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MEDICAL, DENTAL, AND PUBLIC HEALTH TEACHING FACILITIES

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HEARINGS

BEFORE THE

SUBCOMMITTEE ON HEALTH

OF THE

COMMITTEE ON

LABOR AND PUBLIC WELFARE

UNITED STATES SENATE

EIGHTY-EIGHTH CONGRESS

FIRST SESSION

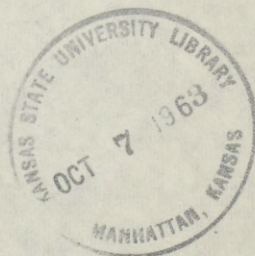
ON

S. 911 and H.R. 12

TO INCREASE THE OPPORTUNITIES FOR TRAINING PHYSICIANS, DENTISTS, AND PROFESSIONAL PUBLIC HEALTH PERSONNEL, AND FOR OTHER PURPOSES

AUGUST 22, 23, AND 26, 1963

Printed for the use of the Committee on Labor and Public Welfare



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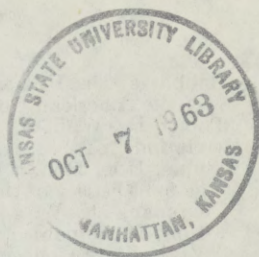
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¹ Appointed to Committee on Labor and Public Welfare Aug. 26, 1963, pursuant to S. Res. 189 (vice Senator Quentin Burdick, of North Dakota).



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MEDICAL, DENTAL, AND PUBLIC HEALTH TEACHING FACILITIES

THURSDAY, AUGUST 22, 1963

U.S. SENATE,
SUBCOMMITTEE ON HEALTH OF THE
COMMITTEE ON LABOR AND PUBLIC WELFARE,
Washington, D.C.

The subcommittee met, pursuant to call, at 10:05 a.m. in room 4232, New Senate Office Building, Senator Lister Hill (chairman of the full committee) presiding.

Present: Senators Hill (presiding), Williams, Pell, and Javits.

Also present: Senator Kennedy, member of the full committee.

Committee staff members present: Stewart E. McClure, chief clerk; John S. Forsythe, general counsel, Robert W. Barclay, professional staff member of the subcommittee, and Raymond D. Hurley, minority associate counsel.

The CHAIRMAN. The Subcommittee on Health of the Labor and Public Welfare Committee is meeting this morning to receive testimony on S. 911 and H.R. 12, that has been passed by the House of Representatives, to expand our training capacities for several categories of professional health.

(S. 911, an amendment to S. 911, H.R. 12, and a section-by-section analysis of H.R. 12, as passed by the House of Representatives, follow:

88TH CONGRESS
1ST SESSION

S. 911

IN THE SENATE OF THE UNITED STATES

FEBRUARY 25, 1963

Mr. HILL introduced the following bill; which was read twice and referred to the Committee on Labor and Public Welfare

A BILL

To increase the opportunities for training of physicians, dentists, and professional public health personnel, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Health Professions Edu-
4 cational Assistance Act of 1963".

5 GRANTS FOR CONSTRUCTION OF MEDICAL, DENTAL, PHAR-
6 MACEUTICAL, OPTOMETRIC, PODIATRIC, NURSING,
7 OSTEOPATHIC, AND PUBLIC HEALTH TEACHING
8 FACILITIES

9 SEC. 2. (a) Title VII of the Public Health Service Act
10 (42 U.S.C. Chap. 6A) is amended by inserting "AND

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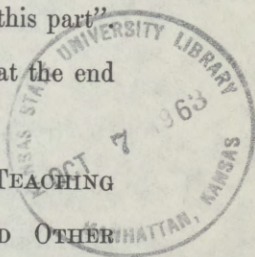
1 "TEACHING" after "RESEARCH" in the heading there-
2 of, by inserting "AND TRAINING OF PROFESSIONAL
3 HEALTH PERSONNEL" after "FACILITIES" in such
4 heading, and by inserting immediately below such heading
5 "PART A—GRANTS FOR CONSTRUCTION OF HEALTH
6 RESEARCH FACILITIES", and by changing the words "this
7 title" wherever they appear in such title to read "this part"

8 (b) Such title is further amended by adding at the end
9 thereof the following:

10 "PART B—GRANTS FOR CONSTRUCTION OF TEACHING
11 FACILITIES FOR MEDICAL, DENTAL, AND OTHER
12 HEALTH PERSONNEL

13 "AUTHORIZATION OF APPROPRIATIONS

14 "SEC. 720. There are hereby authorized to be appro-
15 priated for each fiscal year in the period beginning July 1,
16 1963, and ending June 30, 1973, (1) not to exceed \$45,-
17 000,000 for grants to assist in the construction of new teach-
18 ing facilities for the training of physicians, pharmacists,
19 optometrists, podiatrists, nurses, or professional public health
20 personnel, (2) not to exceed \$15,000,000 for grants to assist
21 in the construction of new teaching facilities for the training
22 of dentists, and (3) not to exceed \$15,000,000 for replace-
23 ment or rehabilitation of existing teaching facilities for the
24 training of physicians, pharmacists, optometrists, podiatrists,
25 nurses, professional public health personnel, or dentists.



3

1 "APPROVAL OF APPLICATIONS

2 "SEC. 721. (a) No application for a grant under this
3 part may be approved unless it is submitted to the Surgeon
4 General prior to July 1, 1972.

5 "(b) (1) To be eligible to apply for a grant to assist in
6 the construction of any facility under this part, the ap-
7 plicant must be (A) a public or other nonprofit school of
8 medicine, dentistry, osteopathy, pharmacy, optometry, podia-
9 try, nursing, or public health and (B) accredited by a recog-
10 nized body or bodies approved for such purpose by the Com-
11 missioner of Education, except that a new school which (by
12 reason of no, or an insufficient, period of operation) is not,
13 at the time of application for a grant to construct a facility
14 under this part, eligible for accreditation by such a recog-
15 nized body or bodies, shall be deemed accredited for purposes
16 of this part if the Commissioner of Education finds, after con-
17 sultation with the appropriate accreditation body or bodies,
18 that there is reasonable assurance that the school will, upon
19 completion of such facility, meet the accreditation standards
20 of such body or bodies.

21 "(2) Notwithstanding paragraph (1), in the case of an
22 affiliated hospital, an application which is approved by the
23 school of medicine with which the hospital is affiliated and
24 which otherwise complies with the requirements of this part

4

1 may be filed by any public or other nonprofit agency
2 qualified to file an application under section 625.

3 “(3) In the case of any application, whether filed by a
4 school or, in the case of an affiliated hospital, by any other
5 public or other nonprofit agency, for a grant under this part
6 to assist in the construction of a facility which is a hospital
7 as defined in section 631—

8 “(A) if the facility is needed in connection with a
9 new school, only that portion of the project to construct
10 the facility which the Surgeon General determines to
11 be reasonably attributable to the need of such school
12 for the facility for teaching purposes,

13 “(B) if the construction is in connection with ex-
14 pansion of the training capacity of an existing school,
15 only that portion of the project to construct the facility
16 which the Surgeon General determines to be reasonably
17 attributable to the need of such school for the facility
18 in order to expand its training capacity,

19 “(C) if the construction is in connection with ren-
20 ovation or rehabilitation of facilities used by an existing
21 school, only that portion of the project which the
22 Surgeon General determines to be reasonably attribut-
23 able to the need of such school for the facilities in order
24 to prevent curtailment of enrollment or quality of train-
25 ing of the school,

5

1 shall be regarded as the project with respect to which pay-
2 ments may be made under section 722.

3 “(c) A grant under this part may be made only if the
4 application therefor is approved by the Surgeon General
5 upon his determination that—

6 “(1) the applicant meets the eligibility conditions
7 set forth in subsection (b) ;

8 “(2) the application contains or is supported by
9 reasonable assurances that (A) for not less than ten
10 years after completion of construction, the facility will
11 be used for the purposes of the teaching for which it is
12 to be constructed, (B) sufficient funds will be available
13 to meet the non-Federal share of the cost of construct-
14 ing the facility, (C) sufficient funds will be available,
15 when construction is completed, for effective use of the
16 facility for the training for which it is being constructed,
17 and (D) in the case of an application for construction to
18 expand the training capacity of an existing school of
19 medicine, dentistry, osteopathy, pharmacy, optometry,
20 podiatry, nursing, or public health, the first-year enroll-
21 ment at such school during the first full school year after
22 the completion of the construction and for each of the
23 next nine school years thereafter will exceed the highest
24 first-year enrollment at such school for any of the five
25 full school years preceding the year in which the appli-

6

1 cation is made by at least 5 per centum of such highest
2 first-year enrollment, or by five students, whichever is
3 greater;

4 “(3) (A) in the case of an application for a grant
5 from funds appropriated pursuant to clause (1) of sec-
6 tion 720, such application is for aid in the construction
7 of a new school of medicine, osteopathy, pharmacy,
8 optometry, podiatry, nursing, or public health, or con-
9 struction which will expand the training capacity of
10 an existing school of medicine, osteopathy, pharmacy,
11 optometry, podiatry, nursing, or public health, (B) in
12 the case of an application for a grant from funds appro-
13 priated pursuant to clause (2) of such section, such
14 application is for aid in the construction of a new
15 school of dentistry or construction which will expand the
16 capacity of an existing school of dentistry, or (C)
17 in the case of an application for a grant from funds
18 appropriated pursuant to clause (3) of such section,
19 such application is for aid in construction which will
20 replace or rehabilitate facilities of, or used by, an exist-
21 ing school of medicine, dentistry, pharmacy, optometry,
22 podiatry, nursing, osteopathy, or public health which are
23 so obsolete as to require the school to curtail substantially
24 either its enrollment or the quality of the training
25 provided;

7

1 “(4) the plans and specifications are in accordance
2 with regulations relating to minimum standards of con-
3 struction and equipment;

4 “(5) the application contains or is supported by
5 adequate assurance that any laborer or mechanic em-
6 ployed by any contractor or subcontractors in the per-
7 formance of work on the construction of the facility (A)
8 will be paid wages at rates not less than those prevail-
9 ing on similar construction in the locality as determined
10 by the Secretary of Labor in accordance with the Davis-
11 Bacon Act, as amended (40 U.S.C. 276a-276a5), and
12 (B) will receive compensation at a rate not less than
13 one and one-half times his basic rate of pay for all hours
14 worked in any workweek in excess of eight hours in any
15 workday or forty hours in the workweek. The Secre-
16 tary of Labor shall have, with respect to the labor stand-
17 ards specified in this paragraph, the authority and func-
18 tions set forth in Reorganization Plan Numbered 14 of
19 1950 (15 F.R. 3176; 64 Stat. 1267), and section 2 of
20 the Act of June 13, 1934, as amended (40 U.S.C.
21 276c); and

22 “(6) if the application requests aid in construc-
23 tion of a facility which is a hospital or diagnostic or
24 treatment center, as defined in section 631, an appli-
25 cation with respect thereto has been filed under title VI

8

1 and has been denied thereunder because (A) the proj-
2 ect has no or insufficient priority, or (B) funds are not
3 available for the project from the State's allotments
4 under title VI.

5 Before approving or disapproving an application under this
6 part, the Surgeon General shall secure the advice of the
7 National Advisory Council on Education for Health Pro-
8 fessions established by section 725 (hereinafter in this part
9 referred to as the 'Council').

10 "(d) In considering applications for grants, the Coun-
11 cil and the Surgeon General shall take into account—

12 "(1) (A) in the case of a project for a new school
13 or for expansion of the facilities of, or used by, an exist-
14 ing school, the relative effectiveness of the proposed fa-
15 cilities in expanding the capacity for the training of first-
16 year students of medicine, dentistry, pharmacy, optome-
17 try, podiatry, nursing, or osteopathy (or, in the case of a
18 two-year school which is expanding to a four-year school,
19 expanding the capacity for four-year training of students
20 in the field), or for the training of professional public
21 health personnel, and in promoting an equitable geo-
22 graphical distribution of opportunities for such training
23 (giving due consideration to population, available phy-
24 sicians, pharmacists, optometrists, podiatrists, nurses,
25 dentists, or professional public health personnel, and

9

1 available resources in various areas of the Nation for
2 training such persons) ; or

3 “(B) in the case of a project for replacement or re-
4 habilitation of existing facilities of, or used by, a school,
5 the relative need for such replacement or rehabilitation to
6 prevent curtailment of the school’s enrollment or de-
7 terioration of the quality of the training provided by the
8 school, and the relative size of any such curtailment and
9 its effect on the geographical distribution of opportunities
10 for training (giving consideration to the factors men-
11 tioned above in paragraph (A)) ; and

12 “(2) in the case of an applicant in a State which
13 has in existence a State planning agency, or which par-
14 ticipates in a regional or other interstate planning
15 agency, described in section 728, the relationship of the
16 application to the construction or training program
17 which is being developed by such agency with respect
18 to such State and, if such agency has reviewed such
19 application, any comment thereon submitted by such
20 agency.

21 “AMOUNT OF GRANT; PAYMENTS

22 “SEC. 722. (a) (1) Except as provided in paragraph
23 (2) of this subsection, the amount of any grant under
24 this part shall be such amount as the Surgeon General deter-

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1 mines to be appropriate after obtaining the advice of the
2 Council; except that (A) in the case of a grant for a project
3 for a new school, and in the case of a grant for new facilities
4 for an existing school in cases where such facilities are of
5 particular importance in providing a major expansion of
6 training capacity, as determined in accordance with regula-
7 tions, such amount may not exceed $66\frac{2}{3}$ per centum of the
8 necessary cost of construction, as determined by the Surgeon
9 General, of such project; and (B) in the case of any other
10 grant, such amount may not exceed 50 per centum of the
11 necessary cost of construction, as so determined, of the
12 project with respect to which the grant is made.

13 “(2) The amount of any grant under this part for con-
14 struction of a project with respect to a school of public health
15 shall be such amount as the Surgeon General determines to
16 be appropriate after obtaining the advice of the Council, and
17 may not exceed 75 per centum of the necessary cost of con-
18 struction, as determined by the Surgeon General, of such
19 project.

20 “(b) Upon approval of any application for a grant
21 under this part, the Surgeon General shall reserve, from any
22 appropriation available therefor, the amount of such grant
23 as determined under subsection (a) ; the amount so reserved
24 may be paid in advance or by way of reimbursement, and in
25 such installments consistent with construction progress, as

11

1 the Surgeon General may determine. The Surgeon Gen-
2 eral's reservation of any amount under this section may be
3 amended by him, either upon approval of an amendment of
4 the application or upon revision of the estimated cost of
5 construction of the facility.

6 “(c) In determining the amount of any grant under this
7 part, there shall be excluded from the cost of construction an
8 amount equal to the sum of (1) the amount of any other
9 Federal grant which the applicant has obtained, or is assured
10 of obtaining, with respect to the construction which is to be
11 financed in part by grants authorized under this part, and
12 (2) the amount of any non-Federal funds required to be
13 expended as a condition of such other Federal grant.

14 “RECAPTURE OF PAYMENTS

15 “SEC. 723. If, within ten years after completion of any
16 construction for which funds have been paid under this
17 part—

18 “(a) the applicant or other owner of the facility
19 shall cease to be a public or nonprofit school or, in case
20 the facility was an affiliated hospital, the applicant or
21 other owner of the facility ceases to be a public or other
22 nonprofit agency qualified to file an application under
23 section 625, or

24 “(b) the facility shall cease to be used for the teach-
25 ing purposes for which it was constructed (unless the

12

1 Surgeon General determines, in accordance with regu-
2 lations, that there is good cause for releasing the appli-
3 cant or other owner from the obligation to do so),
4 the United States shall be entitled to recover from the appli-
5 cant or other owner of the facility the amount bearing the
6 same ratio to the then value (as determined by agreement
7 of the parties or by action brought in the United States dis-
8 trict court for the district in which such facility is situated)
9 of the facility, as the amount of the Federal participation
10 bore to the cost of construction of such facility.

11 "DEFINITIONS

12 "SEC. 724. As used in this part—

13 "(1) The terms 'construction' and 'cost of construction'
14 include (A) the construction of new buildings, the expan-
15 sion of existing buildings, and remodeling, replacement, reno-
16 vation, major repair (to the extent permitted by regula-
17 tions), or alteration of existing buildings, including architects'
18 fees, but not including the cost of acquisition of land or off-
19 site improvements, and (B) initial equipment of new build-
20 ings and of the expanded, remodeled, repaired, renovated,
21 or altered part of existing buildings;

22 "(2) The term 'nonprofit school' means a school owned
23 and operated by one or more corporations or associations no
24 part of the net earnings of which inures, or may lawfully
25 inure, to the benefit of any private shareholder or individual;

13

1 “(3) The term ‘affiliated hospital’ means a hospital,
2 as defined in section 631, which is not owned by, but is
3 affiliated (to the extent and in the manner determined in
4 accordance with regulations) with, a school of medicine
5 which meets the eligibility conditions set forth in section 721
6 (b) (1);

7 “(4) The terms ‘school of medicine’, ‘school of den-
8 tistry’, ‘school of osteopathy’, ‘school of pharmacy’, ‘school
9 of optometry’, ‘school of podiatry’, and ‘school of public
10 health’ mean a school which provides training leading,
11 respectively, to a degree of doctor of medicine, a degree of
12 doctor of dentistry or an equivalent degree, a degree of
13 doctor of osteopathy, a degree of bachelor of science in
14 pharmacy or doctor of pharmacy, a degree of doctor of
15 optometry or an equivalent degree, a degree of doctor of
16 podiatry or doctor of surgical chiropody, and a graduate
17 degree in public health; and

18 “(5) The term ‘school of nursing’ means a department,
19 school, division, or other administrative unit, in a college or
20 university, which provides, primarily or exclusively, a pro-
21 gram of education in professional nursing and allied subjects
22 leading to the degree of bachelor of arts, bachelor of science,
23 bachelor of nursing, or other baccalaureate degree of equiv-
24 alent rank; or to a graduate degree in nursing.

14

1 "NATIONAL ADVISORY COUNCIL ON EDUCATION FOR
2 HEALTH PROFESSIONS

3 "SEC. 725. (a) There is hereby established in the
4 Public Health Service a National Advisory Council on Edu-
5 cation for Health Professions, consisting of the Surgeon Gen-
6 eral of the Public Health Service, who shall be Chairman,
7 and the Commissioner of Education, both of whom shall be
8 ex officio members, and sixteen members appointed by the
9 Secretary without regard to the civil service laws. Four
10 of the appointed members shall be selected from the general
11 public and twelve shall be selected from among leading au-
12 thorities in the fields of higher education, at least eight of
13 whom are particularly concerned with training in medicine,
14 dentistry, osteopathy, pharmacy, optometry, podiatry, nurs-
15 ing, or the public health professions. In selecting persons
16 for appointment to the Council, consideration shall be given
17 to such factors, among others, as (1) experience in the plan-
18 ning, constructing, financing, or administration of schools
19 of medicine, dentistry, osteopathy, pharmacy, optometry,
20 podiatry, nursing, or schools of public health, and (2)
21 familiarity with the need for teaching facilities in all areas
22 of the Nation.

23 "(b) The Council shall advise the Surgeon General in
24 the preparation of general regulations and with respect to

15

1 policy matters arising in the administration of this part, and
2 in the review of applications thereunder.

3 “(c) The Surgeon General is authorized to use the
4 services of any member or members of the Council in con-
5 nection with matters related to the administration of this
6 part, for such periods, in addition to conference periods, as
7 he may determine. The Surgeon General shall, in addition,
8 make appropriate provision for consultation between and
9 coordination of the work of the Council and the National
10 Advisory Council on Health Research Facilities with respect
11 to matters bearing on the purposes and administration of this
12 part.

13 “(d) Appointed members of the Council, while attend-
14 ing conferences or meetings of the Council or while otherwise
15 serving at the request of the Surgeon General, shall be en-
16 titled to receive compensation at a rate to be fixed by the
17 Secretary but not exceeding \$50 per diem, including travel
18 time, and while away from their homes or regular places of
19 business they may be allowed travel expenses, including per
20 diem in lieu of subsistence, as authorized by section 5 of the
21 Administrative Expenses Act of 1946 (5 U.S.C. 73b-2)
22 for persons in the Government service employed
23 intermittently.

16

1 "NONINTERFERENCE WITH ADMINISTRATION OF
2 INSTITUTIONS

3 "SEC. 726. Nothing contained in this part shall be con-
4 strued as authorizing any department, agency, officer, or em-
5 ployee of the United States to exercise any direction, super-
6 vision, or control over, or impose any requirement or condi-
7 tion with respect to, the personnel, curriculum, methods of
8 instruction, or administration of any institution.

9 "REGULATIONS

10 "SEC. 727. (a) The Surgeon General, after consulta-
11 tion with the Council and with the approval of the Secretary,
12 shall prescribe general regulations for this part covering the
13 eligibility of institutions, the order of priority in approving
14 applications, the terms and conditions for approving applica-
15 tions, determinations of the amounts of grants, and minimum
16 standards of construction and equipment for various types of
17 institutions.

18 "(b) The Surgeon General is authorized to make, with
19 the approval of the Secretary, such other regulations as he
20 finds necessary to carry out the provisions of this part.

21 "TECHNICAL ASSISTANCE

22 "SEC. 728. In carrying out the purposes of this part,
23 and to further the development of State, or joint or coordi-
24 nated regional or other interstate, planning of programs for
25 relieving shortages of training capacity in the fields of medi-

17

1 cine, dentistry, osteopathy, pharmacy, optometry, podiatry,
2 nursing, and public health, through constructing teaching
3 facilities, providing adequate financial support for schools,
4 or otherwise, the Surgeon General is authorized to provide
5 technical assistance and consultative services to State or
6 interstate planning agencies established for any of such
7 purposes.

8 "PLANNING GRANTS FOR HEALTH EDUCATION PROGRAMS

9 "SEC. 729. There is hereby authorized to be appropri-
10 ated for each fiscal year in the period beginning July 1,
11 1963, and ending June 30, 1973, the sum of \$500,000 to
12 enable the Surgeon General to make grants to regional, inter-
13 state, State, or local public or nonprofit private agencies and
14 organizations and to any public or nonprofit private institu-
15 tion for planning and determining the need for teaching
16 facilities for, or otherwise planning a new, expanded, or im-
17 proved program of, training physicians, pharmacists, optome-
18 trists, podiatrists, nurses, professional public health person-
19 nel, or dentists.

20 "PART C—STUDENT LOANS

21 "LOAN AGREEMENTS

22 "SEC. 740. (a) The Secretary of Health, Education,
23 and Welfare is authorized to enter into an agreement for
24 the establishment and operation of a student loan fund in
25 accordance with this part with any public or other nonprofit

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1 school of medicine, osteopathy, or dentistry (as defined in
2 section 724) which is located in a State and is accredited as
3 provided in section 721 (b) (1) (B).

4 “(b) Each agreement entered into under this section
5 shall—

6 “(1) provide for establishment of a student loan
7 fund by the school;

8 “(2) provide for deposit in the fund of (A) the
9 amounts allocated under this part to the school by the
10 Secretary, (B) an additional amount from other sources
11 equal to not less than one-ninth of amounts deposited
12 pursuant to clause (A), (C) collections of principal
13 and interest on loans made from the fund, and (D) any
14 other earnings of the fund;

15 “(3) provide that the fund shall be used only for
16 loans to students of the school in accordance with the
17 agreement and for costs of collection of such loans and
18 interest thereon; and

19 “(4) contain such other provisions as are necessary
20 to protect the financial interests of the United States.

21 “LOAN PROVISIONS

22 “SEC. 741. (a) Loans from a loan fund established
23 under this part may not exceed \$2,000 for any student for
24 any academic year or its equivalent, reduced by the amounts

19

1 loaned to such student for that year out of a loan fund
2 established under section 204 of the National Defense Educa-
3 tion Act of 1958. In the granting of such loans, a school
4 shall give preference to persons who enter as first-year stu-
5 dents after June 30, 1963.

6 “(b) Any such loans shall be made on such terms and
7 conditions as the school may determine, but may be made
8 only to a student in need of the amount thereof to pursue
9 a full-time course of study at the school leading to a degree
10 of doctor of medicine, doctor of dentistry or an equivalent
11 degree, or doctor of osteopathy.

12 “(c) Such loans shall be repayable in equal or graduated
13 periodic installments (with the right of the borrower to ac-
14 celerate repayment) over the ten-year period which begins
15 three years after the student ceases to pursue a full-time
16 course of study at a school of medicine, osteopathy, or den-
17 tistry, excluding from such ten-year period all periods (up
18 to three years) of (1) active duty performed by the bor-
19 rower as a member of a uniformed service, or (2) service
20 as a volunteer under the Peace Corps Act.

21 “(d) The liability to repay the unpaid balance of such
22 a loan and accrued interest thereon shall be canceled upon
23 the death of the borrower, or if the Secretary determines that
24 he has become permanently and totally disabled.

20

1 “(e) Such loans shall bear interest, on the unpaid bal-
2 ance of the loan, at the rate of 3 per centum per annum,
3 computed only for periods during which the loan is repayable.

4 “(f) Where any person who obtained one or more
5 loans from a loan fund established under this part—

6 “(1) (A) engages in the practice of medicine, den-
7 tistry, or osteopathy in an area in a State determined
8 by the appropriate State health authority to have a
9 shortage of and need for physicians or dentists; or

10 “(B) is employed full-time as a physician or dentist
11 by any public agency, is on active duty as a physician
12 or dentist with a uniformed service, or is employed full-
13 time as a physician or dentist by any nonprofit private
14 agency or organization located in a State; and

15 “(2) (A) in the case of practice described in para-
16 graph (1) (A) of this subsection, the appropriate State
17 health authority certifies to the Secretary of Health,
18 Education, and Welfare in such form and at such
19 times as the Secretary may prescribe that such practice
20 helps to meet the shortage of and need for physicians
21 or dentists in the area where the practice occurs;

22 “(B) in the case of employment (other than Fed-
23 eral employment or service in a uniformed service)
24 by any public agency or nonprofit private agency or
25 organization, the State health authority for the State

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1 in which the employment is performed certifies to the
2 Secretary of Health, Education, and Welfare in such
3 form and at such times as the Secretary may prescribe
4 that such employment helps meet a shortage of and
5 need for persons to perform such employment; and

6 “(C) in the case of Federal employment or service
7 in a uniformed service, the head of the employing
8 agency or uniformed service, as the case may be, certifies
9 to the Secretary of Health, Education, and Welfare
10 in such form and at such times as the Secretary may
11 prescribe that such employment or service helps meet a
12 shortage of and need for persons to perform such
13 employment or such military service;

14 then 10 per centum of the total of such loans, plus accrued
15 interest on such amount, which are unpaid as of the date
16 such practice or employment, or such service in a uniformed
17 service begins, shall be canceled thereafter for each year of
18 such practice, employment, or service, or combination there-
19 of, up to a total of 50 per centum of such total, plus accrued
20 interest thereon.

21 “(g) Loans shall be made under this part without secu-
22 rity or endorsement, except that if the borrower is a minor
23 and the note or other evidence of obligation executed by him,
24 would not, under the applicable law, create a binding obliga-
25 tion, either security or endorsement may be required.

22

1 “(h) No note or other evidence of a loan made under
2 this part may be transferred or assigned by the school making
3 the loan except that, if the borrower transfers to another
4 school participating in the program under this part, such
5 note or other evidence of a loan may be transferred to such
6 other school.

7 “(i) Where all or any part of a loan, or interest, is
8 canceled under this section, the Secretary shall pay to the
9 school an amount equal to the school's proportionate share
10 of the canceled portion, as determined by the Secretary.

11 “AUTHORIZATION OF APPROPRIATIONS

12 “SEC. 742. (a) There are hereby authorized to be ap-
13 propriated to the Secretary of Health, Education, and Wel-
14 fare to carry out this part \$5,100,000 for the fiscal year end-
15 ing June 30, 1964, \$10,200,000 for the fiscal year ending
16 June 30, 1965, \$15,400,000 for the fiscal year ending June
17 30, 1966, \$20,600,000 for the fiscal year ending June 30,
18 1967, \$21,000,000 for the fiscal year ending June 30, 1968,
19 and such sums for the fiscal year ending June 30, 1969, and
20 each of the two succeeding fiscal years as may be necessary to
21 enable students who have received a loan for any academic
22 year ending before July 1, 1968, to continue or complete
23 their education. Sums appropriated pursuant to this subsec-
24 tion shall be allotted among loan funds at schools which have
25 established loan funds under this part.

23

1 “(b) (1) The Secretary shall from time to time set
2 dates by which schools with which he has in effect agree-
3 ments under this part must file applications for allotments to
4 their loan funds.

5 “(2) If the total of the amounts requested for any fiscal
6 year in such applications exceeds the amounts appropriated
7 under this part for that fiscal year, the allotment to the loan
8 fund of each such school shall be reduced to whichever of the
9 following is the smaller: (A) the amount requested in its
10 application or (B) an amount which bears the same ratio
11 to the amounts appropriated as the number of students esti-
12 mated by the Secretary to be enrolled in such school during
13 such fiscal year bears to the estimated total number of
14 students in all such schools during such year. Amounts
15 remaining after allotment under the preceding sentence shall
16 be reallocated in accordance with clause (B) of such sentence
17 among schools whose applications requested more than the
18 amounts so allotted to their loan funds, but with such adjust-
19 ments as may be necessary to prevent the total allotted to
20 any such school's loan fund from exceeding the total so
21 requested by it.

22 “(3) Allotments to a loan fund of a school shall be paid
23 to it from time to time in such installments as the Secretary
24 determines will not result in unnecessary accumulations in
25 the loan fund at such school.

24

1 "DISTRIBUTION OF ASSETS FROM LOAN FUNDS

2 "SEC. 743. (a) After June 30, 1971, and not later
3 than September 30, 1971, there shall be a capital distribution
4 of the balance of the loan fund established under this part by
5 each school as follows:

6 "(1) The Secretary shall first be paid an amount
7 which bears the same ratio to the balance in such fund
8 at the close of June 30, 1971, as the total amount of the
9 allotments to such fund by the Secretary under this part
10 bears to the total amounts in such fund derived from such
11 allotments and from funds deposited therein pursuant to
12 section 740 (b) (2) (B).

13 "(2) The remainder of such balance shall be paid
14 to the school.

15 "(b) After September 30, 1971, each school with which
16 the Secretary has made an agreement under this part shall
17 pay to the Secretary, not less often than quarterly, the same
18 proportionate share of amounts received by the school after
19 June 30, 1971, in payment of principal or interest on loans
20 made from the loan fund established pursuant to such agree-
21 ment as was determined for the Secretary under subsection
22 (a).

23 "LOANS TO SCHOOLS

24 "SEC. 744. Upon application by any school with which
25 he has made an agreement under this part, the Secretary may

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1 make a loan to such school for the purpose of helping to fi-
2 nance deposits required by section 740 (b) (2) (B) in a loan
3 fund established pursuant to such agreement. Such loan
4 may be made only if the school shows it is unable to secure
5 such funds upon reasonable terms and conditions from non-
6 Federal sources. Loans made under this section shall bear
7 interest at a rate sufficient to cover (1) the cost of the funds
8 to the Treasury, (2) the cost of administering this section,
9 and (3) probable losses.

10 "ADMINISTRATIVE PROVISIONS

11 "SEC. 745. The Secretary may agree to modifications of
12 agreements or loans made under this part, and may compro-
13 mise, waive, or release any right, title, claim, or demand of
14 the United States arising or acquired under this part."

15 SEC. 3. (a) Section 705 (c) of the Public Health Serv-
16 ice Act is amended by striking out "and" at the end of para-
17 graph (2), by striking out the period at the end of para-
18 graph (3) and inserting in lieu thereof "; and", and by
19 adding after paragraph (3) the following new paragraph:

20 "(4) the application contains or is supported by
21 adequate assurance that any laborer or mechanic em-
22 ployed by any contractor or subcontractor in the per-
23 formance of work on the construction of the facility (A)
24 will be paid wages at rates not less than those prevailing
25 on similar construction in the locality as determined by

26

1 the Secretary of Labor in accordance with the Davis-
2 Bacon Act, as amended (40 U.S.C. 276a-276a5), and
3 (B) will receive compensation at a rate not less than
4 one and one-half times his basic rate of pay for all
5 hours worked in any workweek in excess of eight hours
6 in any workday or forty hours in the workweek. The
7 Secretary of Labor shall have, with respect to the labor
8 standards specified in this paragraph, the authority and
9 functions set forth in Reorganization Plan Numbered 14
10 of 1950 (15 F.R. 3176; 64 Stat. 1267), and section 2
11 of the Act of June 13, 1934, as amended (40 U.S.C.
12 276c)."

13 (b) Part A of title VII of such Act is further
14 amended by inserting after section 710 the following new
15 sections:

16 "TECHNICAL ASSISTANCE

17 "SEC. 711. The Surgeon General is authorized to pro-
18 vide assistance to applicants under this part, and other pub-
19 lic or nonprofit institutions engaging or competent to en-
20 gage in research, or research and related purposes, in the
21 sciences related to health, in designing and planning the
22 construction of facilities for the conduct of such research or
23 research and related purposes.

1 "CONSTRUCTION OF REGIONAL FACILITIES

2 "SEC. 712. When the Surgeon General finds, in accord-
3 ance with regulations, that the purposes of this part can best
4 be achieved through the construction of research, or research
5 and related purposes, facilities of particular value or signifi-
6 cance for the Nation or a region thereof, and that because of
7 the cost of such facilities or their use as a national or regional
8 resource for research or related purposes a grant pursuant to
9 the preceding provisions of this part does not provide an
10 effective or appropriate means of financing the construction
11 of such facilities, he may construct or make arrangements for
12 constructing, through contracts for paying (including ad-
13 vance or installment payments) part or all of the cost of con-
14 struction or otherwise, facilities for the conduct of research,
15 or for research and related purposes, in the sciences related
16 to health. The Surgeon General may, where he deems such
17 action appropriate, make arrangements, by contract or other-
18 wise, for the operation of such facilities (for the conduct
19 of such research, or research and related purposes) or may
20 make contributions toward the cost of such operation of
21 facilities of this nature whether or not constructed pursuant
22 to, or with aid provided under, this section. Title to any
23 facility constructed under this section may be transferred by

1 the Surgeon General on behalf of the United States to any
2 public or nonprofit private institution competent to engage
3 in the type of research, or research and related purposes, for
4 which the facility was constructed. Such transfer shall be
5 made subject to the condition that the facility will be oper-
6 ated for the research, or research and related purposes, for
7 which it was constructed and to such other conditions as the
8 Surgeon General deems necessary to carry out the objectives
9 of this part and to protect the interests of the United States."

88TH CONGRESS
1ST SESSION

S. 911

IN THE SENATE OF THE UNITED STATES

APRIL 30, 1963

Referred to the Committee on Labor and Public Welfare and ordered to be printed

AMENDMENTS

Intended to be proposed by Mr. WILLIAMS of New Jersey to the bill (S. 911) to increase the opportunities for training of physicians, dentists, and professional public health personnel, and for other purposes, viz:

1 On page 18, line 1, after the word "osteopathy" insert
2 the word "optometry".

3 On page 19, line 11, strike out the period and insert in
4 lieu thereof a comma and the words "or Doctor of Optometry
5 or an equivalent degree."

6 On page 19, line 16, after the word "osteopathy" insert
7 the word "optometry".

8 On page 20, line 7, before the word "or" insert the word
9 "optometry".

Amdt. No. 72

2

- 1 On page 20, line 9, after the word "physicians" insert
- 2 the word "optometrists".
- 3 On page 20, line 10, after the word "physician" insert
- 4 the word "optometrist".
- 5 On page 20, line 11, after the word "physician" insert
- 6 the word "optometrist".
- 7 On page 20, line 13, after the word "physician" insert
- 8 the word "optometrist".
- 9 On page 20, line 20, after the word "physicians" insert
- 10 the word "optometrists".

88TH CONGRESS
1ST SESSION

H. R. 12

IN THE SENATE OF THE UNITED STATES

APRIL 25 (legislative day, APRIL 24), 1963

Read twice and referred to the Committee on Labor and Public Welfare

AN ACT

To increase the opportunities for training of physicians, dentists, and professional public health personnel, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Health Professions
4 Educational Assistance Act of 1963".

5 GRANTS FOR CONSTRUCTION OF MEDICAL, DENTAL, PHAR-
6 MACEUTICAL, OPTOMETRIC, PODIATRIC, NURSING, OS-
7 TEOPATHIC, AND PUBLIC HEALTH TEACHING FACILI-
8 TIES

9 SEC. 2. (a) Title VII of the Public Health Service Act
10 (42 U.S.C. chap. 6A) is amended by inserting "AND

2

1 TEACHING" after "RESEARCH" in the heading there-
2 of, by inserting "AND TRAINING OF PROFESSIONAL
3 HEALTH PERSONNEL" after "FACILITIES" in such
4 heading, and by inserting immediately below such heading
5 "PART A—GRANTS FOR CONSTRUCTION OF HEALTH
6 RESEARCH FACILITIES", and by changing the words "this
7 title" wherever they appear in such title to read "this part".

8 (b) Such title is further amended by adding at the end
9 thereof the following:

10 "PART B—GRANTS FOR CONSTRUCTION OF TEACHING
11 FACILITIES FOR MEDICAL, DENTAL, AND OTHER
12 HEALTH PERSONNEL

13 "AUTHORIZATION OF APPROPRIATIONS

14 "SEC. 720. There are hereby authorized to be appro-
15 priated over a period of three fiscal years, beginning with the
16 fiscal year ending June 30, 1964, not to exceed the follow-
17 ing amounts—

18 "(1) \$105,000,000 in the aggregate for grants to
19 assist in the construction of new teaching facilities for
20 the training of physicians, pharmacists, optometrists,
21 podiatrists, nurses, or professional public health per-
22 sonnel, of which not more than \$15,000,000 may be
23 available for grants before July 1, 1964, and not more
24 than \$60,000,000 in the aggregate may be available for
25 grants before July 1, 1965;

3

1 “(2) \$35,000,000 in the aggregate for grants to
2 assist in the construction of new teaching facilities for
3 the training of dentists, of which not more than \$5,-
4 000,000 may be available for grants before July 1,
5 1964, and not more than \$20,000,000 in the aggregate
6 may be available for grants before July 1, 1965; and

7 “(3) \$35,000,000 in the aggregate for replacement
8 or rehabilitation of existing teaching facilities for the
9 training of physicians, pharmacists, optometrists, podia-
10 trists, nurses, professional public health personnel, or
11 dentists, of which not more than \$5,000,000 may be
12 available for grants before July 1, 1964, and not more
13 than \$20,000,000 in the aggregate may be available for
14 grants before July 1, 1965.

15 If and to the extent the Surgeon General determines such
16 action will better carry out the objectives of this part, the
17 limitations on the amounts available for grants before July 1,
18 1964, under any paragraph of this section shall be decreased
19 and the limitation on the amount so available under any other
20 paragraph of this section shall be correspondingly increased;
21 and the amounts appropriated for the fiscal year ending June
22 30, 1964, under each of such paragraphs shall be similarly
23 adjusted by transfer between them. In applying the dollar
24 limitations of each of those paragraphs for the three-year
25 period ending June 30, 1966, any amount appropriated

1 under any such paragraph but transferred under the preced-
2 ing sentence to the appropriation under another paragraph
3 shall be deemed to have been appropriated only under such
4 other paragraph.

5 "APPROVAL OF APPLICATIONS

6 "SEC. 721. (a) No application for a grant under this
7 part may be approved unless it is submitted to the Surgeon
8 General prior to July 1, 1965.

9 "(b) (1) To be eligible to apply for a grant to assist in
10 the construction of any facility under this part, the ap-
11 plicant must be (A) a public or other nonprofit school of
12 medicine, dentistry, osteopathy, pharmacy, optometry, podia-
13 try, nursing, or public health and (B) accredited by a recog-
14 nized body or bodies approved for such purpose by the Com-
15 missioner of Education, except that a new school which (by
16 reason of no, or an insufficient, period of operation) is not,
17 at the time of application for a grant to construct a facility
18 under this part, eligible for accreditation by such a recog-
19 nized body or bodies, shall be deemed accredited for purposes
20 of this part if the Commissioner of Education finds, after con-
21 sultation with the appropriate accreditation body or bodies,
22 that there is reasonable assurance that the school will, upon
23 completion of such facility, meet the accreditation standards
24 of such body or bodies.

25 "(2) Notwithstanding paragraph (1), in the case of an

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1 affiliated hospital, an application which is approved by the
2 school of medicine or school of osteopathy with which the
3 hospital is affiliated and which otherwise complies with the
4 requirements of this part may be filed by any public or other
5 nonprofit agency qualified to file an application under section
6 625.

7 “(3) In the case of any application, whether filed by a
8 school or, in the case of an affiliated hospital, by any other
9 public or other nonprofit agency, for a grant under this part
10 to assist in the construction of a facility which is a hospital
11 as defined in section 631—

12 “(A) if the facility is needed in connection with a
13 new school, only that portion of the project to construct
14 the facility which the Surgeon General determines to
15 be reasonably attributable to the need of such school
16 for the facility for teaching purposes,

17 “(B) if the construction is in connection with ex-
18 pansion of the training capacity of an existing school,
19 only that portion of the project to construct the facility
20 which the Surgeon General determines to be reasonably
21 attributable to the need of such school for the facility
22 in order to expand its training capacity,

23 “(C) if the construction is in connection with ren-
24 ovation or rehabilitation of facilities used by an existing
25 school, only that portion of the project which the

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1 Surgeon General determines to be reasonably attribut-
2 able to the need of such school for the facilities in order
3 to prevent curtailment of enrollment or quality of train-
4 ing of the school,

5 shall be regarded as the project with respect to which pay-
6 ments may be made under section 722.

