mr. Murphy?

Mr. MURPHY. No questions, Mr. Chairman.

The CHAIRMAN. Thank you.

Miss BLAIR. I think all the members of the committee who were here this morning are all from States that do have approved programs of physical therapy attached to their universities. It is good to see them here.

The CHAIRMAN. Thank you.

Is Dr. Parley Newman, associate secretary of the American Speech & Hearing Association, Washington, D.C., here?

Will you come forward, sir, and take the stand and give us the benefit of your views.

Dr. NEWMAN. Thank you, Mr. Chairman, it is a pleasure to be here to represent the American Speech & Hearing Association. On my left is Dr. William Castle, my colleague in the national office of the association. He is the associate secretary for research and scientific affairs in the association.

The CHAIRMAN. You may proceed.

STATEMENT OF DR. PARLEY NEWMAN, ASSOCIATE SECRETARY, AMERICAN SPEECH & HEARING ASSOCIATION

Dr. NEWMAN. Mr. Chairman, the bill entitled "The Allied Health Professions Personnel Training Act"—H.R. 13196—now under consideration, names only a few of the existing allied health professions. I represent one of the unmentioned professions—speech pathology and audiology.

Speech pathologists are primarily interested in disorders in the production of spoken language, while audiologists are primarily interested in disorders in the reception and perception of spoken language and other acoustic stimuli. Together these professionals serve to help identify persons who have such disorders; to help determine the etiology, the history, and the severity of specific communication disorders through interviews and special tests, and to aid persons with such disorders of communication through speech, hearing, and language habilitation and rehabilitation procedures, counseling, or referrals for medical or other professional attention.

Our profession, like most allied health professions, is highly supportive of the basic purposes of the Training Act under deliberation.

THE NEED FOR MORE SPEECH PATHOLOGISTS AND AUDIOLOGISTS

We are in complete support of the intent of legislation for enlarging the supply of allied health professionals and for improving training facilities. We have long been aware of a sizable gap between supply and demand for speech pathologists and audiologists. In 1960, it was estimated, conservatively, that at least 20,000 speech pathologists and audiologists were needed to provide services for the demands of over 8 million persons with significant speech and hearing handicaps. At that time also, it was estimated that there were approximately 6,000 such specialists available. In the last 5 years the number of qualified specialists has nearly doubled, but the demand for such services has also enlarged due primarily to the rapid growth of the population, but the present supply still falls short of the need expressed in 1960.

NEED FOR OUR EDUCATION AND TRAINING PROGRAMS

Helping as they can to fill the gap between supply and demand, there are, by our latest count, some 240 education and training programs in speech pathology and audiology located in our nation's colleges and universities. Eighty of these provide only preprofessional undergraduate training, and of the 160 which offer professional graduate training, 43 train to the Ph. D. level, and the remainder offer the master's degree.

To provide the professional services needed, at least 2,000 speech pathologists and audiologists should be receiving graduate degrees or their equivalent annually. Presently, a little over 1,100 are doing so.

The American Speech & Hearing Association wishes to express the opinion that proposal H.R. 13196, if enacted in its present form, will not prove of maximum benefit to education and training programs in speech pathology and audiology, because it does not provide for support of programs of training lying outside the purview of medical administration.

The vast majority of the education and training programs in speech pathology are not in institutions which are medically affiliated. Not more than 10 exist within a medical administrative unit. Thus, under the bill as presently constituted, the education and training programs in speech pathology and audiology stand to gain only very limited support from H.R. 13169.

We would strongly urge that provision be made for the support of the profession of speech pathology and audiology, the majority of whose education and training programs are not under medical administration.

If I may depart from the prepared text for a moment I would like to point out that the activities of this profession may be placed under the broad heading of "Behavior." Our scientists would be most appropriately regarded as behavioral scientists and our practitioners would be most appropriately regarded as behavioral specialists in the disorders of human communication. Thus, the nonmedical setting of most of our education and training programs in colleges and universities is consistent with the nature of our research and service.

This statement does not imply that those few programs located in medical settings are inappropriately administered. It has reference only to the general nature of the profession. We readily acknowledge

the need for cooperation with medicine and other professions such as psychology and education.

Actually, the Department of Health, Education, and Welfare has been generous in its support of speech pathology and audiology in the past several years in the areas of training and research. To more fully meet the need for trained specialists in speech pathology and audiology, additional support of existing programs would be all that is required.

For example, for fiscal year 1967, the Vocational Rehabilitation Administration requested a total of $3,267,000 to support 61 teaching grants and 678 traineeships in speech pathology and audiology. The dollar figure for fiscal year 1967 is the same as it was for fiscal year 1966.

Relatively few of the education and training programs in speech pathology and audiology would be eligible for support from H.R. 13169 in its present form. We thus urge that whatever new legislation is produced by Congress for supporting training in the allied health professions that it be so written to bring maximal assistance to the education and training programs of all such professions, not just those that have a close medical affiliation.

There already exist within the Department of Health, Education, and Welfare a number of grants programs for advancing professional training in allied health professions, including ours.

We recommend that Congress need not create new grants programs to administer H.R. 13169, but that it can be efficiently administered through the existing agencies of the Department of Health, Education, and Welfare such as the Vocational Rehabilitation Administration, the Children's Bureau, the Office of Education, the National Institutes of Health, and the neurological and sensory diseases service program of the Public Health Service.

We urge that more funds be made available to these agencies to support their existing training grants programs, and that funds and authorization be made available to them to provide for construction of education and training facilities for all allied health professions regardless of type of administrative unit. Such an approach would increase the supply of allied health specialists in all fields in the most effective and economic manner.

Please accept our thanks for the opportunity to appear before you.

The CHAIRMAN. Does your associate want to make a statement?

Dr. NEWMAN. No, sir, he is here in case of questions.

Thank you.

The CHAIRMAN. He is your right arm?

Dr. NEWMAN. That is right.

Mr. MURPHY. Thank you, Mr. Chairman.

As far as Federal grants and Federal assistance is concerned under the mental retardation and other programs do we have assistance for audio and speech defects?

Dr. NEWMAN. It is not specifically stated but it is implied in the legislation.

Mr. MURPHY. Of the number of people you say need this assistance, the number of patients that there are, are they congenital speech and hearing defects or are they connected with, say, retardation or some other defect?

Dr. NEWMAN. Both. That is why I made reference to both medicine and psychology. As you understand, the act of speaking is determined by social and cultural factors. It also is dependent on a

sound organism. If either of these are impaired or inadequate, poor language or inadequate speech can develop.

Our people in their training have been exposed to the organic aspects of speech and hearing disturbances as well as to the psychological and social factors. Specifically our profession does have a contribution to make in the area of mental retardation.

Mr. MURPHY. Thank you, I have no other questions.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. I have just one question, Doctor.

Most of this work is now done through the schools.

Dr. NEWMAN. I would judge that the majority of the service offered by our profession is done in the local school setting.

Mr. YOUNGER. Thank you.

The CHAIRMAN. Thank you for coming here and giving us the benefit of your views. It will be helpful in our consideration of the bill.

Dr. NEWMAN. Thank you, Mr. Chairman.

The CHAIRMAN. Our next witness is Miss Martha Schnebly, director of occupational therapy, Institute of Physical Medicine & Rehabilitation, New York City. Miss Schnebly, you may proceed.

STATEMENT OF MISS MARTHA SCHNEBLY, DIRECTOR, OCCUPATIONAL THERAPY, INSTITUTE OF PHYSICAL MEDICINE & REHABILITATION

Miss SCHNEBLY. Thank you, Mr. Chairman.

My statement is relatively brief. I request permission because of the late hour to just summarize the written statement and then add some additional comments.

The CHAIRMAN. You may do that. Your complete statement will be inserted in the record in its entirety.

Miss SCHNEBLY. Thank you.

(The document referred to follows:)

STATEMENT OF MISS MARTHA SCHNEBLY, O.T.R., DIRECTOR, OCCUPATIONAL THERAPY, INSTITUTE FOR PHYSICAL MEDICINE & REHABILITATION; INSTRUCTOR, OCCUPATIONAL THERAPY, NEW YORK UNIVERSITY; SPECIAL LECTURER, FACULTY OF MEDICINE, COLUMBIA UNIVERSITY, NEW YORK, N.Y.

Mr. Chairman and members of the committee, my purpose in appearing before you today is to respectfully request that the profession of occupational therapy be specifically named for inclusion in the proposed H.R. 13196, the Allied Health Professions Personnel Training Act of 1966 (to amend Public Law 88-129, Public Health Service Act of 1963). A study of the proposed act demonstrates that occupational therapy is included by inference and by intent but not by name, and your consideration is hereby invited to rectify this omission.

The occupational therapist, as a vital member of the rehabilitation team, treats physically and emotionally ill patients by means of purposeful activity. This form of treatment is planned to (1) decrease or eliminate disability resulting from illness or accident; (2) to increase or maintain independence in self-care; and (3) to promote total function to a maximum level leading, when feasible, to eventual return to the labor market.

The education of the occupational therapist is normally 4½ years of college leading to a bachelor of science degree. Thirty-two colleges or universities in this country offer education for this profession. The National Commission on Accrediting recognizes the Council on Medical Education of the American Medical Association and the Accreditation Committee of the American Occupational Therapy Association as the two collaborative agencies responsible for the accreditation of these educational programs. Following graduation from an accredited school, the occupational therapist takes the national examination which, when successfully completed, leads to registration on a national basis.

The shortage of personnel in this field has been documented in such studies as the "Report of the President's Commission on Heart Disease, Cancer, and Stroke, December 1964"; and the "Manpower Report of the New York State Governor's Council on Rehabilitation, December 1965." The latter indicates the following number of unfilled positions in 1965:

Nationally	15,600
New York State	5,600
Departments supported by New York State (percent)	53
Departments supported by New York City (percent)	38

Against this background, compare the figures showing the present supply of occupational therapists. The American Occupational Therapy Association shows the number of registered occupational therapists to be 7,390, of whom approximately 3,500 are actively practicing. In the fall of 1965, 2,787 students were enrolled in the 32 professional schools in this country, with an anticipated number of 438 graduates to take the national registration examination in 1966.

Reasons for the personnel shortages are complex and have to do with (1) the expansion of needs and demands for treatment; (2) difficulties in expanding present educational programs because of limited physical plants; (3) shortage of instructional personnel; (4) the cost of education; and (5) the recruitment of more young people into this service field.

Our need for your assistance is urgent and immediate if we in occupational therapy are to meet the present requirements for our services, and if we are to develop the necessary services for patients under the Medicare Act, as well as the other programs of Federal and State concern. The present physical facilities for education must be expanded and new ones built. More opportunities are needed for seasoned personnel to better prepare themselves for educational and supervisory roles. New and imaginative curriculum planning must be done to use to best advantage the available educational resources—human, visual, and mechanical. Programs of recruitment and student aid must be continued.

In order to correct some of these deficits we entreat your consideration of this request for the inclusion of "occupational therapy" by name in H.R. 13196, the Allied Health Professions Personnel Training Act of 1966.