7 “(c) A grant under this part may be made only if the
8 application therefor is approved by the Surgeon General
9 upon his determination that—

10 “(1) the applicant meets the eligibility conditions
11 set forth in subsection (b) ;

12 “(2) the application contains or is supported by
13 reasonable assurances that (A) for not less than ten
14 years after completion of construction, the facility will
15 be used for the purposes of the teaching for which it is
16 to be constructed, (B) sufficient funds will be available
17 to meet the non-Federal share of the cost of construct-
18 ing the facility, (C) sufficient funds will be available,
19 when construction is completed, for effective use of the
20 facility for the training for which it is being constructed,
21 and (D) in the case of an application for construction to
22 expand the training capacity of an existing school of
23 medicine, dentistry, osteopathy, pharmacy, optometry,
24 podiatry, nursing, or public health, the first-year enroll-
25 ment at such school during the first full school year after

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1 the completion of the construction and for each of the
2 next nine school years thereafter will exceed the highest
3 first-year enrollment at such school for any of the five
4 full school years preceding the year in which the appli-
5 cation is made by at least 5 per centum of such highest
6 first-year enrollment, or by five students, whichever is
7 greater;

8 “(3) (A) in the case of an application for a grant
9 from funds appropriated pursuant to clause (1) of sec-
10 tion 720, such application is for aid in the construction
11 of a new school of medicine, osteopathy, pharmacy,
12 optometry, podiatry, nursing, or public health, or con-
13 struction which will expand the training capacity of
14 an existing school of medicine, osteopathy, pharmacy,
15 optometry, podiatry, nursing, or public health, (B) in
16 the case of an application for a grant from funds appro-
17 priated pursuant to clause (2) of such section, such
18 application is for aid in the construction of a new
19 school of dentistry or construction which will expand the
20 capacity of an existing school of dentistry, or (C)
21 in the case of an application for a grant from funds
22 appropriated pursuant to clause (3) of such section,
23 such application is for aid in construction which will
24 replace or rehabilitate facilities of, or used by, an exist-
25 ing school of medicine, dentistry, pharmacy, optometry,

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1 podiatry, nursing, osteopathy, or public health which are
2 so obsolete as to require the school to curtail substantially
3 either its enrollment or the quality of the training
4 provided;

5 “(4) the plans and specifications are in accordance
6 with regulations relating to minimum standards of con-
7 struction and equipment;

8 “(5) the application contains or is supported by
9 adequate assurance that any laborer or mechanic em-
10 ployed by any contractor or subcontractors in the per-
11 formance of work on the construction of the facility
12 will be paid wages at rates not less than those prevail-
13 ing on similar construction in the locality as determined
14 by the Secretary of Labor in accordance with the Davis-
15 Bacon Act, as amended (40 U.S.C. 276a-276a5). The
16 Secretary of Labor shall have, with respect to the labor
17 standards specified in this paragraph, the authority and
18 functions set forth in Reorganization Plan Numbered 14
19 of 1950 (15 F.R. 3176; 64 Stat. 1267), and section 2
20 of the Act of June 13, 1934, as amended (40 U.S.C.
21 276c) ; and

22 “(6) if the application requests aid in construc-
23 tion of a facility which is a hospital or diagnostic or
24 treatment center, as defined in section 631, an appli-
25 cation with respect thereto has been filed under title VI

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1 and has been denied thereunder because (A) the proj-
2 ect has no or insufficient priority, or (B) funds are not
3 available for the project from the State's allotments
4 under title VI.

5 Before approving or disapproving an application under this
6 part, the Surgeon General shall secure the advice of the
7 National Advisory Council on Education for Health Pro-
8 fessions established by section 725 (hereinafter in this part
9 referred to as the 'Council').

10 “(d) In considering applications for grants, the Coun-
11 cil and the Surgeon General shall take into account—

12 “(1) (A) in the case of a project for a new school
13 or for expansion of the facilities of, or used by, an exist-
14 ing school, the relative effectiveness of the proposed fa-
15 cilities in expanding the capacity for the training of first-
16 year students of medicine, dentistry, pharmacy, optome-
17 try, podiatry, nursing, or osteopathy (or, in the case of a
18 two-year school which is expanding to a four-year school,
19 expanding the capacity for four-year training of students
20 in the field), or for the training of professional public
21 health personnel, and in promoting an equitable geo-
22 graphical distribution of opportunities for such training
23 (giving due consideration to population, available phy-
24 sicians, pharmacists, optometrists, podiatrists, nurses,

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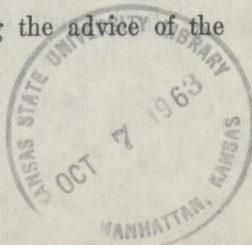
1 dentists, or professional public health personnel, and
2 available resources in various areas of the Nation for
3 training such persons) ; or

4 “ (B) in the case of a project for replacement or re-
5 habilitation of existing facilities of, or used by, a school,
6 the relative need for such replacement or rehabilitation to
7 prevent curtailment of the school's enrollment or de-
8 terioration of the quality of the training provided by the
9 school, and the relative size of any such curtailment and
10 its effect on the geographical distribution of opportuni-
11 ties for training (giving consideration to the factors
12 mentioned above in paragraph (A)) ; and

13 “ (2) in the case of an applicant in a State which has
14 in existence a State planning agency, or which partici-
15 pates in a regional or other interstate planning agency,
16 described in section 728, the relationship of the applica-
17 tion to the construction or training program which is
18 being developed by such agency with respect to such
19 State and, if such agency has reviewed such application,
20 any comment thereon submitted by such agency.

21 “AMOUNT OF GRANT; PAYMENTS

22 “SEC. 722. (a) (1) Except as provided in paragraph
23 (2) of this subsection, the amount of any grant under
24 this part shall be such amount as the Surgeon General deter-
25 mines to be appropriate after obtaining the advice of the



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1 Council; except that (A) in the case of a grant for a project
2 for a new school, and in the case of a grant for new facilities
3 for an existing school in cases where such facilities are of
4 particular importance in providing a major expansion of
5 training capacity, as determined in accordance with regula-
6 tions, such amount may not exceed $66\frac{2}{3}$ per centum of the
7 necessary cost of construction, as determined by the Surgeon
8 General, of such project; and (B) in the case of any other
9 grant, such amount may not exceed 50 per centum of the
10 necessary cost of construction, as so determined, of the
11 project with respect to which the grant is made.

12 “(2) The amount of any grant under this part for con-
13 struction of a project with respect to a school of public health
14 shall be such amount as the Surgeon General determines to
15 be appropriate after obtaining the advice of the Council, and
16 may not exceed 75 per centum of the necessary cost of con-
17 struction, as determined by the Surgeon General, of such
18 project.

19 “(b) Upon approval of any application for a grant
20 under this part, the Surgeon General shall reserve, from any
21 appropriation available therefor, the amount of such grant
22 as determined under subsection (a) ; the amount so reserved
23 may be paid in advance or by way of reimbursement, and in
24 such installments consistent with construction progress, as
25 the Surgeon General may determine. The Surgeon Gen-

12

1 eral's reservation of any amount under this section may be
2 amended by him, either upon approval of an amendment of
3 the application or upon revision of the estimated cost of
4 construction of the facility.

5 “(c) In determining the amount of any grant under this
6 part, there shall be excluded from the cost of construction an
7 amount equal to the sum of (1) the amount of any other
8 Federal grant which the applicant has obtained, or is assured
9 of obtaining, with respect to the construction which is to be
10 financed in part by grants authorized under this part, and
11 (2) the amount of any non-Federal funds required to be
12 expended as a condition of such other Federal grant.

13 “RECAPTURE OF PAYMENTS

14 “SEC. 723. If, within ten years after completion of any
15 construction for which funds have been paid under this
16 part—

17 “(a) the applicant or other owner of the facility
18 shall cease to be a public or nonprofit school or, in case
19 the facility was an affiliated hospital, the applicant or
20 other owner of the facility ceases to be a public or other
21 nonprofit agency qualified to file an application under
22 section 625, or

23 “(b) the facility shall cease to be used for the teach-
24 ing purposes for which it was constructed (unless the

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1 Surgeon General determines, in accordance with regula-
2 tions, that there is good cause for releasing the appli-
3 cant or other owner from the obligation to do so),
4 “(c) the facility is used for sectarian instruction
5 or as a place for religious worship,
6 the United States shall be entitled to recover from the appli-
7 cant or other owner of the facility the amount bearing the
8 same ratio to the then value (as determined by agreement
9 of the parties or by action brought in the United States dis-
10 trict court for the district in which such facility is situated)
11 of the facility, as the amount of the Federal participation
12 bore to the cost of construction of such facility.

13

“DEFINITIONS

14 “SEC. 724. As used in this part—

15 “(1) The terms ‘construction’ and ‘cost of construction’
16 include (A) the construction of new buildings, the expan-
17 sion of existing buildings, and remodeling, replacement, reno-
18 vation, major repair (to the extent permitted by regula-
19 tions), or alteration of existing buildings, including architects’
20 fees, but not including the cost of acquisition of land or off-
21 site improvements, and (B) initial equipment of new build-
22 ings and of the expanded, remodeled, repaired, renovated,
23 or altered part of existing buildings; but such term shall not

14

1 include the construction or cost of construction of so much
2 of any facility as is used or is to be used for sectarian instruc-
3 tion or as a place for religious worship;

4 “(2) The term ‘nonprofit school’ means a school owned
5 and operated by one or more corporations or associations no
6 part of the net earnings of which inures, or may lawfully
7 inure, to the benefit of any private shareholder or individual;

8 “(3) The term ‘affiliated hospital’ means a hospital,
9 as defined in section 631, which is not owned by, but is
10 affiliated (to the extent and in the manner determined in
11 accordance with regulations) with, a school of medicine
12 or school of osteopathy which meets the eligibility conditions
13 set forth in section 721 (b) (1) ;

14 “(4) The terms ‘school of medicine’, ‘school of den-
15 tistry’, ‘school of osteopathy’, ‘school of pharmacy’, ‘school
16 of optometry’, ‘school of podiatry’, and ‘school of public
17 health’ mean a school which provides training leading,
18 respectively, to a degree of doctor of medicine, a degree of
19 doctor of dentistry or an equivalent degree, a degree of
20 doctor of osteopathy, a degree of bachelor of science in
21 pharmacy or doctor of pharmacy, a degree of doctor of
22 optometry or an equivalent degree, a degree of doctor of
23 podiatry or doctor of surgical chiropody, and a graduate
24 degree in public health; and

25 “(5) The term ‘school of nursing’ means a department,

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1 school, division, or other administrative unit, in a college or
2 university, which provides, primarily or exclusively, a pro-
3 gram of education in professional nursing and allied subjects
4 leading to the degree of bachelor of arts, bachelor of science,
5 bachelor of nursing, or other baccalaureate degree of equiv-
6 alent rank; or to a graduate degree in nursing.

7 "NATIONAL ADVISORY COUNCIL ON EDUCATION FOR
8 HEALTH PROFESSIONS

9 "SEC. 725. (a) There is hereby established in the
10 Public Health Service a National Advisory Council on Edu-
11 cation for Health Professions, consisting of the Surgeon Gen-
12 eral of the Public Health Service, who shall be Chairman,
13 and the Commissioner of Education, both of whom shall be
14 ex officio members, and sixteen members appointed by the
15 Secretary without regard to the civil service laws. Four
16 of the appointed members shall be selected from the general
17 public and twelve shall be selected from among leading au-
18 thorities in the fields of higher education, at least eight of
19 whom are particularly concerned with training in medicine,
20 dentistry, osteopathy, pharmacy, optometry, podiatry, nurs-
21 ing, or the public health professions. In selecting persons
22 for appointment to the Council, consideration shall be given
23 to such factors, among others, as (1) experience in the plan-
24 ning, constructing, financing, or administration of schools
25 of medicine, dentistry, osteopathy, pharmacy, optometry,

16

1 podiatry, nursing, or schools of public health, and (2)
2 familiarity with the need for teaching facilities in all areas
3 of the Nation.

4 “(b) The Council shall advise the Surgeon General in
5 the preparation of general regulations and with respect to
6 policy matters arising in the administration of this part, and
7 in the review of applications thereunder.

8 “(c) The Surgeon General is authorized to use the
9 services of any member or members of the Council in con-
10 nection with matters related to the administration of this
11 part, for such periods, in addition to conference periods, as
12 he may determine. The Surgeon General shall, in addition,
13 make appropriate provision for consultation between and
14 coordination of the work of the Council and the National
15 Advisory Council on Health Research Facilities with respect
16 to matters bearing on the purposes and administration of this
17 part.

18 “(d) Appointed members of the Council, while attend-
19 ing conferences or meetings of the Council or while otherwise
20 serving at the request of the Surgeon General, shall be en-
21 titled to receive compensation at a rate to be fixed by the
22 Secretary but not exceeding \$50 per diem, including travel
23 time, and while away from their homes or regular places of
24 business they may be allowed travel expenses, including per

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1 diem in lieu of subsistence, as authorized by section 5 of the
2 Administrative Expenses Act of 1946 (5 U.S.C. 73b-2)
3 for persons in the Government service employed
4 intermittently.

5 "NONINTERFERENCE WITH ADMINISTRATION OF
6 INSTITUTIONS

7 "SEC. 726. Nothing contained in this part shall be con-
8 strued as authorizing any department, agency, officer, or em-
9 ployee of the United States to exercise any direction, super-
10 vision, or control over, or impose any requirement or condi-
11 tion with respect to, the personnel, curriculum, methods of
12 instruction, or administration of any institution.

13 "REGULATIONS

14 "SEC. 727. (a) The Surgeon General, after consulta-
15 tion with the Council and with the approval of the Secretary,
16 shall prescribe general regulations for this part covering the
17 eligibility of institutions, the order of priority in approving
18 applications, the terms and conditions for approving applica-
19 tions, determinations of the amounts of grants, and minimum
20 standards of construction and equipment for various types of
21 institutions.

22 "(b) The Surgeon General is authorized to make, with
23 the approval of the Secretary, such other regulations as he
24 finds necessary to carry out the provisions of this part.

18

1 "TECHNICAL ASSISTANCE

2 "SEC. 728. In carrying out the purposes of this part,
3 and to further the development of State, or joint or coordi-
4 nated regional or other interstate, planning of programs for
5 relieving shortages of training capacity in the fields of medi-
6 cine, dentistry, osteopathy, pharmacy, optometry, podiatry,
7 nursing, and public health, through constructing teaching
8 facilities, providing adequate financial support for schools,
9 or otherwise, the Surgeon General is authorized to provide
10 technical assistance and consultative services to State or
11 interstate planning agencies established for any of such
12 purposes.

13 "PART C—STUDENT LOANS

14 "LOAN AGREEMENTS

15 "SEC. 740. (a) The Secretary of Health, Education,
16 and Welfare is authorized to enter into an agreement for
17 the establishment and operation of a student loan fund in ac-
18 cordance with this part with any public or other nonprofit
19 school of medicine, osteopathy, or dentistry (as defined in
20 section 724) which is located in a State and is accredited as
21 provided in section 721 (b) (1) (B).

22 "(b) Each agreement entered into under this section
23 shall—

24 "(1) provide for establishment of a student loan
25 fund by the school;

19

1 “(2) provide for deposit in the fund of (A) the
2 amounts allocated under this part to the school by the
3 Secretary, (B) an additional amount from other sources
4 equal to not less than one-ninth of amounts deposited
5 pursuant to clause (A), (C) collections of principal
6 and interest on loans made from the fund, and (D) any
7 other earnings of the fund;

8 “(3) provide that the fund shall be used only for
9 loans to students of the school in accordance with the
10 agreement and for costs of collection of such loans and
11 interest thereon;

12 “(4) provide that loans may be made from such
13 fund only to students pursuing a full-time course of
14 study at the school leading to a degree of doctor of
15 medicine, doctor of dentistry or an equivalent degree,
16 or doctor of osteopathy, and that while the agreement
17 remains in effect no such student who has attended such
18 school before July 1, 1966, shall receive a loan from a
19 loan fund established under section 204 of the National
20 Defense Education Act of 1958; and

21 “(5) contain such other provisions as are necessary
22 to protect the financial interests of the United States.

23 “LOAN PROVISIONS

24 “SEC. 741. (a) Loans from a loan fund established
25 under this part may not exceed \$2,000 for any student for

20

1 any academic year or its equivalent. In the granting of such
2 loans, a school shall give preference to persons who enter
3 as first-year students after June 30, 1963.

4 “(b) Any such loans shall be made on such terms and
5 conditions as the school may determine, but may be made
6 only to a student in need of the amount thereof to pursue
7 a full-time course of study at the school leading to a degree
8 of doctor of medicine, doctor of dentistry or an equivalent
9 degree, or doctor of osteopathy.

10 “(c) Such loans shall be repayable in equal or graduated
11 periodic installments (with the right of the borrower to ac-
12 celerate repayment) over the ten-year period which begins
13 three years after the student ceases to pursue a full-time
14 course of study at a school of medicine, osteopathy, or den-
15 tistry, excluding from such ten-year period all periods (up
16 to three years) of (1) active duty performed by the bor-
17 rower as a member of a uniformed service, or (2) service
18 as a volunteer under the Peace Corps Act.

19 “(d) The liability to repay the unpaid balance of such
20 a loan and accrued interest thereon shall be canceled upon
21 the death of the borrower, or if the Secretary determines that
22 he has become permanently and totally disabled.

23 “(e) Such loans shall bear interest, on the unpaid bal-
24 ance of the loan, computed only for periods during which
25 the loan is repayable, at the rate of 3 per centum per annum,

21

1 or the going Federal rate at the time the loan is made, which-
2 ever rate is the greater. For purposes of this subsection,
3 the term 'going Federal rate' means the rate of interest which
4 the Secretary of the Treasury specifies during June of each
5 year for purposes of loans made during the fiscal year be-
6 ginning on the next July 1, determined by estimating the
7 average yield to maturity, on the basis of daily closing
8 market quotations or prices during the preceding May on
9 all outstanding marketable obligations of the United States
10 having a maturity date of fifteen or more years from the
11 first day of such month of May, and by rounding off such
12 estimated average annual yield to the next higher multiple
13 of one-eighth of 1 per centum.

14 “(f) Loans shall be made under this part without secu-
15 rity or endorsement, except that if the borrower is a minor
16 and the note or other evidence of obligation executed by him
17 would not, under the applicable law, create a binding obliga-
18 tion, either security or endorsement may be required.

19 “(g) No note or other evidence of a loan made under
20 this part may be transferred or assigned by the school making
21 the loan except that, if the borrower transfers to another
22 school participating in the program under this part, such
23 note or other evidence of a loan may be transferred to such
24 other school.

25 “(h) Where all or any part of a loan, or interest, is

22

1 canceled under this section, the Secretary shall pay to the
2 school an amount equal to the school's proportionate share
3 of the canceled portion, as determined by the Secretary.

4 "AUTHORIZATION OF APPROPRIATIONS

5 "SEC. 742. (a) There are hereby authorized to be ap-
6 propriated to the Secretary of Health, Education, and Wel-
7 fare to carry out this part \$5,100,000 for the fiscal year end-
8 ing June 30, 1964, \$10,200,000 for the fiscal year ending
9 June 30, 1965, \$15,400,000 for the fiscal year ending June
10 30, 1966, and such sums for the fiscal year ending June 30,
11 1967, and each of the two succeeding fiscal years as may
12 be necessary to enable students who have received a loan
13 for any academic year ending before July 1, 1966, to
14 continue or complete their education. Sums appropriated
15 pursuant to this subsection shall be allotted among loan funds
16 at schools which have established loan funds under this part.

17 "(b) (1) The Secretary shall from time to time set
18 dates by which schools with which he has in effect agree-
19 ments under this part must file applications for allotments to
20 their loan funds.

21 "(2) If the total of the amounts requested for any fiscal
22 year in such applications exceeds the amounts appropriated
23 under this part for that fiscal year, the allotment to the loan
24 fund of each such school shall be reduced to whichever of the
25 following is the smaller: (A) the amount requested in its

23

1 application or (B) an amount which bears the same ratio
2 to the amounts appropriated as the number of students esti-
3 mated by the Secretary to be enrolled in such school during
4 such fiscal year bears to the estimated total number of
5 students in all such schools during such year. Amounts
6 remaining after allotment under the preceding sentence shall
7 be reallocated in accordance with clause (B) of such sentence
8 among schools whose applications requested more than the
9 amounts so allotted to their loan funds, but with such adjust-
10 ments as may be necessary to prevent the total allotted to
11 any such school's loan fund from exceeding the total so
12 requested by it.

13 “(3) Allotments to a loan fund of a school shall be paid
14 to it from time to time in such installments as the Secretary
15 determines will not result in unnecessary accumulations in
16 the loan fund at such school.

17 “DISTRIBUTION OF ASSETS FROM LOAN FUNDS

18 “SEC. 743. (a) After June 30, 1969, and not later
19 than September 30, 1969, there shall be a capital distribu-
20 tion of the balance of the loan fund established under this
21 part by each school as follows:

22 “(1) The Secretary shall first be paid an amount
23 which bears the same ratio to the balance in such fund
24 at the close of June 30, 1969, as the total amount
25 of the allotments to such fund by the Secretary under

24

1 this part bears to the total amounts in such fund derived
2 from such allotments and from funds deposited therein
3 pursuant to section 740 (b) (2) (B).

4 “(2) The remainder of such balance shall be paid
5 to the school.

6 “(b) After September 30, 1969, each school with
7 which the Secretary has made an agreement under this part
8 shall pay to the Secretary, not less often than quarterly, the
9 same proportionate share of amounts received by the school
10 after June 30, 1969, in payment of principal or in-
11 terest on loans made from the loan fund established pursuant
12 to such agreement as was determined for the Secretary under
13 subsection (a).

14 “LOANS TO SCHOOLS

15 “SEC. 744. Upon application by any school with which
16 he has made an agreement under this part, the Secretary may
17 make a loan to such school for the purpose of helping to fi-
18 nance deposits required by section 740 (b) (2) (B) in a loan
19 fund established pursuant to such agreement. Such loan
20 may be made only if the school shows it is unable to secure
21 such funds upon reasonable terms and conditions from non-
22 Federal sources. Loans made under this section shall bear
23 interest at a rate sufficient to cover (1) the cost of the funds
24 to the Treasury, (2) the cost of administering this section,
25 and (3) probable losses.

1 "ADMINISTRATIVE PROVISIONS

2 "SEC. 745. The Secretary may agree to modifications of
3 agreements or loans made under this part, and may compro-
4 mise, waive, or release any right, title, claim, or demand of
5 the United States arising or acquired under this part."

6 SEC. 3. (a) Section 705 (c) of the Public Health Serv-
7 ice Act is amended by striking out "and" at the end of para-
8 graph (2), by striking out the period at the end of para-
9 graph (3) and inserting in lieu thereof "; and", and by
10 adding after paragraph (3) the following new paragraph:

11 "(4) the application contains or is supported by
12 adequate assurance that any laborer or mechanic em-
13 ployed by any contractor or subcontractor in the per-
14 formance of work on the construction of the facility
15 will be paid wages at rates not less than those prevailing
16 on similar construction in the locality as determined by
17 the Secretary of Labor in accordance with the Davis-
18 Bacon Act, as amended (40 U.S.C. 276a-276a5). The
19 Secretary of Labor shall have, with respect to the labor
20 standards specified in this paragraph, the authority and
21 functions set forth in Reorganization Plan Numbered 14
22 of 1950 (15 F.R. 3176; 64 Stat. 1267), and section 2
23 of the Act of June 13, 1934, as amended (40 U.S.C.
24 276c)."

25 (b) Part A of title VII of such Act is further

26

1 amended by inserting after section 710 the following new
2 section:

3 "TECHNICAL ASSISTANCE

4 "SEC. 711. The Surgeon General is authorized to pro-
5 vide assistance to applicants under this part, and other pub-
6 lic or nonprofit institutions engaging or competent to en-
7 gage in research, or research and related purposes, in the
8 sciences related to health, in designing and planning the
9 construction of facilities for the conduct of such research or
10 research and related purposes."

Passed the House of Representatives April 24, 1963.

Attest:

RALPH R. ROBERTS,

Clerk.

SECTION-BY-SECTION ANALYSIS OF H.R. 12

The bill consists of three sections. The first section contains a short title; section 2 deals with construction of teaching facilities in health sciences and loans for students of medicine, dentistry, or osteopathy; and section 3 establishes minimum wage standards for the construction of health research facilities, and authorizes the furnishing of technical assistance for planning of construction of research facilities.

SECTION 1. SHORT TITLE

This section provides that the short title of the bill will be the "Health Professions Educational Assistance Act of 1963."

SECTION 2. CONSTRUCTION GRANTS FOR TEACHING FACILITIES AND LOAN PROGRAM

Section 2 consists of two subsections. Subsection (a) converts the existing title VII of the Public Health Service Act into part A of title VII and makes appropriate technical changes to reflect this amendment.

Subsection (b) of this section adds two new parts at the end of title VII of the Public Health Service Act, part B relating to construction of teaching facilities for medical, dental, and other health personnel, and part C which establishes a 3-year loan program for students of medicine, dentistry, or osteopathy.

PART B—CONSTRUCTION GRANTS

Section 720. Authorization of appropriations

The first section of the new part B, which will be numbered section 720, authorizes appropriations over the 3-year period beginning July 1, 1963, and ending June 30, 1966, for the construction or rehabilitation of teaching facilities for the training of physicians, dentists, osteopaths, pharmacists, optometrists, podiatrists, nurses, or professional public health personnel.

Clause (1) of this section authorizes appropriations for construction of new teaching facilities for physicians, osteopaths, pharmacists, optometrists, podiatrists, nurses, or professional public health personnel. This clause authorizes appropriations totaling up to \$105 million for the 3-fiscal-year period July 1, 1963, through June 30, 1966. Of this amount not more than \$15 million may be available before July 1, 1964, and not more than an aggregate amount of \$60 million may be available before July 1, 1965.

Clause (2) of this section authorizes appropriations totaling up to \$35 million for the 3-fiscal-year period July 1, 1963, through June 30, 1966, for construction of new teaching facilities for the training of dentists. Of this amount, not more than \$5 million may be available before July 1, 1964, and not more than an aggregate amount of \$20 million may be available before July 1, 1965.

Clause (3) authorizes appropriations totaling up to \$35 million for the 3-fiscal-year period July 1, 1963, through June 30, 1966, for replacement or rehabilitation of teaching facilities for the training of the persons described in clauses (1) and (2). Of this amount, not more than \$5 million may be available before July 1, 1964, and not more than an aggregate amount of \$20 million may be available before July 1, 1965.

The last portion of this section authorizes transfers among the purposes specified in these clauses of appropriations made for the fiscal year ending June 30, 1964. The overall ceilings on availability of appropriations over the 3-year period covered by the bill are not affected by transfers made before July 1, 1964.

Section 721. Approval of applications

This section consists of four subsections, covering eligibility of institutions to apply for grant assistance.

Subsection (a) provides that applications for construction grants must be submitted to the Surgeon General before July 1, 1965.

Subsection (b) specifies the institutions eligible to apply for construction grants. Paragraph (1) of subsection (b) provides that the applicant must be a public or other nonprofit school which is accredited by a recognized body or bodies approved by the Commissioner of Education.

Paragraph (2) of this subsection provides that an applicant may be a hospital which is affiliated with a medical school or school of osteopathy eligible to apply under paragraph (1) of this subsection. The application must be approved by the school.

Paragraph (3) of this subsection provides limitations upon the assistance which may be furnished for construction of or at teaching hospitals. In general, this

paragraph provides that the assistance which may be provided under the bill for construction involving hospital facilities shall be for facilities which are reasonably attributable to the need of the school for the facility for teaching purposes, expansion of training capacity, or to prevent curtailment of enrollment or deterioration in the quality of instruction at the school.

Subsection (c) of this section provides additional requirements which must be met in order for grants to be made under the proposed new part B.

Paragraph (1) requires that the applicant must be determined by the Surgeon General to be eligible under subsection (b).

Paragraph (2) provides that the application must contain reasonable assurances that the facilities will be used for not less than 10 years for the purposes for which constructed, that sufficient funds will be available to pay the non-Federal share of the cost of construction, and that sufficient funds will be available for operation of the facility after construction.

This paragraph (2) also contains an additional requirement that with respect to applications for expansion of an existing school the applicant must furnish reasonable assurances that the first-year enrollment at such institution will exceed the highest first-year enrollment at such school during the preceding 5-year period by not less than five students or, if greater, 5 percent of such highest first-year enrollment, and that this expanded level of enrollment will be maintained for at least 10 years after the completion of construction.

Paragraph (3) of this subsection requires that the funds granted for expansion of capacity of an existing school must be utilized for construction which will expand training capacity. In the case of grants to replace or rehabilitate facilities, such replacement or rehabilitation must be necessary in order to prevent a substantial curtailment of enrollment or quality of training otherwise available.

Paragraph (4) of this subsection provides that the construction must meet minimum standards prescribed under this part, and paragraph (5) requires that prevailing rates of wages, as determined in accordance with the Davis-Bacon Act, must be paid laborers or mechanics employed on such construction.

Paragraph (6) of this subsection provides that a grant may not be approved for construction of any hospital or diagnostic or treatment center unless an application for construction of such hospital or center has been made under the Hill-Burton program and has been denied for lack of priority of the project or lack of funds from the State's allotments under that program.

The Surgeon General is required to obtain the advice of the National Advisory Council on Health Professions (established pursuant to the bill) before finally approving or disapproving any application.

Subsection (d) of this section specifies matters which must be taken into account by the Surgeon General in determining which of the applications filed with him will be approved, and the priorities to be followed by him in granting such approval.

Paragraph (1) of this subsection provides that in case of projects for new schools or for expansion of existing schools the Surgeon General shall give consideration to the relative effectiveness of the proposed facilities in providing such expansion and the relative effectiveness of such facilities in promoting an equitable geographical distribution of opportunities for such training. If the application is for replacement or rehabilitation of existing facilities, subparagraph (B) of this paragraph requires that the Surgeon General take into account the relative need for such replacement in order to prevent curtailment of the school's enrollment, or deterioration of quality of training provided, and the relative size of such curtailment and its effect upon the geographical distribution of opportunities for such training.

In making the determinations referred to under this paragraph, the Surgeon General is required to give due consideration to population, available health personnel in various areas of the United States, and available resources for such training throughout the United States.

Paragraph (2) of this subsection (d) provides that where the State has a State planning agency, or where the State participates in a regional or other interstate planning agency, the Surgeon General shall consider the relationship of applications for construction to the program being developed by such agency, taking into account any comments on the application submitted by the State, regional, or other interstate planning agency.

Section 722. Amount of grant: payments

Section 722 covers the amount of each Federal grant, and the manner of its payment, and provides for offsets against such grants for other Federal programs with respect to the same facilities.

Subsection (a) of this section provides that, in general, grants may not exceed 50 percent of the necessary cost of construction. Where the grant is for a new school or for new facilities at an existing school which will provide a major expansion of training capacity, the amount of the grant may not exceed 66 $\frac{2}{3}$ percent of the necessary cost of construction.

A further exception is made by paragraph (2) of this subsection in the case of schools of public health. Any grant with respect to facilities of these schools may be made up to 75 percent of the necessary cost of construction.

Subsection (b) of this section 722 provides that where an application has been approved, the Surgeon General shall reserve from appropriations the amounts of grants to be made, and may pay the amounts so reserved in advance, or by way of reimbursement, in such manner as he may determine.

Subsection (c) of this section provides that in determining the amount of any grant under this bill, the Surgeon General shall exclude from the amounts otherwise payable with respect to a project an amount equal to the sum of (1) any other Federal grant which the applicant will receive, or has received, with respect to the same construction, and (2) the amount of any non-Federal funds required to be spent or to be available as a condition of such other Federal grant.

Section 723. Recapture of payments

This section provides that if within 10 years after completion of any construction financed under this bill, the applicant ceases to be a public or nonprofit school (or, in the case of an affiliated hospital, ceases to be qualified to file an application under the Hill-Burton program), or ceases to use the facilities for teaching purposes for which constructed, or if the facility is used for sectarian instruction or as a place for religious worship, the United States shall be entitled to recover, by suit in U.S. district courts, a proportionate share of the Federal grants used for such construction.

Section 724. Definitions

This section contains definitions of the terms "construction," "cost of construction," "nonprofit school," "affiliated hospital," and of the various categories of schools eligible for construction grants. Subsection 724(1) specifically provides that the terms "construction" and "cost of construction" shall not include the construction or cost of construction of so much of any facility as is used or is to be used for sectarian instruction or as a place for religious worship. Subsection 724(5), defining "school of nursing," makes it clear that construction grants are available only for collegiate schools of nursing.

Section 725. National Advisory Council on Education for Health Professions

This section provides for the establishment of an advisory council, consisting of 18 members (including the Surgeon General and the Commissioner of Education). Of the 16 appointed members, 4 shall be selected from the general public, and 12 from among leading authorities in the fields of higher education, of whom 8 shall be particularly concerned with training in medicine, dentistry, osteopathy, pharmacy, optometry, podiatry, nursing, or public health.

The Council will advise the Surgeon General with respect to policy matters arising in the administration of the construction grant program, and in the review of applications under this program. In addition, the Surgeon General may use the services of members of the Council in connection with the administration of the program. Provision is made also for consultation between the Council and the National Advisory Council on Health Research Facilities established under section 703 of the Public Health Service Act.

Members of the Advisory Council are entitled to compensation at a rate to be fixed by the Secretary, but not exceeding \$50 per diem for service at conferences, meetings, or otherwise at the request of the Surgeon General, plus travel expenses and subsistence.

Section 726. Noninterference with administration of institutions

This section states that the bill does not authorize any Federal official to exercise any direction, supervision, or control over, or impose any requirement or condition with respect to the personnel, curriculum, methods of instruction, or administration of any institution.

Section 727. Regulations

This section authorizes the Surgeon General to prescribe general regulations covering eligibility of institutions, order of priority in approving applications, determinations of the amounts of grants, minimum standards of construction and equipment for various types of institutions, and other necessary matters in con-

nection with the program established under this part. The Surgeon General is required to consult with the Advisory Council established under section 725 of the bill before prescribing regulations under this section.

Section 728. Technical assistance

This section authorizes the Surgeon General to provide technical assistance and consultative services to State or interstate planning agencies established for the purposes of planning of programs for relieving shortages of training capacity in health fields.

PART C—STUDENT LOANS

This part establishes a temporary program providing loans up to \$2,000 per year for students of medicine, dentistry, or osteopathy similar in general outlines to the student program established under the National Defense Education Act of 1958.

Section 740. Loan agreements

This section authorizes the Secretary of Health, Education, and Welfare to enter into agreements with schools of medicine, osteopathy, or dentistry for establishment and operation of student loan funds in accordance with this part. The agreements must provide that the school will deposit in the loan fund at least \$1 for every \$9 of Federal funds deposited in the loan fund, with the total fund used for loans to students at the school. They must also provide that while the agreement remains in effect, no student who has attended the school, before July 1, 1966, shall receive a loan from a loan fund established under section 204 of the National Defense Education Act of 1958.

Section 741. Loan provisions

This section prescribes the terms and conditions on which loans may be made to students, and follows in general the pattern described by the National Defense Education Act, with modifications to meet special problems in the fields of medical, dental, and osteopathic education.

Subsection (a) provides that the maximum amount of any loan to a student may not exceed \$2,000 for any academic year. Preference is to be given in the granting of such loans to students who enter school as first-year students after June 30, 1963.

Subsection (b) provides that the schools shall determine the terms and conditions of the loans not otherwise prescribed in, or pursuant to, this part, but requires that loans be made only to students who are in need of the amount thereof in order to pursue a full-time course of study leading to a degree of doctor of medicine, doctor of dentistry or an equivalent degree, or doctor of osteopathy.

Subsection (c) provides that loans will be repayable over a 10-year period in equal or graduated installments beginning 3 years after the student ceases to pursue a full-time course of study. This subsection also provides that loans are not required to be repaid, and interest will not accrue thereon, during periods (not in excess of 3 years) of service in the uniformed services, or as a volunteer under the Peace Corps Act. This follows the general pattern of the National Defense Education Act of 1958.

Subsection (d) provides that loans will be canceled upon the death or permanent and total disability of the student.

Subsection (e) provides that loans will bear interest on the unpaid balance of the loan, computed only for periods during which the loans are repayable. The rate of interest will be whichever is higher, 3 percent per annum, or the "going Federal rate," which is to be determined annually by the Secretary of the Treasury on the basis of market prices of long-term Federal obligations.

Subsection (f) provides that, in general, loans are to be made without security.

Subsection (g) provides that notes given as evidence of the loan may not be assigned except to another school if the borrower transfers to such other school.

Subsection (h) provides that where a loan is canceled by reason of death or disability, the Secretary will pay to the school the school's proportionate share of the canceled loan.

Section 742. Authorization of appropriations

This section authorizes appropriations and prescribes the manner in which appropriated amounts will be allocated among institutions having in effect loan agreements with the Secretary.

Subsection (a) of this section authorizes appropriations beginning with \$5,100,000 for the fiscal year ending June 30, 1964, increasing to \$15.4 million for

the fiscal year ending June 30, 1966. Appropriations for the fiscal year ending June 30, 1967, and for the next 2 fiscal years will be in such amounts as may be necessary to provide funds for loans to students who have received loans for any academic year ending before July 1, 1966, in order to enable these students to continue or complete their education.

Subsection (b) of this section provides for apportionment of appropriations among schools. If the total of the amounts requested by schools in applications submitted to the Secretary under this subsection does not exceed the total of the amounts appropriated, each school will receive the total amount which it requests in its application. If the total of the applications exceeds the total of the amounts appropriated, each school will receive an amount equal to whichever is the lesser, the amount requested in its application, or an amount proportionate to the number of students at such institution in relation to the total number of such students through the United States.

Section 743. Distribution of assets from loan funds

This section provides that as of September 30, 1969, and quarterly thereafter, amounts in loan funds derived from Federal contributions, deposits by an institution, repayments of principal and interest, and earnings of the fund shall be divided between the United States and the school in the proportion which the Federal contributions and the school's contributions bear to the total of those deposits made into the fund.

Section 744. Loans to schools

This section authorizes loans to schools to help finance the deposits in the student loan fund required of them by section 740 of this part, but only if the school is unable to secure necessary funds from other sources upon reasonable terms and conditions. Such loans will bear interest at a rate sufficient to cover the cost of the funds to the Treasury, plus administrative expenses.

Section 745. Administrative provisions

This section authorizes the Secretary to agree to modifications of agreements entered into with schools, or of loans made to students or schools under this part, and permits the Secretary to compromise, waive, or release any right or demand of the United States arising under this part.

SECTION 3. RESEARCH FACILITIES

This section consists of two subsections, amending title VII of the Public Health Service Act, which relates to grants for construction of health research facilities.

Subsection (a) of this section provides that the provisions of the Davis-Bacon Act shall apply with respect to the construction of facilities for research, or research and related purposes in the sciences related to health.

Subsection (b) adds a new section 711 to the existing provisions of title VII of the Public Health Service Act dealing with construction of health research facilities.

The proposed new section 711 authorizes the Surgeon General to provide assistance in planning and designing the construction of facilities for the conduct of research, or research and related purposes, in the sciences related to health.

The CHAIRMAN. I am sure we all agree with the eminent British statesman, Benjamin Disraeli, when he declared, about a century ago, that the health of the people is really the foundation upon which all the happiness and all their powers as a state depend.

We know, too, that our health depends on having an adequate supply of well-trained health manpower.

We have convincing evidence that we face a shortage of health personnel unless we move now and move without delay to expand our training capacity.

This fact has been documented by several outstanding groups of consultants, and I shall include a summary of the findings of these consultants at this point in the record.

(The summary referred to follows:)

SUMMARY OF SELECTED STATEMENTS AND REPORTS ON THE NEED FOR EXPANSION OF MEDICAL AND DENTAL SCHOOL FACILITIES

"Medicine, Mobilization and Manpower" (by Howard A. Rusk, Chairman, Health Resources Advisory Committee, National Security Resources Board. February 12, 1951)

Dr. Rusk found that to meet the Nation's needs for medical manpower in 1954' assuming a period of partial or complete mobilization, would require in that year about 22,000 additional physicians over and above those then in sight—6,000. This would provide for maintaining the present physician-population ratio and also meet needs in civil defense, industry, public health services, rehabilitation services, medical school staff, and the Armed Forces. Dr. Rusk recommends acceleration of medical education as well as the expansion of medical school enrollment.

"Dentistry, Mobilization, and Manpower" (by Leo J. Schoeny, Health Resources Advisory Committee, National Security Resources Board. March 1951)

To meet the Nation's needs for dentists in 1954, assuming a state of partial or complete mobilization, would require in that year about 9,200 new dentists over and above those expected at the present level of training—2,900. This would provide for maintaining the existing ratio of dentists to population as well as meeting the needs in civil defense, expanded industrial activities, public health departments, dental school facilities, and the Armed Forces. Dr. Schoeny recommended expansion of existing dental schools, establishment of new schools, and acceleration of dental education by elimination of summer vacations.

"President's Commission on the Health Needs of the Nation" (Magnuson Commission). 1952

The Magnuson Commission found that the expected supply of physicians and dentists in 1960 would fall far short of the number needed to meet the need of the American people for services. The Commission recommended that Federal funds be made available for the expansion of existing schools of medicine and dentistry and for the development of new schools in areas of the country in need of such schools.