Miss SCHNEBLY. Briefly, my purpose in appearing before you today is to respectfully request that the profession of occupational therapy be specifically named within the proposed H.R. 13196. The written statement does present information supporting the need for more occupational therapists in the health field and to meet this need we recognize that facilities, recruitment, and education of personnel for faculty are essential.

My testimony could strongly parallel that which Miss Blair and others have already given. I am in accord particularly with Miss Blair's comments.

First, I would like to say that we do strongly support the intent of the bill to create more facilities. This is an unmet need of occupational therapy. Many of the existing programs lack adequate space for the present classes and are totally unable to increase their student enrollment. One school is limited to 36 in the junior and senior classes, another is limited to a total of 50 students in the entire student body, just because of inadequate space.

Second, I would like to bring to the attention of the committee that we have received and are receiving considerable support for traineeship grants from some of the Government agencies, notably the Vocational Rehabilitation Administration. This support has continued for more than 10 years. It has been brought to my attention that in the 1967 budget of the VRA, $1,019,000 has been identified

for occupational therapy to provide 458 traineeships and 26 teaching grants.

These traineeships are not only for the occupational therapy practitioner but also for those going on into teaching and research. The graduate traineeships enable the field to develop a small cadre of leaders. However, this amount is not sufficient for the need of the profession at this time.

I would like to offer support to the statement that Secretary Gardner made several days ago in urging that the programs developed in this bill be closely coordinated with ones already in existence such as the programs in VRA. This coordination would help to further the health-related professions by the strength gained through intergated, correlated financial support.

I would like to bring one item particularly to the attention of the committee in section 15(c) of the bill. This seems to have implications which in interpretation may prevent the eligibility of some of our occupational therapy programs to receive funds. As I understand it, this section states that the allied health educational programs must be within settings that have teaching hospitals as part of the university or closely affiliated with them. It is requested that the intent of this section be broadened to include all of our occupational therapy schools because of the clinical affiliation portion of the educational program. All of the schools have clinical affiliations in a variety of teaching hospitals over the country. These may not be necessarily a part of the specific university program but are selected and used by the occupational therapists in the program of teaching. We request that all programs using accredited hospitals for clinical affiliations be considered eligible for funds.

I thank you very much for extending the time to me to speak before the committee. I will try to answer any questions you may have.

The CHAIRMAN. I want to thank you very kindly, Miss Schnebly, for coming to the committee and giving us your views. I would say to you that I am advised by our counsel that your group is included in the bill.

I wanted you to know that.

Mr. Murphy.

Mr. MURPHY. I would like to congratulate Miss Schnebly for her statement. We certainly appreciate your appearance before the committee.

Miss SCHNEBLY. Thank you, sir.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. No questions, thank you.

The CHAIRMAN. Again I want to thank you for coming and giving us the benefit of your views. I am assured by our counsel that your group is included in this bill.

Of course, your statement will be in the record and the statement will be considered when we consider the bill in executive session.

Miss SCHNEBLY. Thank you.

The CHAIRMAN. I would like to include in the record at this point a statement by Eugene McCrary, president of the American Optometry Association.

(The statement referred to follows:)

STATEMENT BY V. EUGENE MCCRARY, O.D., PRESIDENT, AMERICAN OPTOMETRIC ASSOCIATION

Mr. Chairman and members of the committee, I am pleased to have this opportunity to express to you the views of the American Optometric Association on H.R. 13196, the Allied Health Professions Personnel Training Act of 1966, and to tell you of our concern that the Department of Health, Education, and Welfare has again overlooked our profession in the drafting of health manpower legislation.

It is true that optometrists utilize a smaller number of assistants than the medical or dental professions, but not in proportion to the number of members in the profession of optometry. There are some 17,000 practicing optometrists who today employ some 35,000 optometric assistants.

This committee, in recognition of the need to double the number of optometrists, included optometric schools and colleges and students in three separate acts for health professions educational assistance. If we achieve our goal of doubling the number of members of the profession, we will need at least 70,000 optometric assistants. If we do not achieve our goal we will need even more than that number of assistants so that we will have more arms and legs to serve the visual needs of our American population.

In addition to the growth of the population, we are experiencing a growth in professional knowledge. With this growth in knowledge we find the need to spend more time with the patient and the need for more assistants so that our professional time is used as efficiently and economically as possible.

The bill presently before you requires that schools to be eligible for traineeships to help prepare teachers, administrators, supervisors and specialists in the various allied health professions must include or be affiliated with a medical or dental school and a hospital. This provision effectively bars the training of optometric assistants under the act. We respectfully recommend that optometric schools be included as eligible under the appropriate provisions of the bill.

We were further concerned when the Secretary of the Department of Health, Education, and Welfare in his testimony said, "Specially trained bioengineering technologists will make possible both use and development of radically new diagnostic and therapeutic equipment," and then went on to modify this statement by saying, "Technologists to work with physicians to extend these services will require specifically designed training." We believe the Secretary must be completely unaware of the development of the electronic tonometer, a highly developed modern instrument to detect glaucoma, by optometry at an optometric school. To restrict such technologists only to service under physicians is to bar possible progress by other health professions such as our own. We hope this committee will, in its report on the bill, bring to the attention of the administration the need to utilize all of the Nation's qualified health resources, including the optometrists and their assistants, in programs of the Department.