"Report of the Secretary's Consultants on Medical Research and Education" (Bayne-Jones Committee). 1958

The Bayne-Jones Committee concluded that a reasonable national goal for the output of physicians would be to maintain the 1955 ratio of 132 M.D.'s per 100,000 population. To maintain this ratio, the output of physicians (M.D.) would have to be increased from 6,800 in 1956 to 8,700 a year in 1970. Expansion of existing medical schools might be expected to provide about 700 graduates; the remaining 1,200 would need to be produced by 14 to 20 new medical schools. The Bayne-Jones Committee also saw a need for some 26 new dental schools by 1970 to reestablish the 1955 ratio of dentists to population. In the absence of private or State support on an unprecedented scale, large Federal appropriations would be required to meet these goals.

"Surgeon General's Consultant Group on Medical Education" (Bane Committee). 1959

The Bane Committee set as a goal for 1975 the maintenance of the 1959 ratio of physicians to population. To meet this goal would require an increase in the graduates of schools of medicine and osteopathy from the existing 7,400 to about 11,000 by 1975. Existing and planned schools could, with adequate financing and construction aid, add about 1,000 graduates. The balance would have to come from an equivalent of 20 to 24 new 2-year and 4-year schools. The Committee recommended a 10-year program of Federal matching grants to help in the expansion of existing medical schools and the construction of new schools.

"Committee of Consultants on Medical Research" (Jones Committee). 1960

The Jones Committee endorsed the recommendations of the Bane Committee for training additional physicians and dentists and recommended Federal scholarship assistance for these categories of health personnel.

"Toward Quality in Nursing" Report of the Surgeon General's Consultant Group on Nursing (Eurich Committee). 1963

The Consultant Group found that the Nation faces a critical problem in insuring adequate nursing services in the years ahead. There must be a major expansion of training programs. Basic baccalaureate degree programs must double their graduates by 1970, requiring the equivalent of 30 or more new collegiate nursing schools. Lack of adequate financial resources is a basic problem. Nursing has not been successful in commanding adequate private support despite diligent effort. In the judgment of the Consultant Group, if the nursing problem is to be solved, there is no alternative to Federal aid.

The CHAIRMAN. May I say that the patient's crucial need at this time is for therapy. We need action to give us more health personnel, and we need to give our talented young men and women more opportunities to enter our health profession.

Senator Javits is under compulsion to go to another committee, and there is a little statement that we would be glad to have him make to this point.

Senator JAVITS. Thank you, Mr. Chairman.

I just wish to express the appreciation which I feel and which I believe is felt very widely in my State of New York for the hearings which are being held and, therefore, the enhanced prospects for enacting H.R. 12 or S. 911 at this session of Congress.

I have had a great many calls from hospitals and medical authorities and civic authorities in New York, urging action, and I think all of us are grateful to the Chair for opening the door to action. The enactment of this legislation could be one of the most significant achievements of this session of Congress.

I am very grateful to the Chair for allowing me to make this brief statement.

The CHAIRMAN. Thank you, Senator Javits. Thank you very much.

We are delighted this morning to have with us Mr. Boisfeuillet Jones, Special Assistant for Health and Medical Affairs of the Department of Health, Education, and Welfare, and Dr. Luther Terry, Surgeon General of the U.S. Public Health Service.

Mr. Jones, will you and Dr. Terry come around, please?

STATEMENT OF BOISFEUILLET JONES, SPECIAL ASSISTANT FOR HEALTH AND MEDICAL AFFAIRS, U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY DR. LUTHER TERRY, SURGEON GENERAL, U.S. PUBLIC HEALTH SERVICE

The CHAIRMAN. Now, Mr. Jones, we will be happy to have you proceed in your own way.

Mr. JONES. Thank you, Mr. Chairman.

Mr. Chairman, the legislation before your committee today is one of the most important and urgently needed health measures to be considered by the Congress in recent years. It gives me great satisfaction, therefore, to appear before you to support its early enactment.

While the three related bills under consideration—S. 911, S. 470, and H.R. 12—differ in some respects, their common features and their common objectives are far more significant than their differences.

It is particularly gratifying that one of the bills under consideration, H.R. 12, is a House-passed measure. Thus, this hearing marks not the beginning of congressional consideration of this urgently needed

legislation but one of the final steps required to inaugurate a program of action.

Indeed, this hearing represents far more than the second stage of a two-stage legislative process. As you well know, Mr. Chairman, it reflects more than a decade of ever-increasing need, of legislative recommendations by our Department under successive administrations, and of legislative action by committees in both the Senate and the House of Representatives.

In view of this legislative history, there is little need for me to review in detail the justification for or the alternative approaches to Federal action. Rather, I should like very briefly to summarize the salient points regarding our increasing national shortage of professional manpower and the key features of the legislation before your committee.

As a supplement to this brief statement, I shall submit for the record a section-by-section analysis of H.R. 12 which may be helpful in your more detailed consideration of the bill's provisions.

NEED FOR LEGISLATION

The importance of an adequate supply of medical manpower is too evident to require much further documentation. No matter how many hospitals, clinics, and nursing homes we may build—or how many new health programs we may establish—these facilities and these programs can provide care and treatment for the ill only through the skilled hands of professionally trained personnel. The quantity and quality of health services available to the American people depend, in the final analysis, on the quantity and quality of our medical manpower.

The development and maintenance of an adequate and well-qualified manpower supply must therefore be our primary health concern, regardless of which particular health problems may occupy our immediate attention.

What, then, is the present status of our medical manpower supply? Do we have at least an adequate supply? Are we producing at a rate commensurate with our expanding needs?

The answers to these critical questions are clearly in the negative. The overwhelming evidence of supply and demand projections, underscored by the conclusions of several special studies of the problem, points to one inescapable conclusion—our professional manpower is already in short supply and the shortage will become much more acute in the near future unless there is a major enrollment expansion in schools preparing personnel for the key health professions.

Just to keep pace with population growth—the most conservative index of our manpower needs—will require a 50-percent expansion in the number of physicians in training by 1975 and a 100-percent expansion in dental school enrollments. This major expansion, let me repeat, is needed if we are to maintain even our present ratio of physicians to population.

These ratios of professional manpower to population do not reveal the full picture of our need for greatly expanded school enrollments, however.

In the first place we have not, for several years, been training enough new physicians in American schools to keep pace with our

population growth. Our ratio of physicians to population has been maintained at a relatively even level only because we have drawn heavily in recent years on the graduates of foreign medical schools.

Of the total number of physicians first licensed to practice last year, 19 percent—nearly 1 out of every 5—were graduates of foreign schools.

In addition, substantial numbers of foreign school graduates are serving as interns and residents in hospitals all over the United States.

In the second place, projected population trends for the near future make it clear that—even if we continue to import one-fifth of our annual increment of new physicians, and even if our own school enrollments continue to expand at their current growth rates—our ratio of physicians to population will decline significantly.

The actual decline in ratios from one year to another may appear so small as to warrant no alarm, but even minor changes in these national ratios take on new significance when translated into other terms.

For example, a drop from 140 to 139 physicians per 100,000 population means a difference of nearly 2,000 physicians—or 1 year's graduating class of 20 medical schools.

To put it another way, it means that there will be a national increase of a million and a half people to be cared for by the same number of physicians. Viewed in these terms, our slowly declining ratios truly warrant national concern.

This concern is heightened by the inevitable timelag involved in any corrective action we may take. Six to eight years will elapse from the time when the first steps are taken to establish a new medical school and the date when its first graduates will be added to our national supply of practicing physicians.

Finally, our present manpower ratios are not good enough for the future. Because of the giant strides that have been made through medical research, we know how to do much more for people who are sick or disabled.

Some of these new discoveries conserve professional time, but on the whole the application of our new knowledge requires more professional manpower per unit of population, not less. Then, too, our life-extending knowledge has led to increasing numbers—both absolutely and relatively—of older people in our population. These older people, with their greater burden of chronic illness and disability, require extra hours of medical attention.

Faced with these compelling needs, it is evident that we must undertake a major new effort to expand our sources of professional personnel. To meet even the minimum needs resulting from our population expansion will require the establishment of some 20 to 24 new medical schools, or their equivalent, during the next 10 years, and a similar expansion of our dental school capacity. Parallel expansions will also be required in other professional categories.

To effect so great an expansion program in so short a time will require an intensive effort. It will also require a major financial outlay, for the training of medical manpower is extremely costly—both to the school and to the student.

Just to build a new medical school, for example, will cost about \$10 million for the basic science facilities and another \$15 million or more if a new teaching hospital is required. Such an outlay, to which must be added the burdens of the annual instructional budget, is beyond

the resources of most universities. We are fortunate, indeed, that a few new schools have been established in recent years, but it is clear that existing sources of financing cannot possibly produce the major expansion that our national needs require.

Federal grants to defray part of the cost of construction seems a necessary and fully justified national action to stimulate expansion of the training capacity in our health professions schools.

But the cost barrier to expansion is not limited to school facilities. If we are to expand the enrollment capacity of our schools, we must also take action to assure that additional well-qualified applicants will be available to occupy these new facilities.

Today the high cost of a medical or dental education is a serious deterrent to potential applicants. At a number of schools, tuition for the 4-year course now totals over \$6,000. Including room and board and other living expenses, the total outlay for a medical degree will probably average around \$15,000 for students entering during the next few years. This, of course, is on top of the substantial expense for the 4 years of undergraduate college study.

Increased educational costs have not been offset by adequate financial aid to medical and dental students. Last year only 33 percent of the first-year medical students and a small percent of the dental students received any kind of scholarship stipend, compared with 53 percent of the first-year engineering students, 67 percent of the students in the biological sciences, and 70 percent of the students in the physical sciences.

Nine out of every 10 high-ability students in the biological and physical sciences received stipends; but only 4 out of every 10 high-ability medical students. Indeed, a low-ability student in the biological and physical sciences was more likely to have financial assistance than a high-ability student in medical school.

Those medical students who did receive financial aid usually received smaller amounts than did students in competing graduate fields. Half of the medical students received less than \$750. In contrast, the median award to graduate students in the biological sciences, physical sciences, and engineering was over \$2,000.

If medicine and dentistry are not to become careers available only for the sons and daughters of upper income families, the economic barriers to attend medical and dental schools must be lowered.

We see no prospect that non-Federal efforts alone, valuable though their contribution can be, will suffice to meet the need. A particular limiting factor in these efforts is the high cost of non-Federal loans currently available to the student.

PROVISIONS OF H.R. 12

The legislative proposals before you today recognize the dual barriers to expansion of our professional manpower supply and authorize a two-part program of Federal stimulation through financial aid for construction of schools and for costs to students.

CONSTRUCTION GRANTS

The House-passed bill contains three new construction grant programs to help build teaching facilities for medical, dental, and other personnel.

These new authorizations, each covering a 3-year period, would provide an aggregate of \$175 million in Federal appropriations for these facilities.

The first of these 3-year authorizations, totaling \$105 million, would be for the construction of new teaching facilities for the schools of medicine, osteopathy, public health, nursing, pharmacy, optometry, and podiatry. While the statutory language is not specific on this point, the legislative history indicates that the inclusion of seven categories of schools in this authorization does not necessarily mean that funds appropriated for any fiscal year will be available to schools in all categories. Rather, the eligibility of any category would be dependent upon a finding that (a) there is a national shortage of professional personnel in the category and (b) the limited capacity of existing teaching facilities is a major factor contributing to this shortage.

The second authorization, aggregating \$45 million over a 3-year period, would be for grants to aid in constructing new teaching facilities for dentists.

Other provisions of the bill define "new teaching facilities" to include both the facilities of new schools and the facilities needed to expand the enrollment capacity of an existing school. Such an expansion project must provide an increase in first-year enrollments of at least 5 percent or 5 students, whichever is greater.

Furthermore, the principal factor in determining priority among applications for such grants would be their relative effectiveness in expanding the capacity for training of first-year students.

The matching provisions relating to these new teaching facility grants also emphasize additional training capacity as the primary objective of these grants. Construction projects for new schools or projects which will provide "a major expansion of training capacity" in an existing school may receive up to two-thirds of construction costs.

Other projects may be awarded grants up to 50 percent of such costs, except that grants of up to 75 percent are authorized for graduate schools of public health. There is no statutory definition of what constitutes a "major expansion" because of the wide variation in the size of schools, but the legislative history of the bill indicates that an expansion of at least 15 or 20 percent, or 15 additional first-year student places, is contemplated.

The third construction grant authorization, totaling \$35 million for the 3-year period, would be for the construction of teaching facilities needed—in all of the categories covered by the bill—to replace or rehabilitate facilities which are "so obsolete as to require the school to curtail substantially either its enrollment or the quality of training provided."

Grants for such replacement or rehabilitation projects could not exceed 50 percent of construction costs, and priority would be based primarily on the relative inadequacy of existing facilities.

This authorization of only \$35 million is clearly not designed to provide Federal aid for all construction needed to modernize and improve existing school facilities. Rather, in a program aimed primarily at increasing our manpower production capacity, it is intended to provide help in only the more urgent cases, where failure to improve

existing facilities will seriously threaten existing enrollment capacity or quality of training.

STUDENT LOANS

The other major proposal contained in the bill would authorize a new program of loans for students in schools of medicine, dentistry, and osteopathy. Appropriations for this purpose would be authorized for 3 years—\$5.1 million for the first year, \$10.2 million for the second year, and \$15.4 million for the third year—plus such sums in subsequent years as may be needed to enable students receiving such loans to meet the costs of completing their professional education.

This loan program would follow the basic pattern of the program authorized by the National Defense Education Act, but its provisions are specially adapted to the needs of students undertaking the long and expensive training required for physicians and dentists.

Thus the maximum loan to any student would be \$2,000 per year, rather than \$1,000 under the National Defense Education Act program, and repayment would begin 3 years after graduation, as compared with 1 year under the National Defense Education Act. The rate of interest would be slightly higher than the 3 percent applicable to National Defense Education Act loans.

As in the case of the National Defense Education Act program, the schools would administer the loan program, and would be required to provide at least 10 percent of the total loan fund. Parallel provisions are also included with respect to deferment of repayment during periods of service in the uniformed services or with the Peace Corps, but there is no "forgiveness feature" in H.R. 12 comparable to that provided for teachers under the National Defense Education Act program.

The bill also includes a provision to prevent duplication between the new loan program and the National Defense Education Act loan program.

EVALUATION AND RECOMMENDATION

In our opinion, these provisions contain the essential elements for launching an effective program to strengthen and improve our supply of professional health manpower. They provide substantial Federal aid at the two points where such aid is most clearly needed and appropriate—construction of facilities to train more personnel, and aid to help qualified students overcome the financial barrier to professional training.

I do not mean, of course, that even our minimum goals can be achieved in 3 years with the aggregate amounts of Federal aid authorized in the bill. It will take a much longer time and much greater expenditures to reach these goals. But this bill is designed to launch an effective program, not to complete it. This purpose was succinctly stated in the following excerpt from the House committee report:

The committee wishes to emphasize, however, that in substituting 3-year programs, it does not anticipate completion of these programs in their entirety within this period. On the contrary, it believes that extensions of the initial 3-year programs will be necessary in order to achieve fully the objectives of this legislation.

In the opinion of the committee, the programs contemplated by this legislation demand periodic review by the Congress if their administration and operations are to be satisfactorily adjusted to meet changing needs and conditions. Hence,

the more limited duration of the programs is simply a manifestation of the committee's intention to maintain the necessary congressional control.

We regard this as an entirely reasonable approach to this major national problem. In somewhat different terms, it underscores the points I stressed at the outset of this statement. Let me restate them in conclusion:

The national need is urgent today, and it is becoming more urgent with every passing year. The Federal Government need not assume the full additional burden of cost, but we cannot attain even our minimum goals unless the Federal Government adds its strength and its leadership to the efforts of others. Reasonable men may differ as to the form and extent of Federal participation, but the alternative approaches have been fully discussed and evaluated—both in the Congress and in the executive branch—for more than a decade.

What is clearly called for now is a program of action—both to get on with the job that must be done, and to provide actual program experience with which to clarify our needs and to develop improved program approaches and methods.

We believe that H.R. 12 meets these immediate requirements in every essential respect. We therefore urge its enactment at the earliest possible date.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Jones, you have given an excellent statement. You did not leave any room for questions, did you?

I would certainly like to commend you on your statement.

Mr. JONES. Thank you, Mr. Chairman.

The CHAIRMAN. In connection with the need which you have so eloquently presented I have the following statement from the American Cancer Society which I shall put in the record at this point.

(The statement referred to follows:)

STATEMENT OF THE AMERICAN CANCER SOCIETY

We already have the scientific knowledge necessary to save fully half of the 450,000 persons in this country who each year develop cancer. We are, however, saving only approximately one-third of these. In other words, we have the medical and scientific know-how to save an additional 75,000 persons who each year die of cancer. To accomplish this we need not only the understanding and cooperation of the public but also more physicians to conduct the regular thorough physical examinations upon which the early diagnosis of cancer so largely depends.

That corroborates and confirms what you have told us here this morning, Mr. Jones.

I will ask you one question and that is this: I recall that the Surgeon General's consultants on nursing several months ago made a report which included recommendations for legislation, and the press indicated that it was proposed to send up legislation in the nursing field.

When do you expect this legislation to be sent forward?

Mr. JONES. Mr. Chairman, the study of this consultant group has been completed and submitted to the Surgeon General.

He and his staff, and the staff of the Department, have been very hard at work fashioning legislative proposals to take into account this consultant group's recommendations.

This study is underway. We are making progress, and we do anticipate, as has already been made clear by the President, the submission of recommended legislation for your consideration at some time in the future, not too distant.

The CHAIRMAN. Not too distant?

Mr. JONES. Yes, sir.

The CHAIRMAN. I think I should say for the record, Mr. Jones, that you were Chairman of what we usually know as the Jones Committee of Consultants.

That was a committee set up by the Senate Committee on Appropriations, and it was made up of very eloquent and distinguished doctors and scientists and men in the fields of medicine and science.

You spent nearly a year making your study, making your report, and you went into the need for additional health personnel. That report, I must say, shows how clearly you thought through this problem, and it confirms all that you have said to us here this morning.

Mr. JONES. Thank you, Mr. Chairman.

What was said in that report is just as true now except that we are 3 years late in trying to handle these problems.

The CHAIRMAN. Well, the report is not 3 years late. We are 3 years late in implementing the report.

Mr. JONES. That is the point.

The CHAIRMAN. We are 3 years late in bringing about the action that we need to carry out the findings and the recommendations in the report. Is that correct?

Mr. JONES. That is correct.

The CHAIRMAN. The report is still most timely. What we need now is action.

Mr. JONES. That is correct, and the action is late in relation to the report.

The CHAIRMAN. Senator Williams?

Senator WILLIAMS. No questions.

The CHAIRMAN. Senator Pell?

Senator PELL. Thank you, Mr. Chairman.

I notice that you said:

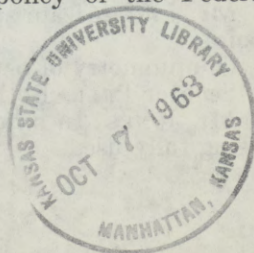
Indeed, a low-ability student in the biological and physical sciences was more likely to have financial assistance than a high-ability student in medical school.

What is the reason for that?

Mr. JONES. This is because there is a great deal more in the way of scholarship assistance for those who need help in the natural and physical sciences, other than medicine, than is available in medicine.

Therefore, the level of ability which can be covered with much more adequate support goes lower in those fields than is true in medicine, where the amount of help is so limited that it is given only to the highest-ability student.

Senator PELL. Is this as a result of the policy of the Federal Government, or what is the reason?



Mr. JONES. I do not know how one defines "policy of the Federal Government," but the fact is that the agencies of the Federal Government are providing approximately 10,000 fellowships for graduate students in engineering, the physical sciences, and related sciences, while they are providing none for students in medical schools.

These are stipends that assist in graduate education and related fields, and to a great extent pay a very large portion of the cost to the student.

Senator PELL. Is that because the Federal Government considers this an expenditure in research?

Mr. JONES. It is because the shortage in these fields was recognized and an answer was found and solution in programs authorized by the Congress for the Federal agencies who needed these very scarce personnel.

The Congress has not done likewise in medicine and dentistry.

Senator PELL. Why shouldn't the same program be applied to medicine and dentistry, particularly for those doing research?

Mr. JONES. This would be very helpful, but it is not the vehicle that we are discussing as of now.

The administration has made very clear its feeling that additional help should be required but we are speaking now very practically to a bill that does represent a beginning in meeting this critical need. Therefore, the administration is happy to endorse the judgment of the Congress as to a practical approach at this time to this problem.

Senator PELL. I have two further questions:

One, I recall some time back the statement was made that a very large percentage of students in medical schools come from families of median income of around \$10,000, indicating that bright young men and women of low-income families were very much precluded from that education.

Do you recall what that percentage was?

Mr. JONES. Yes, Senator Pell.

Forty-three percent of students in medical schools come from the 12 percent of American families whose incomes exceed \$10,000.

Senator PELL. I see. And also is it not true that the entry grades in the medical school requirements have decreased in the last 10 years—

Mr. JONES. That is true, according to the information that we have.

Senator PELL. In other words, so that a B student can get in—

Mr. JONES. A good B student can get in where it used to take a good A student, but it goes down a step or two.

Senator PELL. And some of these vacancies have not been filled, have they?

Mr. JONES. Well, there are some medical schools that are having difficulty recruiting well-qualified students.

There are, as far as I know, very few unfilled freshmen places in medical schools.

Senator PELL. How about in the optometry schools?

Mr. JONES. I am speaking primarily of schools of medicine at this point.

Of optometry or osteopathy?

Senator PELL. Both.

Mr. JONES. In optometry I understand that their capacity is not being fully used.

In osteopathy I understand that the capacity is relatively fully utilized.

Senator PELL. Thank you.

The CHAIRMAN. Senator Kennedy?

Senator KENNEDY. Mr. Jones, this second authorization provides for matching grants to the dental schools and certainly the thrust of your whole statement indicates the great need for this and the shortage in this area. I was wondering, in your research and study, whether you consider the needs of some of the newer dental schools, and the difficulties they are going to have in being able to meet the commitment of matching funds.

I am thinking, in my own State, of Tufts Dental School, which is trying to expand and develop its program. It would be handicapped to a great extent by the kind of matching limitation, whereas some institutions might not be in as dire need. Since the purpose of this legislation is to try and meet these new needs and try to stimulate further growth, both as to facilities and as to students, I am wondering if you considered that. If you could address yourself to this problem I would appreciate it very much.

Mr. JONES. I think, Senator Kennedy, your concern is with the ability of the applicants to meet the matching need and, therefore, some variable scale in the provision for assistance.

This is a problem that confronts the administration in grant-aid programs in many areas.

I think the problem that you refer to is one that cannot readily be handled by a sliding scale.

The priorities of grants will be related to the relative need of the schools and their location, and the significance of the expansion contemplated by the facilities.

But the formula of matching funds recognizes that the Federal Government is providing only a stimulatory grant that pays part of the cost. The Federal Government's policy has not yet undertaken to carry the full cost.

There is a departure in this program in that two-thirds of the cost of major expansion of an existing school or construction of a new school will be provided by the Federal Government, which is somewhat of a departure from other comparable programs.

On the other hand, it does relate to a desire to go a little further than has been customary in the past in recognizing these needs.

Senator KENNEDY. Can you see, in your concern to provide these facilities, any hardship that would come from following a previously set pattern in regard to procedures for grants—

Mr. JONES. The law says that you can provide from the Federal grant up to 50 percent, according to the need, or up to 66½ percent.

You do not automatically provide the full 50 or the full 66½ percent.

As a matter of practice, most applicants can make the case that they cannot proceed without the full amount, so that the maximum generally becomes the practice, but it is the ceiling that represents the point beyond which the Federal Government cannot go.

And I think this probably is perfectly acceptable and a reasonable role for the Federal Government at this stage in the development of the expansion program.

Senator KENNEDY. Thank you, Mr. Chairman.

The CHAIRMAN. Any further questions?

We are very happy to have had you with us, Mr. Jones.

We are also happy to have with us today the Surgeon General of the U.S. Public Health Service, Dr. Luther Terry.

Doctor, is there anything you would like to say?

Dr. TERRY. Mr. Chairman, I do not have anything specifically to add except to add my complete endorsement to Mr. Jones' formal statement and his subsequent testimony.

I think the important thing for us all to realize today is that we have talked and talked and talked over this issue for many years, and we are getting into more serious trouble every year by not acting.

And I would plead with this committee and with the Congress to get ahead with this urgent national need, and to give us some tools with which to work so that we can face these manpower problems in the field of health.

The CHAIRMAN. Any questions?

Senator WILLIAMS. Yes, Mr. Chairman.

Dr. Terry, the bill provides for assistance to 2-year schools that are expanding to 4-year institutions.

There are nursing schools, I am advised, that are 3-year or which have a 3-year program that might want to go to a 4-year program.

It is specified here 2 to 4. Are they to be included in the program?

Would that mean that the 3-year, the one in between, would be subsumed here and would be eligible for a grant under these provisions?

Dr. TERRY. I do not know that I can give you a specific interpretation to this question.

However, I think you realize that the provisions of the bill would include degree schools of nursing.

The other factor, of course, which would come into consideration is the question of expansion of enrollment or a new school.

So that these factors would have to be borne in mind, and I am not certain what decisions would be made in an individual instance of a school changing from a nondegree 3-year nursing school to a 4-year degree nursing type of school.

Senator WILLIAMS. Well, assume it is a 3-year degree school.

Dr. TERRY. I beg your pardon?

Senator WILLIAMS. If you assume that it is a 3-year degree program going to 4 years, what about it then?

Dr. TERRY. It would primarily depend, therefore, in my opinion, not having gone into this in detail, upon the question of expanded enrollment in relation to these and other facilities available in the field of nursing.

Senator WILLIAMS. That is all.

The CHAIRMAN. Senator Pell?

Senator PELL. Am I correct in saying that this bill would not be of help to hospital schools of nursing?

Dr. TERRY. That is correct, sir.

Senator PELL. What is the reason behind that thought?

Dr. TERRY. Inasmuch as the bill has dealt with the professional training at the degree level, collegiate level nursing training was added as well to make provision for this most advanced type of nursing training which is so critical to the developments in the field.

Senator PELL. But do not the nurses who train in a hospital get a degree, too?

Dr. TERRY. No; they get a diploma, generally speaking, and do not get a bachelor's degree such as many of our schools of nursing do.

Senator PELL. I see. Well, is this then not a hardship on those areas where a majority of nurses get their degree in a hospital because that is the nearest available form of training?

Dr. TERRY. I think I should refer back to Mr. Jones' response to Senator Pell's question earlier.

As you will recall, earlier in this year our committee on nursing training and education—a consultant committee to the Public Health Service which had been working for a year and a half studying this matter—reported to us.

We are in the process now of studying all of our needs in the nursing training and education which would involve the diploma type of nursing.

We would expect in the very near future to have specific proposals before the Congress to cover these other areas beyond any provisions for the degree nursing education assistance in this act.

Senator PELL. That will be welcomed in many areas, I believe.

I have one other question.

This bill would be of very real help to universities who wanted to start a 2-year medical school program, would it not? Such a program is being contemplated by one of our excellent universities in Rhode Island, Brown University.

Dr. TERRY. It would be of tremendous help to any school starting either a 2-year or 4-year program.

Senator PELL. But it fully covers a 2-year school?

Dr. TERRY. Sir?

Senator PELL. It fully covers a 2-year school?

Dr. TERRY. Yes, sir. Two-year schools are specifically included.

One of our real problems in terms of manpower is that, for instance, in medicine, it is difficult to expand our first 2 years of medical training. If more people have completed the first 2 years, the second 2 years of medical schools can be more easily expanded.

So that we would like specifically to establish 2-year schools as well as 4-year schools.

Senator PELL. Thank you.

Dr. TERRY. Thank you, sir.

The CHAIRMAN. Senator Kennedy, do you have any questions?

Senator KENNEDY. No questions.

The CHAIRMAN. I have here a table showing the number of schools and enrollments in these schools from 1950 down to date in the different professional categories covered by the bill.

I think it might be helpful to have it in the record.

Without objection, we will put it in the record at this point.

(The table referred to follows:)

TABLE 1.—*Schools of medicine and osteopathy, United States and Puerto Rico*

Academic year	Medicine		Osteopathy	
	Number of schools	Enrollment	Number of schools	Enrollment
1950-51	79	26,186	6	1,876
1951-52	79	27,076	6	1,928
1952-53	79	27,688	6	1,917
1953-54	80	28,227	6	1,897
1954-55	81	28,583	6	1,867
1955-56	82	28,639	6	1,883
1956-57	85	29,130	6	1,866
1957-58	85	29,473	6	1,921
1958-59	85	29,614	6	1,942
1959-60	85	30,084	6	1,915
1960-61	86	30,288	6	1,944
1961-62 ¹	87	31,078	5	1,561

¹ In 1962, the College of Osteopathic Physicians and Surgeons became an accredited medical school, the California College of Medicine.

TABLE 2.—*Schools of dentistry, United States and Puerto Rico*

Academic year	Number of schools	Enrollment	Academic year	Number of schools	Enrollment
1950-51	42	11,891	1956-57	45	13,004
1951-52	42	12,169	1957-58	47	13,279
1952-53	42	12,370	1958-59	47	13,509
1953-54	43	12,516	1959-60	47	13,581
1954-55	43	12,601	1960-61	47	13,580
1955-56	43	12,730	1961-62	47	13,513

TABLE 3.—*Collegiate schools of nursing, United States and Puerto Rico*

Academic year	Baccalaureate, number of programs	Enrollment	Associate degree	
			Number of programs	Enrollment
1951-52	198	10,921	(1)	(1)
1952-53	198	12,549	21	1,232
1953-54	214	14,488	30	1,463
1954-55	146	14,815	34	1,507
1955-56	154	17,286	19	1,084
1956-57	161	18,518	20	1,132
1957-58	165	18,616	28	1,360
1958-59	171	19,195	38	1,904
1959-60	170	19,813	48	2,345
1960-61	172	20,783	57	3,254
1961-62	174	22,546	69	3,860

¹ Not available.

TABLE 4.—*Schools of public health, United States and Puerto Rico*

Academic year	Number of schools	Enrollment	
		Graduate and special	Undergraduate
1949-50	9	844	395
1950-51	10	823	(1)
1951-52	10	909	(1)
1952-53	10	908	(1)
1953-54	10	1,014	(1)
1954-55	10	1,069	(1)
1955-56	11	1,028	438
1956-57	11	1,159	536
1960-62 ²	11	1,489	328

¹ Not available.

² Does not include the new school opened in 1960.

TABLE 5.—*Schools of pharmacy, United States*

Academic year ¹	Number of schools	Enrollment (last 3 classes) ²
1958-59	76	12, 273
1959-60	76	12, 506
1960-61	76	13, 606
1961-62	76	10, 827
1962-63	76	10, 632

¹ Data not available for earlier years.² Enrollments for other than the last 3 academic classes have little significance because of the transition from a 4-year to a 5-year program.TABLE 6.—*Schools of optometry, United States*

Academic year	Number of schools	Enrollment	Academic year	Number of schools	Enrollment
1950-51	10	2, 435	1956-57	10	1, 175
1951-52	10	2, 015	1957-58	10	1, 155
1952-53	11	1, 959	1958-59	10	1, 136
1953-54	12	1, 631	1959-60	10	1, 235
1954-55	12	1, 396	1960-61	10	1, 168
1955-56	11	1, 233	1961-62	10	1, 422

TABLE 7.—*Colleges of podiatry, United States*

Academic year	Number of schools ¹	Enrollment
1951-52	6	1, 633
1955-56	6	700
1961-62	5	472
1962-63	4	496

¹ An additional school is scheduled to open in the fall of 1963.

The CHAIRMAN. Well, Mr. Jones and Dr. Terry, we thank you very, very much.

Mr. JONES. Thank you, Mr. Chairman.

Dr. TERRY. Thank you, Mr. Chairman.

The CHAIRMAN. Now, the American Dental Association.

Dr. James P. Hollers, president-elect, who is from San Antonio, Tex., and Dr. Hollers is accompanied by Mr. John B. Wilson of San Marino, Calif., a member on the council on legislation, and Dr. Lester W. Burket, of Philadelphia, Pa., a member of the Council on Dental Education and dean of the School of Dentistry of the University of Pennsylvania.

STATEMENT OF DR. JAMES P. HOLLERS, PRESIDENT-ELECT, AMERICAN DENTAL ASSOCIATION; ACCOMPANIED BY DR. JOHN B. WILSON, MEMBER, COUNCIL ON LEGISLATION; DR. LESTER W. BURKET, MEMBER, COUNCIL ON DENTAL EDUCATION; BERNARD J. CONWAY, ASSISTANT SECRETARY FOR LEGAL AFFAIRS, AND HAL M. CHRISTENSEN, DIRECTOR, WASHINGTON OFFICE

Dr. WILSON. Mr. Chairman and members of the committee, my name is Dr. John B. Wilson, of San Marino, Calif. I am a private practitioner and a member of the American Dental Association's Council on Legislation.

With me are Dr. James P. Hollers of San Antonio, Tex., also a private practitioner and president-elect of the American Dental Association, and Dr. Lester W. Burket, dean of the University of Pennsylvania Dental School and member of the American Dental Association's Council on Dental Education.

Accompanying us are Mr. Bernard J. Conway, the American Dental Association's assistant secretary for legal affairs, and Mr. Hal M. Christensen, director of the association's Washington office.

The CHAIRMAN. Mr. Christensen, would you like to come up and have a seat at the table?

Mr. CHRISTENSEN. Thank you, sir.

Dr. WILSON. Mr. Chairman, the American Dental Association strongly and urgently supports the Health Professions Educational Assistance Act of 1963, as passed by the House of Representatives.

In support of our position, Mr. Chairman, Dr. Hollers will tell your committee something of the pressing problems facing dentistry and the public today, and Dr. Burket will comment on how the legislation you are considering will materially assist in the solution of those problems.

It is now my pleasure to introduce Dr. Hollers.

The CHAIRMAN. All right, Dr. Hollers.

Dr. HOLLERS. Mr. Chairman and members of the subcommittee, as you know, this is not the first time that the American Dental Association, which represents 85 percent of the Nation's practicing dentists, has appeared before you to discuss the pressing needs in dental education.

As before, we are grateful for this opportunity to tell you of some of the actions we feel must be taken to maintain and improve the Nation's dental health standards. The action that we believe must have priority is passage of the Health Professions Educational Assistance Act of 1963.

The two measures before the committee, S. 911 and H.R. 12, are well conceived and differ from each other only in minor respects.

The association believes that the amendments added in the House of Representatives, providing, among other things, for congressional review after a 3-year period, are wholly acceptable. It is recommended therefore that this committee give its approval to H.R. 12 as it passed the House of Representatives on April 24, 1963.

This measure is aimed at relieving what is probably the most critical problem in the health field today—the impending shortage of health personnel.

Look briefly, if you will, at the scope of the dental health problem in this country today:

Almost 160 million of our 185 million citizens have dental disease or face the certain prospect of suffering from some form of it, be it tooth decay, periodontal (gum) disease, oral cancer, malocclusion, or cleft lip and palate.

The best estimates are that 97 million persons have tooth decay; 25 million have acute periodontal disease; 24 million persons are without teeth; 16 million have malocclusion; 65,000 children under 18 have cleft palate, cleft lip, or both.

Twenty-three thousand persons develop oral cancer each year, with a present recovery rate that is among the lowest for any form of cancer.

It is estimated that 85 million man-hours of industrial production are lost annually owing to oral disease.

As the population of this Nation increases sharply, so does the size of this already burdensome health problem.

Something must be done now if we are to have any chance at all of maintaining even the status quo. Unless we have a substantial increase in the number of dental graduates, the present ratio of dentists to population will not be maintained beyond the early 1970's.

The urgency of the situation is further indicated by the fact that even were Congress to enact this measure today, it would be at least 1970 before the first medical or dental student could be trained to serve the public, since 2 to 3 years must be allowed to plan and construct facilities and then 4 years to educate the student.

If, on the other hand, the 88th Congress does not act, population growth and the demand for dental care will not thus cease. It will continue to grow and it will continue to outstrip the capacity to produce professional personnel. This will surely in turn be reflected in a deterioration in the availability of adequate dental health care for our people.

The Association is aware of the fact that the increased efficiency of the practitioner is a favorable factor in this situation. There is no question but that the dentist today is able to care for more patients in a given period of time than ever before. Indeed, the productivity increase over the past 10 to 12 years has been remarkable.

In the field of dental instrumentation we have been experiencing something akin to a revolution owing in large part to the switch from low-speed to high-speed cutting instruments. There has also been increased utilization of dental auxiliaries. Both trends will undoubtedly continue, particularly the latter, but we are now past the first impact of these changes and the future increases will stabilize at a lower, less dramatic figure. Productivity, in other words, will not increase infinitely.

Today, as I say, we graduate some 3,300 dentists a year. If we are graduating that same number in 1975 and still hope to maintain the same degree of professionally available care, each dentist will have to be doing twice as much then as he can do now. And that is a clear impossibility. The fact is that productivity is an aspect of the solution, but is not itself the solution.

Experts on population growth have predicted that by 1975 our Nation will have 235 million citizens. At the same time, that segment of the population under 15 years of age will have increased substan-

tially over its present proportion. Given the essential demand that dental care begin early and be consistent throughout the young years, this is an especially disturbing, even alarming, aspect of the problem.

In the long run, dental disease can only be brought under reasonable control through preventive means. It can never be done completely through restorative techniques. Indeed, it is the obvious superiority of preventive care over restorative care that leads the dental profession to lay such great stress on proper oral hygiene in the home, proper diets, dental health education in the schools, regular visits to the family dentist and the implementation of such public health measures as fluoridation.

The practice of preventive care presupposes three conditions: First, that there is a sufficient number of dentists; second, that there is an understanding upon the part of the public of the importance of dental health and its intimate relation to total health; and, third, that a person learns good dental habits and begins seeing the dentist early in life.

With today's ratio of dentists to population, it is difficult enough to practice preventive care to the degree every practitioner would desire. But what can we think when looking toward a time when the population will have grown greatly while the number of dentists remain stable; when rising education levels will have brought an increased appreciation of the need for regular dental care and when a much larger percentage of the population is composed of youngsters below the age of 15?

Under such circumstances, the task of restoring already diseased tissues would be formidable. Indeed, I doubt that we could maintain the present level of dental health. And the practice of preventive dentistry would be severely limited; the prospect of substantially raising our level of dental health would be dismal indeed.

Mr. Chairman and members of the subcommittee, that is the present state of dental health in the United States today. The profession is, generally speaking, meeting dental care demands today. But tomorrow, with an absolute increase in population and a proportionate increase in demand, is a different story altogether. One of the best weapons yet devised for meeting this coming problem is H.R. 12 as it was approved by the House of Representatives.

Now, it is my pleasure to introduce Dr. Burket, who will tell you precisely how H.R. 12 will benefit the American people and the profession.

The CHAIRMAN. Doctor, we will be happy to hear from you.

Dr. BURKET. Mr. Chairman, and members of the committee, it is my pleasure to indicate specific ways in which the passage would benefit the American people.

In the interest of conserving valuable time, I would like to briefly summarize my testimony and submit my prepared testimony for the record.

The CHAIRMAN. All right, Dr. Burket; you may proceed in your own way.

We will have your statement appear in full in the record.

(The prepared statement of Dr. Burket follows:)

PREPARED STATEMENT OF DR. LESTER W. BURKET, DEAN, UNIVERSITY OF PENNSYLVANIA DENTAL SCHOOL

Mr. Chairman and members of the committee; the provisions of H.R. 12 affecting dentistry are as follows:

The Federal Government would provide \$35 million over a 3-year period in matching grants for the construction of new dental schools.

A like amount in matching funds would be provided, again over 3 years, for replacement or rehabilitation of existing teaching facilities in dental schools as well as schools of other health professions.

A student loan fund would be established for young men and women studying to be dentists or members of other health professions. These loans may not exceed \$2,000 for any student in any academic year and shall be repayable over a 10-year period beginning 3 years after the student is graduated, at an interest rate matching the then current Federal rate.

Mr. Chairman, the funds provided in this bill reflect the fact that the top priority in dental education is for construction or "bricks and mortar" money to build new facilities and to renovate existing but obsolete dental teaching facilities. At present, we are graduating about 3,300 students a year, as Dr. Hollers has told you. By 1975, in order to maintain the present ratio of dentist to population, we need to be graduating 6,200 students a year. Existing schools, Mr. Chairman, simply cannot produce this increased number. To do it, we need to build new schools and to enlarge many of the existing ones.

The dental schools of the Nation recognize this need, Mr. Chairman, and have already made plans for the economical and efficient use of such funds as may become available to them. I think it is worth noting that the schools are not asking total Federal support. Rather, they are requesting Federal money to match the funds they are already committed to spend. In this connection, let me call your attention to a survey made in 1961 by the American Association of Dental Schools and the American Dental Association.

In that survey, the participating schools indicated plans to initiate dental teaching facility construction involving about \$70 million in the following 10 years. These schools also reported that if matching funds were available, they would be able to fulfill their part in a building program of approximately \$350 million.

Our association believes, Mr. Chairman, that the matching grant formulas as set forth in H.R. 12 are realistic and that the total authorization for dental school construction and renovation would be fully and wisely utilized.

The cost of building a new dental teaching facility is about \$7 to \$9 million. H.R. 12, then, would allow at best for the construction of about 5 to 7 new dental schools. We believe this would be a significant and much needed contribution.

Next in urgency to the need for construction funds, Mr. Chairman, is the need to help students bear the considerable financial burden of a dental education. The average cost to students of a 4-year dental education is well above \$15,000. This comes on top of the costs of the 3 or 4 years undergraduate education that is a requisite for entry into the professional school. Indeed, the most recent study indicates that with preprofessional college, dental school, and establishment of an office, the average cost totals about \$35,000.

The existing sources of financial aid for dental students are relatively few. Responding to a 1961 survey on financial aid for dental education, for example, 14 schools said they had no uncommitted loan funds and another 22 reported that the funds on hand amounted to less than \$10,000.