The Department of Defense is now drafting optometrists to take care of its critical shortage in the field of vision care. Many of our young O.D.'s are being called from rural areas with populations of 50,000 or more, and no other optometric care available. The schools of optometry, the American Optometric Association, and the States themselves, have persuaded and cajoled these young men to practice in these rural areas which have been short of health manpower. We find by comparison that physicians have more inducements to practice in these areas than do optometrists. Accordingly, we do not understand why the administration is offering more forgiveness of loan incentives to physicians than they are to the other health professions. The determination of a critically short area in health manpower is left to the decision of the States. To our knowledge, none of them has reported any experience in providing forgiveness of loans that would indicate that more incentive is needed to obtain a physician for one of the shortage areas than is needed to obtain an optometrist or a dentist. We ask that the same incentives be applied across the board to all the health professions which are authorized under previously enacted legislation to receive forgiveness of loans.

The American Optometric Association is happy with the provisions for the conversion of health professions student loans from direct Federal financing to a guaranteed and subsidized basis. We believe, however, that it would be wise to move slowly on these student loan conversion provisions until adequate private sources for loans have been found which will agree to the terms of these provisions.

The profession of optometry will always be grateful to this committee for its support of the profession and its concern for the visual welfare of our Nation.

We ask only that it give the most serious consideration to the proposed changes in H.R. 13196 which we are bringing to your attention.

Thank you for the opportunity to present this statement. I will be pleased to answer any questions or to provide any additional information which you might like for the record of this hearing.

The CHAIRMAN. I would also like to include in the record a statement by Ruth M. Latimer, director of the physical therapy educational program, University of Maryland.

(The statement referred to follows:)

STATEMENT OF RUTH M. LATIMER, DIRECTOR, PHYSICAL THERAPY EDUCATIONAL PROGRAM, UNIVERSITY OF MARYLAND

I speak in support of H.R. 13196, Allied Health Professions Personnel Training Act of 1966, and request your consideration of amendments to specify the allied health professions with particular consideration to the profession of physical therapy and to the educational programs accredited by a recognized body approved by the Commissioner of Education.

I am sure you are aware of the need for health personnel in all areas and note certain factors that make physical therapy personnel in particular demand; namely, the increasing longevity of man and subsequently chronic diseases, the large number of persons injured by accidents but left with a disability, other Federal legislation pertaining to social security and vocational rehabilitation, and programs for the mentally retarded and heart disease, cancer, and stroke.

In the March 7, 1966, edition of U.S. News and World Report, Dr. Harvey Scudder, Director of the Health Manpower Resources Unit of the Public Health Service states that physical therapists are chief among the lacking health personnel. There are presently 12,000 with a need for 20,000 and by 1970, 40,000.

The objectives of physical therapy education are to increase the quality and quantity of personnel to cope with the demands. These objectives would be facilitated with Federal assistance to promote expansion and improvement of the existing 42 educational programs, to encourage additional new programs of which there are presently 6 in stages of development, and to offer loans and scholarships to worthy students.

The CHAIRMAN. This concludes our hearing on H.R. 13196 and the record will be kept open for 5 days for further statements which are to be included in the record.

The committee is adjourned subject to the call of the chair.

(The following material was submitted for the record:)

STATEMENT OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

The 16,000-member American Public Health Association, which has an additional 25,000 members in State affiliated societies, wholeheartedly supports the concept and purpose of H.R. 13196. Although long overdue, this legislation should, indeed—by leading toward a comprehensive, nationwide program for training personnel in the allied health professions—fill a vital need both in the attraction of youthful talent to the field of health and in the provision of opportunity to these youth. This legislation is vital to the full future staffing of the Nation's hospitals, medical and dental laboratories, and other health facilities. And without it, full utilization of the time, talents, and energies of the other members of the modern health team—our physicians and nurses particularly—will not be realized. We must have this bill to protect our investment in the legislation this same Congress enacted last year and in other legislation passed somewhat earlier, specifically the Health Professions Educational Assistance Act, the Nurse Training Act, and the Vocational Education Act.

Beyond the field of health, each community and each congressional district in the Nation should offer to its youthful citizens the opportunities that would be provided in this legislation—opportunities to be trained near their own homes in important professions and technologies within what has emerged as an American "growth industry," the field of health.

Modern medical advance had led to a team approach to each patient's health needs. Each member of that team is vital. That is why we need—as listed by President Johnson in his recent health message—medical technologists, biomedical engineers, dental hygienists, and other college-trained healthworkers.

The American Public Health Association, again supporting the concept of this legislation, would modify that concept in several ways—in hopes of abetting the national purpose. We know Congress is in sympathy with that national purpose, and we hope this committee and the Congress will approve these modifications:

(1) There is no foreseeable limit as to the kinds and types of health workers we will eventually need. But there is a clear and obvious need, right now, for the following: Medical technologists, X-ray technologists, anesthesiology technologists, dental hygienists, rehabilitation counselors, speech pathologists and audiologists, physical therapists, occupational therapists, medical record librarians (particularly for the Nation's hospitals).

Although we do not think the legislation needs redrafting for this purpose, the association feels this committee should lead the House of Representatives toward an expression of congressional intent that these workers, at least, should be covered through their training by this legislation. In addition, because the needs of even the immediate future cannot be forecast with certainty, the Department of HEW and the Public Health Service should be allowed to add to this minimal listing.

(2) A second modification to the concept of this legislation, it is felt by our association, should be the provision of specific and generous sums of money to do the job. And in the subsequent years of the appropriation process, there should be no backing off from this original committment to a fast-moving, wide-spreading program. This program should be allotted, both in the original authorization and subsequent appropriations, amounts adequate to the task, remembering that it is an investment both in that dear commodity, our Nation's health, and in the career patterns open to the youth of this country.

(3) A third modification would expand the legislation's concept as a career alternative to our youth. The American Public Health Association suggests addition of a program of project grants to junior colleges.

Junior colleges should be allowed to initiate and carry forward a variety of programs to attract and train health professionals and technologists of all kinds, particularly a number of talented youths who, for various personal and economic reasons, had not contemplated 4 years of education beyond high school. But they must have the well-trained teachers to guard against an inferior product.

Project grants to junior colleges would, we believe, both (1) enhance the legislation's major purpose of increasing the health awareness and capabilities of every community and (2) insure that at least in junior colleges, a health career opportunity is brought to the attention of, and made available to, our Nation's youth—at a time when these youngsters are making the most crucial decisions of their future.

The health of our Nation demands it. The youth of our junior colleges, as well of our universities and 4-year colleges, rightfully deserve it.

We would like these modifications to be kept in mind during our comments on each specific provision of the proposed legislation.

H.R. 13196 would provide bricks and mortar money, with up to 66⅔ Federal funding and expansion requirements that commit participating institutions, in effect, to spend more themselves than the woefully inadequate sums they have had available in the past. This is a tried and tested pattern of Federal funding, one that has worked well to revive or create State, local, and institutional interest.

Each Member of the House of Representatives should look with favor—as do the members of our association who have seen this Nation's pockets of inadequate health care—on two important criteria for the Surgeon General's approval of facilities funding:

(*a*) Each proposal is to be evaluated in the light of its effects in securing equitable geographic distribution of training facilities, and

(*b*) Each proposal must mesh with State and local health planning, the latter hopefully to be stimulated and facilitated by another legislative proposal before this committee, H.R. 13197.

A caution concerning equitable geographic distribution is in order. This provision should not under any circumstances be allowed to hold back a desirable improvement, even in areas of the richest medical background. These areas of comparative medical plenty are leadership areas, and leadership toward excellence should be encouraged, particularly when the cost can be measured in terms of relatively few dollars.

This construction program must move quickly. None of these teachers, supervisors or health workers we refer to can be trained on sidewalks. Facilities and equipment must be available. Congress should so instruct the executive branch, both the Public Health Service and the Bureau of the Budget.

Another major section of the bill would provide basic and special improvement grants to efforts in the training of allied health professionals. Again, this pattern

was established by this Congress in last year's health professions educational assistance amendments, and it demands repetition if this Nation is to field a full health team.

One notation is necessary. In considering grant applications, the Surgeon General is to take into account the relative financial need of applicants. The American Public Health Association urges that this provision not be interpreted negatively as a way of refusing grants to institutions that happen to be in areas of medical leadership. These institutions may have their riches committed to areas that will not provide allied health professionals. An accommodation of both geographic coverage and the potential for increased training is necessary. The Nation can afford basic and special improvement grants both to leaders and laggards. Both will represent an investment in the health of our citizens, and the Nation can ill afford to miss any health investment opportunity.

Grants to training centers for the allied health professions would be available under the proposed H.R. 13196 as a method of attracting teachers to the field. This association considers this provision a basic underpinning for the rest of the legislation. While buildings of some form must be available, our teachers must be the best that good training programs can provide. The best teachers inspire and capture interest as well as teach.

Grants for the development of new teaching and training methods, another major provision of the proposed legislation, are important, again, in assuring continuing excellence and leadership. In the view of our association, this portion of the bill is essential, just as all portions represent meaningful advances and are extremely necessary to the national mission of good health to all.

Beyond the specific provisions for fulfilling the promise of the medical team in modern therapy, H.R. 13196 includes several other provisions that represent modifications or amendments to existing authorizations.

Specifically, the bill would authorize additional loan cancellation to physicians who practice in rural areas characterized by low family income. This forgiveness feature we have long supported. It would add new loan reimbursement payment provisions for certain health professions and nursing students. And it would encourage the substitution of private capital for direct Federal appropriations under the health professions and nursing student loan programs.

Concerning the latter, some question may arise when a borrowing student is faced with higher interest rates than now existing for the program, even though the Federal Government will make up the difference between existing interest rates and those contemplated under the private capital proposal. This may be resolved by techniques of presentation and explanation in the institutions attended by the students, but this need should be brought to the attention of administrators of the program at all levels.

Despite this caution, in the interests of moving rapidly and with urgency, the American Public Health Association supports the three provisions that represent modifications to existing programs so long as adequate loan funds are available to fully meet demands.

H.R. 13196 is overdue. Members of the allied health professions and technologies to be trained under this legislation will be reporting late as it is. Any further delay may further cripple the modern team approach. Those teams are necessary across the Nation to give us the best hope of success in our literal life-and-death battle against disease and disability.

STATEMENT OF ROBERT J. ATWELL, M.D., DIRECTOR, SCHOOL OF ALLIED MEDICAL SERVICES, THE OHIO STATE UNIVERSITY COLLEGE OF MEDICINE,

The tremendous growth in recent years of medicine and other health professions has been occasioned by our growing population, the tremendous advances achieved in the health professions, the increased demand for health services occasioned by the achievements in health care, an affluent society, and the new interest in health legislation. The demand for physicians has been tremendous and in many respects, educational facilities have not been able to keep pace with this demand. The increased use of diagnostic procedures and the introduction of very complex machines to carry out these procedures have, in many instances, completely outdistanced the busy physician. All of this, of course, has led to an increasing use of trained personnel to assist the physician. Thus, for the physician who 20 years ago would examine his own specimens, this work is now done by a trained expert in laboratory procedures. The net result of this, of course, has been that the physician's time is freed for procedures only he can perform and also the laboratory procedures are done more expertly. This experience has been multiplied many times.

The awareness of a shortage of physicians and other health personnel led the Ohio State University College of Medicine to consider means whereby the health personnel requirements of the future could be met. This led to many changes in the college of medicine in the training of physicians, but over 2 years of planning has also resulted in the formation of the school of allied medical services. The wisdom in this planning has subsequently been emphasized by studies of the Manpower Commission and also by the Coggeshall report for the Association of American Medical Colleges.