The American Dental Association, through the fund for dental education, has within the last 3 years granted \$200,000 for loans to dental students. There also is some help available under the National Defense Education Act. But it is much too little.

It is a fact that because of the high cost of obtaining the necessary education, the profession of dentistry remains closed to many qualified young people. In 1960, only about 12 percent of the Nation's families had an income of over \$10,000, yet a third of the dental students came from such families. Sixty-three percent of the Nation's families have an income of \$6,500 or less, but this group supplies only 33 percent of the dental students.

The education necessary to equip a person to practice dentistry is demanding, lengthy, and expensive. There unquestionably are many young people in this country who have the ability and desire to become capable members of the dental profession and are willing to make the effort and take the time necessary to do so. Lack of financial support should not be allowed to stand in their way.

If the standards of health in this country are to continue to be improved, some way must be found to let such young people pursue careers in the health professions. Achievement in this country is traditionally and rightly based on the ability and effort of the individual, not on the income of the individual's father.

H.R. 12 also should help alleviate to some extent the problem of unrealistic distribution of health personnel. Experience has demonstrated that a substantial proportion of dental graduates tend to establish practices in the States in which they were graduated. It is certain that a number of the States that do not now have dental schools will establish them if the Federal Government will share the costs of construction.

In the opinion of our association, Mr. Chairman, the dental manpower problem is national in scope and requires a remedy of equal dimension. At the present time, there are 48 fully operative dental schools located in 26 States, the District of Columbia and Puerto Rico. These 28 jurisdictions must not only supply the dentists for their own population, but also the dentists for the remaining 24 States.

A second national aspect to the dental manpower problem is that the Federal Government is itself a large consumer of dental services. The Armed Forces and other Government agencies exert considerable and continuous pressures on available dental manpower. Among the professions, only dentistry and medicine are subject to a special draft call.

Both private and public dental schools are finding it increasingly difficult to meet costs. Funds from local and State governments and private sources are not available in sufficient amounts to provide the needed educational facilities.

In our opinion, unless some assistance is forthcoming at the national level, no new private dental schools will be established and some of those now in existence will find it increasingly difficult to continue. Indeed, two such schools, at Buffalo and Kansas City, have already had to give up as private schools and become part of the public school system. The association believes this should not occur. An effort must be made to maintain privately endowed and operated schools in the dental educational system.

I would like to emphasize to the committee that our association recognizes and appreciates the great demands on the Federal Treasury. We would like to be able to say that the dental manpower problem can be solved with private, local, and State resources, but that simply isn't so.

It is an undeniable fact that the size of the problem is of such proportions that its solution requires national attention. We are firmly convinced that unless Federal funds are forthcoming, the impending decline in dental services for our fellow citizens and their children will be neither arrested nor reversed.

Mr. Chairman, the American Dental Association wishes to thank your committee for this time, and, in closing, again affirm our solid support for H.R. 12, as passed by the House of Representatives.

Dr. BURKET. There are three specific ways in which the provisions in H.R. 12 will benefit dental health.

It specifically provides \$35 million over a 3-year period on a matching basis for the construction of new dental schools.

In addition, it provides a like amount, \$35 million, in matching funds for the replacement or rehabilitation of existing dental schools as well as schools of other health professions.

And, lastly, it provides for student loans, that is, loan provisions for students in the health professions.

In the opinion of the Council on Dental Education top priority should be given to the fund for the construction of new schools and major expansion for existing obsolete schools as well as for the replacement and reequipping of existing facilities to permit the high level of the educational program to be continued.

The matching requirements for funds for construction and rehabilitation, as stated in H.R. 12, are fair and realistic.

The funds earmarked for new construction and enlargement of facilities will stimulate construction of five to seven new dental schools, which would provide from 500 to 600 new students.

A survey, conducted by the American Dental Association and the American Association of Dental Schools, indicated that necessary matching funds will be available.

It is our opinion that these funds could be wisely and effectively used.

I would like to now comment on the student loan provisions. These are particularly important for dental students, both from the standpoint of recruiting desirable candidates for dental schools and also for permitting those already accepted into dental programs to continue.

I would like to indicate that the cost for dental education from the time the student enters the preprofessional training, until he opens his office, is extremely expensive.

It costs the student \$6,000 to \$8,000 for his preprofessional course of study; between \$15,000 and \$18,000 for his professional education, and an estimated \$12,000 for the establishment of a dental office.

Thus, it seems that there is an investment, from the time the student enters preprofessional college until he sees his first patient of between \$33,000 and \$38,000.

The magnitude of the cost of dental education thus prevents many otherwise qualified applicants from even approaching the study of dentistry.

It should also be remembered that 68 percent of the students now enrolled in dental schools are from families with a total annual income of less than \$10,000.

This indicates the magnitude of the financial problem facing the average young man or woman who desires this professional study.

There are relatively few sources of funds for dental students, and they are insufficient to meet the need.

Three years ago the American Dental Association, through its Fund for Dental Education, did make provisions for loan funds for dental students, over \$200,000.

Local dental societies and State dental societies have also entered into the program to assist students in dentistry. However, these funds, however gratefully they are received, are totally inadequate or insufficient to meet our needs.

In a recent study 14 dental schools indicated that they had no uncommitted funds for student loans. Twenty-two schools indicated they had less than \$10,000 of uncommitted funds for student assistance.

Frankly speaking, dentistry as a profession is closed to many otherwise qualified young men and women purely because of the tremendous financial outlay it requires.

It has been the tradition of our great country that achievement is based on ability, and the effort of the individual and not upon the income of the individual's father.

It is hoped that the loan provisions, as provided in H.R. 12, will materially permit many qualified individuals to study this profession who otherwise would not be able to do so solely for financial reasons.

It is also likely that the loan provisions in H.R. 12 will encourage, to a considerable degree, the correction of the maldistribution of the members of this particular health profession.

Some ask the question whether it is the responsibility of the Federal Government to assist in the education of the members of the health professions.

Health is generally considered to be a national asset, and the lack of health or the lack of health personnel then becomes a crucial problem, and one which becomes a responsibility of the Federal Government.

There are other reasons and just reasons why the Federal Government should support education in the field of health.

The Federal Government is one of the largest consumers of dental personnel both in the Armed Forces, in the Public Health Service, and in the Veterans' Administration.

It should also be remembered that only 26 States supply all the dental manpower for the remaining States. This is another reason why this should become the responsibility of the Federal Government.

And, lastly, a uniquely compelling reason is that the magnitude of the problem of facing dental education is so great that it cannot be solved even when attempts have been made at the community or State level.

Mr. Chairman, I trust that I have clearly indicated to you and to your committee the position of the American Dental Association in relation to H.R. 12.

We affirm our solid support of H.R. 12 as passed by the House of Representatives.

The passage of H.R. 12 by this Congress will be of significant assistance in assuring the American people the continuance of the high quality of dental health service that they now enjoy.

Thank you very much.

The CHAIRMAN. Doctor, we know the University of Pennsylvania's Medical School is the oldest medical school in the country.

How does your dental school rank in terms of age, if I may ask?

Dr. BURKET. I think, in terms of age, we are the fourth dental school to be established as a part of a university.

The CHAIRMAN. I believe the University of Maryland lays claim to being the oldest, does it not?

Dr. BURKET. You are correct.

The CHAIRMAN. You are still under the influence and great traditions of Benjamin Rush and Benjamin Franklin, and some of the others, are you not?

Dr. BURKET. Well, we like to think we are, sir.

The CHAIRMAN. I am sure you are.

Dr. Hollers, in your statement I note that you spoke of the fact that the American Dental Society represents 85 percent of the practicing members.

How many members would this be?

Dr. HOLLERS. The ADA has approximately 100,000 members. We have just reached 100,000.

The CHAIRMAN. Are there any questions?

Senator WILLIAMS. I just wondered if you gentlemen, in your profession, have a rule of thumb as to the ratio of the population against the dentists.

How many are there per man? Do you have such a rule of thumb?

Dr. HOLLERS. Yes, we do have. The existing ratio is approximately 1 to 1,900.

Of course, it varies in many areas and in many States, but there has been established that ratio.

Senator WILLIAMS. One dentist for 1,900 of population?

Dr. HOLLERS. Yes.

Senator WILLIAMS. Do we approach that, incidentally, now?

Dr. HOLLERS. Nationally yes, but in some areas it is much less.

Senator WILLIAMS. That's an awful lot of patients for one dentist. He would be a pretty busy fellow, wouldn't he?

Dr. HOLLERS. That is right.

Senator WILLIAMS. Thank you.

The CHAIRMAN. Senator Pell, do you have any questions?

Senator PELL. No questions.

The CHAIRMAN. Dr. Hollers, in your testimony you indicated that you anticipate an increase in demand for dental care or that there will be an increase in the demands for dental care.

To what factors do you attribute this increase?

Dr. HOLLERS. Higher levels of education of the people of the importance of oral health will be a big factor, but the one area where we think we are about to make a breakthrough is in the field of dental prepayment plans.

And we have the insurance companies and our service corporations that are being formed by our State organizations, which are providing group dental health plans.

And there is no question but what that would be a tremendous breakthrough and create a greater demand for more dental services, and we feel as though we are approaching a solution to that problem.

The CHAIRMAN. Well, gentlemen, you brought us some very fine statements, and we appreciate them very much and we certainly want to thank you.

Dr. HOLLERS. Thank you.

Dr. WILSON. Thank you.

The CHAIRMAN. Now, the American Public Health Association, represented by Dr. Berwyn F. Mattison, of New York.

Will you come forward, Doctor, please?

**STATEMENT OF DR. BERWYN F. MATTISON, EXECUTIVE DIRECTOR,
AMERICAN PUBLIC HEALTH ASSOCIATION, NEW YORK, N.Y.**

The CHAIRMAN. Doctor, we are glad to have you back with us.

You are the executive director of the American Public Health Association.

You may proceed in your own way.

Dr. MATTISON. Thank you, Mr. Chairman.

I am a physician with graduate training in public health.

I should like to submit a statement and comment briefly about it.

The CHAIRMAN. All right. We will be glad to have you do so, and your statement will appear in full in the record, sir.

(The prepared statement of Dr. Mattison follows:)

**PREPARED STATEMENT OF BERWYN F. MATTISON, M.D., EXECUTIVE DIRECTOR,
AMERICAN PUBLIC HEALTH ASSOCIATION ON S. 911 AND H.R. 12**

The American Public Health Association is most appreciative for this opportunity to present its views on this important health legislation. The association, composed of over 13,000 members with an additional 25,000 members in State affiliated societies, is dedicated to the betterment of individual and community health. Our members are almost exclusively persons whose full-time vocations are devoted to public health and medical care activities with official and voluntary agencies at the local, State, and national level. At our most recent annual convention, our committee on public policy and legislation reported to our gov-

erning council their recommendation that the association view the problem relating to the critical shortage of physicians, dentists, nurses, and public health personnel as the single, most important health problem facing this Nation and recommended that legislation to alleviate this shortage be treated as the top legislative priority of the American Public Health Association.

I would like to make it clear at the outset that there are features of S. 911 which, in the view of the APHA, are superior to H.R. 12, which has been passed by the House. By no stretch of the imagination could it be considered reasonable or practical that this problem can be coped with by a program authorized for but 3 years. The 10-year authorization contained in S. 911 is, in our view, far more realistic. Although the House committee pointed out in its report that the committee did not believe the 3-year authorization would be sufficient and that periodic congressional review would be guaranteed by the 3-year authorization, we expect that some may misinterpret this action and maintain that the program should be ended after 3 years. While we fully agree with the need for periodic congressional review, we hope that no provision might undermine confidence in the reasonable continuation of the program.

Secondly, our association strongly favors the forgiveness feature relative to student loans as contained in S. 911. We do not believe that this would result in a complete solution to the dearth of physicians and dentists in less populated areas, in public health, or in teaching capacities. The remunerative return to an individual who established private practice in a locality more favorably suited economically would more than outweigh a 10 percent per year forgiveness as provided in S. 911. But, the forgiveness feature would assist, to some degree at least, the financial strain on that newly trained physician or dentist who chooses to devote his talents in a less favorable economic climate. The difficulty in attracting physicians and dentists especially to public health programs leads us to our strong support for the loan forgiveness provision. Our realization of legislative exigencies leads us to recommend, however, that this committee and the Senate approve H.R. 12 precisely as passed by the House. This will provide for the earliest possible beginning of the program so urgently needed to alleviate the shortage of the concerned qualified health personnel.

Our association, by resolution approved by our governing council, believes that there is a specific role and responsibility of the Federal Government relative to the provision of health personnel. The acceptance of responsibility of the Federal Government relative to other aspects of our Nation's health has been existent, in some instances, for many years. Contributions by the Federal Government have included portions of the cost of construction of hospitals under the Hill-Burton program. You will recall that the emphasis of this program was on the provision of excellent hospital facilities, particularly in the less populated and rural areas. We do not believe that in our democracy a doctor or a dentist, any more than a lawyer, teacher, or farmer, should be told where he is to earn his livelihood. It should be pointed out, however, that there is, in many instances, a very real difficulty in obtaining the services of qualified health personnel in the less-populated areas. Although the Hill-Burton program has aided in bringing doctors to rural areas, it is our view that this difficulty will continue to obtain so long as the overall shortage of qualified, health-trained professionals continues. It appears to our association only reasonable, therefore, that the Federal Government share in the responsibility to encourage the preparation of additional numbers of adequately trained persons.

In some ways it seems futile to become involved in what might be called the "numbers game," which the recitation of statistics often becomes. Physician-to-population ratios mean different things to different people. Furthermore, nationwide statistics are of little solace to the individual who lives in a not isolated locale but who finds that the services of a family doctor simply are not available and that except for emergency care he must wait 4 to 6 weeks for an appointment with a dentist. The setting forth of some of the more salient facts should be of assistance in obtaining a total perspective.

The report of the Consultant Group on Medical Education, chaired by Mr. Frank Bane, former executive director, Council of State Governments, contains a wealth of factual information which, we are sure, this committee will consider carefully. According to this report, the ratio of physicians to population has increased from 134 per 100,000 in 1930 to 141 per 100,000 in 1959, but in 1962 the ratio dropped to 136.9 per 100,000. When considering the needs of our people to secure the services of a private, practicing physician, this ratio has shrunk from 108 per 100,000 in 1931 to 91 per 100,000 in 1959.

We recognize and wholeheartedly approve of changes and vast improvements in medical practice which account in part at least for the lesser ratio of physicians in

private practice. Better service to patients with acute illness in hospitals rather than at home has resulted in a ratio of 1 to 6 physicians in full-time hospital service in 1959 in comparison with 1 to 16 in 1930. A survey in 1957 indicated 23,800 physicians were active full time in teaching, research, public health, industrial medicine, or the military—this compared with 6,400 so involved in 1931. An additional factor of importance to the patient is that in 1931 1 out of every 6 physicians was a specialist. In 1940, this ratio had gone up to 1 in 4, and in 1959 every other physician was a specialist. Despite an increase in the overall number of physicians, the general practitioner, internist, and pediatrician (those specialists generally considered available for general practice), numbered 117,000 in 1931, but in 1957 were only 102,000 strong.

In 1930, physicians saw an average of 50 patients per week. In 1959, this number had been doubled although 17 percent of all physicians see more than 40 patients per day. In 1930, 4 out of each 10 patients was visited in his home. In 1959, this had shrunk to 1 in 10, and there is but slight room for further change in this direction. In 1959, the civilian population per physician ratio was approximately 100,000 per 100. It was estimated by the Bane group that the number of graduates from medical schools would have to be increased from the present 7,400 each year to 11,000 annually by 1975 if the 100 per 100,000 ratio is to be maintained. We are convinced that this must be done—in the light of increasing specialization; of the need for increasing numbers of physicians in wholly meritorious and vitally needed research, teaching, public health, and other activities; of the changing complexion of our population where, in particular, our older, aged population requiring more than normal medical care has and will continue to increase.

What are the problems confronting both the intending medical student and our Nation's medical schools? Why don't we have more physicians? Why can't medical schools increase enrollments and graduates? The reasons are many and varied and no panaceas are evident. For the intending student, tuition costs are high and the period of training long. Eight years of college must be followed by from 1 to 6 or more years of internship and residency or fellowship training. And unlike the day not too many years ago when the talented youngster had as a choice of professions the church, the law, or the healing arts, there is now a plethora of well-respected, remunerative occupations. That adequate financial backing is necessary seems evident in the fact that 40 percent of all medical students come from families with an annual income of \$10,000 or more although this group comprises but 12 percent of our population. Competition from new vocations with the loss of monopoly on the budding scientific mind would have appeared to have resulted in something less than the best going into medical schools of late. In the 4 years prior to 1959, an increasing proportion of students were failing or withdrawing due to poor academic standing.

Referring specifically to the needs of public health programs throughout the Nation, in 1963 there are 7,663 persons working in public health programs who are in need of 1 additional year of attendance at a school of public health. It should be emphasized that this figure represents levels as they pertain to present-day circumstances of population, health programs, and health problems. Undoubtedly over the next decade, all three—population, problems, and programs—will increase appreciably. Therefore, without even projecting into the future, and allowing 6 years for elimination of the current backlog, facilities for training at least 2,500 students per year should be made available. During the 1962-63 academic year, 1,170 students were enrolled in the 12 schools of public health in the United States. It is clear, therefore, that a doubling of facilities for teaching and training in schools of public health is indicated as a first and immediate step.

It is safe to say that the number of public health students currently enrolled in schools of public health is far too small to make appreciable inroads into the backlog of training requirements in this country. Further, the facilities for the current enrollment are stretched beyond reasonable limits in most of these schools. In order to prepare now for the future, it is our belief that additional facilities are urgently required.

Reliable evaluation of this Nation's needs relative to dental services indicates a similar picture. The report of the Survey Commission of Dentistry in the United States to the American Council on Education appears to us to be the result of a careful and objective study by a distinguished assembly of experienced and knowledgeable persons who made up the Commission. Here again, it seems to us the findings of this group merit careful scrutiny.

The Commission report published in 1960 pointed out that the current 90,000 dentists providing a ratio of 1 dentist per 1,900 population is sufficient to provide

comprehensive dental care for but one-third of our population. To even maintain the present inadequate dentist-to-population ratio, it will be necessary to increase the number of practicing dentists to 134,000 by 1975. To accomplish this end, the rate of annual dental school graduates must be doubled by that date. To provide the facilities necessary for this objective, a total of \$250 million is required for renovation and expansion of existing schools and construction of new schools. Only after such steps are taken can the present rate of 3,200 graduates annually be increased to the needed 6,000 graduates.

In the light of the foregoing data, we believe steps should be taken to increase the number of physicians, dentists, and public health personnel. We believe that such an increase should be made without sacrifice to the present high quality of training provided. In 1960, the Governing Council of the APHA approved endorsement for appropriate Federal support to qualified institutions which train medical personnel for construction of needed facilities, for operational costs, and for scholarship aid for students. We believe H.R. 12, if enacted, would provide a balanced, practical, and reasonable program to help meet these critical needs. We, therefore, support passage of this legislation. It is most important to begin the construction grant program immediately as an incentive both to replace or renovate facilities which are outmoded or beyond rehabilitation and to build new schools. We subscribe to the matching provisions—this should be another of the time honored Federal-State partnership undertakings.

Likewise, we support scholarship aid for deserving students. It appears to us that this step must be taken to increase the attractiveness of a career in medicine or dentistry. Other Federal scholarship programs have in effect done much to price a choice of medicine out of the reach of all except those most favored financially. This is not a condemnation of the other scholarship programs. As the sciences progress, however, the competition can only increase. Incentives, therefore, should be equalized insofar as possible.

We are of the firm opinion that this is a sphere of activity rightfully falling to the Federal Government. Insofar as this legislative proposal is concerned, we believe section 726 provides ample safeguards against any possible Federal interference or control over medical education. We applaud the lack of any directions that greater emphasis be placed on the training for particular areas in the health field. We are well acquainted with numerous joint programs in public health training and activities wherein the Federal Government is a partner with State and local health departments, institutions, and voluntary agencies in what we consider altogether wholesome and beneficial arrangements.

It is the experience of our members, and particularly those charged with administrative responsibilities, that there is presently a serious lack of qualified personnel to press forward needed public health programs. Two categories where these shortcomings are most painfully evident are those of physicians and dentists. Similar shortages exist in other professional public health proficiencies, most notably nurses, and the necessity for increasing the abilities of this Nation's schools of public health, we believe, is of paramount importance.

The sheer weight of our increasing population, the complex problems emerging from our Nation's rapid technological advances, the increasing trend toward specialization, and the present shortage of health personnel particularly in the public health field leads us to urge this committee and the Senate to take speedy action to implement legislation as embodied in H.R. 12, 88th Congress. We respectfully request your serious consideration of this request.

The CHAIRMAN. Doctor, pull that microphone a little closer to you, will you, please, sir?

Dr. MATTISON. Senator Hill and members of the subcommittee, I might tell you briefly that the American Public Health Association is the national association of professional people in public health in the country.

We have about 13,000 members. We have affiliates in 44 States with an additional membership of about 25,000, so that we have a total of about 40,000 public health workers who are either members of APHA or affiliated with us.

APHA supports the legislation which you are considering here today.

As you will see by my statement, we tell you that we really prefer S. 911 to H.R. 12. We think that the loan forgiveness provisions,

and a number of other features, of it are really preferable but we are extremely anxious that a bill of this nature be passed, and we would be very happy to see H.R. 12 passed.

I would like to say a few words about the impact of parts of the bill on the construction of schools of public health first.

The CHAIRMAN. There are only 12 of those schools in the country today. Is that right?

Dr. MATTISON. That is right.

The CHAIRMAN. They have to provide public health for all of the Federal Government, the States, and the municipalities, and all of the local units for all of the 50 States.

Is that correct?

Dr. MATTISON. That is correct. And we are particularly aware of this narrow source of manpower, because the APHA is the agency which accredits these graduate schools.

I would like to tell you, and I believe this is a figure not in my prepared statement, that there are employed in State and local health departments in the country, as of 1962, something over 2,000, actually 2,166 trained public health physicians.

By 1970 this will be up around 2,500, but at the present time there are over 11 percent of the budgeted positions vacant. This is an indication of what you were referring to a moment ago.

There simply is not enough capacity in the existing size of the 12 schools to supply the demand.

I understand that this means training of not only medical administrators in public health programs, but specialists in maternal and child health and venereal disease in epidemiology, and other control programs.

In addition, the schools of public health train, at the graduate level, public health nurses for service and for direction of our public health nursing programs.

In this respect there is a great unfilled need.

In State and local health departments in 1962 there were 15,894 public health nurses employed. By 1970 we expect this to be in the neighborhood of 18,000 public health nurses in these various official health agencies. Yet at the present time approximately 8 percent of the budgeted positions are vacant.

We believe that much of this could be ameliorated if this legislation is passed and implemented.

There are a number of other examples: laboratory personnel, for instance. Among approximately 4,000 employed in these official health agencies, there is a vacancy rate at the present time of almost 10 percent.

I see some of these schools of public health because I visit them in accreditation visits and on other occasions. Even in the most recently built school, which is in North Carolina, the university has found that by the time the building was completed it already was filled, and they are beginning to be crowded, and this building was dedicated just about 3 months ago.

I think that it might be well to indicate some of the current needs in public health school programs in another fashion.

This year, according to information just secured for the Second National Conference on Public Health Training, there were 7,663 employed people in public health agencies needing an additional year of training, needing it but not having it.

This is a gap which would have to be filled by the graduate schools in most instances.

We anticipate that about 2,500 graduates annually would be needed to keep up with the expanding programs and the expanding population.

Actually, the number of present graduates is closer to 1,200.

In 1963, as another instance, there are about 4,500 public health nurses needing additional training, over 1,000 registered sanitarians needing additional training, nearly 300 public health engineers needing additional training, and so on down the line. There was a long list of professional positions the training for which requires this kind of expanded facility.

Now, with regard to student loans I think that you have already heard, and will hear more, from others about the need in the field of dentistry and medicine.

I might point out, however, that in 1931 it has been estimated that there were 117,000 physicians available for general practice. This is 1931.

In 1957 the estimate was that there was 102,000, actually a decrease of about 15,000 because of the increase in specialization and because of the increase in centralization of physicians in urban areas.

The CHAIRMAN. Well, I do not suppose that you have the figure there, Doctor, of the increase in population at that same time?

Dr. MATTISON. Not the figures but this, of course, has simply magnified the gap that I referred to.

You have already been told that about 40 percent of the medical students come from families in the top 12 percent of our income brackets.

If we are going to keep up with the population so far as doctor-patient ratio is concerned we need to make it possible for bright students, regardless of their economic situation, to enter medicine if they so wish.

I think, sir, that this is about all that I wish to add to my prepared statement with the exception of one further element.

The American Public Health Association does have a rather modest employment service and because of this we are continually being besieged with notices of vacant positions, positions for doctors, dentists, nurses, nutritionists, physical therapists, physical educators, and, believe me, the number of vacant positions which we have listed with us always exceeds the number of people registered with us for vacancies.

I think this points up very forcibly the kind of need which we are talking about today.

I believe that this situation would be helped considerably by the passage and enactment of this legislation that you are discussing this morning. Thank you, sir.

The CHAIRMAN. Any questions, Senator Pell?

Senator PELL. No questions.

The CHAIRMAN. Doctor, we certainly want to thank you very, very much for your statement, sir.

Dr. MATTISON. Thank you, sir.

The CHAIRMAN. Thank you, sir. Now, the American Medical Association: Dr. Norman A. Welch, president-elect, accompanied by Dr. Lyman J. Smith, director of the education and research foundation and Mr. Bernard P. Harrison, director of the legislative department.

**STATEMENT OF DR. NORMAN A. WELCH, PRESIDENT-ELECT,
AMERICAN MEDICAL ASSOCIATION, ACCOMPANIED BY DR.
LYMAN J. SMITH, DIRECTOR, EDUCATION AND RESEARCH
FOUNDATION, AND BERNARD P. HARRISON, DIRECTOR, LEGIS-
LATIVE DEPARTMENT**

The CHAIRMAN. We are glad to have you gentlemen here with us, and we will be glad to hear from you.

Dr. WELCH. Mr. Chairman, in the interest of conserving the committee's time, I would like to make my remarks brief but ask that our full statement appear in the record of the proceedings.

The CHAIRMAN. All right, sir. We will be glad to have your statement appear in full in the record, Doctor, and then you may proceed in any way you may see fit.

(The prepared statement of Dr. Welch follows:)

PREPARED STATEMENT OF NORMAN A. WELCH, M.D.

Mr. Chairman and members of the subcommittee, the American Medical Association is grateful for this opportunity of expressing its views on H.R. 12, 88th Congress, the Health Professions Educational Assistance Act of 1963, a subject in which it has had a deep and continuing interest. The Association hopes that you will find, in the statement that follows, informative comments that will contribute to this subcommittee's discussion and deliberation.

My name is Norman A. Welch, and I live in Boston, Mass., where I am engaged in the practice of internal medicine. This past June I was elected to the office of president-elect of the American Medical Association.

With me today are Dr. Lyman Smith, program director of the AMA Education and Research Foundation, and Mr. Bernard P. Harrison, an attorney and director of the AMA Department of Legislative Activities.

We support those sections of this bill which would provide matching grants for construction, replacement, or rehabilitation of medical schools.

At the same time, we urge that this subcommittee delete the loan provisions on the grounds that the problem of recruitment of qualified medical school applicants is no longer a major one, and that the problem of financial need is being adequately met by the non-Government, nonsubsidized loan program established some 18 months ago by the American Medical Association.

We believe that there is need for assistance in the expansion, construction, and remodeling of the physical facilities of medical schools and, therefore, a one-time expenditure of Federal funds on a matching basis is justified, where maximum freedom of the school from Federal control is assured.

We would also urge that the National Advisory Council on Education for Health Professions, suggested in the bill, be composed of persons skilled in the broad aspects of engineering, education, finance, architecture, as well as those concerned with training in medicine, osteopathy, dentistry, or the other medical ancillary services.

In February 1963 Dr. Gerald D. Dorman, a member of the AMA board of trustees, appeared before the House of Representatives' Interstate and Foreign Commerce Committee and presented details of the objectives and accomplishments of the AMA's medical education loan guarantee program. At that time, the program had been in operation for less than a year and an evaluation of its effects, while under study, had not been completed. Subsequent to the committee hearing, the Board of Trustees and House of Delegates of the AMA, after careful analysis of the evidence, arrived at a position which we should like to present to you today.

By way of introduction, may I first briefly describe the performance of our loan program and the results that have been achieved to date. The AMA's medical education loan guarantee program establishes educational credit for any medical student, intern, or resident who is in good standing and demonstrates a need for financial support beyond his present resources. Additionally, this program requires that successful applicants be citizens of the United States.

Loans are made to students through normal banking channels. For each approved loan the AMA's education and research foundation countersigns the

borrower's note. This serves as a surety that the loan will be repaid since the foundation agrees to buy any defaulted note at face value plus accrued interest. To demonstrate its ability to perform under this contractual agreement, the foundation agrees to place on deposit guarantee funds equal to 8 percent of the credit extended to borrowers. Criteria for eligibility under this program were established according to our evaluation of the facts available when the program was planned and inaugurated. These criteria are subject to review from time to time and are not inflexible. For example, it was determined that a ceiling of \$1,500 per year should be placed on extent of borrowing by any one medical student, intern, or resident. It is believed that this amount represents that proportion of a trainee's annual direct education and essential living expenses that we can reasonably expect him to finance through loan sources. Over a 7-year training period, we have limited the total principal which may be borrowed to \$10,000 from this loan source and \$15,000 for educational purposes from all loan sources. While we have no immediate plans to alter these limits, we are prepared to do so if future conditions warrant it.

To build the loan guarantee fund, contributions have been sought from America's physicians, medical organizations, and private industry. This phase of the program has been so successful that we would like to emphasize that at no time has an applicant who met the minimum qualifications described above been denied a loan. Our experience leads us to expect that substantial and adequate contributions to the guarantee fund will continue since donors have indicated their willingness to contribute whenever need for their assistance is made known to them.

Powerful incentives for contributors are found in their realization that each donated dollar releases \$12.50 in total credit, and in the fact that these dollars are not exhausted but return to work again after the original loans are repaid, to assist others who experience financial hardship during their medical training years. Also worth noting is the added incentive to contributors provided by the enterprising and self-reliant attitude of the young people who demonstrate their desire to be responsible for themselves in financing their education.

We have, of course, experienced a small percentage of rejections, principally because the applicant could not demonstrate the need for funds or wished them for purposes other than to meet essential training or living expenses. For every 100 applications, on the average, 94 have been approved for loans.

The American Medical Association Education and Research Foundation has prepared two brochures which may be of considerable interest to the members of this subcommittee. I ask, Mr. Chairman, that these, one entitled "Medical Education Loan Guarantee Program," and the other a "Progress Report Through June 30, 1963," be received and incorporated in the report of these proceedings.

Highlights from the progress report show that 7,904 loans had been made by the end of June 1963. In dollars advanced to borrowers, this amounted to \$8,855,300 in principal amount. Of these loans 63 percent were made to medical students, 14 percent to those in internship training and 23 percent to resident physicians. Borrowers are in training in 84 medical schools and 504 hospitals in 46 States and possessions and the average individual loan has amounted to \$1,120.

When the AMA conceived this loan program, it had two objectives. One, of course, was to relieve the financial burden of students. The other was to attract more students to medical school who might otherwise be deterred by financial considerations.

Following World War II, through 1952, the number of applicants to medical schools was greatly increased because of the influx of veterans. In 1953, the number diminished abruptly and then enlarged slightly year by year through 1956. Thereafter there was a gradual decline through 1961, and it was during that period that expressions of concern were loudest. However, in 1962, there was a sharp upturn in applicants, an upward trend that has continued in 1963. In retrospect, these fluctuations could have been predicted from a study of numbers in the population involved, and it now appears probable that the number of medical school applicants will continue to increase in the immediate years ahead. In fact, preliminary reports on data being compiled for the year 1963-64 indicate the continuation of the upward trend.

TABLE I.—Data on quantity and quality of applicants to American medical schools, 1952-63

Year	Verbal ability	Quantitative ability	Modern society	Science	Number taking medical college admission test	Total number of applicants
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1952-53.....	493	492	493	491	14,744	16,763
1953-54.....	494	495	501	499	13,227	14,678
1954-55.....	491	493	506	501	¹ 13,188	14,538
1955-56.....	497	496	503	490	¹ 14,340	14,937
1956-57.....	496	494	502	485	14,871	15,917
1957-58.....	500	487	502	482	15,063	15,791
1958-59.....	499	499	497	488	14,606	15,170
1959-60.....	504	497	505	494	14,468	14,952
1960-61.....	503	501	506	500	13,962	14,397
1962-61.....	509	510	501	507	13,973	14,381
1962-63.....	515	506	517	509	15,435	15,847

¹ Estimated.

An examination of table I will show that with but a single exception, subtest score averages (cols. 2, 3, 4, and 5) obtained during 1962-63 by those who will enter America's medical schools next month exceed comparable score averages for any previous year. It is significant, furthermore, that in the past 3 years, the averages of all subtests have exceeded 500, whereas prior to that time they characteristically fell below that score. It may be concluded, therefore, that there is no present threat of decline in quantity or quality of medical school applicants.

We submit that a loan program is not defensible as a recruitment aid. As far as meeting the financial needs of students in training, we are now convinced that the AMA program is performing this function and can adequately fill the total need for funds demanded by students in American medical schools. Indeed, we were hopeful at the outset that the program had this potential, but felt we should be cautious in such an interpretation until considerable experience was gained in this operation.

Mr. Chairman, we further note two important differences between the loan guarantee program of the AMA-ERF and the loan program proposal of H.R. 12. First, H.R. 12 would require repayment to begin 3 years after completion of medical school while the AMA program has been tailored to the specific internship and residency training needs of each individual medical student. Repayment of AMA-ERF loans does not begin until 5 months after all phases of an individual's medical education have been completed. To initiate the repayment process at an earlier date would require many physicians to make repayment on their loans while still enrolled in a residency training program. Evidence that this would be an unrealistic requirement is available from our loan program which demonstrates that residents find additional borrowing a frequent necessity during this period.

The second difference relates to interest charges of these two programs. In negotiating with banks, the American Medical Association found that the interest rates under its program—namely, 5½ percent simple during training and 6½ percent simple on the unpaid balance during payback—were the lowest rates possible for a nonsubsidized program. A comparison of interest charges to students under these two programs shows that, based on \$30,700,000 authorized by H.R. 12 and over the life of the loans, almost \$17 million in Federal funds would be required to subsidize the bill's loan program.

We ask that you observe that medical students traditionally have taken pride in being self-reliant. Now that the AMA, in cooperation with private banking institutions, has given them the opportunity to borrow as responsible individuals, we can see no reason why taxpayers should be asked to subsidize the cost of their loans. This view is emphasized when we recognize that physicians receive a reasonable monetary return for their investment in time and education. One could expect, then, that physicians during the student phase of their total career should pay the going rate of interest on the funds borrowed.

It is thus upon sober reflection and consideration that we urge deletion of the loan provisions from H.R. 12. We do this with the firm conviction that private initiative and voluntary support will continue to make the AMA loan program responsive to the needs and the spirit of students in medical training.

Mr. Chairman, the American Medical Association has always been seriously concerned with the maintaining of the high quality of medical education in the United States. For over a century, the association has been actively and effectively engaged in the improvement of medical education, recognizing that without such high quality of medical education there can be no high quality of medical care. It can now be said with assurance that medical education and medical care in the United States are superior to that found anywhere else in the world.

We are appreciative of the subcommittee's consideration of the American Medical Association's views on this timely and important subject. We shall now be pleased to answer any questions you may have.

Dr. WELCH. Mr. Chairman, and members of the subcommittee, the American Medical Association is grateful for this opportunity of expressing its views on H.R. 12, 88th Congress, the Health Professions Educational Assistance Act of 1963, a subject in which it has had a deep and continuing interest. The association hopes that you will find, in the statement that follows, informative comments that will contribute to this subcommittee's discussion and deliberation.

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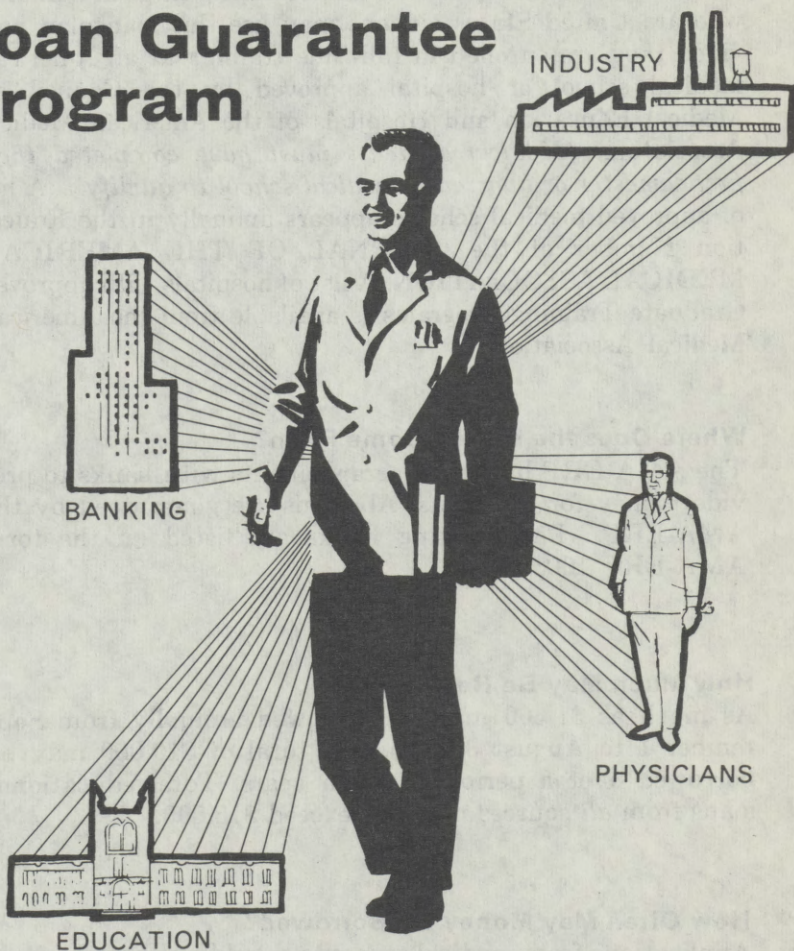
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The American Medical Association Education and Research Foundation has prepared two brochures which may be of considerable interest to the members of this subcommittee. I ask, Mr. Chairman, that these, one entitled "Medical Education Loan Guarantee Program," and the other a "Progress Report Through June 30, 1963," be received and incorporated in the report of these proceedings.

The CHAIRMAN. Without objection, it is so ordered.

(The brochures referred to follow.)

Medical Education Loan Guarantee Program



AMERICAN MEDICAL ASSOCIATION EDUCATION AND RESEARCH FOUNDATION

The goal of this program is to help eliminate the financial barrier to medicine for all who are qualified and accepted by an approved training institution. It is designed to provide a means of financing a substantial portion of the cost of a medical education. The Loan Program for medical students, interns and residents is the result of a cooperative effort by American medicine and private enterprise.

Who May Borrow?

All medical students, interns and residents in good standing who are United States citizens may use this loan plan provided they are enrolled in full-time training at an American medical school or hospital approved by the Council on Medical Education and Hospitals of the American Medical Association. (*Medical students must have completed their first semester or quarter of medical school to qualify.*) A list of approved medical schools appears annually in the Education Number of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. A list of hospitals with approved Graduate Training Programs is available from the American Medical Association.

Where Does the Money Come From?

The AMA-ERF has made arrangements with banks to provide money for the loans. All loans are guaranteed by the AMA-ERF. (Participating banks are listed on the form AMA-ERF 100.)

How Much May Be Borrowed?

As much as \$1,500 may be borrowed annually from September 1 to August 31. Up to a total of \$10,000 may be borrowed over a period of seven years. Total educational loans from *all* sources may not exceed \$15,000.

How Often May Money Be Borrowed?

Applications from medical students should not be submitted more often than once each academic quarter or semester. Interns and residents should not submit applications more often than once every six months. The minimum amount that will be loaned is \$400 and loans must be in even multiples of \$100. An interim note will be executed for each individual loan.

How Is the Loan Repaid?

Interim notes mature on the first day of the fifth month following completion of training. For example, if a physician were to complete his residency on June 24, 1965, all of his interim notes would fall due on November 1, 1965. This obligation could be met by payment in full or by refinancing all interim notes into a single pay-out note which would be repaid in monthly installments over a period of up to ten years. The first installment for such a pay-out note would fall due on December 1, 1965.

How Are the Interest Rates Established?

The basis of the interest rates for interim notes and pay-out notes is the PRIME RATE of interest. The prime rate is the rate extended to highest-rated commercial borrowers for large, short-term loans. The agreement between AMA-ERF and the banks specifies that the simple interest rate for *interim notes* shall be 1 percentage point greater than prime, and the simple interest rate for *payout notes* 2 percentage points greater than prime.

How Stable Are the Interest Rates?

The rates which are in effect at the time any given note is signed will be unchanged during the entire life of that loan. If a student borrows several times during his training period, some notes may carry different interest rates than others due to fluctuations in the prime rate. In an effort to stabilize the program, the rates will be established annually and will not be changed during the ensuing twelve-month period. Any change in rates will not be retroactive and will affect only future loans.

How Much Do Loans Cost During Training?

During the period of the interim note, the cost of the loan, according to the present agreement with the banks will be calculated at 5½% simple interest annually. *No payment of interest is made during the training period, and no compounding charge will be made by the bank for accrued interest.*

How Much Do Loans Cost During Repayment?