The aim of this school is to improve the quality and the quantity of training in the allied health professions. The needs here are great to develop teachers for other programs, to improve the methods and to develop new ones, and, just as importantly, to train these people by optimal utilization of the facilities and medical faculty so that all can function to maximum efficiency.

At their meeting in April 1966, the board of trustees, the Ohio State University, established the school of allied medical services under the College of Medicine, of the Ohio State University. This school will bring together curriculums in occupational therapy, physical therapy, medical technology, medical dietetics and medical illustration, awarding bachelor degrees in all of these disciplines. In addition, under this school will be certificate programs in orthoptics, physical therapy, and nurse anesthesiology. The school will include, as of July 1, 1966, approximately 250 students in these various programs, thus representing the largest school training health related professional people. The purpose of the formation of this school is basically to train more and better members of the allied health professions. Inclusion of the various disciplines in one school allows for better coordination of effort, more efficient utilization of faculty time particularly in the medical areas. But it allows also the earlier contact of students with patients in the hospital setting and an earlier opportunity therefore to begin working toegether. We, here at Ohio State, feel very strongly that the "health team" approach to health care is extremely important and it must be achieved if the health needs of our growing population are to be met. The school also furnishes the structure to develop new programs of instruction. Such programs supply the teachers of the future.

The School of Allied Medical Services must perform another very important function, however. It must also function to further education of those graduates who are now working in the various cities and towns. Thus, a program of continuing education is being developed within the school to bring new techniques and advances in all areas to various community facilities throughout the State of Ohio. This will be developed utilizing the extensive educational radio network of the Ohio State University and later, as it is developed, the television network. Continuing education after graduation is essential if we expect to achieve maximum utilization of the manpower which is already at work.

The Ohio State University College of Medicine, through the School of Allied Medical Services, therefore, supports very strongly H.R. 13196 because we feel that such a program as presented by this bill will enhance the further development of schools of allied health professions in the country. In this way, the workers in the health fields will be increased in number and quality, will improve the health care of our population and will free the physician's time for optimal functioning as the leader of the health team.

NEW YORK N.Y., *March 29, 1966.*

Re Allied Health Professions Personnel Training Act of 1966.

HON. HARLEY STAGGERS,
House of Representatives, Washington, D.C.:

Whereas the above act is designed to aid the medical and allied medical professions by offering assistance for construction of facillties for education, for advanced education for teachers and supervisors, for curriculum revision, etc.; and whereas occupational therapy makes a noteworthy contribution to physical and mental rehabilitation; and whereas occupational therapy is not specifically named in H.R. 13196; we the undersigned urge the informed consideration of the committee toward inclusion of "occupational therapy" in the wording as well as the intent of the proposed Allied Health Professions Personnel Training Act of 1966. Such inclusion would permit continuation of recruitment, education, and research for

improvement in and further development of health service through the professional contribution of occupational therapy.

MARTHA SCHNEBLY, *New York.*
INEZ HUNTTING, *Wisconsin.*
DOROTHY ELLIOTT, *Michigan.*
NAIDA ACKLEY, *New Jersey.*
HARRIET ZLATOLOVEK, *California.*
HELEN WILLARD, *Pennsylvania.*

BOSTON, MASS., *March 30, 1966.*

Re H.R. 13196.

Hon. HARLEY STAGGERS,
House of Representatives,
Rayburn Building, Washington, D.R.:

Whereas this act is designed to aid the medical and allied medical professions by offering assistance for construction and facilities for education for students and loans etc.; whereas occupational therapy makes a noteworthy contribution to physical and mental rehabilitation; whereas occupational therapy is not specifically names in H.R. 13196, the undersigned urges the informed consideration of the committee toward inclusion of occupational therapy in the allied health professions in wording as well as the intent of the proposed Personnel Training Act of 1966. Such inclusions would permit continuation of recruitment education and research for improvement in and further development of health services through the professional contribution of occupational therapy.

VERONIA C. DOBRANSKE,
Department of Occupational Therapy, Tufts University.

AMERICAN HOSPITAL ASSOCIATION,
Washington, D.C., March 23, 1966.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House Office Building, Washington, D.C.

DEAR CONGRESSMAN STAGGERS: This statement is sent to you to express the views of the American Hospital Association in respect to H.R. 13196, Allied Health Professions Personnel Training Act of 1966.

The bill deals principally with two aspects of the training of certain health personnel. The first part proposes a new program for the training of personnel in the allied health professions. The second part deals with the refinancing of programs already existing in respect to certain health personnel. Our remarks will be directed largely to the first section of the bill.

The Federal Government is, at the present time, participating in a variety of programs directed toward providing increased numbers of highly qualified physicians, dentists, podiatrists, pharmacists, osteopaths, optometrists, and nurses. There exists a large body of essential health personnel apart from the above-enumerated groups which are often referred to as "paramedical personnel." We assume it is this group to which the bill refers as "allied health professions." We shall discuss the need for specific data with respect to allied health professions personnel. We now have an overall picture indicting a large amount of unmet needs for such personnel. We know that significant amounts of health programing cannot be satisfactorily carried out unless these needs are met. We believe this legislation very wisely proposes that the Federal Government render assistance so that we may make a start in getting at the problem and avoid the loss of valuable time. At present, we lack a great amount of detailed information needed to provide guidance for long-term planning to meet the Nation's need for such personnel. It is essential that we obtain information providing a nationwide picture as to the numbers of such personnel now available, the quality of their preparation, the source of their education, the numbers of such personnel that are needed, and the financial problems confronted by such personnel in undertaking essential education.