The actual dollar cost will depend on the length of time taken for repayment. The current agreement with the banks provides for a maximum ten-year period, with simple interest of $6\frac{1}{2}\%$ computed on the unpaid principal balance monthly. A schedule of equal payments will amortize the loan, with varying proportions of the payment applied to principal and interest each month. In any month, additional payments of any amount may be made, without penalty, to reduce principal and shorten the payout period.

May Early Repayment Installments Be Made Smaller?

Yes. The borrower may choose a ten-year schedule of monthly installments, providing for repayment of the principal amount of the payout loan as follows: 3% over the first three years; 55% over the next five years; 18% the ninth year and the remaining 24% the tenth year. Each monthly installment will include interest on the existing unpaid balance. Because of the higher average unpaid balance, the total cost of this method will be greater than that of the equal-installment method. The borrower has the same privilege of prepayment under this plan as under the first.

Why Can't Most Students Borrow From the Bank Without AMA-ERF Sponsorship?

Because banks usually require negotiable collateral to secure a loan unless the applicant has stable employment, good income, well-established credit or acceptable co-signers. Most students in medical training do not have resources to borrow against and would not qualify for unsecured credit.

Does This Loan Cost Less Than the Usual Personal Bank Loan?

Yes, substantially less. One reason is that risk to the lender has been minimized because the AMA-ERF will guarantee each interim note and each pay-out note. The AMA-ERF

must maintain at all times a guarantee fund of at least 8% of all outstanding notes including principal and interest. A second reason is that a large volume of loans of the same type makes it possible to reduce the unit cost of record keeping. Both of these savings are passed on to the borrower.

What Special Flexibility Does the Borrower Have Within the AMA-ERF Plan?

The borrower may:

- a) extend the term of his interim notes if he finds that a longer training period is necessary than originally expected.
- b) reconvert his pay-out note to an interim note in order to suspend installment payments if he finds it desirable to leave practice and return to a full-time training status.
- c) prepay his pay-out notes without penalty.
- d) refinance his pay-out note with the AMA-ERF guarantee at a bank in the community where he establishes his practice.

What Are the Important Advantages of the AMA-ERF Loan Guarantee Plan?

- a) It creates the opportunity to borrow up to approximately one-half the cost of a medical education for any student in good standing. The total number of students who can be assisted is limited only by the size of the guarantee fund.
- b) It assists financing of medical education without subsidy of any kind.
- c) It provides loans at low cost.
- d) The length of time over which the student in medical education can borrow is designed to fit the period of time required to complete his educational plans. Furthermore, the repayment may be spread over a subsequent ten-year period so that installments are of reasonable size even for a maximum loan.
- e) Contributions to the Guarantee Fund multiply to provide $12\frac{1}{2}$ times their amount in student credit.

How is an Application Made?

Medical students may obtain application materials and additional information from the medical school Dean's office. Interns and residents should contact the Hospital Administrator. To apply it is necessary to:

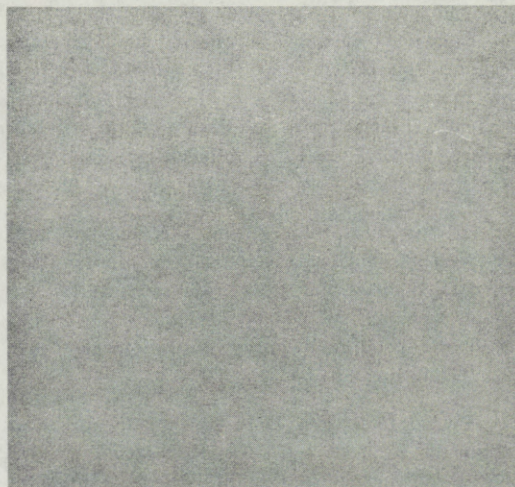
- a) Secure and complete two copies of the application. (AMA-ERF 102)
 - b) Secure and complete a copy of the interim note. (AMA-ERF 103)
 - c) Obtain certification of the application from the Dean, Program Director or Chief of Service, as applicable.
 - d) Mail all completed materials to the participating bank of your choice.
-

PHYSICIANS have given generously to support this program as has the WOMAN'S AUXILIARY OF THE AMERICAN MEDICAL ASSOCIATION and the STUDENT AMERICAN MEDICAL ASSOCIATION. Special recognition is extended to MERCK SHARP & DOHME as the first representative from private industry to provide major financial support for the guarantee fund, and for its pioneering efforts in the application of loan funds to medical education.

The CONTINENTAL ILLINOIS NATIONAL BANK AND TRUST COMPANY OF CHICAGO also is deserving of credit as the first bank to make AMA-ERF loan funds available.

The philosophy and counsel of UNITED STUDENT AID FUNDS, INC. has aided materially in the development of this program. To all who have contributed in financial support, ideas and other ways, and to those who will in the future add their support, we extend our appreciation.

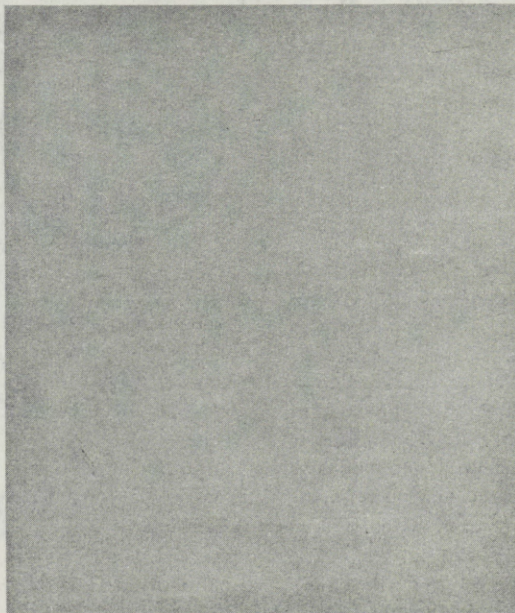
*Sponsored by American Medical Association
Education and Research Foundation
535 N. Dearborn, Chicago 10, Ill.*



PROGRESS REPORT

**MEDICAL EDUCATION
LOAN GUARANTEE PROGRAM**

THROUGH JUNE 30, 1963



**AMERICAN MEDICAL ASSOCIATION
EDUCATION AND RESEARCH FOUNDATION**

CREDIT POTENTIAL EXCEEDS \$18 MILLION

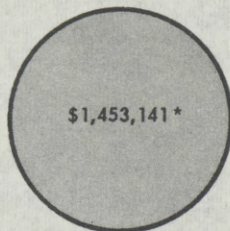
Renewed support of the Loan Guarantee Program from previous givers, together with new contributions in the first half of 1963, made a total of \$18,164,260 in bank credit available for loans to medical students, interns and residents, as of June 30.

Of this total, \$15,213,387 already had been extended (with approximately 60% representing principal amount and 40% estimated interim and payout interest) for nearly 8,000 loans approved since the program's inception in March 1962, plus 291 in process on June 30.

This left a balance of \$2,950,873 in credit potential, secured by the uncommitted portion of \$236,070 in the Guarantee Fund and sufficient to cover the principal and interest for about 1,600 additional loans. (See Chart A)

CHART A

HOW THE GUARANTEE FUND IS COMMITTED



Total in Guarantee Fund

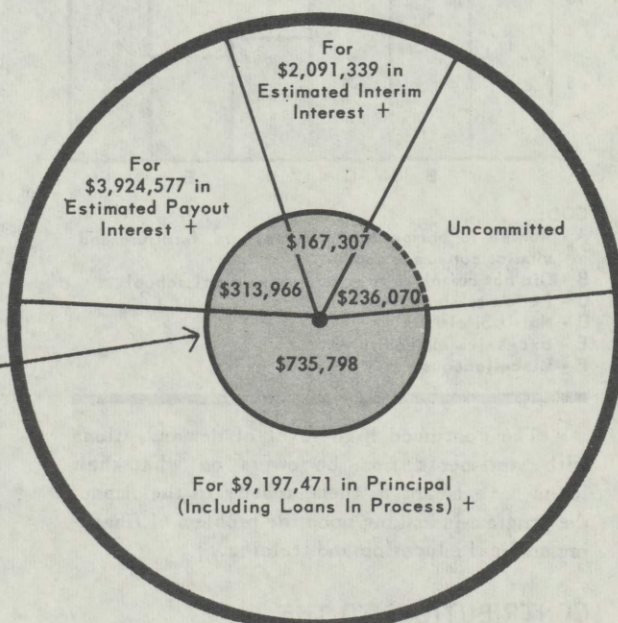
(*\$2,156 paid out of Fund to cover principal and accrued interest on two loans in default through death.)

Loans, secured by \$1 for each \$12.50 worth of credit, have averaged \$1,120 in principal amount. The minimum that can be borrowed is \$400 and the maximum is \$1,500 during any academic year. Loans to residents and interns have averaged slightly higher in amount of principal than those to medical students, although in number 63% of all loans have gone to medical students. (See Table I)

TABLE I

NUMBER LOANS AND PRINCIPAL AMOUNT BY TRAINING STATUS

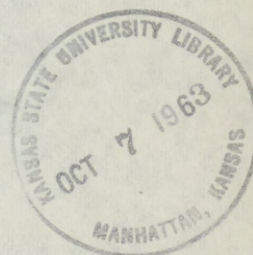
Status	No. Loans	% of all Loans	Principal Amount	Average Principal
Medical Student	4,981	63.0	\$5,366,900	\$1,077
Intern	1,103	14.0	1,280,600	1,160
Resident	1,820	23.0	2,207,800	1,214
TOTAL	7,904	100.0	\$8,855,300	\$1,120

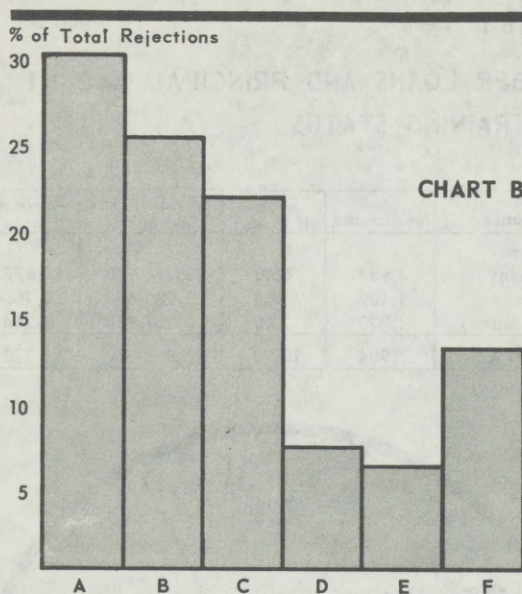


+ Includes decreases resulting from repayments through June 30, 1963.

REASONS FOR REJECTION OF APPLICATIONS BY BANK

Applicants must demonstrate a need for loan funds to meet essential training and living costs. Less than 7% of applications have been rejected by the bank for failing either to show a clear-cut need or to meet the basic criteria of the program. (See Chart B)



**CODE**

- A - Wanted to borrow to purchase cars, furniture and similar consumer goods
- B - Did not complete first term of medical school
- C - Failed to show need for funds
- D - Not U.S. citizen
- E - Excessive expenditures
- F - Miscellaneous

The continued high level of demand, along with statements from borrowers on what their loans have meant to them, testify to the impact the program is making upon the problem of financing medical education and training.

**CONTRIBUTIONS TO THE
GUARANTEE FUND**

Individual physicians, medical societies and private industry have continued their generous support of the program, giving \$575,000 in the first half of 1963. Merck Sharp & Dohme and Chas. Pfizer and Co. each contributed a second gift of \$100,000. G.D. Searle & Co. and Upjohn Co. each renewed its contribution of \$25,000. New gifts included a pledge of \$100,000 by Eli Lilly & Co. to be redeemed over four years, \$25,000 from Prudential Life Insurance Company,

\$20,000 from the Oregon State Medical Society, and \$15,000 from the Charles E. Merrill Trust. Alpha Epsilon Iota, National Medical Sorority, transferred its Jane Darling Stevenson Memorial Loan Fund to the AMA-ERF Program to secure loans to women medical students, interns and residents. The initial AEI contribution from the Stevenson Fund amounted to \$10,475.

Table II gives a detailed listing of contributions of \$1,000 or more made in the first half of 1963.

TABLE II

CONTRIBUTIONS TO GUARANTEE FUND 1963 (Through June 30)

Individual Physicians (Under \$1,000)	\$ 141,592
*Merck Sharp & Dohme	100,000
*Chas. Pfizer & Co., Inc.	100,000
State & County Woman's Auxiliaries, AMA	34,658
Eli Lilly & Company	25,000
Prudential Life Insurance Co. of America	25,000
*G. D. Searle Company	25,000
*Upjohn Company	25,000
Oregon State Medical Society	20,000
Charles E. Merrill Trust	15,000
Alpha Epsilon Iota,	
National Medical Sorority	10,475
*Smith, Kline & French Foundation	10,000
CIBA Pharmaceutical Co.	5,000
A. H. Robins Co.	5,000
Ralph L. Smith Foundation	5,000
Wood County (Ohio) Medical Society	3,000
Tulsa County (Okla.) Medical Society	2,500
+Burroughs Wellcome & Co.	2,000
†George M. Fister, M.D.	1,500
ACF Foundation	1,000
*American Society of Anesthesiologists, Inc.	1,000
Armstrong Cork Company	1,000
Max C. Fleischmann Foundation	1,000
Home Life Insurance Co. of New York	1,000
Life Insurance Co. of Virginia	1,000
Mallinckrodt Chemical Works	1,000
McCall Corporation	1,000
A. L. Moore & Sons (Maricopa County, Ariz.)	1,000
*North American Clinical Dermatologic Society	1,000
Sandoz Pharmaceuticals	1,000
West Virginia Pulp & Paper Co.	1,000
Miscellaneous	7,160
Total January 1 - June 30, 1963	574,885
Income on Savings & Investment (1963)	8,091
Total as of December 31, 1962	870,165
GRAND TOTAL	\$1,453,141

*Renewal of 1962 contribution

†In addition to \$1,000 in 1962

††In addition to \$2,500 in 1962

TABLE III
NUMBER AND AMOUNT OF LOANS
BY STATE

STATE	1963 (6 MOS.)		TOTAL (16 MOS.)	
	NO.	AMT.	NO.	AMT.
Alabama	7	\$ 9,000	27	\$ 34,100
Arizona	12	9,900	31	31,100
Arkansas	41	37,300	121	128,200
California	272	286,300	894	1,039,900
Canal Zone	--	-----	3	3,500
Colorado	61	53,700	219	217,500
Connecticut	21	25,700	56	66,300
District of Columbia	98	110,800	395	442,200
Florida	58	69,800	225	265,600
Georgia	70	82,900	207	250,600
Hawaii	3	3,300	9	10,300
Illinois	116	108,000	392	389,100
Indiana	104	115,100	261	294,600
Iowa	44	46,300	168	193,300
Kansas	12	10,200	31	32,300
Kentucky	46	44,600	145	161,500
Louisiana	44	80,100	221	257,400
Maryland	27	31,100	104	129,300
Massachusetts	23	24,300	81	91,600
Michigan	96	104,400	249	287,600
Minnesota	71	76,700	193	216,700
Mississippi	51	43,700	198	215,000
Missouri	113	121,300	310	349,800
Nebraska	63	67,100	179	202,700
New Hampshire	3	2,800	12	14,500
New Jersey	23	27,000	63	77,900
New Mexico	3	3,500	13	16,800
New York	116	135,600	335	409,200
North Carolina	41	43,600	119	139,300
North Dakota	11	10,400	26	26,100
Ohio	121	129,300	315	351,500
Oklahoma	56	61,900	167	184,800
Oregon	32	29,700	93	99,200
Pennsylvania	103	108,600	304	339,900
Puerto Rico	16	22,400	67	88,700
Rhode Island	5	7,100	10	14,100
South Carolina	21	26,100	58	70,300
South Dakota	6	6,200	31	33,800
Tennessee	197	212,100	532	572,200
Texas	191	155,000	501	480,000
Utah	31	34,700	108	123,000
Vermont	13	15,200	40	44,300
Virginia	41	44,300	104	120,300
Washington	9	9,700	42	49,100
West Virginia	38	51,500	93	116,300
Wisconsin	46	47,100	146	173,700
TOTALS	2,574	\$2,745,400	7,904	\$8,855,300

TABLE IV

NUMBER AND PRINCIPAL AMOUNT OF LOANS

SCHOOL	1963 (6 MOS.)		TOTAL (16 MOS.)	
	NO.	AMT.	NO.	AMT.
Albany (Union U.)	4	\$ 2,300	7	\$ 5,900
Albert Einstein	10	10,000	21	24,600
Arkansas	36	30,800	110	114,800
Baylor	14	12,700	27	28,700
Boston	9	9,800	18	20,200
Bowman Gray	9	8,600	20	22,100
Buffalo	8	8,600	15	16,700
California (S.F.)	10	10,500	22	25,900
California (UCLA)	13	14,800	42	48,600
Calif. College of Medicine	57	53,200	163	167,600
Chicago (U. of)	---	-----	1	1,200
Chicago Medical	6	5,900	27	29,100
Cincinnati	7	6,300	23	25,000
Colorado	37	29,700	132	125,500
Columbia	---	-----	1	1,500
Creighton	56	57,600	153	167,100
Dartmouth	1	500	4	4,400
Duke	9	7,900	22	21,400
Emory	11	10,800	22	23,200
Florida	12	14,900	50	57,300
Georgetown	20	23,300	65	79,100
George Washington	19	15,600	109	86,100
Georgia	29	32,900	95	116,900
Hahnemann	22	25,600	40	49,000
Harvard	---	-----	1	1,500
Howard	28	32,600	128	158,300
Illinois	71	58,300	208	180,500
Indiana	83	91,900	198	225,100
Iowa	39	40,200	136	154,400
Jefferson	22	18,800	58	56,600
Johns Hopkins	2	2,000	2	2,000
Kansas	11	8,700	17	15,300
Kentucky	24	18,600	60	57,400
Loma Linda	54	59,900	226	282,400
Louisiana	25	22,600	81	87,500
Louisville	19	22,500	71	88,000
Loyola (Stritch School)	15	14,800	41	38,900
Marquette	31	30,300	94	109,800
Maryland	9	8,900	45	53,600
Meharry	61	80,600	158	204,400
Miami	14	16,300	72	87,400
Michigan	14	12,200	58	62,100

BY MEDICAL SCHOOL

SCHOOL	1963 (6 MOS.)		TOTAL (16 MOS.)	
	NO.	AMT.	NO.	AMT.
Minnesota	36	36,400	77	84,800
Mississippi	41	35,000	150	159,500
Missouri	12	11,800	31	28,600
Nebraska	5	7,000	15	20,900
New York Medical College	1	1,500	3	4,000
New York State (N.Y.)	1	1,400	4	6,000
New York (Syracuse)	4	5,500	8	9,400
New York University	---	-----	1	1,500
North Carolina	12	13,800	43	52,700
North Dakota	11	10,400	26	26,100
Northwestern	1	1,400	10	12,300
Ohio State	49	44,800	121	119,400
Oklahoma	40	42,000	116	124,600
Oregon	16	15,500	53	58,700
Pennsylvania	---	-----	4	5,200
Pittsburgh	4	3,400	19	20,300
Puerto Rico	7	10,400	48	63,200
Rochester	---	-----	1	500
St. Louis	71	76,100	177	205,000
Seton Hall	9	9,400	31	36,600
South Carolina	15	18,800	41	47,900
South Dakota	6	7,100	30	33,200
Southern California	17	19,200	62	74,400
Stanford	15	11,400	25	23,600
Temple	14	12,100	45	44,800
Tennessee	108	103,900	296	280,700
Texas (Dallas)	19	16,100	64	68,600
Texas (Galveston)	108	72,400	252	188,900
Tufts	1	500	4	3,700
Tulane	15	15,600	37	41,400
Utah	23	25,700	63	71,000
Vanderbilt	---	-----	2	3,000
Vermont	10	11,700	25	27,700
Virginia (Medical College)	6	5,400	16	16,200
Virginia (U. of)	10	9,200	27	29,300
Washington (St. Louis)	7	6,600	15	15,500
Washington (U. of)	4	6,000	9	12,600
Wayne	29	30,200	69	77,600
West Virginia	40	48,900	86	101,600
Western Reserve	3	3,500	6	6,700
Wisconsin	1	500	13	15,500
Yale	2	3,000	13	16,600
TOTALS	1,694	\$1,685,100	4,981	\$5,366,900

SCOPE OF THE LOAN PROGRAM

Students from 84 medical schools, and interns and residents in training in 504 hospitals had borrowed through June 30. Tables III and IV present the number of loans and principal amount granted in the first half of 1963, as well as since the program's inception, by state of training, and specifically for medical students, by school.

LOANS IN PAYOUT

Fifty-two loans had reached the payout stage by June 30. Of these 10 were paid in full at maturity and the others were refinanced into payout loans. Borrowers are given the opportunity to arrange refinancing calling for equal monthly payments over a maximum ten-year period. In addition, 36 loans were returned, and two were defaulted through death.

LETTERS FROM BORROWERS

Scores of medical students, interns and residents have written to AMA to tell of the practical ways the program has been of assistance to them. Here are a few excerpts from their letters:

From a medical student in Washington, D.C.:

I have been able to pay my tuition, buy much needed books and work less. The loan has enabled me to concentrate more fully on my studies. I especially appreciated receiving the money in a lump sum to be used when needed.

From a resident in Indiana:

When I decided to enter residency training, my wife was still employed. However, it was not long until it became quite evident that being a homemaker, breadwinner, and mother of two children was more than I could fairly ask my wife to be. Therefore, I had resigned myself to discontinue my residency training. At this time, the Loan Guarantee Program was put into effect. Fortunately, my loan was approved and I am now in my second year of residency training.

From an intern in New York:

The loan has meant dental care for my wife, better clothing for the children and a healthier family budget. I find it morally invigorating to know that this program recognizes the difficulties of men in my position and places its confidence in us.

From a medical student in Oregon:

Realizing that people entering medicine are of good character and have good prospects, you lend money to them without the humiliation of trying to get co-makers, or of close control over the use of the funds. There is an interest rate to pay, which restores even more respectability to the role of the borrower. But probably the greatest benefit to the student, and also the profession, is the feeling that he is doing it on his merits.

**AMA—EDUCATION AND RESEARCH FOUNDATION
535 NORTH DEARBORN STREET
CHICAGO 10, ILLINOIS**



Dr. WELCH. Highlights from the progress report show that 7,904 loans had been made by the end of June 1963. In dollars advanced to borrowers, this amounted to \$8,855,300 in principal amount—63 percent of these loans were made to medical students, 14 percent to those in internship training, and 23 percent to resident physicians. Borrowers are in training in 84 medical schools and 504 hospitals in 46 States and possessions and the average individual loan has amounted to \$1,120.

When the AMA conceived this loan program, it had two objectives. One, of course, was to relieve the financial burden of students. The other was to attract more students to medical school who might otherwise be deterred by financial considerations.

Following World War II, through 1952, the number of applicants to medical schools was greatly increased because of the influx of veterans. In 1953, the number diminished abruptly and then enlarged slightly year by year through 1956. Thereafter there was a gradual decline through 1961, and it was during that period that expressions of concern were loudest. However, in 1962, there was a sharp upturn in applicants, an upward trend that has continued in 1963.

In retrospect, these fluctuations could have been predicted from a study of numbers in the population involved and it now appears probable that the number of medical school applicants will continue to increase in the immediate years ahead. In fact, preliminary reports on data being compiled for the year 1963-64 indicate the continuation of the upward trend.

An examination of table I will show that, with but a single exception, subtest score averages in the medical college admission test (cols. 2, 3, 4, and 5) obtained during 1962-63 by those who will enter America's medical schools next month exceed comparable score averages for any previous year. It is significant, furthermore, that in the past 3 years the averages of all subtests have exceeded 500, whereas prior to that time they characteristically fell below that score. It may be concluded, therefore, that there is no present threat of decline in quantity or quality of medical school applicants.

We submit that a loan program is not defensible as a recruitment aid. As far as meeting the financial needs of students in training, we are now convinced that the AMA program is performing this function and can adequately fill the total needs for funds demanded by students in American medical schools. Indeed, we were hopeful at the outset that the program had this potential, but felt we should be cautious in such an interpretation until considerable experience was gained in its operation.

Mr. Chairman, we further note two important differences between the loan guarantee program of the AMA-ERF and the loan program proposal of H.R. 12.

First, H.R. 12 would require repayment to begin 3 years after completion of medical school while the AMA program has been tailored to the specific internship and residency training needs of each individual medical student. Repayment of AMA-ERF loans does not begin until 5 months after all phases of an individual's medical education have been completed. To initiate the repayment process at an earlier date would require many physicians to make repayment on their loans while still enrolled in a residency training

program. Evidence that this would be an unrealistic requirement is available from our loan program which demonstrates that residents find additional borrowing a frequent necessity during this period.

The second difference relates to interest charges of these two programs. In negotiating with banks, the American Medical Association found that the interest rates under its program—namely, 5½ percent simple during training and 6½ percent simple on the unpaid balance during payback—were the lowest rates possible for a non-subsidized program. A comparison of interest charges to students under these two programs shows that, based on \$30,700,000 authorized by H.R. 12 and over the life of the loans, almost \$17 million in Federal funds would be required to subsidize the bill's loan program.

We ask that you observe that medical students traditionally have taken pride in being self-reliant. Now that the AMA, in cooperation with private banking institutions, has given them the opportunity to borrow as responsible individuals, we can see no reason why taxpayers should be asked to subsidize the cost of their loans. This view is emphasized when we recognize that physicians receive a reasonable monetary return for their investment in time and education. One could expect, then, that physicians during the student phase of their total career should be responsible for the going rate of interest on the funds borrowed.

It is thus upon sober reflection and consideration that we urge deletion of the loan provisions from H.R. 12. We do this with the firm conviction that private initiative and voluntary support will continue to make the AMA loan program responsive to the needs and the spirit of students in medical training.

Mr. Chairman, the American Medical Association has always been seriously concerned with the maintaining of the high quality of medical education in the United States. For over a century, the association has been actively and effectively engaged in the improvement of medical education, recognizing that without such high quality of medical education there can be no high quality of medical care. It can now be said with assurance that medical education and medical care in the United States are superior to that found anywhere else in the world.

We are appreciative of the subcommittee's consideration of the American Medical Association's views on this timely and important subject. We shall now be pleased to answer any questions you may have.

The CHAIRMAN. Doctor, would you delete the loan provisions for dentistry and osteopathy?

Dr. WELCH. Yes; we recommend the deletion of this section of the bill.

We feel that the American Medical Association, through its education program, has established a pattern in a short period of time which might well be emulated by the schools in the other professions.

The CHAIRMAN. Now, we have figures before us that the percentage of freshmen medical school students with an average college grade of A declined from 40 percent in 1950-51 to 15 percent in 1959-60, to 12 percent in 1961-62.

Do you feel that this decline is inimical or a threat to medicine in its top students?

Dr. WELCH. I think perhaps I would like to have Dr. Smith reply to this question.

The CHAIRMAN. All right.

Dr. SMITH. As I understand the data of grades as given by classrooms, they are typically difficult to compare because of the different standards the teachers use.

The CHAIRMAN. These are college grades, Doctor.

Dr. SMITH. Yes.

The CHAIRMAN. The first 4 years of B.S., so to speak, before you enter medicine.

Dr. SMITH. It is for this reason that we would feel that the test score records of students on a comparable basis, as in the medical college admission test, are much better evidence.

The CHAIRMAN. Will you state that again?

Dr. SMITH. It is our feeling, therefore, that the objective test score data are better evidence concerning the quality of students than are the grades students receive in classes.

The CHAIRMAN. Well, the grade would be an indication, perhaps, both of his mental capacity, his diligence and application, and his sincerity.

Is that not right?

Dr. SMITH. Certainly, sir.

The CHAIRMAN. Dr. Welch, you speak about a Federal subsidy of \$17 million, and you also speak of subsidized loans.

What do you have in mind in using that word "subsidy"?

Dr. WELCH. Well, again, if I can refer this question to Dr. Smith, Mr. Chairman, I would appreciate it.

He has figures, I think, on this.

Dr. SMITH. The Government's cost of obtaining \$30.7 million for the 7-year training period within which interest would not accrue to borrowers under the terms of H.R. 12, would amount to \$6,447,000, using the minimum interest rates stated in the bill itself.

However, this analysis ignores all of the additional costs of the administration and operation for both obtaining and distributing the funds.

Also required, of course, would be the expense of defaulted loans.

It seems that a more realistic estimate could be obtained, based upon known costs of ongoing private loan which has been priced through the market test of competition.

Our marketplace determination of pricing the AMA-ERF guaranteed loans, resulted in rates as you know, of 5½ percent and 6½ percent during interim and payoff periods, respectively.

Therefore, using the prices as a point of reference it can be determined that loans amounting to \$30.7 million authorized in H.R. 12, would yield \$11,819,500 of interest income during the training period, and an additional \$11,144,000 during a 10-year payoff period or a total of \$22,963,500 for the entire 17-year period.

This may be compared with interest income that would be provided by the loan proposal of H.R. 12.

For the training period there would be no interest and an estimated \$5,065,500 during the 10-year paid-back years.

The difference between these two totals, \$17,898,000, have to come from the Government's other sources of income, the American taxpayer.

Again, I caution that this analysis is an estimate. The true level of public subsidy, if it could ever be known, could be lower or it could be higher. For instance, these calculations are based on the appropriations stated in the bill for the first 3 years of this operation.

The bill provides for unspecified amounts of additional appropriations for 3 subsequent years, and the resulting additional cost to the taxpayers has not been considered in this analysis.

The important fact that needs emphasis, however, is that the total cost of providing loans through a tax-supported loan program and an equivalent private one, are roughly equivalent. The fundamental difference is roughly stated as who pays the bill.

In the former it is predominantly the taxpayers and in the latter it is the individuals who benefit most directly from having the loans.

The CHAIRMAN. Doctor, you realize that under the provisions of H.R. 12 the borrower pays back the full amount of the loan?

Dr. SMITH. This is true.

The CHAIRMAN. You realize also he pays an interest rate equal to that which the Government has to pay to borrow money?

Dr. SMITH. That is true, during the time that he is paying it back.

The CHAIRMAN. During the time that he is paying back he is paying back either at 3 percent or at the going rate of the cost of the money to the Government, which means that whatever the Government pays during that period for this money he has to pay that interest.

Is that correct, sir?

Dr. SMITH. That is correct.

The CHAIRMAN. Ordinarily, when we use the term "subsidy" I think we think in terms of a gift or a grant, do we not?

Dr. SMITH. I believe so.

The CHAIRMAN. So when he is paying back both interest and principal he is not getting too much of a gift or a grant, is he?

Dr. SMITH. Except that he does not pay interest. Interest does not accrue during the time that he is in training and the interest rate that he pays is substandard when you consider the operation of administrative costs and other costs that any private source must take into consideration.

The CHAIRMAN. The interest rate under the AMA program is from $5\frac{1}{2}$ to $6\frac{1}{2}$ percent?

Dr. SMITH. Simply during this training period $5\frac{1}{2}$ percent on an accrual basis; $6\frac{1}{2}$ percent on the unpaid balance to 10 years.

The CHAIRMAN. He pays interest over the whole period?

Dr. SMITH. That is correct, sir.

The CHAIRMAN. I might state that I have a telegram here from the Student American Medical Association, and I am sure you know that association well, in which they support the student loan provisions of H.R. 12, advising that in their house of delegates they had a vote on this matter and they voted 43 to 18 in favor of supporting the loan provisions.

(The telegram referred to follows:)

CHICAGO, ILL., May 5, 1963.

Senator LISTER HILL,
Chairman, Labor and Public Welfare Committee,
Senate Office Building, Washington, D.C.

DEAR SIR: I am writing on behalf of the Student American Medical Association which has just completed the final session of its annual house of delegates meeting in Chicago.

Circumstances do not permit myself or a member of our organization to appear before your committee, but it is the wishes of the house of delegates that your committee be informed of its action here today regarding Federal loans to medical students through H.R. 12. The house, by a vote of 43 to 18, passed a resolution which stated "Be it resolved that the House of Delegates of SAMA go on record as being in favor of Federal loans to medical students as proposed in H.R. 12; a supplement to presently existing program."

At its annual meeting 2 years ago AMA went on record as opposing Federal scholarships. Last year the house reiterated its stand on scholarships and also indicated that it was opposed to Federal loans, until all private sources of funds are depleted.

This year's action on the part of the house reverses the official position of the organization, which represents 19,000 medical students in 78 of the Nation's 87 accredited medical schools.

This reversal was based on the opinion of the House as expressed: (1) the AMA-ERF loan fund is a great service to medical education, but because of the 5½ percent interim interest rate beginning at the initiation of the loan and the 6½ percent payout interest accumulating until repayment is complete, because of the requirements that repayment begin the fifth month after completion of full-time training and, because the maximum yearly loan is \$1,500 available over a 7-year period, the AMA-ERF loan fund is more practical for the intern or resident who can begin repayment before the interest rates mount. (2) H.R. 12 proposes a loan fund which will bear interest on the unpaid balance of the loan at the rate of 3 percent per annum computed only for periods during which the loan is repayable, the loan becoming repayable 3 years after completion of full-time medical training, the maximum yearly loan being \$2,000 available over a 4-year period (a more realistic figure for medical students), and H.R. 12 has provision for suspension for up to 3 years of active military service or Peace Corps.

At the same time the House expressed its continued opposition to the principle of Federal scholarship to medical students by a vote of 48 to 12.

I would appreciate your committee's consideration of these remarks.

Respectfully yours,

ROBERT O. VOY,
National President, Student American Medical Association.

THE CHAIRMAN. I like the provisions in your program, in that you carry forward your loans until 4 years after medical school, but I think that interest payments during that period of time run pretty high. In comparison, a student will not begin to pay interest on the Government loan under H.R. 12 until 3 years after he gets his degree as M.D. or D.D.S. and the interest rate does not run nearly so high.

You do think it important, do you not, Doctor, that we attempt to bring to our health professions more of our abler students?

Dr. WELCH. Yes, sir.

THE CHAIRMAN. As you know, graduate students in many of the physical sciences and in the life sciences can qualify for fellowships. Medicine has been in an unfavorable position to compete for talented students.

Dr. WELCH. Yes, I think that is true.

THE CHAIRMAN. The word we use, in reference to our farm program, is that we need more parity; that is, we need more of these talented students in medicine.

Dr. WELCH. Yes, I think that is true, but I think this table of statistics that I submitted in my formal presentation gives some impression of the change in the scholastic standing of applicants as

evidenced in columns 2, 3, and 4. Further, columns 6 and 7, which indicate the increase in individuals who are well qualified or interested in the practice of medicine.

The CHAIRMAN. All right, Doctor.

Doctor, I notice this statement in the report of the House committee on H.R. 12, speaking of the students:

If he borrows \$1,500 in each of the 4 years of school and he begins repayment of the loan in 1970, completing repayment in 1980, he would have to repay under the AMA program a total of approximately \$10,500; whereas under the H.R. 12 program he would have to repay a total of approximately \$7,200.

That would be a difference of \$3,300.

Is there any comment you would like to make on that?

Dr. WELCH. Yes. I think that is the point that Dr. Smith was making. There is a difference in the interest on these two programs, but in one case the interest apparently would be subsidized by the taxpayer. We feel that these individuals, because of the advantage which they will get through a medical school education and their income thereafter, can take care of this problem. We believe many will want to take care of this problem themselves.

The CHAIRMAN. Senator Williams?

Senator WILLIAMS. No questions, Mr. Chairman.

I just want to say that the core of this bill, as I understand it, is the construction aspect, and I think those of us who very strongly support the legislation should be very grateful to the American Medical Association for their testimony on this bill.

The CHAIRMAN. Senator Pell?

Senator PELL. Dr. Welch, I was struck by the difference of your approach with regard to the caliber of applicants of medical schools as compared to the previous witnesses.

Your view, then, is that you have a high average of intellectual students applying this year or a higher average than you have ever had before?

Dr. WELCH. That is correct.

Senator PELL. I thank you.

One further question: As you know, or would you agree with the fact that I think it is something like—it was brought out earlier—12 percent—that 42 percent of the students in medical schools come from 12 percent of the families with a median income of more than \$10,000?

Dr. WELCH. Yes; that is true.

Senator PELL. Well, your program is an excellent one of loans, as I understand it, and where you say there is no inhibition on securing more funds because people are glad to give you the money; is that correct?

Dr. WELCH. Yes.

Senator PELL. That would be correct?

Well, I notice that you have only had about 8,000 loans out of some 30,000 students. Would that be correct?

Dr. WELCH. This is approximately right, isn't it?

Dr. SMITH. Yes.

Senator PELL. Well, how would you assume the rest of the 60 percent of the students from a family with a median income under \$10,000 would finance their medical education?

Dr. SMITH. Well, there are many other sources of funds. Our loan program is but one.

Each dean, for example, has various sources more or less which he uses in his discretion for those cases that need it.

There are many who are working. There are a series of sources of support: Families contributing; wives are working, and all of these put together allow this student to complete his training.

We feel the foundation program offers the student who needs the funds and wishes to borrow them an opportunity to do so.

Senator PELL. But I do not understand your objection to a further program that this bill would provide.

Dr. WELCH. Well, we feel from our experience in only 18 months, that we have been able to fill the need of those individuals who have applied for help. In our opinion, based upon this experience in the short period of time, we feel that our loan program is adequate to help those people who indicate that they need help.

Senator PELL. In reaching your conclusions did you consult with the students themselves—because as set forth in the telegram to Senator Hill they have a different view?

Dr. WELCH. With the student of the American Medical Association?

Senator PELL. Yes.

Dr. WELCH. We have had individual talks with students.

We have not had any formal discussion with them on the level of their annual meeting.

Senator PELL. Thank you.

The Chairman. Senator Kennedy?

Senator KENNEDY. No questions.

The CHAIRMAN. Well, Doctor, I want to join Senator Williams in expressing gratification and appreciation for the support of the American Medical Association for the construction grant provisions in this bill and, as I said earlier, I like the provision in your own program in which you provide to carry forward your loans after the 4 years of undergraduate work during the internship and residency, because we know that becomes more and more important all the time.

Is that not true?

Dr. WELCH. Yes; that is true.

Of course, many of these boys are married and have families by the time they get through medical school and this creates a problem for them.

The CHAIRMAN. Are you a graduate of one of the New England medical schools?

Dr. WELCH. I am a graduate of Tufts in Boston.

The CHAIRMAN. Oh, Tufts in Boston?

Senator Kennedy, did you take note of that?

Senator KENNEDY. Yes, sir. [Laughter.]

The CHAIRMAN. Well, we are delighted to have you here, sir, all of you gentlemen, and we want to express our thanks to you.

Dr. WELCH. Thank you, Senator.

The CHAIRMAN. Now, the American Nurses Association; Miss Agnes Gelinis of New York, N.Y., who is chairman of the Department of Nursing at Skidmore College.

We are glad to have you here with us.

STATEMENT OF MISS AGNES GELINAS, CHAIRMAN, DEPARTMENT OF NURSING, SKIDMORE COLLEGE, NEW YORK; ACCOMPANIED BY MISS JULIA C. THOMPSON, DIRECTOR, WASHINGTON OFFICE, AMERICAN NURSES ASSOCIATION

The CHAIRMAN. You may proceed in your own way.

Miss GELINAS. Thank you, Mr. Chairman, and committee members.

I am Agnes Gelinas, and I am chairman of the department of nursing, at Skidmore College, located in New York City.

I appear here today as the spokesman for the American Nurses Association in support of S. 911.

With me is Julia Thompson, the Washington representative.

The CHAIRMAN. Miss Thompson is an old friend of this committee, and we are happy to have her here with us today.

Miss GELINAS. I have a prepared statement for the association which we would like to have included in the record of the hearings.

I will refer briefly to some of the content of this statement and supply some additional substantiating information.

The CHAIRMAN. All right. We will have it appear in full in the record and you make any statements you see fit.

Miss GELINAS. Following these brief statements I will be pleased to try to answer any questions you may have.

One of the major objectives of the American Nurses' Association is to promote the education of nurses to provide high quality nursing service to the public.

In order to accomplish this end there must be qualified teachers both in academic and clinical training programs.

The shortage of qualified nurse instructors for all nursing education programs has been pinpointed as the crucial area of need.

The Surgeon General's consultant group on nursing stated in its report, released in February 1963, that the highest priority for expansion is in the baccalaureate and graduate programs.

The report notes that diploma programs are the only nursing schools which have had Federal assistance for construction.

The Surgeon General's study group calls for Federal funds for collegiate school construction, preferably in the university medical centers which are ready to expand or establish new schools of nursing.

The report continues:

To assure adequacy of nursing service a larger number of nurses must be prepared for leadership in teaching roles.

Of particular importance are faculties of schools of professional and practical nursing, supervisors and administrators in hospitals and other health agencies, nurses in research, nurses highly specialized in the areas of clinical practice.

And, of course, the clinical practices in nursing or medical nursing, surgical nursing, obstetrical nursing, pediatric nursing, psychiatric nursing, and public health.

The report also states:

Baccalaureate nursing education is the best basic preparation for those staff nurses who have potential for leadership.

But preparation for supervision, administration, teaching, and clinical specialization requires postbaccalaureate education in nursing as in other professional disciplines.

Experience has demonstrated the importance of providing strong formal education in key areas of specialization.

For the most part the collegiate nursing schools provide the only programs which prepare the public health nurses.

The president of the American Nurses' Association, commenting on the report, said:

We also share the report's conclusion that special emphasis should be placed on increasing the numbers of college and university-educated nurses who are needed to give expert nursing care, teach nursing students, plan and administer nursing services, supervise auxiliary personnel, and assume other leadership positions.

The President of the United States, in his health message to Congress, February 7, said:

The number of nurses graduating from collegiate courses would have to double from 4,000 in 1960 to at least 8,000 in 1970.

This expansion would require the equivalent of more than 30 to 35 new collegiate nursing schools.

The development of such schools is essential if the nursing profession is to be supplied adequately with practitioners of the broad background in the social, behavioral, and physical sciences that is so desirable in the practicing nurse and vital to supervising-teaching nurse.

The House Interstate and Foreign Commerce Committee stated in its report last year on H.R. 4999:

One field in which there is clear evidence of a bottleneck is the limited capacity of the collegiate schools of nursing which must provide the teachers and administrators required for the expansion of all types of professional and practical nurse training.

Dr. T. Stewart Hamilton, president of the American Hospital Association, says in an article entitled "Modern Medicine Requires Qualified Nurses" in the August 1963 issue of *Today's Health*:

We need workers and we need leaders. But before we can have either we need suitable teachers.

These instructors, above all others, must have advanced preparation.

We need more nurses—this is true—

said Dr. Hamilton—

but we also need many more nurses with baccalaureate and graduate preparation.

Today there are only 10,000 to 11,000 active in the profession with advanced degrees in nursing to fill some 60,000 positions of leadership in the United States.

Significantly, last year more than 1,400 budgeted teaching positions alone went unfilled.

Dr. Hamilton notes that nursing programs have difficulty competing with other graduate fields for institutional funds, and rarely have financial endowment to give them stability and continuity.

He calls for encouragement and financial aid to support nursing schools.

According to a survey conducted by the National League for Nursing in August, 1962, 53 percent of the responding baccalaureate schools reported that physical facilities were inadequate, and 31 percent reported insufficient numbers of qualified faculty.

You will note in our prepared testimony that there were 1,404 budgeted teaching vacancies in diploma and baccalaureate nursing education programs in 1962.

Federal aid has been available to students at the graduate level and for vocational education programs for practical nurses.

The need now is for Federal aid to increase the opportunities for the training of baccalaureate nurses, who will then be eligible for graduate education, for supervision of vastly increased numbers of

lesser trained health workers, and who will be able to assume increasing responsibilities.

As Dr. Hamilton states:

The nurse remains the vital link between the physician and the patient.

As the doctor takes on increasingly complex skills, more of the functions he wants performed must be passed along to the nurse—oxygen therapy, for example, blood pressure determinations, and intramuscular injections.

These functions and many others besides require a nurse prepared to accept new skills and greater responsibility.

Graduate nursing education prepares the teachers, the administrators, supervisors, and nursing specialists, equipping them with the kind of education and leadership necessary to the development of the best possible nursing services in our modern medical institutions.

To my knowledge all colleges and universities with baccalaureate and graduate programs in nursing heartily support the bills under consideration by your subcommittee.

Federal funds for construction will increase opportunities for training and expand enrollments in collegiate schools of nursing.

The ANA supports the bills under consideration by your subcommittee as a first step in helping to increase the supply of workers in the health professions.

We appreciate the opportunity to appear, and we hope you will take early and favorable action.

Thank you very much.

The CHAIRMAN. Miss Thompson, is there anything you would like to add?

Miss THOMPSON. Senator Hill, I would like to clarify several questions that were asked earlier in regard to nursing education.

One of the questions related to the reason why only collegiate nursing education was included in the legislation, and I think after this statement that Miss Gelinias has made and our statement that we are filing for the record, it is obvious that this is the area where there is the greatest need and where we should begin.

This does not preclude the fact that other programs need aid.

Another reason is that this legislation is designed primarily for institutions of higher education and, according to the definition in the bill, hospital schools would not qualify for assistance under this legislation.

Most of the 2-year programs that are in existence, and they are growing rather rapidly, are terminal programs.

They do not qualify a student who completes the program to continue on for a baccalaureate degree.

Should the program be set up so that the person could apply the credits that were earned in the two-year program to the baccalaureate degree then, I would think, the school might be eligible for funds.

Miss GELINAS. And I would like to add, too, that the collegiate schools are ready to accept the registered nurse of the diploma school or of the community college program, who wishes to continue with her education and earn the baccalaureate degree, and these are needed in the country because there are many nurses who wish to have more education.

Collegiate schools are ready to take them and give them the supervision and instruction in nursing and in the liberal arts which they need.

The CHAIRMAN. Any questions?

Senator Kennedy?

Senator KENNEDY. I have no questions.

The CHAIRMAN. Well, we want to thank you very much.

Now, the documents that you referred to might be put in the record at this point.

Miss GELINAS. Yes, sir.

(The documents referred to follow:)

PREPARED STATEMENT OF AMERICAN NURSES' ASSOCIATION

The American Nurses' Association, the national organization of registered professional nurses, welcomes this opportunity to appear here and to submit this statement in support of S. 911 and H.R. 12.

For the past 5 years the ANA has supported similar proposals, requesting that assistance for nursing education be included. Documentation of the urgent needs in nursing has been previously submitted to this committee. We are pleased that need for aid for construction of collegiate schools of nursing has been recognized and included in the present legislation.

Although the funds that will be available are limited, your proposals for construction grants for teaching facilities in collegiate schools of nursing is an important beginning.

At a time when the shortage of professional nurses is recognized as being critical it is of serious concern to us that qualified applicants cannot be admitted to college programs in nursing because teaching facilities are inadequate. It is from these programs that the future teachers of nurses and administrators and supervisors of nursing service will be drawn. While the programs have expanded slowly in the past 10 years, expansion needs to be accelerated or the situation now prevailing will be compounded.

The traineeship program for graduate education to prepare teachers, supervisors and administrators, authorized by the Health Amendments Act of 1956, has been helpful. However, a January 1962 survey shows that there are 1,404 budgeted faculty vacancies as compared with 1,087 vacancies for teachers in 1960.¹ At present only 13 percent of graduating nursing students come from baccalaureate programs where they have opportunity to acquire prerequisites for graduate training. In 1960-61 this represented 4,039 graduates from these basic collegiate programs. When we compare this with the number of current faculty vacancies, 1,404, it is a woefully small number.

At present few schools can increase their enrollments because of a lack of sufficient qualified faculty. Until the collegiate schools of nursing are expanded this condition will prevail or worsen. It is not unrealistic to expect that those who teach nursing students have a minimum of a basic degree. This is required of elementary and secondary school teachers. The quality of nursing care and the number of nurses available will not improve until there is an increase in the number of nurses with collegiate preparation, a minimum expected of a professional person in today's world.

The report, "Toward Quality in Nursing," prepared by the Surgeon General's Consultant Group on Nursing, outlines the needs for 1970 in chapter IV, pages 15-19 where it states "To meet the needs of the Nation in 1970 for safe, therapeutically effective, and efficient nursing service, the consultant group sees need for some 850,000 professional nurses, including 300,000 with an academic degree." Today only 10 percent of the estimated 550,000 nurses actively engaged in nursing on a full- or part-time basis have academic degrees.

Dr. Mary Kelly Mullane, dean, College of Nursing, University of Illinois, in testimony before the House Appropriations Committee, Subcommittee on Labor and Health, Education, and Welfare Budgets, asked: "Where are we going to get the university professors that must build the graduate programs in our universities, that train the teachers and supervisors for our nursing services? We nurses, physicians, and many others, too, do not stop to think that nursing cannot escape the impact of scientific advancement. The new knowledge of biological and the behavioral sciences must affect the practice of nursing as it affects the practice of medicine."

Dr. Mullane expressed her "deep personal concern" for the need for faculty, and qualified faculty. She stated that one of every three of the instructors at the Illinois College of Nursing had completed the bachelor's degree only the previous

¹ National League for Nursing, 1963;

year. "This left the university in the position of teaching university juniors and seniors, using instructors who had had no more training than graduation from the program in which they were teaching," explained Dr. Mullane. Referring to the "revolution in the educational aspirations of American women," Dr. Mullane noted that enrollment of women in colleges has increased 50 percent, whereas enrollment in schools of nursing has increased about 7 percent over the past 6 years. Salaries in nursing "are not distinguished for affluence," and Dr. Mullane said that young faculty members cannot save enough to continue their graduate work.

The total number of graduates from schools of nursing has remained fairly constant over the past 10 years but the demands for nursing services have greatly increased. For example, since the Hill-Burton Act was passed in 1946, 6,470 projects expanding health facilities have been completed, including an additional 23,376 nursing-home beds; another 286 nursing homes have been constructed through loans from the Small Business Administration; and 26 new veterans' hospitals with a bed capacity of 18,280 have been constructed since 1952.² If these facilities are to be adequately staffed by well-prepared nurses, the public must accept more responsibility for the education of nurses.

The Surgeon General's report comments on this problem by saying: "Because the need for professional and practical nurses is increasing so much faster than the supply, hospitals have employed ever larger numbers of nursing aides, many of whom are inadequately trained. This pragmatic solution to the problem of shortages has produced an alarming dilution of the quality of service. In some hospitals the use of auxiliary workers has reached such extreme proportions that nursing aides give as much as 80 percent of the direct nursing service."³

In his health message to the Congress in March, the President said: "Too many hospitals have been required to rely on inadequately trained orderlies and attendants. At my request, a distinguished group of citizens, serving as consultants to the Surgeon General, has studied the scope and solutions of this problem. They concluded that a feasible and essential goal for 1970 is to increase the number of professional nurses in practice to some 680,000 and the number of practical nurses to 350,000. This requires a 25 percent increase in the supply of nursing personnel and, therefore, a major expansion in both collegiate and hospital programs of nursing education. The number of nurses graduating from collegiate courses would have to double from 4,000 in 1960 to at least 8,000 in 1970. This expansion would require the equivalent of more than 30 to 35 new collegiate nursing schools. Graduates from hospital schools would have to increase from 25,000 to 40,000 by 1970, and junior colleges would have to be graduating 5,000 by that year."

"Nursing schools are unable to bear the tremendous financial burden for an expanded effort of this size. Despite diligent effort, nursing has had little success in commanding sufficient local support for the development of its educational facilities and programs. Federal assistance in the expansion of our capacity to train nurses will be necessary."

This report of the Surgeon General's Consultant Group on Nursing contains ample documentation of the need for passage of the bill now before this committee.

The ANA supports the legislation wholeheartedly and urges your committee to act favorably on it. Thank you for the opportunity to present our views.

[Reprinted from the American Journal of Nursing, vol. 59, December 1959]

IF FUNDS WERE AVAILABLE—NURSING EDUCATORS CITE NEEDS FOR PUBLIC SUPPORT IN COLLEGIATE SCHOOLS

Nursing's Federal legislative efforts will focus on securing financial aid for collegiate nursing education when Congress reconvenes in January. Expansion of such programs is one of the primary needs for public support outlined by the American Nurses' Association.

In spearheading this effort, the ANA will seek passage of H.R. 1251, a bill introduced last January by Representative Edith S. Green, Democrat, of Oregon, and its companion, S. 1118, introduced by Senator Hubert Humphrey, Democrat, of Minnesota.

² Data from Public Health Service, Veterans' Administration, and Small Business Administration.

³ Report of the Surgeon General's Consultant Group on Nursing. "Toward Quality in Nursing: Needs and Goals." U.S. Department of Health, Education, and Welfare. Public Health Service, Washington, D.C., 1963, p. 15.

These bills propose a 5-year, \$100 million program of grants to schools for the construction of teaching facilities; a 5-year \$50 million program of grants to assist with costs of instruction; and a 5-year \$50 million program of scholarship aid for nursing students in preservice baccalaureate programs and to graduate nurses in supplemental programs leading to a baccalaureate degree.

This effort is one of three priorities of need for public support outlined by the ANA Committee on Legislation in accordance with the ANA platform approved by the house of delegates in 1958. The other two priorities are traineeships or scholarships for nurses in advanced programs preparing for teaching, administration, and supervision in nursing; and research and research fellowships.

Focus on securing financial aid for supplemental and basic programs in nursing leading to a baccalaureate degree is possible now because of the 5-year extension of the Federal traineeship program. Through this program, administered by the Division of Nursing Resources, U.S. Public Health Service, nurses are able to secure funds to prepare for positions in administration, supervision, and teaching. During the past year, ANA devoted much of its legislative effort to the extension of this program.

As demands for more as well as better prepared nurses continue, ANA believes the public must provide financial support for nursing education as it does for education in other health professions.

WHY COLLEGIATE SCHOOLS?

The need for such aid has received support from nurses and nursing educators throughout the country. Many have urged action on this legislation. This is what they say:

University of Southern Illinois, Carbondale, Ill.

Teachers for schools of nursing are prepared only in institutions of higher learning. If the cost of higher education is prohibitive, the students may be forced into other fields, thus increasing the already distressing shortage of qualified personnel. Without financial assistance in some form, teachers who are no better qualified than the students they teach must be utilized.—Virginia H. Harrison, chairman, department of nursing.

Nursing Nurse Association of Brooklyn, Inc., Brooklyn, N.Y.

This bill (H.R. 1251) is an important step in meeting the critical need for qualified personnel in all areas of nursing, including public health.—Doris Eldredge, president.

Rutgers University, Newark, N.J.

Most everyone knows that there is a shortage of nurses, but not all are aware that the shortage extends to quality as well as to numbers. The truth of the matter is, of course, that nursing education has not kept pace with changes in our social order that affect the health needs of our people. We are today, 50 years after the establishment of the first college program in nursing, preparing 82 percent of our people in hospital programs of nursing much as we were at the turn of the century. In other words, we are today preparing yesterday's nurses to meet today's need for nursing care.—Ella V. Stonsby, dean, college of nursing.

The Mary Fletcher Hospital, Burlington, Vt.

It is our policy to help direct young people into the type of nursing program for which they seem best fitted. Many tell us they would like to go to the University of Vermont's nursing program, but they cannot afford it. We need students of nursing in hospital schools and in the new type of associate degree program, but our greatest need is to somehow direct more into a college nursing program. With additional preparation and experience, these nurses can more quickly fill the greatest gap we have—the lack of qualified teachers, supervisors, and administrators of nursing.—Grace M. Buttolph, director, school of nursing.

Loyola University, Chicago, Ill.

There is indeed an acute and urgent need for financial aid in this area of education for essential health services. A school of nursing is ordinarily one of the most expensive educational units in the university because the number of students each faculty member has must be limited when teaching clinical nursing in hospitals and public health agencies.—Gladys Kiniery, dean, school of nursing.

PROGRAMS FOR R.N.'S LIMITED

University of Connecticut, Storrs, Conn.

This university conducts no program for registered nurses since we do not have adequate faculty for the purpose. The constant increase in enrollment in our basic program has meant that all available funds must go for faculty in that program, and, even so, we do not have enough. Yet there is urgent need for a baccalaureate program for registered nurses at this university and for scholarships for such nurses.—Carolyn L. Widmer, dean, school of nursing.

University of Massachusetts, Amherst, Mass.

There is a growing demand for a supplementary program at the University of Massachusetts. Hospital administrators, directors of schools of nursing and of nursing service, and, indeed, graduates of diploma schools of nursing themselves, are increasingly urging such a program, not only because of the accessibility of the university and the modest tuition rate, but also because married faculty members find it difficult, if not impossible, to be far away from their children and family. The university administration is most sensitive to this education need. However, the problem of financing an educationally sound program is ever before us. The provision of H.R. 1251 for grants to "assist in the costs of instruction in baccalaureate programs" is a necessity if educationally sound collegiate nursing education is to survive.—Mary A. Maher dean, school of nursing.

BASIC PROGRAMS SUFFER

Washington University, St. Louis, Mo.

Washington University plans to offer the basic baccalaureate program in nursing, but funds are not yet available to meet the anticipated deficit for the first 4 years of operation. The registrar's office at the university estimates that about 50 applications were accepted from young women who did not enter the university in the fall semester when they discovered no program in nursing was available.—Louise Knapp, director, school of nursing.

University of Maine, Orono, Maine

There are five diploma schools of nursing in Maine of which only one has received full accreditation by the National League for Nursing. One of the handicaps to full accreditation is the lack of prepared faculty. Another lack in the State is that of prepared public health nurses. A major reason for these lacks is that there is no baccalaureate program for nurses in the State. We plan to establish one as soon as we are able, but such a program will require additional faculty.—Jean MacLean, director, school of nursing.

SCHOLARSHIPS SADLY LACKING

University of Maryland, Baltimore, Maryland

The University of Maryland graduates a class of 50 to 60 students each year in the baccalaureate program. We have a huge medical center and could accommodate classes of at least 200 students if the applicants had scholarship aid. Then, too, we have many out-of-State requests from applicants who are unable to pay the fees and maintenance. Roughly, more than 50 percent of our applicants request financial assistance.—Florence M. Gipe, dean, school of nursing.

University of Pennsylvania, Philadelphia, Pa.

Many high school graduates and graduates of hospital schools of nursing who are eager to take advantage of the opportunities offered in baccalaureate programs at the School of Nursing of the University of Pennsylvania are unable to do so because of financial need. For example, 30 qualified high school graduates who live within commuting distance and who were interested in attending this university could not apply for admission to the basic baccalaureate program because of financial need. Because of lack of dormitory space at the present time, enrollment in this program is limited almost exclusively to students who can commute. In 1960, when the new women's dormitories are available, it will be possible to admit a much larger number of students and the need for scholarships will increase proportionately.

In the general nursing program (for graduates of diploma schools of nursing) 114 full-time students and 541 part-time students were enrolled in the fall term, 1958. Sixty-nine of the full-time students could not have attended without some financial assistance. Approximately 150 of the part-time students could have

attended full time if scholarships had been available.—Theresa I. Lynch, dean, school of nursing.

Chico State College, Chico, Calif.

If finances were available, Chico State College could prepare twice the number of students that we now have because of our excellent clinical program and the contract we have with the medical center in San Francisco for the use of clinical facilities.—Agnes A. Dix, coordinator, department of nursing.

University of Nebraska, Omaha, Nebr.

Frequent requests come from students interested in the University of Nebraska program for scholarship aid. Very little such aid is available and, as a result, good degree candidates are frequently lost.—Irma M. Kyle, director of nursing, school of nursing.

Northwestern State College, Natchitoches, La.

The majority of students desiring admission to our school come from rural areas and need to have financial assistance available to them in order to attend college.—Hilda C. Burnham, dean, school of nursing.

University of California, Berkeley, Calif.

During 1958, the University of California accepted 65 students for admission to its basic baccalaureate program. Of this number, 15 asked that their names be withdrawn prior to admission because of inability to finance the program. In a recent survey of financial needs of the group of 50 who entered in September 1958, only 20 percent indicated they were having no financial difficulties.—Helen Nahm, dean, school of nursing.

University of Illinois, Chicago, Ill.

There is a basic difference in the education for nursing which I believe makes financial assistance of more importance for students in this field than in many others. This is the nature of the clinical practice required. Even in the collegiate school, where the hours of clinical practice are limited to those required for educational purposes, the number of clock hours per week exceeds those of the students enrolled, for example, in the liberal arts and sciences. This factor makes it more difficult for the student in nursing to contribute significantly to the cost of her education.—Emily C. Cardew, dean, college of nursing.

OUTGROWING FACILITIES

University of Cincinnati, Cincinnati, Ohio

The college of nursing and health is one of two colleges on the university campus without a building of its own. It is estimated that a building of the size which would accommodate the college would cost at least \$800,000. It has been necessary to use classrooms, laboratories, and offices belonging to other colleges in the university. With the present and anticipated increase in enrollment in all colleges in the university, those now sharing facilities with the college of nursing and health are finding it increasingly difficult to continue to provide for nursing.—Laura E. Rosnagle, dean, college of nursing and health.

Meharry Medical College, Nashville, Tenn.

Since 1957, it has been necessary to use some double decker beds in rooms designed to accommodate a single student. The recreational rooms, classrooms, and office space for instructors are also inadequate.—Laurie M. Gunter, dean, school of nursing.

University of Colorado, Boulder, Colo.

The University of Colorado has made great effort since 1941, but even now the medical center constructed through private donation in 1924 is sadly outgrown and money for adequate construction seems hard to come by. My own office is the unused motion picture booth behind the medical amphitheater. It will just hold my desk and four chairs. Classroom space is bitterly fought for with the nurse-teachers often the losers. Forty years of growth in the medical and nursing schools has to be provided for in some way.—Henrietta Adams Loughran, dean, school of nursing.

Boston University, Boston, Mass.

To care for expanding enrollments we need additional teaching facilities which include a nursing laboratory, science laboratories, nutrition laboratories; offices for

additional faculty, secretaries, and a general counselor; 4 additional conference rooms, 3 additional classrooms accommodating 60 students, 2 accommodating 150, and other adjunct rooms.

Boston University, like many other universities which have undertaken responsibility for nursing education, has already outgrown the limited physical plant with which it started. We have also estimated that 26 additional teachers would be needed for this kind of expansion.—Marie Farrell, dean, school of nursing.

QUALIFIED FACULTY SHORT

Russell Sage College, Troy, N.Y.

Our problems in relation to instructors for our nursing programs are twofold. There are far too few adequately prepared instructors to meet our minimal needs and the number of instructors needed for clinical instruction is much higher in the collegiate school of nursing than in other departments of the college. A large number of students may be present in the classroom with one instructor, but in the clinical area of the hospital or in public health, the instructor is not only responsible for the teaching and supervision of the student learning to give nursing care but also for the maintenance of good quality of patient care and the safety of patients.—Dorothy McMullan, director, school of nursing.

Medical College of Georgia, Atlanta, Ga.

Our approved budget does not permit the employment of an adequate number of faculty. Many of our present faculty are heavily burdened with an overload and will "wear out" long before they should. Financial assistance in this area would be of inestimable help. It would improve the program for those students currently enrolled, would improve faculty opportunities for study and research and would make it possible to offer short courses, conferences, and make available other educational opportunities which, as a State institution, is our responsibility.—E. Louise Grant, dean, school of nursing.

Indiana University, Indianapolis, Ind.

Our enrollment has increased more than four times since the collegiate program was first initiated in 1950. We have currently a considerably larger number of students interested in admission to the school than we had last year. Of this number, many of the more able students have indicated need for scholarship aid to enroll this coming fall. Even with such scholarship aid, it is impossible to accept the number who are in process of meeting the requirements for entrance without a decided increase in faculty and in instructional facilities. Without financial assistance the number of qualified faculty needed cannot be secured.—Emily Holmquist, dean, school of nursing.

University of Mississippi, Jackson, Miss.

The University of Mississippi School of Nursing has been in existence only 10 years and is the only collegiate nursing program in the State. To date the enrollment has been low but is increasing each year. However, without additional teaching and instructional facilities it will not be possible to expand the school enough to meet the needs of the State.

H.R. 1251 could be used in Mississippi to increase enrollment from approximately 50 to 150 students if the following 5-year grants were made: construction, \$300,000; instruction, \$195,000; and scholarships, \$50,000.—Christine Olgevee, dean, school of nursing.

[Reprinted from *The American Journal of Nursing*, March 1963, vol. 63, No. 3]

ACTION FOR CRITICAL NURSING PROBLEMS PROPOSED

Surgeon General's study group calls for Federal funds for nurse recruitment, student loans, scholarships, traineeships, school construction and planning, and nursing research. Extensive study of nursing education also urged.

The Nation faces a critical problem in insuring adequate nursing services in the years ahead and, if the problem is to be solved, Federal financial aid is necessary. This is the basic assumption presented in the report of the Consultant Group on Nursing to the Surgeon General of the Public Health Service which was released in February.

Appointed in the spring of 1961 the consultant group was to advise on nursing needs and to identify the appropriate role of the Federal Government in assuring adequate nursing service in this country. In its report, "Toward Quality in

Nursing—Needs and Goals” the consultant group presents what it terms “feasible goals” for 1970 and recommendations for Federal aid.

Because needs for professional and practical nursing services have outstripped supply, hospitals have employed increasing numbers of aids, many of whom are inadequately trained, the report notes. “This pragmatic solution to the problem of shortages has produced an alarming dilution of the quality of service. In some hospitals the use of auxiliary workers has reached such extreme proportions that nursing aids give as much as 80 percent of the direct nursing services,” the report states.

The report cites a study of a few years ago in a large sample of general hospitals which found that highest patient satisfaction was achieved when professional nurses gave 50 percent of the direct care, practical nurses, 30 percent, and nursing aids about 20 percent. Although, in recent years, the total amount of care per patient has increased, the proportion of direct care by professional nurses dropped from about 40 percent in 1950 to 30 percent in 1960.

A number of “principle problems” for which solutions must be found are identified in the report:

Too few schools are providing adequate education for nursing.

Not enough capable young people are being recruited to meet demands.

Too few college-bound students are entering the nursing field.

More nursing schools are needed within colleges and universities.

The continuing lag in the social and economic status of nurses discourages people from entering the field and remaining active in it.

Available nursing personnel are not being fully utilized for effective patient care.

Too little research is being conducted in the advancement of nursing practice.

In reviewing the present supply of nurses the report states that from 1950 to 1962 the number of professional nurses in practice increased from 375,000 to 550,000 or from 249 to 297 per 100,000 population. However, 70,000 of the number of nurses added since 1950 were part-time workers. Also the ratio of nurses to population varies widely throughout the country ranging from 123 per 100,000 population in Arkansas to 599 in Connecticut.

According to Census Bureau counts in 1950 there were 137,000 employed practical nurses—most of them unlicensed and with little or no formal training. By 1960 the census figure was 206,000, and the 1962 estimate was 225,000 practical nurses, most of them licensed.

Auxiliary nursing personnel in hospitals (aids, orderlies, attendants) increased from about 220,000 in 1950 to 400,000 in 1962.

Turning to current nursing education, the report points out that the annual number of admissions to professional nursing schools has increased by about 7,000 since 1951, but, in relation to the increased number of young people, admission rates have dropped significantly. Graduations from nursing schools have increased only 4 percent from 1952 to 1961 (29,000 to 30,200).

In contrast, the number of graduates of schools of practical nursing increased remarkably. Ten years ago there were 4,000 graduates and, by 1961, the number had risen to 16,600.

The consultant group estimates that for safe, therapeutically effective, and efficient nursing service, the Nation will need 850,000 professional nurses, including 300,000 with academic degrees by 1970.

To assure adequacy of nursing service a larger number of nurses must be prepared for teaching and leadership roles, the report states. Baccalaureate education is the best basic preparation for staff nurses who have potential for leadership, but preparation for supervision, administration, teaching, and clinical specialization requires postbaccalaureate education in nursing and in other disciplines.

In its report the consultant group recommends the following goals for preparation in leadership positions:

Doctoral degrees—deans of collegiate programs, faculty of graduate programs, research investigators, and nursing service directors of large hospital or health agency systems;

Master's—teachers in all nursing education programs, directors and assistant directors of nursing service in hospitals, related institutions, and health agencies, inservice education (directors), supervisors, clinical specialists, and consultants (all types of institutions and health agencies or services);

Baccalaureate—head nurses (with present responsibilities), team leaders, public health and school nurses and occupational health nurses (staff level), and directors of nursing service in nursing homes giving “skilled nursing care.”

On the basis of these recommendations the consultant group believes that by 1970 some 200,000 nurses with baccalaureate preparation will be needed and another 100,000 with graduate preparation. But in 1962 there were 43,500 nurses with baccalaureate degrees and 11,500 with higher degrees.

FEASIBLE GOAL

Realizing that the goal of 850,000 professional nurses, including 300,000 with academic degrees would be impossible to achieve by 1970, the consultant group presents what it calls a "feasible goal." Taking into account the potential supply of recruits and the potential capacity of nursing schools, the group presents as a feasible goal 680,000 professional nurses in practice by 1970. This number includes 120,000 with academic degrees. At the same time the number of practicing practical nurses should increase to about 350,000.

Professional nursing schools now admit 5.3 percent of all girls who are graduated from high school. Admissions have dropped from 41 per 1,000 high school girl graduates in 1951 to 34 per 1,000 in 1960-61. On the basis of present enrollment it is estimated that the number of graduates from nursing schools will increase from 31,000 in 1962 to 34,000 in 1965. If the present proportion of admissions continues the increase in the number of young people could make possible some 41,000 nursing school graduates by 1970. However, the consultant group states that the number of graduates must be further increased. If schools of nursing could admit better than 6 percent of the high school girl graduates, there would be some 53,000 nursing school graduates by 1970.

If this is done, if the present rate of return of inactive nurses continues, and there is continued utilization of nurses trained in other countries, the consultant group believes the feasible goal will be reached.

The consultant group also believes that Federal support programs for practical nurse education make the feasible goal of 350,000 licensed practical nurses a probable one.

Within the goal of 53,000 graduates a year, the group visualizes a doubling of the number of graduates of basic baccalaureate programs, an annual increase of 15,000 graduates of diploma programs, and of 4,000 graduates of associate degree programs. Because it would be impossible to more than double the number of graduates of basic baccalaureate programs, and because of the need for teachers and other specialists, the consultant group believes the number of registered nurses completing work for a baccalaureate degree also should be doubled. At the same time the number of nurses receiving master's and doctoral degrees must triple.

If feasible goals are reached, the report states, not all needs will be met, but the ratio of nurses would be increased from 297 to 317 per 100,000 population.

Although it believes that 50 percent of the direct care of patients in general hospitals should be provided by professional nurses, the report states that in view of the expected supply of nurses, a more reasonable goal for direct services to patients, as a national average, would be: professional nurses, 38 percent; licensed practical nurses, 30 percent; and auxiliary personnel, 32 percent.

After outlining these needs the consultant group presents its views on how they can be achieved.

To increase admissions to nursing schools and to raise the quality of students, new ways of reaching talented candidates must be found.

Of special concern to the consultant group is the fact that while nursing school admissions increased 6 percent between 1955 and 1960, the number of girls entering college increased by 50 percent. In the past, the report states, the nursing recruitment program has been limited by the size of the field staff of the NLN committee on careers and the fact that State and local programs have been carried on chiefly by volunteers, many of whom have full-time jobs. Few States, cities, or regions have salaried employees for recruitment. Also many school and college counselors have conceptions of nursing based on old stereotypes which must be replaced by an understanding of modern nursing and nursing education. To help achieve this, the consultant group recommends that the Public Health Service expand its efforts and give financial and other assistance to National, State, regional, and agencies for recruitment programs for nursing and other health personnel.

The report points out that the group from which potential students are drawn also must be enlarged and urges the admission to schools of nursing of more Negroes, older married women, and men students.

ASSISTANCE TO STUDENTS

The report notes that scholarship and loan funds for nursing students are limited and those available now come mostly from professional groups, business and industrial firms, and some national voluntary organizations. Only a little more than a dozen State legislatures have set aside money for nursing students.

The consultant group is convinced that a substantial number of nursing students must have financial assistance from Federal funds if the feasible goals are to be met by 1970. In no other way can enrollments expand as needed. The consultant group urges that Federal loan funds for students be made available to all diploma, baccalaureate, associate degree, and practical nursing education programs approved by agencies designated by the Surgeon General. It recommends that the program follow the pattern set in the national defense student loan program of the National Defense Education Act of 1958.

Under the NDEA program, in 1 year, a student may borrow up to \$1,000 and, during his entire course, a sum up to \$5,000. Repayment begins 1 year after completion of a full-time course and extends over a 10-year period with 3 percent interest per year.

The consultant group believes that funds should be made available to provide loans for 20 percent of a school's admissions, and the loans should be 50 percent cancelable at the rate of 10 percent for each year of full-time nursing service provided by the student after graduation. This cancellation feature is similar to one which exists now for students who become elementary or secondary school teachers.

Because of the critical need for nurses with baccalaureate preparation for leadership and teaching positions, the consultant group asks that Federal funds be made available for scholarships to attract highly qualified high school graduates into collegiate nursing programs.

The group suggests that these scholarships be made available to 10 percent of the annual number of admissions to accredited baccalaureate programs.

In commenting on the return of inactive nurses to active practice, the report notes a number of incentives which are important. Among them are: refresher courses; expansion of home care programs which offer job opportunities to inactive nurses in places close to home; arrangements for convenient working hours for nurses who can work part time, and adequate economic incentives.

In noting the need to improve the attractiveness of nursing as a career, the consultant groups states:

"Deficiencies in economic incentives for nurses must be eliminated, both as to salaries and fringe benefits. Nursing does not compare favorably in this respect with other careers requiring equivalent capabilities and education. Salary-levels in nursing are relatively low, and the differentials between beginning and top-level salaries are too small to serve as career incentives.

"Salaries of hospital staff nurses are lower, on the average, than those of secretaries. There is little opportunity for advancement for the nurse who wants to continue to give direct patient care. Even in top administrative positions, monetary compensation is not commensurate with responsibility."

The report goes on to note that today over 95 percent of all hospital employees are covered by OASDI, but considerable numbers still are not so protected. It also notes that nonprofit and State and local government hospitals are exempt from the Federal Unemployment Tax Act, and from the National Labor Relations Act so they are not compelled to allow employees to bargain collectively. In addition, no hospitals are required to meet Federal standards as to minimum pay rates.

The report goes on to say, "In today's society, salaries and related benefits not only determine standards of living but also influence the prestige of the occupation. Until the economic status of the nursing profession is improved, nursing will be unable to compete successfully with other fields where pay and benefits are more attractive."

IMPROVING NURSING EDUCATION

Turning its attention to nursing education, the consultant group points out that a well-organized educational structure consistent not only with the needs for nursing service but also with the general patterns of education is necessary.

"The present educational structure for the training of nurses lacks system, order, and coherence," the group says. "There is no clear differentiation as to the levels of responsibility for which the graduates of each type of program are prepared. The consultant group is convinced that the baccalaureate program should be the minimal requirement for nurses who will assume leadership positions."

The report points out that to create order out of confusion a careful examination of the systems of nursing education is needed—how they can be merged or

related to prepare nurses to render better patient care and at the same time allow them to advance professionally in an orderly manner. Such a study should consider institutional auspices, teaching methodology, and experimentation with new procedures and concepts.

Noting that nursing education will require the continued cooperation of hospitals and educational institutions regardless of the organizational and administrative patterns that emerge, the group recommends to the nursing profession that a study be made immediately of the present system of nursing education in relation to the responsibilities and skill levels required for high-quality patient care and that funds for such a study be obtained from private and Government sources.

While the primary leadership for the study must come from the nursing profession, the group urges broad participation from related professions. Such a study would provide a basis for long-range planning. However, for the next few years we will have to depend on the present system and there is a critical need to support and improve present programs, the report states.

To meet the feasible goals for 1970, 80,000 students should enter nursing schools in 1966, a 50-percent increase over the 51,000 who entered in 1961.

The consultant group states that the highest priority for expansion is in the baccalaureate and graduate programs. Yet with available facilities and staff the accredited baccalaureate programs could increase enrollment only 11 percent. They should double their capacity, and graduate program capacity should be tripled. Obviously, expansion of existing schools can account for only part of the needed increase. The consultant group believes it will be necessary to establish as many as 30 new baccalaureate programs in the near future.

The consultant group foresees a fourfold increase in associate degree programs by 1970 and states that a 50-percent increase in the number of admissions to hospital diploma programs will be required.

The report notes that diploma programs are the only nursing schools which have had Federal assistance for construction. A part of this need was met through Hill-Burton hospital construction funds. To aid and stimulate such expansion the consultant group recommends that Federal funds be provided to help meet the construction needs for educational facilities for schools of nursing.

PLANS MUST BE MADE

If new and expanded programs of nursing education are to be established where they are needed, sound planning is necessary, the report points out. Relationships between nursing education and the education of other health personnel must be considered as well as the needs for cooperation among adjoining geographic areas. Cooperation both within and among States in planning nursing education programs is desirable to prevent duplication of effort and to pool scarce training resources. Therefore, the consultant group recommends, that Federal funds be made available for grants to institutions, regional, State and other public and nonprofit organizations or agencies for planning and determining the need for new nursing school facilities or new, expanded, or improved programs. Also Federal funds should be used for planning grants for construction of nursing education facilities to universities, colleges, and schools of professional nursing which are ready to expand or establish new schools. And steps should be taken by the Public Health Service and the nursing profession to prepare prototypes of school facilities most conducive to efficient and effective teaching of nursing.

As a further aid to the improvement of nursing education the report notes that assistance should be available to schools now so they can experiment with methods for improving the quality of education. Toward this end the consultant group recommends that Federal funds be made available by means of project grants, to nursing education programs for the improvement, expansion, and extension of educational programs and services. This would include experimentation and demonstration of new and effective methods of teaching, development, and use of teaching aids and equipment and establishment of new programs.

The consultant group also believes that schools should be helped to meet the educational costs which are greater than the income received from tuition and fees and that such funds should be tied to Federal assistance students. Thus it recommends that Federal funds be used to reimburse schools of nursing for partial costs of education of students supported wholly or in part by federal scholarships or loans.

In its report the consultant group applauds the NLN accreditation program under which 60 percent of our professional schools are accredited. It also supports the position of the American Nurses' Association that no person should be permitted to practice nursing for compensation without a license and supports efforts

of the association to secure enactment of mandatory licensure for both professional and practical nurses.

The critical need for nurses with advanced preparation is stressed throughout the report. To help meet this need the consultant group believes that the professional nurse traineeship program, administered by the Public Health Service should be extended and its purposes broadened. The program was initiated by the Health Amendments Act of 1956 and provided traineeships for full-time study for 1 academic year. It was extended in 1959 to include aid for professional nurses enrolled in short-term courses. Since the program began, over 7,000 nurses have received traineeships.

The consultant group recommends that the professional nurse traineeship program be extended and gradually increased to at least double (within a 5-year period) the present number of full-time trainees. It also recommends that the traineeships cover the period needed by an individual to complete the program of study, and, in the administration of the program, greater emphasis be given to support of candidates for doctoral degrees.

These traineeships have been awarded through grants to approved institutions offering training in teaching, administration, and supervision. Because of the growing need for nurse specialists in clinical areas, the consultant group also recommends that the traineeship program be expanded to permit the training of clinical specialists. The report notes that, except in psychiatric nursing, no Federal funds are available for the training of nurses who choose to specialize in direct patient care.

Support for educational programs in psychiatric nursing has been available under the National Institute of Mental Health training grant program, established in 1947. The consultant group urges the Public Health Service to expand this program in line with the recommendations of the Joint Commission on Mental Illness and Health.

As part of its recommendation regarding the traineeship program, the consultant group also recommends that present funds for short-term training be doubled immediately and increased as needed.

Another form of assistance needed now, at least for a short time, according to the report, is assistance to graduates of diploma and associate degree programs so they can complete requirements for a bachelor's degree. Any increase in the number of nurses graduated annually from baccalaureate programs resulting from the Federal funds recommended earlier in the report will not be possible until 1967. Therefore, the consultant group recommends that Federal funds be provided for traineeships for nurse graduates of diploma and associate degree programs for up to 2 years of full-time study toward a baccalaureate degree. Because the group did not wish to encourage future students to take 5 or 6 years to complete this basic education, the recommendation includes the statement that eligibility be limited to nurses who entered diploma or associate degree programs prior to inception of this traineeship program and that this program be continued for only 5 to 10 years. The group believes that it should be possible to increase the number of registered nurses completing baccalaureate programs from the present 2,500 a year to 5,000 a year.

Finally, as assistance in this area the consultant group recommends that Federal funds should be provided to compensate schools taking part in the traineeship program to cover partial costs of education of trainees. Many schools report they cannot increase enrollments unless some support for added costs of education is provided. No such funds are allotted from the traineeship program although many other Federal programs for aid to graduate students provide such assistance.

IMPROVING UTILIZATION

Two of the most effective means for improving nursing services immediately are better use of present personnel and upgrading the competencies of all nursing personnel. The report points out that while improvement of utilization of personnel and management in health agencies is primarily the responsibility of those agencies, necessary studies of a variety of staffing patterns, experimentation with new methods, and dissemination and demonstration of newly developed techniques cannot be undertaken without Federal assistance. Federal funds are not now available for such grants in nursing.

The consultant group recommends that project grants be made available through Federal funds for demonstrations, experimentation with new and improved methods and for training in use of these methods. It also recommends that funds be provided to expand the Public Health Service consultation and

other services aimed at improving the quality and quantity of patient care through better utilization.

To further improve the skills of personnel the report states that Federal aid is needed to stimulate the development of inservice, on-the-job, and continuing education programs. Although such programs should be supported primarily by the health institutions themselves, the report points out that aid is needed to promote their development. Thus, the consultant group recommends that project grants be made to nursing schools and other appropriate agencies for strengthening inservice education, on-the-job training, and continuing education.

In its discussion of the need for the best use of the present nurse supply the report notes that most recent data available on a large group of hospitals indicate the turnover among nursing personnel is nearly 60 percent per year. For staff nurses the rate is higher—67 percent. This compares to a turnover among female teachers in public schools of only 18 percent.

Noting that high turnover of nursing personnel disrupts continuity of care and impairs the effective utilization of personnel the group urges an investigation of this problem.

The consultant group's concluding recommendations center on assistance to nursing research. The report reviews the growth of research in nursing but says the need for nursing research has outstripped the resources available for such studies.

"In research, as in education and inservice, it is important that nursing be seen in relation to total health needs and total health services," the report states. "A multidisciplinary approach to research, with patients the focus of attention, is one of the most important ways to achieve this end. Unfortunately, the multidisciplinary approach has not yet been as widely accepted as it should be. To demonstrate its value, one or more centers should be established for the express purpose of conducting multidisciplinary research."

RESEARCH FUNDS NEEDED

In its report the consultant group notes that greater support is needed for patient-oriented studies in line with changing patterns of care.

Because the Public Health Service fellowship program has demonstrated its value, the consultant group recommends that funds for this program be increased to provide immediately for 100 new full-time research fellowships and that this number be increased as additional qualified nurses apply. The group also recommends that funds for Public Health Service intramural program of research in nursing be doubled with future increases as needed and the program of extramural research grants be increased substantially. More consultation on nursing research methodology also should be provided by the Public Health Service and schools of nursing should be eligible for research development grants.