The American Hospital Association, jointly with the U.S. Public Health Service, is now undertaking a basic study which, it is hoped, will furnish much of the essential data needed. A questionnaire study is now being directed to all registered hospitals in the Nation with the purpose of inventorying categories of personnel Following are some 30 such categories:

Dietitians
Medical record librarians
Medical technologists
Laboratory cytotechnologists
Bacteriology technicians
Biochemistry technicians
Blood bank technicians
Hemotology technicians
Occupational therapists
Pharmacists
Physical therapists
Social workers
Speech pathologists
Audiologists
Radiologic technologists
Radiation therapy technologists
Histologic technicians
Certified laboratory assistants
Electrocardiograph technicians
Electroencephalograph technicians
Occupational therapy assistants
Inhalation therapists
Orthoptic technicians
Medical record technicians
Food service managers
Medical librarians
Recreation therapists
Various other laboratory assistants such as X-ray assistants.

This study should develop the numbers of such personnel now employed in hospitals, the qualifications of such personnel, the estimates of the needs for such personnel now as measured in terms of budgeted vacancies, and projections as to the estimate of the numbers of such personnel that will be needed in a year's time. The information will be obtained for a base period during the month of April 1966.

PART G. TRAINING IN THE ALLIED HEALTH PROFESSIONS

The bill is unnecessarily vague, we feel, as to its purpose. It fails to identify the term "allied health professions." In the main, the bill appears to be directed toward assisting colleges and universities in providing construction grants for facilities and for the modernization of existing facilities and for assistance in the costs of improving the educational programs within such institutions. The bill, therefore, gives little promise of assistance in correcting the Nation's shortages of such personnel.

We believe the bill is in error in failing to include junior colleges and teaching hospitals within the program of grants and assistance. Of the categories being inventories, as mentioned above, in only perhaps six is a baccalaureate degree customarily required for practice within hospitals. The vast majority of the others can be adequately prepared in not more than 2 years with, in some cases, a third year preceptorship in a qualified institution. Therefore, to provide a program of Government assistance which would be directed only toward colleges and universities offering baccalaureate degrees fails to recognize the realities of the situation. Junior colleges and teaching hospitals are the appropriate places for training most of the needed categories of personnel who do not require a bachelor's degree.

Although a degree is not required for most of the categories to practice within hospitals, person who teach these disciplines do need a degree. The bill does provide assistance for this type of education as it should.

We believe the bill is in error in another basic respect. It assumes that responsibilities for meeting the shortages of health personnel in the Nation will be accepted by colleges and universities. There is, as yet, little evidence that such institutions of higher learning are willing to undertake the training programs for all, or even for many, allied health groups. We question, therefore, the assumption of this legislation that the Nation's need for such personnel will be met by colleges and universities.

There are large numbers of hospitals presently engaged in the training of various categories of personnel among those appearing above. We must look to these hospitals, along with all other sources, to continue the training of essential allied health personnel if the Nation's needs are to be met.

Therefore, if the Federal Government intends to provide assistance which will increase substantially the numbers of personnel in the allied health professions, then consideration should be given to providing various forms of assistance to junior colleges and to teaching hospitals which are willing and able to undertake the training of such personnel.

The bill provides for construction grants, for basic improvement grants, for special grants, and for traineeships for advanced training, all limited to colleges

and universities. Under present circumstances, we feel it is likely that the Federal Government will make available only limited funds for the overall program. We therefore question the wisdom of diverting funds to the construction of facilities at this time. We feel that funds made available should be directed to the actual training of allied health personnel.

SECTION 4. LOAN REIMBURSEMENT PAYMENTS FOR HEALTH PERSONNEL

Beginning with this section and for the remainder of the bill, there are a variety of provisions which appear to alter existing financial arrangements which assist students in various categories of health personnel to meet the costs of their education. Basically, we believe the language suggests changing programs from direct Federal financing to insuring financing from commercial sources. Our only comment on these sections is that we feel the change will substantially increase the costs of financing student loans. Therefore, whatever funds the Federal Government makes available will likely contribute less to meeting the needs of students than would direct Federal loans.

There is another provision upon which we wish to comment specifically and that is the special forgiveness provision afforded physicians. Our understanding of the language of the bill is that it would permit a physician to receive a forgiveness of up to 100 percent of his loan providing he practices in a designated rural and low-income area. We would urge, therefore, that the bill be amended so as to provide that any nurse employed in a rural area characterized by low family income, as designated by the Secretary, may also be eligible to receive 100 percent forgiveness of the loan.

SUMMARY

In summary, there are three broad categories of allied health personnel which are needed: (1) Those which require a baccalaureate degree or advanced training, (2) those which require 2 years or more of training but do not require a baccalaureate degree, and (3) those which require 2 years or less of training.

In order to meet the needs, therefore, assistance is required for the colleges and universities; assistance is required for junior colleges; and assistance is required for training programs in approved hospitals. The vast number of allied health professions personnel which are needed can be trained within the latter two institutions.

We would recommend, therefore, that a new section be added to H.R. 13196 which would also include programs for the training of allied health personnel in junior colleges and which would provide for training programs in approved hospital schools.

We would appreciate your including this statement in the record of the hearings on H.R. 13196.

Sincerely,

KENNETH WILLIAMSON,
Associate Director.

AMERICAN NURSES' ASSOCIATION, INC.,
New York, N.Y., April 1, 1966.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. STAGGERS: The American Nurses' Association wishes to record its support of your bill H.R. 13196, which will increase the opportunities for the training of medical technologists and personnel in allied health professions and strengthen and improve existing student loan programs.