In concluding its report the consultant group points out that no one group in the country can accomplish all that needs to be done. "The nursing profession, other health professions, community groups, foundations, private philanthropists, colleges and universities, and hospitals are among the groups which will need to cooperate in the effort to meet nursing service requirements in years to come. Where these groups lack the necessary financial and technical resources to meet minimum goals, governments at all levels must provide appropriate support. A share of the responsibility must be borne by the Federal Government."

ANA COMMENDS REPORT OF CONSULTANT GROUP

The American Nurses' Association, in a statement released on Sunday, February 24, commended the Surgeon General's Consultant Group on Nursing for its report.

Margaret B. Dolan, president of the ANA, said the report, "Toward Quality in Nursing," points up the basic problems causing the nursing shortage.

"Though we have not had time to study the full report in detail, the consultant group's analysis of nursing problems is basically in accord with that of the professional nursing organization," she said.

Mrs. Dolan especially commended the report's emphasis on quality.

"Because the demand for nursing service has increased so much faster than supply," she said, "stopgap measures have been resorted to that have aggravated the problem and hampered action to achieve fundamental improvements."

For example, as the report notes, hospitals have employed ever-larger numbers of inadequately trained nursing aids, she pointed out. "We share the consultant

group's conclusion that this pragmatic solution to the problem of shortages has produced an alarming dilution of the quality of nursing service."

We also share the report's conclusion that "special emphasis" should be placed on increasing the numbers of college-educated nurses who are needed to give expert nursing care, teach nursing students, plan and administer nursing services, supervise auxiliary personnel, and assume other leadership positions.

"With the strong emphasis that the consultant group's report places on this need, we urge Congress to act this year to provide assistance for the expansion of collegiate programs in nursing," Mrs. Dolan said.

She added that: "We welcome the consultant group's recommendation for a study of the whole system of nursing education."

The diversity of nursing education programs has led to confusion, delays in completing education, and waste of potential nursing talent, Mrs. Dolan said. Many nurses find they are not prepared for responsibilities they must carry.

"What is needed now is a concrete effort to determine how present nursing education programs can be merged into a logical system that will lead to better nursing care for the public.

"Immediate attention also should be given to the salary levels of professional nurses," the ANA president said, "and we are glad that the report recognizes the impact of economics on quality nursing care.

"Improvement in this situation is fundamental for recruiting and maintaining qualified people in the profession."

Mrs. Dolan noted that the consultant group's report strongly supports the position of the American Nurses' Association that, in the interest of public safety no person should be permitted to practice nursing without a license.

One of the original purposes of ANA was to secure licensure for nurses, Mrs. Dolan explained. Though there now are licensing laws in all States, about half the State laws do not prohibit practice by unlicensed persons.

Commenting on the consultant group's recommendation to the nursing profession for a comprehensive study of the system of education, Mrs. Dolan said, "this will receive our special attention as we study the report in detail."

The full report is available from the Superintendent of Documents, Washington, D.C., for 50 cents.

The CHAIRMAN. You all gave some very fine testimony, and we certainly appreciate it very much.

Miss GELINAS. Thank you, sir.

The CHAIRMAN. Senator Williams?

Senator WILLIAMS. Mr. Chairman, I am particularly glad the bill will provide assistance for the construction of collegiate nursing school facilities. As you know, Miss Margaret S. Maskrey, president of the New Jersey State Nurses Association, has sent me a letter of strong endorsement for S. 911, which will be included in the hearing record. But at this time I would just like to emphasize some of the points Miss Maskrey has so effectively stated.

According to a recent study of nurse supply, the total number of graduates has remained fairly constant over the past 10 years. Yet demands for nursing services have increased. New Jersey, the Nation's most urbanized State, is growing at a rate of 125,000 persons a year. But the total of nurses employed in the public health area in our State has dropped, from 983 in 1952 to 880 in 1962.

The problem will become increasingly acute in the future for States such as New Jersey, which have a growing elderly population in relation to the whole. Miss Maskrey has also told me that the present situation is creating an alarming dilution of the quality of nursing services.

I understand we are expecting further legislative recommendations for the whole area of nursing services, which would include hospital

schools of nursing. Clearly, however, the immediate need is for nursing graduates who can provide the faculty for all schools of nursing, and I think with this bill we can begin to solve the problem.

The CHAIRMAN. Thank you, Senator Williams.

The subcommittee will now stand in recess until 10 o'clock in the morning.

(Whereupon, at 12:03 p.m., the subcommittee was recessed, to reconvene at 10 a.m., Friday, August 23, 1963.)

MEDICAL, DENTAL, AND PUBLIC HEALTH TEACHING FACILITIES

FRIDAY, AUGUST 23, 1963

U.S. SENATE,
SUBCOMMITTEE ON HEALTH OF THE
COMMITTEE ON LABOR AND PUBLIC WELFARE,
Washington, D.C.

The subcommittee met, pursuant to recess, at 10:03 a.m., in room 4232, New Senate Office Building, Senator Lister Hill (chairman of the full committee) presiding.

Present: Senator Hill (presiding).

Committee staff members present: Stewart E. McClure, chief clerk; John S. Forsythe, general counsel; Robert W. Barclay, professional staff member of the subcommittee, and Raymond D. Hurley, minority associate counsel.

The CHAIRMAN. The subcommittee will come to order.

We have Dr. Robert C. Berson, dean of the newly formed South Texas Medical School of the University of Texas, in San Antonio, and president-elect of the Association of American Medical Colleges.

Dr. Berson, we are glad to have you here and the gentlemen who are with you. We will be glad to have you now proceed, sir, in your own way.

STATEMENT OF DR. ROBERT C. BERSON, PRESIDENT-ELECT, ASSOCIATION OF AMERICAN MEDICAL COLLEGES; ACCOMPANIED BY DR. JOHN E. DEITRICK, DEAN OF THE CORNELL UNIVERSITY MEDICAL COLLEGE AND PRESIDENT OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES; DR. DONALD G. ANDERSON, DEAN OF THE UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE AND DENTISTRY; DR. ROBERT J. GLASER, PRESIDENT OF THE AFFILIATED HOSPITALS CENTER, INC., AND PROFESSOR OF SOCIAL MEDICINE, HARVARD MEDICAL SCHOOL; DR. GEORGE T. HARRELL, DEAN OF THE UNIVERSITY OF FLORIDA COLLEGE OF MEDICINE; DR. JOHN PARKS, DEAN OF THE GEORGE WASHINGTON UNIVERSITY SCHOOL OF MEDICINE; AND DR. WARD DARLEY, EXECUTIVE DIRECTOR OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Dr. BERSON. Thank you, Mr. Chairman.

In identifying me you omitted one thing that I am proud of, and that is, for a good while I was dean of the medical college and vice president for Health Affairs of the University of Alabama.

This morning I am appearing as a representative of the Association of American Medical Colleges and with me—

The CHAIRMAN. I am awfully glad you made that statement, sir. It will add much weight to your testimony, sir.

Go ahead, Doctor. [Laughter.]

Dr. BERSON. With me is Dr. John E. Deitrick, dean of the Cornell University Medical College and president of the Association of the American Medical Colleges; Dr. Donald G. Anderson, dean of the University of Rochester School of Medicine and Dentistry; Dr. Robert J. Glaser, president of the Affiliated Hospitals Center, Inc., and professor of social medicine, Harvard Medical School; Dr. George T. Harrell, dean of the University of Florida College of Medicine; Dr. John Parks, dean of the George Washington University School of Medicine; and Dr. Ward Darley, executive director of the Association of American Medical Colleges.

Mr. Chairman, with your permission, I would like to introduce this written statement into the record so that it can become a part of the record.

The CHAIRMAN. All right, Doctor, we will have that appear in the record.

(The statement referred to follows:)

PREPARED STATEMENT OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Mr. Chairman and members of the subcommittee, I am Dr. Robert C. Berson, dean of the newly formed South Texas Medical School, University of Texas, San Antonio, and formerly dean of the medical college and vice president for health affairs of the University of Alabama. I am appearing as a representative of the Association of American Medical Colleges which I have the honor of serving as president-elect.

With me are: Dr. John E. Deitrick, dean of the Cornell University Medical College and president of the Association of American Medical Colleges; Dr. Donald G. Anderson, dean of the University of Rochester School of Medicine and Dentistry; Dr. Robert J. Glaser, president of the Affiliated Hospitals Center, Inc., and professor of social medicine, Harvard Medical School; Dr. George T. Harrell, dean of the University of Florida College of Medicine; Dr. John Parks, dean of the George Washington University School of Medicine; and Dr. Ward Darley, executive director of the Association of American Medical Colleges.

The Association of American Medical Colleges endorses the provisions of S. 911 and urges that the bill receive the favorable consideration of the committee and be promptly enacted into law.

I will limit my remarks to the most important points that emphasize the need for Federal funds to assist with the construction of medical education facilities and to help medical students meet the costs of their education.

This Nation is presently served from a pool of approximately 250,000 physicians. This corresponds to about 132 physicians per 100,000 population and is fairly close to the ratio that has been maintained for the past 20 years. This stable ratio is more apparent than real because for many years the output of U.S. medical schools has not been keeping pace with the increase in population.

The difference has been made up by licensing large numbers of graduates of foreign medical schools. Between the years of 1950 and 1960, almost 10,000, approximately 12 percent, of this country's licentiates in medicine were trained in foreign medical schools. This is the equivalent output of 10 to 11 average-sized U.S. medical schools. The Association of American Medical Colleges believes that there should be serious question as to whether or not the United States should anticipate the continued importation of foreign educated medical manpower at anything like the present high rate.

As to the question of the Nation's future needs for physicians, there seems to be general agreement that, with the anticipated rate of population growth, the most that we can hope to accomplish is to maintain the present ratio of physicians to population. If this is to be accomplished within our own system

of medical education, by 1975 our graduates must show an increase from the present level of 7,000 to more than 10,500—an increase of at least 3,500.

The attrition rate during the 4 years that a given class is in medical school stands at about 10 percent. Therefore, an increase of 3,500 graduates by 1975 means that by 1971 there must be an addition of more than 4,000 new places for first year students. Since all existing first year places are filled, this increase can only be accomplished by the expansion of existing schools or by the creation of new schools.

In January 1963, all U.S. medical school deans submitted estimates of the money needed for the renovation and expansion of their educational facilities during the next 10 years. The total of these estimates was approximately 476 million. The deans also indicated that if this amount could be made available, their schools could provide for an increase of approximately 2,000 (an overall average increase of 20 to 25 percent) first year medical students. Thus, the expansion of existing medical schools could provide for half of the required 4,000 new first year places. The other 2,000 additional first year places would be provided by the creation of new schools. If each of these new schools admits a class of 100 students, more than 20 such institutions will be needed. The capital cost for each new school will average at least \$30 million, which will mean a total investment of at least \$600 million.

Three to four years are usually needed to plan and establish a new school of medicine and admit the first class. Four more years must elapse before the first graduation. Thus, with this being 1963, if 1971-75 is to see any significant increase in our rate of producing physicians, time is of the essence. Eight universities have committed themselves to start new programs in medicine (California, New Mexico, Arizona, Texas, Rutgers, Connecticut, Massachusetts, and Brown). The fruition of the plans of these institutions will be greatly enhanced by the availability of Federal funds for construction and, as soon as such funds can be made available, there are undoubtedly other institutions that will move ahead with plans for the development of new schools of medicine.

The Association of American Medical Colleges also believes that there is great need for Federal funds to assist young people carry the costs of medical education. The following few paragraphs are taken from the statement of 1962 which the representatives of the association made before the House Committee on Interstate and Foreign Commerce:

"The average cost of 4 years of predoctoral medical education in the United States is approximately \$12,000. These costs vary from roughly \$9,800 for single students to roughly \$16,000 for students who are married and have two or more dependent children to support. More than 60 percent of the graduating seniors are married and one-half of the married students have one or more children to support.

"More than 80 percent of the funds used to defray the students' costs of a medical education come from the student and his immediate family. About 5 percent of the funds needed to meet bills are provided to the student in the form of scholarships and 3 percent are provided in loan assistance from agencies outside the family such as medical school loan funds or local banks. The balance comes from other miscellaneous sources.

"It is not surprising, therefore, that almost half of our current medical students come from families with annual incomes of more than \$10,000 even though less than 10 percent of all American families have incomes at this level. Nor is it surprising that only 15 percent of our students come from the more than 40 percent of American families who have income or less than \$5,000. Finally, we must consider the fact that 20 percent of the 1959 seniors graduated with an average debt of \$6,600."

A graduate with a debt of over \$6,000 has yet to face the financial strain of a year's internship and 2 to 5 years' specialty training. This long period of financial strain involved in gaining a medical education emphasizes the importance of financial help for students during the 4 years of medical school.

Since the study of the class of 1959, the following additional information has been obtained.

For the academic year 1960-61, it is estimated that 81 fully developed 4-year medical schools had \$3.6 million available for loan and they could have used \$2.5 million more. For this same year, it is estimated that 81 fully developed 4-year schools granted scholarships slightly in excess of \$2.4 million but the

needs for scholarships for which there were no funds amounted to almost \$5.4 million.

These figures apply to the situation prior to the operation of the American Medical Association Education and Research Foundation student loan plan and this information, together with the study of the class of 1959, will serve an important benchmarks against which the effect of the AMA-ERF plan can be measured. Already it is known that as of June 30, 1963, a total of almost \$5,400,000 in principal value of loans had been committed to 4,047 medical students. The fact that 4,047 medical students, after the AMA-ERF loan program had been in operation only 1½ years, have assumed indebtedness for almost \$5.5 million at prime interest rates is evidence of the great need that exists for student financial assistance.

The traditional pattern of loan assistance to medical students has been one of low interest rates that frequently are not applied until after graduation or the internship. So that any loan program that involves prime rates of interest from the moment that a loan is contracted, particularly if the loan is substantial, can add materially to the already high cost of a medical education.

The possibilities of the extra cost of the AMA-ERF plan as contrasted with the proposals of S. 911 were clearly brought out on page 12 of the 1962 report of the House Committee on Interstate and Foreign Commerce for H.R. 4999. In this report it was shown that a student who enters medical school in September of 1962 and graduates in 1966 and borrows \$1,500 in each of his 4 years in medical school (\$6,000 in all), and completes repayment by 1979, will have paid over \$4,500 in interest. If he had borrowed the same amount under the provisions of S. 911, his interest would amount to only \$900. The provisions of S. 911 will also be of advantage because a first-year student need not wait until the second semester before becoming eligible for a loan, as is the case with the AMA-ERF plan. A possible disadvantage to the schools of S. 911, as compared with the AMA-ERF plan, is that the schools must provide 10 percent of each loan. It is probable, however, that most schools can arrange for this from their established loan funds.

The Association of American Medical Colleges believes that even though many medical students are obtaining substantial loans at prime rates of interests, the great unmet need is for financial assistance that will not add materially to the already high costs of a medical education. It is believed that this is particularly important if young people from families with annual incomes of less than \$10,000 are to be encouraged to consider the study of medicine.

Finally, since the House of Representatives has passed H.R. 12, the Association of American Medical Colleges urges the Senate to pass its counterpart, S. 911. This will initiate the solution of two of the most important problems facing American medical education—the construction of facilities that will permit a significant increase in medical school enrollments and financial assistance to medical students.

Mr. Chairman, I deeply appreciate the opportunity to present the views of the Association of American Medical Colleges to you on this important matter related to the health needs of the American people. Thank you.

Dr. BERSON. And I would like to limit my verbal comments to a few of the major points.

I would also like, with your permission, to introduce two other things. One is a statement that the Association of American Medical Colleges caused to be printed in January of 1961. I believe you have seen copies of this statement.

I think it would be a useful part of the record because this document was approved in detail, as well as in principle, by the representatives of every medical school that is a member of the association.

It sets forth a number of things that we think need to be done in support of professional education.

The legislation before your subcommittee gives the greatest emphasis to construction, which this document emphasizes should come first.

The CHAIRMAN. We will be happy to have that in the record, Doctor.

Dr. BERSON. Fine.
(The document referred to follows:)

ASSOCIATION OF AMERICAN MEDICAL COLLEGES PROPOSALS FOR THE SUPPORT OF
MEDICAL EDUCATION BY THE FEDERAL GOVERNMENT

(Adopted by the Institutional Membership, January 11, 1961, Chicago, Ill.)

PREAMBLE

The American people are deeply concerned about health. Responding to this concern as a matter of national policy, the Federal Government in the past 15 years, largely through the Department of Health, Education, and Welfare, has joined State and local governments, health and educational institutions, voluntary health agencies, private philanthropy, and industry in meeting two especially critical needs in the attack on disease: the construction of hospital and other facilities for the care of patients (Hill-Burton program), and the support of medical research (National Institutes of Health).

Expenditures by the Government in support of these two programs represent investments in the health of the Nation which pay rich dividends, as has been amply documented. It is imperative that these programs be continued and developed further.

Health service facilities and medical research have made possible dramatic progress in the prevention and treatment of disease. A block to the effective use of new knowledge and to the pursuit of further knowledge is the increasing shortage of personnel in the health professions, particularly doctors. This block can be removed only by the improvement and expansion of the Nation's system of medical education.

The critical nature of this problem has been defined in five reports prepared in recent years by advisory groups of non-Government consultants.¹ These authoritative studies show that by 1975 the Nation will need to train about 50 percent more physicians than in 1960 just to maintain the current ratio of physicians to population, a ratio generally accepted as a minimum requirement.

Because of the time required to improve and develop facilities and faculties and to take doctors through the full cycle of 5 to 9 years of professional training, action to improve and expand programs of medical education must be taken at once. Otherwise, the Nation faces a very serious reduction in its ability to control and cure disease and our people will not have available the medical service they want and expect.

Since the problem of medical manpower can be solved only by prompt and comprehensive national effort, it is appropriate that medical schools and their parent institutions outline the basic requirements which to them seem necessary to accomplish this national objective while preserving the traditional freedom of the educational institutions. To this end, the Association of American Medical Colleges is suggesting principles of a Federal program of assistance to medical education which have been generally agreed to by its members.

The program presented in this statement outlines those measures that the medical schools believe necessary if existing programs of medical education are to be maintained at an adequate level of quality and if there is to be a sufficient expansion of our facilities to provide the number of well trained medical graduates that the Nation requires.

In considering needs of medical education, it is important to understand the variety, complexity, and interrelationships of activities involved in the training of medical personnel. This is especially true in relation to the three components of medical education: teaching, research, and service. The inseparable nature of these three functions has led to the "medical center" concept as a more realistic characterization of medical education than the too frequently held concept of the medical school, the teaching hospital, the research program, and community health services as activities independent of each other. However, the two major Federal support programs—for medical facilities and for medical research—while understandably directed toward specific restricted objec-

¹ 1952 Report of the President's Commission on the Health Needs of the Nation; 1958 Final Report of the Secretary's Consultants on Medical Research and Education; 1959 Report of the Surgeon General's Consultant Group on Medical Education; 1960 Report of the Committee of Consultants on Medical Research to the Subcommittee on Departments of Labor, Health, Education, and Welfare, of the Committee on Appropriations, U.S. Senate, 86th Cong., 2d sess.; 1960, the Report of the President's Commission on National Goals.

tives have complicated the conduct of medical education by failing to recognize that research and service are integral functions with teaching. Thus, the need for service facilities and the need for research facilities in a medical education environment have been considered independently by the Government, and no provision at all has been made for teaching facilities, although teaching is basic to both service and research.

The medical center typically has as its nucleus a medical school for the undergraduate training of candidates for the M.D. degree. Essential to this program is a strong faculty in the basic health sciences. Such scientists can be retained and can be fully effective only when they are given broad opportunity for research activity—teaching is barren in the absence of an environment conducive to the vigorous pursuit of new knowledge. These same faculty members are also called upon to train another important group of students—the future specialists in their fields who are Ph. D. candidates within the graduate program of the parent university. This is a vital function, particularly for the production of medical teachers and research personnel. Likewise, these faculty members in many situations are called upon to teach basic sciences to dental students, nursing students, and paramedical personnel. They must also participate in clinical teaching conference in support of both undergraduate and graduate medical education.

The medical center concept is particularly pertinent in the teaching of the clinical specialties. Clinical teaching is conducted in relation to patient care, and a high standard of patient care is necessary for good teaching. A core of full-time teachers is required to give continuity and responsible direction and supervision to patient care and the related teaching. The teaching hospital of a medical school, then, whether directly operated by the school or affiliated with it, is an important component of the medical center. Also, opportunity for research is important to the clinical teacher and to good clinical teaching just as is true in the basic sciences.

The clinical faculty, in addition to its responsibility for teaching of M.D. candidates, is becoming increasingly responsible for graduate training of doctors—interns, residents, and fellows. Medical graduates are tending more and more to seek advanced clinical training in hospitals operated in conjunction with medical schools because of the educational orientation of the training. These teaching and training responsibilities put a heavy burden on the schools and their teaching hospitals for which support is required.

Finally, a new and growing responsibility of medical schools is to provide leadership in coordinating medical services within their area and in providing postgraduate and specialized training opportunities for practicing physicians.

These various activities of the medical school beyond the 4-year M.D. program must be understood and recognized—and support of medical education must be provided in keeping with the concept of the medical center.

The proposals that follow represent the initial steps that the Association of American Medical Colleges believe should be undertaken in order to accelerate the ability of this Nation's system of medical education to produce the numbers, categories, and quality of the professional and technical personnel required to meet the health needs of a population that is not only growing in size but also in medical understanding.

These proposals cover only the needs of the Nation's existing schools of medicine and the need for new schools. The Association of American Medical Colleges recognizes the importance of the health professional areas other than medicine and also of the research and research training that is done in institutions other than schools of medicine. Any provision which the Federal Government makes to meet the needs of educational and research activities that take place outside the medical school and its research and service facilities should be over and above the recommendations in this statement.

While all the proposals require implementation, funds for construction are given first priority because it is the inadequacy of existing facilities that is the primary obstacle to the overall development that is needed. Until steps are taken to solve this problem, little will be accomplished by efforts to increase medical school faculties or student enrollments. Students and teachers must have suitable places in which to work, including classrooms, laboratories, libraries, hospitals, and clinics.

I. MATCHING FUNDS FOR MODERNIZATION AND EXPANSION OF EXISTING SCHOOLS AND THE CONSTRUCTION OF NEW SCHOOLS

A. *The need*

In the fall of 1959 the Surgeon General's Consultant Group on Medical Education reported that to maintain this Nation's present ratio of physicians to population, by 1975, 3,500 more physicians must be graduating each year than is presently the case. This means, with due allowance for dropouts between admission and graduation, that by 1970 this Nation must provide an increase of approximately 4,000 first year places in its schools of medicine.

A survey in the fall of 1960² discloses that 1,700 of these additional first year places can be created by the full modernization and expansion of existing schools. The remaining 2,300 must come from the establishment of new schools. Therefore, the provision of funds that will provide for both of these approaches will permit enrollment increases that can be both prompt and continuous. The Nation's schools of medicine, colleges, and universities of themselves do not have the resources to finance the necessary modernization expansion and new development. Most of the needed money must come from the Federal Government.

B. *Policy*

Since medical education serves many national purposes and since its strength comes through the diversity of local ownership and control, the Association of American Medical Colleges favors both Federal and local participation in the construction of medical schools and their related research, library, hospital, and clinic facilities.

Federal matching funds should be provided under conditions that will—

1. Be sufficient in amount to encourage action that is both prompt and adequate;
2. Encourage the modernization and expansion of existing schools;
3. Encourage academic institutions not presently involved in medical education to plan and develop new schools;
4. Encourage an institution's continuing effectiveness in maintaining diversity in its sources of financial support;
5. Recognize the essential unity of medical education and research by identifying the support of one with the other;
6. Recognize the indispensability of the library, the university hospital, and clinic to medical research and education.

C. *Proposals*

1. As an initial step, the Association of American Medical Colleges recommends that the Congress pass enabling legislation covering a 10-year span that will provide matching funds for the full modernization and expansion of existing programs in medical education and the development of new programs.

2. It is recommended that the first appropriation measure cover a 3-year period with a provision for annual amendment, depending upon the continuing study of needs and of the amounts that can be expended to the best possible advantage. As a basic appropriation for this 3-year period, the association recommends:

(a) That \$50 million a year be appropriated for grants for the modernization, expansion or replacement of the educational, research, and library facilities of existing schools of medicine. If an increase of 5 percent or more is made for the enrollment of first year medical students, the Federal matching should be \$3 for \$1; if there is less than a 5-percent increase in first year places, the Federal matching should be \$3 for \$2.

(b) That \$50 million a year be appropriated for grants to existing schools of medicine for the establishment, modernization and expansion of those teaching hospitals and clinics that are their primary base for clinical teaching and research, the granting of such funds to be upon application made by the medical school or university. The matching formula for such grants should be one Federal for one local dollar;

(c) That for the first year, \$50 million be appropriated for grants for the construction of new schools, including research facilities and teaching hospitals and clinics. Federal funds should be provided upon a 3-to-1 basis;

² "Medical Education in the United States and Canada," Wiggins, W. S., Leymaster, G. R., Taylor, A. H., and Tipner, Anne, *Journal of the American Medical Association*, vol. 174, pp. 1425-1431.

(d) That \$300,000 per year be appropriated for grants, up to \$50,000 to an academic institution that wishes to study the feasibility of establishing a new school.

II. FINANCIAL AID TO STUDENTS OF MEDICINE

In spite of a rapid increase in the number of liberal arts graduates, there continues to be a decline in the number of medical school applicants. While this may be due to a variety of reasons, there can be no doubt that one important reason is the amount of personal expense and time involved in study for the M.D. degree and in the additional years the young physician must spend in internship and residency training as contrasted with the time and cost involved in securing the Ph. D. in the various sciences.

A nationwide study of the students graduating from medical schools in 1959 showed that at least one-third had important financial problems.

The Association of American Medical Colleges believes that to insure an adequate number of medical students, the most crucial need at this time is for nonrefundable educational grants (predoctoral medical fellowships). The association recommends that these grants be provided in amounts and under conditions that will attract and hold qualified students who for financial reasons might not otherwise be able to pursue a career in medicine. The association recommends that these nonrefundable fellowships should—

1. Be available for students during all 4 years of medical school;
2. Not in any way limit the ability of a student to attend the school of his choice;
3. Not impose restrictions upon the student's freedom to obtain postgraduate training or pursue a career of his choice;
4. Be made available as a lump-sum grant to each school, the amount to be determined by the number of enrolled medical students. Five hundred dollars per student is suggested;
5. Be administered by each school in accordance with its particular needs and circumstances with the provision that all such funds be used in direct aid to medical students, that up to \$2,500 per student be the maximum of the Federal fellowship allowed in a single school year, and that no restrictions be placed upon the freedom of the school to use funds for student aid from other sources.

III. THE PROVISION OF THE FULL COST OF PROJECT-SUPPORTED RESEARCH AND RESEARCH TRAINING

The association continues to recommend that grants from the National Institutes of Health for the support of research and research training permit the payment of full costs based upon a formula that will allow for variations in the costs from institution to institution.

IV. THE SUPPORT OF RESEARCH AND RESEARCH TRAINING

The Association of American Medical Colleges recognizes that the Federal support of research and research training has lead to great improvement in the health of both the Nation and of the world and recommends that this support be continued. One of the major objectives of the association's proposals for funds for the remodeling and expansion of existing schools and for the construction of new schools, as well as its recommendations for full reimbursement for the cost of research and research training, is to strengthen the basic capacity of the Nation's schools of medicine to conduct these activities.

The association therefore recommends that, as the result of constant study, each year's appropriation for research and research training continue to be adjusted to the national need, to the availability of facilities and scientific personnel, and to the amounts of money that can be spent wisely and efficiently.

V. GENERAL SUPPORT OF MEDICAL EDUCATION

The program of assistance to medical education offered in the foregoing sections is essential to modernize and expand the physical facilities of the medical schools of the Nation, to assist in the creation of new schools, and to make it possible for young men and women of intelligence and character, even though of modest means, to secure a medical education.

But this program alone will not provide enough physicians to meet the needs of the Nation. A strong system of medical education requires adequate financial support that is continuing and stable. Universities with budgets already under great stress will be unable to maintain, improve, or expand their existing medical programs or to establish new medical schools or new educational programs unless sources of additional operating funds are found.

Since this is a matter of vital concern to the entire Nation, the Association of American Medical Colleges believes it is reasonable and proper that the Federal Government should provide together with other national and local sources the needed additional operating funds. All such funds should be made available in a manner which will assure the continuation of full institutional control of medical education.

VI. ADMINISTRATION

The Association of American Medical Colleges believes that the close coordination of Federal programs that support medical education is essential.

The association takes cognizance of the long and effective working relationships existing between the medical colleges, and the Department of Health, Education, and Welfare, particularly the U.S. Public Health Service and its National Institutes of Health and expresses its hope that the future Federal support of medical education will be administered in the same enlightened manner, with the full utilization of non-Federal consultants, that has characterized the past.

Dr. BERSON. Your subcommittee has had the reports of many studies over a long period of time that demonstrate that if we are going to have an adequate supply of health personnel for the growing population there simply must be a very marked expansion in the number of people entering and graduating from medical schools, dental schools, schools of public health, and so on.

The main point I would like to emphasize is the urgency of the need.

The fact is that the leadtime, the period for planning and construction and developing programs, then the 4-year educational program, is so long that if this bill is enacted this session, as we hope it will be without change, we still will be running late in turning out the increased numbers of trained people needed.

The CHAIRMAN. Doctor, the truth is that we have had this legislation here with us in one form or another for some 12 or 13 years.

Dr. BERSON. That is right, and it was not too early when it first came before you.

So we urgently hope that this legislation will be enacted in its present form in this session.

The other point I would like to make is that the position of the Association of American Medical Colleges is that, in addition to construction, there is a tremendous need for financial assistance for students in the health professions.

This legislation provides loan funds at rates of interest that are fairly comparable to the National Defense Education Act.

We think it is important and should be enacted as set forth in the bill. We do not think this will meet the whole need.

But we do think that this is a step toward making it possible for young people, regardless of their economic status or background, if they have the talent and the interest and can otherwise qualify, to begin the study for one of these professions and to end up that study not overly burdened with debt.

At a later time, with your permission, we would like to submit the memorandum that is specific about why we think the sort of loans set forth in this legislation are important and why we think that higher interest loans, as the AMA has sponsored, will not meet nearly all of the need.

If you have no objection, we would like to write to the committee and submit such a statement.

The CHAIRMAN. We would be delighted to have that, Doctor.

How long do you think it will take to get that memorandum here?

Dr. BERSON. Only a few days. All of the points are very clear and familiar in our minds, but a little more time in putting them in writing would make a better document.

The CHAIRMAN. All right. We will be delighted to have it, and we will hope to get it in just as soon as possible because we would not want to print our hearings until we have that memorandum.

Dr. BERSON. Yes, we will get it in next week.

The CHAIRMAN. All right.

(The memorandum referred to appears on p. 307.)

Dr. BERSON. Let me emphasize my own belief, and I think this is the position of the association, and that is that it is in the national interest for young people, regardless of the economic status of their families, to be able to begin the study of these professions and to end up no more heavily in debt than if they went into another profession or a career in another aspect of science.

Now, we would be happy to attempt to answer any sort of questions that you would like, but we do not want to take up too much of the committee's time this morning.

The CHAIRMAN. Well, I imagine the memorandum, as you have indicated, will present the real facts as far as the loans are concerned and the need for the loan provisions as written in this bill.

Is that right?

Dr. BERSON. Yes, sir.

The CHAIRMAN. Whatever may be the benefits of any other loan provisions, we need the loan provisions written in this bill. Is that right?

Dr. BERSON. That is correct.

The CHAIRMAN. And your memorandum will give us the real case for the loan provisions in this bill. Is that right?

Dr. BERSON. It will.

The CHAIRMAN. Fine. Again, I would say to you, let us have that memorandum as soon as you can so we can have our hearings published and take the bill up in committee and then before the Senate and get the action that we all want.

Dr. BERSON. We certainly will, and we hope that the action will be to pass the bill as it was passed by the House.

The CHAIRMAN. Yes. So that when the Senate acts then the bill can go direct to the President for his signature.

Dr. BERSON. Yes, sir.

The CHAIRMAN. Do you other gentlemen have anything you would like to say?

Well, I notice Dr. Parks is back there.

This is off the record.

(Discussion off the record.)

The CHAIRMAN. There is nothing you gentleman would like to add?

Well, we want to thank you very much for your appearance. I believe, Dr. Berson, you just got back from Europe?

Dr. BERSON. Yes, the day before yesterday.

The CHAIRMAN. How long were you there?

Dr. BERSON. Oh, about 3 months. I went over to see what I could learn about how well they are running their medical schools.

The CHAIRMAN. Did you feel your trip was rewarding?

Dr. BERSON. Yes, very rewarding as well as very interesting.

I think we could teach them some things as well as maybe learning learn a little bit from them.

The CHAIRMAN. I would be interested in having a report on your trip.

Dr. BERSON. I will give it to you.

The CHAIRMAN. Fine. Thank you. Well, we want to thank you, gentlemen. We appreciate your attendance very, very much. Thank you.

Dr. BERSON. Thank you, sir.

The CHAIRMAN. Now, the Association of Schools of Public Health.

STATEMENT OF DR. MYRON WEGMAN, PRESIDENT, ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH

The CHAIRMAN. Dr. Wegman, we are very glad to have you here, sir.

Dr. WEGMAN. Thank you, sir.

The CHAIRMAN. You may proceed in your own way.

Dr. WEGMAN. Senator Hill, our association welcomes the opportunity to come before this committee again and report on our needs.

I am speaking on behalf of the Association of Schools of Public Health, which includes the 12 schools of public health in the United States. I have a document that I have left with the clerk, sir, but I should like to amplify this for just a few minutes.

The CHAIRMAN. All right. We will have the document appear in full in the record, Doctor, and then you may make any supplemental statements you see fit.

Dr. WEGMAN. Thank you, sir.

(The prepared statement of Dr. Wegman follows:)

PREPARED STATEMENT OF MYRON E. WEGMAN, M.D., M.P.H., DEAN OF THE SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF MICHIGAN

I am Myron E. Wegman, dean of the School of Public Health of the University of Michigan and president of the Association of Schools of Public Health, comprising all the associated schools of public health in the United States and Canada. My background includes health work in rural Maryland and in New York City, teaching responsibilities in several universities, including a period as professor and head of the Department of Pediatrics at Louisiana State University, and extensive work in international health including several years as Secretary-General of the Pan American Health Organization.

My testimony will be devoted largely to some special concerns of schools of public health but I should like to say a few words on those portions of S. 911 covering the other schools. The broad and multidisciplinary character of public health requires physicians, dentists, nurses, engineers, statisticians, nutritionists, and many other professional groups, but I must emphasize the key role played in public health activity by physicians and dentists. Improvement in their education is of vital import to public health both because of the daily work of all physicians and dentists and because of the urgent need to have an adequate pool of qualified men who may be attracted to public health as their specialty. I, thus, strongly support both the construction and student aid provisions of the bill regarding physicians and dentists. Six of the U.S. schools of public health are located in State universities, the University of California at Berkeley, the University of California at Los Angeles, the University of Minnesota, the Univer-

sity of North Carolina, the University of Puerto Rico, and the University of Michigan. The other six are in private universities: Columbia, Harvard, Johns Hopkins, Pittsburgh, Tulane, and Yale.

The problems of the schools vary in some degree because of the special problems of the areas in which they are located, but their similarities outweigh the differences since all serve a much wider area. In this connection I think it important to point out that possibly nowhere in the group of professional schools has there been closer cooperation than among the private and publicly supported schools of public health. Close cooperation has been a longstanding feature and has led to establishing standards, devising new means of instruction, broadening the base of service to the public and to the profession, exchanging staff, and constantly seeking curriculum revisions to keep abreast of the dynamic changes taking place in community health needs.

It has been truly pointed out that public health is unique in being based both in the social sciences and the natural sciences. As a natural and desirable consequence schools of public health offer a wide variety of programs to college graduates who have had adequate preparation in biology, chemistry, physics, and the social sciences. Students admitted may be physicians, engineers, nurses, nutritionists, industrial hygienists, statisticians, and others. They may take programs varying in public health administration, public health dentistry, medical care administration, public health education, public health nursing, public health nutrition, maternal and child health, public health statistics, epidemiology, public health laboratory practice, environmental health, public health engineering-sanitary sciences, industrial health, and other specific fields. Appropriate emphasis is given to the problems of chronic disease, mental health, atmospheric and water pollution, and community development as well as to the challenges of the newer viruses, toxicants in foods, and to the devastating problem of accidents. The variety of training programs that need to be given complicates the problem of space and facilities. Although most students take certain basic courses together, they must be split up for some of the more specialized work.

The objective of public health practitioners is to safeguard and improve the health of citizens by organizing and administering communitywide programs of prevention of disease, accidents, and other conditions that threaten whole populations. I do not need to persuade this committee, which has fostered so much constructive public health legislation, that prevention is the key to the health of the individual and of the Nation. It is, of course, the least expensive way to health, as many industries and agencies of Government have learned. Investments in keeping well people well—off the absentee list, off relief rolls, out of hospitals, and in a state of self-sufficiency and well-being—are repaid severalfold in actual dollar savings and in the earnings of increased productivity. It has been truly said that the cost of sickness is far greater than the price of health.

I emphasize that students in schools of public health are being trained for public service, not for private practice. They serve in State and local health departments and at national and international levels, as well as in voluntary health agencies and institutions which are essentially in the public service.

In previous testimony before this committee our association has cited information from the First National Conference in Public Health Training in 1958, indicating the magnitude of the country's needs for public health personnel and their requirements for educational preparation. Data prepared earlier this year for the second national conference, showed that, although considerable progress has been made in the intervening 5 years, "Examination of the staffing patterns of State and local health departments over the past decade reveals a failure to keep pace with population growth."

The Nation's schools of public health have recognized this need by increasing their enrollment. Space, however, has been a serious limiting factor. A recent inquiry discloses that if physical facilities were increased the number of students would be increased by 50 to 60 percent.

The Second National Conference on Public Health Training, to which I referred earlier, has just been held this week and I had the privilege of participating. The final report of this conference, which was called at the direction of the Congress, will not be ready for some weeks but it is completely clear from the discussions and preliminary conclusions that the conference is giving a ringing endorsement to the bill now before this committee.

SPECIAL CHARACTERISTICS OF THE STATE SCHOOLS

State schools face problems of particular magnitude in respect to their need for space and facilities. State universities are by their very nature large institutions and in recent years pressure of applicants has sent total university enrollment constantly higher. Thus, these universities offer a fertile area for recruitment of urgently needed new personnel in public health, a need the Congress has recognized in the establishment of public health traineeships.

State legislatures have in general been sympathetic to the need for basic budgets for the schools of public health but they have been very hesitant, not to say resistant, to the idea of the expanded capital outlay necessary for increasing facilities. Schools with so high a proportion of students from out of State have a lower priority for scarce funds. Furthermore, the tremendous increase in pressure on the universities for undergraduate training is taxing resources to the utmost. In the case of the University of Michigan, for example, shortage of funds has put the construction program of the university almost 5 years behind schedule. We have been told, frankly, that the recognized needs for expanded facilities in the school of public health must occupy a lower priority in the immediate future.

OUT-OF-STATE STUDENTS

A fact of importance is that the school of public health has the highest percentage of out-of-State residents of any school or college in the university. This year at our school non-Michigan residents total 75 percent of the student body. Despite the very much higher fees paid by out-of-State students, these fees do not come anywhere near paying the cost of instruction. It is understandable, therefore, that the State legislature is reluctant to expand further the State's contribution to what is, in effect, a national school.

GENERAL FINANCIAL PROBLEM OF STATE UNIVERSITIES

I shall not rehearse for you the many instances of serious overcrowding, doubling up, insufficient classroom space and serious teaching handicaps which have been reported from all of the schools. I would, however, pay tribute to the measure of improvement which has been made possible because of the availability of Federal funds for research construction. These have allowed considerable improvement in facilities for investigation and in some instances, furthermore, have allowed space now inadequate for research purposes to be converted to teaching use. This is in no sense a permanent or satisfactory solution. Research is a vital component of the work of any school, but adequate classroom, seminar, and office space is essential if the schools are to carry out satisfactorily their basic function of teaching.

CONTINUING AND POSTGRADUATE EDUCATION

An important aspect of the work of State schools relates to postgraduate institutes and courses for practicing public health workers and for ancillary groups allied to public health. This type of development recognizes that, on the one hand, with the great backlog of persons who have never had formal education in public health and, on the other, with those whose education dates back sufficiently far that they are not always completely abreast of new development, refresher and review courses are essential.

Earlier in my career I was professor and head of the Department of Pediatrics, Louisiana State University Medical School, and pediatrician in chief on the LSU service at Charity Hospital in New Orleans. There I learned the need of the rural medical practitioner for constant refresher work. In clinical fields it is possible to carry out a substantial amount of postgraduate teaching in local hospitals and clinics. In the field of public health, however, the material to be covered is of such a nature that the specialized equipment and specialized resources of the university environment are uniquely necessary for success. With increased facilities it would be possible to expand these courses considerably and reach large numbers of health and other workers now employed by the cities and States.

KEEPING PACE WITH NEEDS—UNIVERSITY OF CALIFORNIA AND UNIVERSITY OF NORTH CAROLINA

A specific instance from the University of California at Berkeley may serve to illustrate another difficulty in calling upon the States to support further

increases. In 1955 the School of Public Health at the University of California in Berkeley occupied its new public health building with an area of 43,000 square feet. While this building met the needs nicely in 1955, in the short interval since then the graduate student body has doubled. Thus, despite a recent new building the school of public health finds itself forced to double up faculty members and to rent space outside the building for both instruction and research. Indeed there are several needed teaching programs which cannot be started simply because there is not space for them.