We particularly commend the emphasis in the bill on extension and improvement of training programs for allied health professionals at the baccalaureate and higher degree levels. We are in complete accord that attention should be given to assistance to programs that prepare teachers, supervisors, and highly skilled specialists. For those who must eventually assume such responsibilities, a baccalaureate degree should be the minimum requirement.

Although this aspect of the proposed legislation is not directly concerned with nursing our own experience over the last several years leads us to be most supportive of the direction your efforts have taken. As demands for nursing services have increased, large numbers of subprofessional workers, such as practical nurses and nurses aids, have been trained to free the professional nurse for functions requiring greater skill and judgment. Substantial Federal assistance has been

available for these training programs. However, we have been acutely conscious of the need for well-qualified teachers in the programs and for supervisors to give direction in the work situation. Such a need must also exist in the allied health professions and it will increase as more and more auxiliary workers are trained to assist these professional practitioners.

We believe the grant proposals whose objectives are to increase the number of admissions to programs, improve the quality of education in training centers, aid students through a traineeship program and provide for experimentation with new curriculums for training health technologists are well conceived and will contribute in raising standards of services.

We hope very much that your committee will approve this legislation and thank you for the opportunity to share our views with you.

Sincerely,

Mrs. JUDITH G. WHITAKER, R.N.,
Executive Director.

AMERICAN DENTAL HYGIENISTS' ASSOCIATION,
Chicago, Ill., March 25, 1966.

Hon. HARLEY O. STAGGERS,
Chairman, Interstate and Foreign Commerce Committee,
House of Representatives, Washington, D.C.

DEAR MR. STAGGERS: The American Dental Hygienists' Association, the national organization representing the profession of dental hygiene, endorses the inclusion of dental hygiene in H.R. 13196, introduced March 2, 1966.

The association agrees with the intent of this bill to support dental hygiene educational programs at the baccalaureate and graduate degree levels and urges passage of bill H.R. 13196.

We respectfully request that this supportive statement be included in the written record of the March 29 and 30 hearings on this bill.

Very truly yours,

MARGARET E. SWANSON,
Executive Secretary.

TEMPLE UNIVERSITY,
Philadelphia, Pa., April 22, 1966.

Hon. HARLEY O. STAGGERS,
House of Representatives, Washington, D.C.

MY DEAR MR. STAGGERS: We wish to take this opportunity to offer the wholehearted support of Temple University to passage of H.R. 13196 introduced by you and upon which hearings have been held recently.

Health services are no longer performed by the physician or dentist working alone. Your recognization of the national need for more personnel in the allied health professions is readily apparent from the wording of this proposal. You are to be congratulated for having the foresight to recognize that steps must be taken at this time to prevent the situation from becoming a national crisis.

We at Temple University have been considering for some time the problem of how to satisfy the increasing demands from the health science professions and from society itself that we educate more men and women for the health care teams. We already had taken steps to increase the first-year classes of our schools of medicine and dentistry by 25 percent. This will not be enough. There is an urgent need to provide for the education of a group of allied health professionals who will assist these practitioners in today's practice of medicine and dentistry.

Our recent investigations were climaxed last month with approval by the board of trustees to establish a College of Allied Health Professions at our Health Sciences Center. This new school will offer baccalaureate programs in medical technology, nursing, physical thereapy, occupational therapy, and medical records library science. These persons will become full members of the health care team. A copy of the proposal which was accepted by our board is enclosed for your information.

The faculty of our Schools of Medicine, Dentistry, Pharmacy, and Nursing and the staff members of Temple University, have also recognized that they must depend more than ever upon judicious utilization of personnel in the allied health sciences in order to meet the health care needs of our society. To the long familiar

clamor that schools throughout the country educate more physicians, dentists, pharmacists, and nurses, has now been added the appeal that we increase our educational opportunities in the allied health professions.

Your proposal to provide financial assistance to schools teaching the allied health sciences, in addition to being timely in its support of existing and developing programs, should also serve as an incentive to other colleges and universities to join institutions such as ours in providing an enlarged program in this area.

May we again offer our complete support to your endeavor and pledge our full cooperation should it be requested during the course of action on this measure.

Sincerely yours,

MILLARD E. GLADFELTER, *President.*

LOS ANGELES, CALIF., *March 25, 1966.*

Representative STAGGERS of West Virginia,
Interstate and Foreign Commerce Committee,
House of Representatives,
Washington, D.C.

DEAR REPRESENTATIVE STAGGERS: It is my understanding that House bill, H.R. 13196 which is in support of education for the allied health professions will come before your committee soon. I would like to urge you and your committee to give the bill favorable consideration. I have reached this conclusion from over 20 years of experience in the field of physical therapy, including 8 years as a faculty member of the school of physical therapy at the University of Oklahoma Medical Center. With the national shifting of the medical care pattern toward long-term care and with the advent of medicare, there can only be a greatly increased need for physical therapists which will be superimposed upon the current shortage.

I have not had an opportunity to examine the bill, but I understand that many of the allied health professions are not specifically named in the bill. I would like to suggest that physical therapy and the other nationally recognized and established allied health professions be named in the bill.

My other suggestion is that appropriations for education of allied health personnel be made only to institutions that meet the accrediting and certifying qualifications set down by the national professional organizations of the concerned professions; in the case of physical therapy, this would be the standards set by the American Medical Association in conjunction with the American Physical Therapy Association. This would provide a safeguard against the very real danger of irregular and charlatan schools and practitioners benefiting from Federal expenditures.

Thank you very much for your consideration of these points.

Sincerely yours,

Miss EDNA SCHMIDT,
Registered Physical Therapist, Oklahoma.

(Whereupon, at 12:20 p.m., the committee recessed, subject to call.)

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