The University of North Carolina has just opened a new building but they know already that it is only one-half as large as they need. They are happy with the prospect of new quarters and recognize that in relation to the endless difficulties of the past few years, the new building will seem almost luxurious. On the other hand, they know that they will be overcrowded before they move in. Further support from State funds is considered completely out of the question.

INTERNATIONAL ASPECTS

Professional education in public health has served a unique function in developing close ties with similar schools in other countries. This has served to strengthen professional contacts and to facilitate interchange of ideas in a number of fields of science as well as in the field of public health. As has been emphasized to this committee many times, disease knows no boundaries. Public health advances have constantly brought with them the necessity for thinking in broad terms. The schools of public health are of particular importance because their very recency of development has facilitated a mutual understanding and interrelationship of high degree.

I should point out that in most other countries, many of which modeled the scientific content of their professional public health schools on those in the United States, it has been accepted without discussion that the financing of professional education in public health is basically a national government function. Governmental responsibility is perhaps more obvious in areas where high levels of communicable and other diseases exist and where organized preventive measures are more urgent. Schools of public health in the United States are constantly being asked to play a more active role in collaborating with schools of public health in other countries. This collaboration, which brings a great deal of mutual benefit, involves much interchange of personnel. In all of the schools of public health in the United States there are persons from abroad, varying from fellows to visiting scholars of high eminence for whom adequate working space must be provided. I believe I may say very proudly that there has been more fruitful collaboration in the health field and more improvement in international understanding in this field than any other. In this way the schools of public health, through devoting a part of their space and facilities to receive students and scientists from other countries, have contributed in high degree to improvement of the prestige and influence of the United States.

A special case should be noted for the University of Puerto Rico. This school performs a unique function internationally since it carries on instruction in Spanish. In this way it is able to serve the Spanish-speaking countries of the Americas and has attracted an increasing number of qualified students. As these return to their own homes it is important that they, as well as the students in the schools on the mainland, carry away a picture of a quality of education of which the United States may be proud.

PROBLEM OF MATCHING

State schools are in a difficult position with regard to matching Federal aid. Their basic support is from the State and the usual donors of endowments, therefore, consider the needs of State schools to be less urgent than those of the private institution. The alumni of the university, usually an important source of funds, cannot contribute substantially. Graduates of schools of public health are, in the very nature of their work, employees of government, community, or eleemosynary organizations. Their incomes are too low to permit the level of giving which, in their loyalty to the university, they would like to reach. The matching proportion proposed in this bill is a realistic one, which I am happy to endorse.

SCHOOLS ARE NATIONAL AND INTERNATIONAL

May I close by repeating the observation that our schools of public health, State-supported and private, are in the broadest sense of the words truly

national and international. Their service to the country and to the world, the need for maintaining standards of education of which the Nation can be proud, make it essential that legislation be enacted to provide these urgently needed educational facilities.

Dr. WEGMAN. I should like to emphasize, sir, that, while I am here to speak chiefly on those aspects of the bill having to do with schools of public health, our association is unanimous in the fact that we cannot conceive of public health making the kinds of advances that are necessary in this country if the parts of the bill relating to physicians and dentists are not enacted. We very strongly support both the student aid and the construction parts of the bill relating to physicians and dentists.

With regard to the schools of public health themselves, our problems are unique, sir, because of the rather national character of these schools.

There are only 12 in the country, as you know, and these 12 have to supply public health personnel far beyond the borders of their own States.

This makes it difficult to get local support for construction and it is for this reason that we are particularly anxious to get the kind of assistance that this bill offers.

Just this past week, there has been held in this city the Second National Conference on Public Health Training, called at the direction of the Congress by the Surgeon General, and a report from this Conference will go to Congress at the next session.

The report, of course, is not yet final but I can speak with complete confidence when I tell you that yesterday afternoon there was a ringing endorsement of this bill. I thought that the committee would like to know that this conference of leaders from all over the country has so strongly endorsed the proposed legislation.

We think that if the construction provisions are passed there is the possibility for expansion of the student body in schools of public health which is exceedingly important if we are going to meet the many vacancies in the country.

Perhaps the only other point I shall take your time for is, that, while I emphasize the national character of the schools, our international role has become an exceedingly important one. We take care of a large number of students from abroad and we think that we need to show them the best there is in the country.

I would be happy to answer any questions, sir, about—

The CHAIRMAN. Well, as you say, Doctor, the 12 schools have to provide the public health personnel for all 50 States, the county health units, the municipal health units, and so on?

Dr. WEGMAN. Yes, sir.

The CHAIRMAN. And where there is need of public health personnel they have to look to 1 of these 12 schools. Is that not right?

Dr. WEGMAN. That is right, Six of them are State schools and six of them are in private universities.

The CHAIRMAN. We have the provisions for your traineeships under existing law, do we not?

Dr. WEGMAN. Yes, sir. And it is precisely because they have been so successful for us that I think the principle should be extended to medical schools and dental schools as well.

The CHAIRMAN. Well, certainly they have worked well in the public health schools, have they not?

Dr. WEGMAN. Yes, sir; they have indeed.

The CHAIRMAN. We want to thank you very much, Doctor.

Dr. WEGMAN. Thank you, sir.

The CHAIRMAN. We certainly appreciate your coming this morning, and we appreciate your statement.

Dr. WEGMAN. Thank you, sir.

The CHAIRMAN. Now the Association of American Dentists.

STATEMENT OF DR. VERNON BODDICKER, PRESIDENT, ASSOCIATION OF MEDICAL DENTISTS; ACCOMPANIED BY DR. JOHN G. WHINERY, CHAIRMAN, LEGISLATIVE COMMITTEE

Dr. BODDICKER. Mr. Chairman, if you will permit me, in view of the fact that Dr. Whinery will read his statement, and mine covers the same thing, because of the length of time I would like to have him read his statement and then I can add a few comments to it.

The CHAIRMAN. All right. You may proceed in your own way.

Dr. WHINERY. Mr. Chairman, and members of the committee, I am John G. Whinery, a practicing dentist, president of the Texas Panhandle District Dental Society; immediate past president of the Southwestern Society of Oral Surgeons; and, immediate past president of the Association of American Dentists.

Thousands of dentists will be grateful to you for the privilege of having their views and the facts upon which their convictions are based, made a part of this hearing. I speak for those who know there is no valid need for the legislation proposed in H.R. 12 and S. 911.

I would like, if I may, to submit the statement for the printed record, and I will speak on just a few of the more important points.

The CHAIRMAN. That may be done.

(The statement referred to follows:)

PREPARED STATEMENT OF VERNON S. BODDICKER, D.D.S., PHOENIX, ARIZ., AND JOHN G. WHINERY, D.D.S., AMARILLO, TEX.

Mr. Chairman and members of the subcommittee, I am John G. Whinery, a practicing dentist, president of the Texas Panhandle District Dental Society; immediate past president of the Southwestern Society of Oral Surgeons; and, immediate past president of the Association of American Dentists.

Thousands of dentists will be grateful to you for the privilege of having their views and the facts upon which their convictions are based, made a part of this hearing. I speak for those who know there is no valid need for the legislation proposed in H.R. 12 and S. 911.

Demands for Federal aid to dental education are based on distortions of facts

1. First, proponents of Federal aid to dental education loudly proclaim that we are facing a "mountainous dental health problem unless we double the number of dental colleges and dental graduates by 1975." Whereas, the truth is far better served by a study of the Council on Dental Education of the American Dental Association in 1962. This study predicts that the 1975 shortage of dentists would be only 13 percent—not 100 percent as now claimed. (Source: The Council on Dental Education, American Dental Association, App. I.)

2. Second, we are constantly confronted with the imaginary spectre of a "population explosion". For decades this prediction has been held over our heads like the Sword of Damocles—but, it has never fallen. According to the U.S. Department of Health, Education, and Welfare, any forecast of population increase or decrease must be based on, among other things, three major factors: (a) The crude birth rate, (b) the fertility rate, and (c) the percentage of women between 15 and 44 years of age. Let us look at these three factors:

(a) Since 1957 there has been a slight, but steady, decline in the crude birth rate. It has gone down from 25 live births per 1,000 population in 1957 to 23.4 live births per 1,000 in 1961.

(b) The fertility rate is also declining. In 1957 that rate was 121.2 live births per 1,000 women of childbearing age. In 1961 there were 117.7, a reduction of 3.5 live births per 1,000 women between 15 and 44.

(c) There is a corresponding decline in the percentage of total population consisting of women of childbearing age. In 1940 those women composed 24.3 percent of our total population. In 1961, they were only 19.9 percent of the total. (Source: "Monthly Vital Statistics Report", U.S. Department of Health, Education, and Welfare, Public Health Service, National Vital Statistics Division, vol. 10, No. 13, Apr. 30, 1962.)

Another significant factor in population levels is the death rate. Despite the popular misconception that longevity in this country is growing by leaps and bounds, the hard truth is that the death rate remains relatively constant. In 1954, the age-adjusted death rate stood at 7.7 per 1,000 population. With slight rises during the influenza epidemic in 1957, and a return to the same 7.7 deaths per 1,000 in 1959, there is no present evidence of a lowering death rate in the immediate or foreseeable future. (Source: "Mortality Statistics," Report on Vital Statistics of the United States, 1959, sec. 6. U.S. Department of Health, Education, and Welfare Public Health Service, National Office of Vital Statistics.)

3. When H.R. 12 hearings were held by the House Committee on Interstate and Foreign Commerce, testimony was given that purported to show a present shortage of dentists—and an even greater shortage for the future.

There is no shortage of dentists in the United States. To the contrary, in the total, the current supply of dentists is more nearly too many than too few. John O. Wilson, D.D.S. of Atlanta, Ga., writes in the July 1963 issue of *Dental Management*, a national business magazine for dentists. Dr. Wilson insists there is not now, and need not be, in the future, any appreciable shortage of dentists in this Nation. He documents these two major facts:

(a) "No dentist in America has more preventive or restorative services demanded of him than he can find ways to provide."

(b) "The vast majority of dentists need and desire more patients."

Private practicing dentists across the Nation support Dr. Wilson's view and mine:

Dr. C. E. Rutledge, Richmond, Calif., writes: "I feel strongly that the hubub about manpower is exaggerated. I don't know a single dentist who couldn't handle more patients."

Dr. J. H. Mosteller, Mobile, Ala.: "I find that a large percentage of the Nation's dentists are not as busy as they would like to be."

Practitioner and lecturer, Dr. Cecil H. Bliss, Sioux City, Iowa, has stated: "To measure dental needs by a population-dentist ratio is an unrealistic, dishonest approach, because there are millions of people who would not accept complete dental attention, even if it were free. We should not—and must not—plan to increase drastically the number of dental schools and the number of dentists to care for a nonexistent demand." (Source: *Dental Management*, July 1963, "Will We Really Need More Dentists? No," John O. Wilson D.D.S.)

Dr. Cecil Bliss has conducted a number of surveys. In one recently completed in a tri-State area in Iowa, Minnesota, and South Dakota, he found the average dentist able to care for from 30 percent to 50 percent patients—and eager to do so. (Source: Personal Telegram, Dr. Bliss to Dr. Whinery.)

In April 1962, the Detroit, Mich., District Dental Society conducted a survey among its member dentists. With 753 respondents to approximately 1,500 questionnaires mailed, here are some of the significant results:

(a) With present equipment and personnel dental service could be increased an average of 34 percent.

(b) With additional equipment and personnel dental service could be increased 52 percent.

(c) Is there a shortage of dentists in your area? Yes: 24. No: 716.

(d) Do you foresee a future shortage of dentists that will require construction of a new dental school? 108 did. 613 did not. (Source: Summary of Survey by Donald E. Mayhew, D.D.S., Detroit, chairman, and Survey Committee of Detroit District Dental Society. Furnished by Vincent R. Trapozzano, D.D.S., St. Petersburg, Fla.) (Appendix 2.)

4. Evidence of the ability of the present number of dentists to meet the wants of our people is found, also, in the matter of "Waiting for Appointment" time.

For emergency treatment, there is little or no waiting time.

For elective or procedural treatment, waiting time for appointment is declining.

In one 5-year period, waiting time dropped from 13.6 days in 1952 to 11.8 days in

1958. The downward trend has continued and is still dropping slowly today (see appendix 2, and other). (Source: Report on Bureaus and Councils, American Dental Association, vol. 62, June 1962.)

5. Authority for data presented to the House of Representatives on hearings related to H.R. 12, was, often, "The Survey of Dentistry in the United States." This monumental work ran to almost 700 pages; was the product of the American Council on Education; and was financed by the American Council on Education, with some cost participation by the American Dental Association. Many of the findings reported therein hold true in the light of knowledge and experience of practicing dentists. However, several significant recommendations are amazing contradictions of fact otherwise soundly established.

(a) Those testifying in favor of H.R. 12, and appearing as representatives of the 100,000 members of the American Dental Association completely ignored the well-known and strongly-held positions of many thousands of dentists in this country.

For example, my own State of Texas, with approximately 3,600 members of the Texas Dental Association, has, in each of the past 3 years, officially opposed Federal Aid to Dental Education. Resolutions against Federal Aid to Education, with specific reference to current House and Senate numbers of subject bills, were carefully debated and adopted by wide margins in 1961, 1962, and 1963. (Copy of 1963 Resolution, appendix 3.) The Texas Dental Association forwards such significant actions to the American Dental Association, as indeed, do all of the State components of ADA. Yet, in the transcript of House hearings it was stated that only a mere handful of dentists opposed H.R. 12. The Texas Medical Association is also officially opposed to H.R. 12 and Federal aid to dental and medical education. These positions are current and valid.

With further reference to the "Survey of Dentistry in the United States," the American Dental Association officials testified in hearings on H.R. 12, from a posture that most dentists had studied—and agreed with—its findings. The ADA stated elsewhere, "Two years have elapsed since the 600-page report of the Commission on the Survey of Dentistry in the United States was issued. Since it deals with a subject of vital concern to all dentists, it is presumed that all dentists have read it, or at least have read its summary. If that presumption is correct, it may be presumed that most of the 105,000 dental practitioners in the United States are in accord with the 74 basic recommendations offered by the Survey Commission or have found little in them with which to find fault." (Source: The Journal, American Dental Association, January 1963, p. 84.)

This was published in January 1963. On February 5, 1963, Mr. Robert Quick, director of publications, American Council on Education, Washington, D.C., wrote the following:

"We have sent out about 3,900 copies of the complete report, 'The Survey of Dentistry in the United States', and a little over 10,000 copies of the pamphlet, 'Dentistry in the United States'." (Source: Letter from Mr. Robert Quick to Charles J. Sabel, 1001 South Street, Lafayette, Ind., dated February 5, 1963.)

With 105,000 dentists in the United States, and only 13,900 combined copies of the survey and its summary distributed by the only primary source from which they were available, it is certain that only a small percentage of the dentists of this Nation have ever seen the survey. In fact, it is known that hundreds of those copies are still gathering dust in offices of those who meant to forward them to dentists, but never did.

There are thousands of dentists in this country that still have not even heard of the "Survey of Dentistry in the United States." Of those who have studied it, a large number are unalterably opposed to a few of the 74 basic recommendations. Paramount among those is the implication that we face a grave shortage of dental school space and dentists, and that only the Federal Government can save us.

Vincent R. Trapozzano, D.D.S., St. Petersburg, Fla., published an analysis on the "Survey of Dentistry" in the Journal of Prosthetic Dentistry, St. Louis, Mo., July-August 1962. Calling attention to the specific area of projection in population ("a possible 235 million people by 1975"), and the arbitrary decision that we must have 134,000 dentists by 1975, Dr. Trapozzano works out a comparison. The survey recommendation would mean one dentist for each 2,174 people. If we maintain the 1964 graduate level from dental schools, the ratio in 1975 would be 1 dentist for each 2,440 people. That is only an increase of 276 per dentist. That number could easily be absorbed without any crash program. Less than maximum patient load, improved techniques, more efficient staff support, and scientifically improved equipment, without doubt, would easily give the dentist increased efficiency to more than meet the difference in patient-dentist, or population-dentist ratio.

Dr. Traپozzano states: "Apparently the only persons who believe there is a shortage of dentists are the nonpracticing dentists. Close personal questioning of large number of dentists clearly indicate that only occasionally will one state that he has as many patients as he can serve." (Source: "The Survey of Dentistry in the United States," Vincent R. Traپozzano, St. Petersburg, Fla., published in the *Journal of Prosthetic Dentistry*, July-August 1962, vol. 12, No. 4, pp. 616-628.)

6. Construction grants: Despite all we have heard to the contrary, there is still no proof that existing dental schools will not expand to meet the requirements for facilities to teach whatever number of students that voluntarily enroll, as they have always done.

Eighty percent of existing dental colleges are operating below capacity. Dental school applications declined from 7,376 in 1956 to 5,841 in 1961, according to the American Dental Association. (Source: "Reports of Officers and Councils, 1962," American Dental Association, pp. 13-14.)

Clearly, the need is not for more classroom space. Under current, and fully adequate, conditions, no such need is likely to develop in the foreseeable future. The spirit of American education is that buildings and equipment and teaching will be provided regardless of the fate of H.R. 12 and S. 911.

7. Student loans: Practicing dentists, churches, auxiliaries, service clubs, and other philanthropic organizations, as well as State and lesser dental units have always been generous in their provision of funds for the education of dental students. Student loan funds are available in large sums. These privately supported efforts have always grown—and will continue to grow—to meet the need, if there is a need. But, there is the very real danger that further Federal intrusion of this area of American generosity will destroy this very desirable work of professional pride.

Recently, the Arizona State Dental Association adopted a revolving fund plan, actuarially designed to care for that State's needs. The American Medical Association plan for student loans is well known to you.

The funding of both dental school general funds and student loans by alumni is growing. Century clubs (gifts of \$100 per year) are common and growing. Financing of student educational expense from a local level, on a voluntary basis, will certainly be far less costly than if handled by Federal agencies. The handling charges from Federal bureaus are extensive, while many local and individual scholarship efforts are efficiently handled by volunteers.

I suggest, gentlemen, that the vacancies in dental schools result more from competition from fields of endeavor of greater financial reward than from lack of funds for education. For example, federally supported science, armament, space, and missile program education pays far better than dentistry—especially in the initial stages. It is common for a graduate with only 4 or 5 years of college to receive much higher pay than the physician or dentist with 7 to 9 years of college, even after 5 and even 10 years of practice.

In the minority report of the House Committee on Interstate and Foreign Commerce, Representative Samuel L. Devine and Glenn Cunningham point out a significant set of facts concerning the loan provisions of this legislation:

"The witness representing the Department of Health, Education, and Welfare indicated that H.R. 12 is required because the loans available under the National Defense Education Act are not adequate. He pointed out that under the National Defense Education Act the maximum loan is \$5,000 and \$1,000 per year, while H.R. 12 allows \$8,000 and \$2,000 per year * * *. While a large number of students availed themselves of the National Defense Education Act loans in fiscal year 1962, the average loan was less than \$700." (Source: Report of the House Interstate and Foreign Commerce Committee to accompany H.R. 12.)

8. Research: Funds for dental research are already generously available. Quick reference to the progressive growth in budget allocation to the National Institute of Dental Research will reveal these facts. In addition, the National Institutes of Health is well funded. The Federal responsibility, if it does legally exist, is already well met and there seems no reasonable excuse to launch a new vehicle for financing dental research.

The American Dental Association, in obvious compromise to satisfy all major thought areas of their membership, adopted the principle of "Federal aid without Federal control." We all know this is virtually impossible—and economically unsound. Again, "it is hardly lack of due process for the Federal Government to regulate that which it subsidizes."

9. Summary: In summary, then, gentlemen, there is now no shortage of dentists and no authority has been able to prove one exists. There is no universal shortage of teaching space and facilities for dental students, and no proof there is likely to be. There is no crisis in financing individual dental students requir-

ing additional loan funds, grants-in-aid or outright free handouts, from the Federal Government. We are graduating sufficient dental students to maintain the highest level of dental care the world has ever known.

We have more dentists than required for the patient load, and private practicing dentists are almost universally opposed to any weakening of either the spirit or the letter of our present system of free choice and control in the field of education in dentistry.

Thank you.

Exhibits attached: Appendixes 1, 2, and 3, specifically quoted in transcript of testimony.

Additional exhibits: Copies of local, regional, and State material supporting in proof claims herein made that—

(a) "The Survey of Dentistry in the United States" does not reflect the knowledge and belief of the majority of dentists in all its recommendations.

(b) Evidence of a considerable—and official—objection to Federal aid to education in general, to Federal aid to dental education in particular, and, especially, opposing H.R. 12.

THE COUNCIL ON DENTAL EDUCATION, AMERICAN DENTAL ASSOCIATION, 1962

Number of dentists needed to maintain 1958 dentist-population ratio, 1975

	Anticipated supply, 1975	Required number of dentists, 1975	Shortage	Percent increase needed
Total	111,930	126,276	14,346	13
1. Alabama	1,545	968		
2. Arizona	532	802	270	51
3. Arkansas	746	441		
4. California	10,477	15,500	5,023	48
5. Colorado	1,220	1,414	194	16
6. Connecticut	2,026	2,319	293	14
7. Delaware	198	244	46	23
8. District of Columbia	836	1,058	222	27
9. Florida	2,201	3,162	871	38
10. Georgia	1,492	1,294		
11. Idaho	487	346		
12. Illinois	6,351	7,929	1,578	25
13. Indiana	2,674	2,919	245	9
14. Iowa	1,934	1,768		
15. Kansas	1,281	1,296	15	1
16. Kentucky	1,645	1,168		
17. Louisiana	1,260	1,489	229	18
18. Maine	502	450		
19. Maryland	1,635	1,820	185	11
20. Massachusetts	3,617	4,347	730	20
21. Michigan	5,412	5,813	401	7
22. Minnesota	2,468	2,899	431	18
23. Mississippi	859	559		
24. Missouri	2,396	3,045	649	27
25. Montana	500	414		
26. Nebraska	1,004	1,047	43	4
27. Nevada	157	255	98	62
28. New Hampshire	437	357		
29. New Jersey	4,124	5,023	899	22
30. New Mexico	355	383	28	8
31. New York	13,749	18,958	5,209	38
32. North Carolina	1,855	1,603		
33. North Dakota	329	326		
34. Ohio	5,629	6,656	1,027	18
35. Oklahoma	1,223	833		
36. Oregon	1,846	1,917	71	4
37. Pennsylvania	7,740	8,253	513	7
38. Rhode Island	685	554		
39. South Carolina	716	636		
40. South Dakota	357	369	12	3
41. Tennessee	2,684	1,639		
42. Texas	4,747	4,427		
43. Utah	764	762		
44. Vermont	215	182		
45. Virginia	2,031	1,728		
46. Washington	2,653	2,719	66	2
47. West Virginia	929	761		
48. Wisconsin	3,098	3,213		
49. Wyoming	219	211		
50. Alaska	(2)	(2)	(2)	(2)
51. Hawaii	(2)	(2)	(2)	(2)
52. Puerto Rico	(2)	(2)	(2)	(2)
53. Virgin Islands	(2)	(2)	(2)	(2)

¹ Excludes dentists in Federal services.

² Data not included in tabulations.

SUMMARY OF RESULTS OF A SURVEY OF DENTISTS, DETROIT, MICH., APRIL 1962

(Conducted by Detroit District Dental Society, Chairman of Survey Committee, Donald F. Mayhew, D.D.S.)

Assuming I would be paid a fair fee, with reasonable promptness:

1. I could comfortably increase the amount of dental service in my office (what percent?) ---- with present equipment and personnel. Average 34 percent.
2. I could increase present service (what percent?) ---- by use of additional equipment and personnel. Average 52 percent.
3. A new emergency patient would have to wait ---- days for an appointment in my office. Average 37 days.
4. A nonemergency patient would have to wait ---- days for an appointment. Average: 6.4 days.
5. One of my own patients would have to wait ---- days for an emergency appointment. Average: 0.15 days.
6. One of my own patients would have to wait ---- days for a routine appointment. Average: 6.7 days.
7. (Circle one:) I do—I do not—recognize a current situation in my area that could be described as a shortage of dentists. (Do: 24; do not: 716.)
8. (Circle one:) I do—I do not—foresee a probable future (approximately 10 years) shortage of dentists that will require construction of a new dental school. (Do: 108; do not: 613.)

NOTE: The above summation of results from this questionnaire came from—

- A. Dividing Detroit into seven regions;
- B. Distribution of approximately 1,500 questionnaires;
- C. Return of 800 completed forms; and
- D. Tabulation of 753 replies.

(Source: Vincent R. Trapozzano, D.D.S., St. Petersburg, Fla.)

RESOLUTION

(Adopted by the House of Delegates, Texas Dental Association, in annual meeting, San Antonio, Tex., April 28–May 1, 1963)

Whereas H.R. 12 is intended to greatly increase the number of physicians and dentists by the spending of Federal tax money; and

Whereas this proposed increase of doctors would make an uneconomic situation in that the supply of doctors would exceed the demands for their services; and

Whereas this could create a large number of physicians and dentists who, not being able to maintain an adequate income, would be available to staff an expanded public health service; and

Whereas this series of events is planned¹ to strengthen the Federal Government's health care programs to the detriment of the voluntary individual health care system: Be it

Resolved, That the Texas Dental Association go on record as opposed to H.R. 12 and other such schemes of Federal aid to education; and be it further

Resolved, That copies of this resolution be sent to the Congressmen and Senators of this State, the dental society presidents, secretaries, and legislative chairmen of the 49 other United States.

¹ Health, Education, and Welfare Assistant Secretary Wilbur Cohen stated, "We look upon that bill (Federal aid to health education is H.R. 4999) and this bill (Federal grants to health units for prevention and control of dentistry is S. 917) as being related—the former being directed toward development of manpower and this bill toward development of public health." This statement is taken from p. 16 of hearings before the Subcommittee on Health of the Committee on Labor and Public Welfare of the U.S. Senate, 87th Cong., May 24, 1962.

WEST CENTRAL DENTAL SOCIETY,
Lafayette, Ind., May 31, 1963.

Re: H.R. 12 and related matters.

SENATE OF THE UNITED STATES,
Senate Office Building,
Washington, D.C.

DEAR SENATOR: The West Central Dental Society, a component of the Indiana State Dental Association, wishes to take this means to advise you of action taken at the 105th annual meeting of the Indiana State Dental Association held at Indianapolis, Ind., May 19-23, 1963.

At this meeting the house of delegates, representing the 14 component societies in the State association, passed by a large majority, the following resolution:

"RESOLUTION ON H.R. 12

"Whereas individual initiative, free enterprise, and the dedication of men have made dental health care in the United States the finest in the world; and

"Whereas there is not at present any dental manpower shortage, and realistic study of future problems does not indicate that there will be one: Therefore, be it

"Resolved, That extension and expansion of Government activity in the area of construction and student aid as outlined in this bill is so enormous and unprecedented that the provisions would place the Federal Government in a position of potential control in the field of dental education previously unheard of and would, therefore, not be in the best interest of the public or the dental profession: Therefore be it further

"Resolved, That the Indiana State Dental Association be on record as opposed to H.R. 12, and that copy of this resolution be forwarded to the trustee of the seventh district of the American Dental Association, each of our delegates to the American Dental Association, and to the secretary of the American Dental Association for proper consideration by the board of trustees and the house of delegates at the 1963 annual session, and a copy sent to all members of congressional committees studying this legislation, and all Representatives and Senators from the State of Indiana."

As you probably know, similar action has been taken by other State dental societies in California, Texas, Florida, and Arizona.

In further action, the delegates passed a resolution establishing a dentist financed program to provide loans to dental students in need of financial support. This same resolution will be presented to the national meeting of the American Dental Association in October in an effort to start the loan program on a nationwide scale.

Also, included are the results of a poll taken about 3 weeks ago of the membership of the Indiana State Dental Association, to which the response was 47 percent. These results indicate the extent of the opposition to Federal aid by the dentists of this State.

We urge you to use your efforts and your vote to defeat H.R. 12 on the grounds that it is not needed.

Respectfully yours,

PAUL E. DRAPER, D.D.S., *President*.

RESOLUTION OF EAST COAST DISTRICT DENTAL SOCIETY, MIAMI, FLA.

Whereas H.R. 4999 is distinctly a two-phase bill—a "bricks and mortar" phase (Federal aid established for construction of health, research, and teaching facilities) and a student scholarship phase; and

Whereas we accept the basic concept of the "bricks and mortar" phase of the bill with its guarantee of "noninterference with administration of institutions"; and

Whereas the "student loan" phase is in direct contrast to the basic democratic philosophy of academic freedom and human dignity that has elevated our cherished profession to its present position of world leadership; and

Whereas the "student loan" is a loan, not direct to the student, but rather to the institution; i.e., the dental school, which administers the loan, thereby setting the stage for political patronage and ensuing politico-dental arenas; and

Whereas the provisions for repayment discriminates against the student wishing to enter private practice of dentistry and gives preferential treatment to students who are will to enter institutional or Government dentistry by writing off 50 percent of the loan plus all accrued interest; and

Whereas a significant number of dental schools and organizations have been and are currently meeting the challenge of the future with scarcely noticed, but noteworthy, independently sponsored fund-raising campaigns: Therefore be it

Resolved, That the Florida East Coast District Dental Society will not support H.R. 4999 in its present form, and so instructs its delegates to the Florida State Dental Society and the American Dental Association.

This resolution was passed by the East Coast District General Assembly on January 18, 1963.

RESOLUTION OF EAST COAST DISTRICT DENTAL SOCIETY, MIAMI, FLA.

Whereas the executive council and the general assembly of the Florida State Dental Society at the 79th annual meeting voted in favor of a resolution approving the philosophy of S. 917, but with definitive provisions; and

Whereas these confining measures were drawn up to protect the profession and the public we serve against abuse of the intent of the law; and

Whereas approximately 91.6 percent of all dentists are engaged in the private practice of dentistry; and

Whereas the nine-member advisory board to the Surgeon General of the Public Health Service created by S. 917 does not specifically state that private dental practitioners should be included in the composition of this board: Therefore be it

Resolved, That the members of the East Coast District Dental Society direct their delegates to the Florida State Dental Society to exert all their efforts to have the executive council of that society take appropriate action to inform the American Dental Association and the Florida congressional delegation of their desire that this act be amended to specifically include representation by private dental practitioners on this board; and be it further

Resolved, That the members of this society individually express their views on this subject to their appropriate congressional representatives; and be it further

Resolved, That the delegates of this society in the Florida delegation to the house of delegates of the American Dental Association exert every effort to make our views on this bill known to that body; and be it further

Resolved, That the East Coast District Dental Society will not support S. 917 without the inclusion of the restrictive measures as passed by the general membership of the Florida State Dental Society at its 79th annual meeting May 1962, and hereby so instructs its delegates to that effect.

This resolution was passed by the East Coast General Assembly on January 18, 1963.

RESOLUTION ON THE SURVEY OF DENTISTRY OF THE ISAAC KNAPP DISTRICT DENTAL SOCIETY, FORT WAYNE, IND.

Whereas the House of Delegates of the American Dental Association recommended that the members of the association read "The Survey of Dentistry" and express their views on said survey; and

Whereas the Isaac Knapp District Dental Society recognizes the propriety of a survey of the dental profession, since the American Dental Association officially confirmed the need for such a survey; and

Whereas the Isaac Knapp District Dental Society's Committee on the Survey of Dentistry (the final report, Committee on Survey of Dentistry in the United States) has duly studied and reported to its membership on all recommendations contained therein; and

Whereas the Isaac Knapp District Dental Society feels the general text of "The Survey of Dentistry" is socialistic in nature, and implementation of the recommendations would not redound to the benefit of the public or the dental profession; Therefore be it

Resolved, That official spokesmen for the American Dental Association be directed to cease and desist from the use of "The Survey of Dentistry" as documentation for any argument or position before the U.S. Congress or other

legislative bodies until such time as "The Survey of Dentistry" might be accepted or rejected by the American Dental Association; and be it further

Resolved, That a copy of this resolution be forwarded to the trustee of the seventh district, each of our delegates to the American Dental Association, and to the Secretary of the American Dental Association for proper consideration by the board of trustees and the house of delegates at the 1963 annual session.

WEST CENTRAL DENTAL SOCIETY, LAFAYETTE, IND.

The following are the results to date of the questionnaire sent to all members of the ISDA by the West Central Dental Society:

1. Do you favor dental treatment for dependents of Government employees at taxpayers expense? Yes, 25 (3.1 percent). No, 754 (96.1 percent). Not decisive, 5 (0.6 percent). Total, 784.

2. Do you believe there is Federal control with Federal aid? Yes, 633 (83 percent). No, 118 (15.4 percent). Not decisive, 11 (1.4 percent). Total, 762.

3. Do you favor Federal aid for dental school construction? Yes, 177 (22.9 percent). No, 586 (75.9 percent). Not decisive, 9 (1.1 percent). Total 772.

4. Do you favor Federal scholarships for students? Yes, 143 (18.5 percent). No, 622 (80.4 percent). Not decisive, 8 (1 percent). Total, 773.

5. Do you favor Federal loans for students? Yes, 275 (35.5 percent). No, 492 (63.1 percent). Not decisive, 6 (0.7 percent). Total, 773.

6. How should the Indiana State public health program be financed? Federal funds, 20 (2.6 percent). State funds, 700 (91.8 percent). Both State and Federal 42 (5.5 percent). Total, 762.

7. Have you read "The Survey of Dentistry" or its summary? (This is not the magazine, Dental Survey). Yes, 318 (41.7 percent). No 444 (58.2 percent). Not decisive, 0. Total, 762.

8. Do you think we need twice our present number of dentists by 1975? Yes, 78 (10.3 percent). No, 644 (85.5 percent). Not decisive, 31 (4.1 percent). Total, 753.

A total of 1,671 cards were mailed April 25, 1963. Of this number, 12 cards were not delivered and 788 were returned. This is a total of 47.1 percent return which is considered an outstanding return for any type of survey. Thirty-three percent return is considered average. Due to high percentage of return, we feel it correct to assume that there is considerable interest in these problems by the member dentists.

RESOLUTION ON H.R. 12 ADOPTED

(Adopted at the 105th Annual Session, Indiana State Dental Association, April 1963)

Resolved, That extension and expansion of Government activity in the area of construction and student aid as outlined in this bill is so enormous and unprecedented that the provisions would place the Federal Government in a position of potential control in the field of dental education previously unheard of and would, therefore, not be in the best interest of the public or the dental profession; therefore, be it further

Resolved, That the Indiana State Dental Association be on record as opposed to H.R. 12, and that copy of this resolution be forwarded to the trustee of the seventh district of the American Dental Association, each of our delegates to the American Dental Association, and to the secretary of the American Dental Association for proper consideration by the board of trustees and the house of delegates at the 1963 annual session, and a copy sent to all members of congressional committees studying this legislation, and all Representatives and Senators from the State of Indiana.

RESOLUTION ON ADA POLICY AND FEDERAL AID TO DENTAL EDUCATION PASSED

NOTE.—A 1949 resolution of the American Dental Association states: "That Federal funds, with justification, might be appropriated in support of dental education programs, provided that such funds when appropriated should be accepted only with the understanding that the Government shall not exercise any control over, or prescribe any requirements with respect to the curriculum, teach-

ing personnel, or administration of any school or the admission of applicants thereto."

Resolved, That the members of this society go on record as opposing the above-described resolution which was adopted in 1949 by the American Dental Association..

Resolved, That the delegation representing the Indiana State Dental Association to the American Dental Association's annual meeting in Atlantic City, N.J., October 1963, present for action by the ADA House of Delegates, a resolution to rescind this 1949 directive, and in its place offer a resolution that commits the ADA to continue to cautiously support the established means of channeling Federal funds for dental education in the area of research only.

SURVEY, EASTERN DISTRICT, NEW MEXICO DENTAL ASSOCIATION

(Fifty-four members received questionnaire)

DEAR MEMBER: The result of the recent eastern dental district survey of opinions are as follows:

1. Further Federal aid to dental schools? Yes, 2. No, 43.
2. Federal aid to dental students? Yes, 2. No, 43.
3. Federal aid to dental research? Yes, 17. No, 23.
4. A Federal "denticare" bill to provide free dental care for military dependents? Yes, 4. No, 40.
5. Any legislation that might lead to Federal control of dental services? Yes, 0. No, 45.
6. Do you feel that a "shortage of dentists" exists so that the Federal Government should double the number of existing dental schools? Yes, 0. No, 44.
7. The establishment of an indigent children's clinic in your locality where dentists donate one-half day a week? Yes, 16. No, 27.
8. If such a clinic were created in your town, would you donate a minimum of one-half day a week, doing dentistry for no charge? Yes, 17. No, 24.
9. Are you in favor of a mandatory preschool dental exam in your town? Yes, 17. No, 25.
10. Mandatory preschool exam with the dentist donating the time? Yes, 14. No, 30.
11. Do you feel that the leaders of the American Dental Association feel as you do regarding these and other matters pertaining to the private practice of dentistry? Yes, 9. No, 29.
12. Do you plan on attending the business meeting of the State dental association next May? Yes, 37. No, 5.

You will note that out of the 45 replies (83 percent), the answers do not always total to 45. This is because some answers were not definite and had qualifying remarks, and some left unanswered and could not be tabulated as such in this report.

Dr. WHINERY. We are here today to consider ways, as I understand it, of making more dentists and physicians. I pray, sir, that it is your determination and that of the committee's to maintain the standards or to upgrade them.

First and before all the considerations the dentist and the physician must be responsible men, and this is why we would like first to examine the product that is desired, the physician and the dentist.

They must be responsible individually, morally, professionally, and economically.

The patient knows nothing of dentistry or of medicine. You, gentlemen, when you are patients of your dentists do not know whether your dentist is using good or poor judgment, whether he is using the best available materials in the prescribed manner or whether he is even able to get that bit of tartar out from under your gums when he cleans your teeth.

About the only thing that you can tell of your dentist is that he has a pleasing or not pleasing personality, and that he has a gentle

or harsh touch. You are really quite at the mercy of your dentist. You must trust him, and his judgment.

The CHAIRMAN. Doctor, you must have had a tooth pulled or filled.

Dr. WHINERY. Yes, sir. I have had quite a few of them.

The CHAIRMAN. Go ahead, Doctor.

Dr. WHINERY. He must be a responsible person, and this is perhaps a most important point that I intend to build my thesis on.

It is a daily challenge to the dentist, and I am a third-generation dentist, and I believe that I know of this. Dentistry is hard, and if there are any other practicing dentists in the room beside Dr. Boddicker, I am sure they will agree with me that dentistry is fatiguing and frustrating and difficult.

It takes a whole lot of moral responsibility and determination to properly treat each patient each hour of each day, week after week.

Now, physicians' efforts to do right by their patients are more often overseen. At least their hospital activities are, by the pathologist, the tissue committee, the credentials committee, and, in fact, the entire staff. But not the dentist.

No one looks over the shoulder of the dentist in his office. Only his character and conscience drive his efforts to do his best for his patients.

Now, we ought to favor the system which will produce responsible dentists; we ought to preserve and nurture individual responsibility in education.

This is where the sorting out must be done. This is done by the application review and admission committees and by making the freshman and sophomore years darned hard.

The result is that we have the profession filled with men of strong character, high integrity and morality, and these are essential ingredients to decent health care.

Now, H.R. 12 would substantially change these built-in systems of quality control in the development of doctors.

Provisions of such generous loans to students will bring in students not responsible enough to provide their own finances by working or by borrowing.

Many sound student loan provisions, such as that of the American Medical Association, do exist, and many more are being developed, by States and otherwise.

Loan financing, I say, can be more economically and more realistically handled at the local level.

The drive to earn a doctorate education is the same drive that will carry the physician through the night and the dentist through difficult days.

Now, if and when Federal money is provided for the schools for a further effecting of this program of Federal aid to education, and it is the next logical step and it has already been asked for, then the admissions committee and even the professors themselves, I think, will be constrained to act to keep the money coming in to their schools.

I also feel that a continuing program of brick and mortar and equipment money builds economic dependence.

Now, sir, if you could travel this Nation and sit in the offices of these responsible dentists you would discover, as many of us have

done, that none but a few agree with the philosophy that has been put forward to sponsor this proposed legislation.

Primarily you would find that educators and government health agencies are the principal force behind this movement. Demands for Federal aid to dentists are based on a distortion of the facts.

Proponents of Federal aid to dental education loudly proclaim that we are facing a mountainous dental health problem unless we double the number of dental graduates by 1975.

Whereas, the truth is far better served by a study of the Council on Dental Education of the American Dental Association in 1962, when the prediction was that a dental shortage by 1975 would be only 13 percent; not counting California and New York the shortage predicted is 4 percent or close to it by 1975.

Secondly, dentists are less busy. National practice surveys by the American Dental Association in the years 1952, 1955, and 1958, showed the waiting for an appointment time to have decreased from 13.6 to 11.8 days.

This is an American Dental Association report.

This significant evidence of America's dentists' ability to care for the public occurred during the 1950's, a decade of tremendous population growth.

No. 3, many surveys of dentists are available to refute the impending doom cry of the proponents of this bill.

There are many, but I would like to just point out briefly the survey at Detroit, Mich., sponsored by the Detroit Dental Society, a duly constituted component of the American Dental Association, and their survey is essentially this:

Assuming that I would be paid a fair fee and with reasonable promptness, and average, the No. 1 question was, "I could comfortably increase the amount of dental service in my office with present equipment and personnel by what amount?" And the average was 34 percent.

"With more equipment and personnel?" Fifty-two percent.

And a new emergency patient would have to wait in my office for an appointment an average of 0.37 days. A nonemergency patient would have to wait 6.4 days, and so on it goes.

And this is a return form of 800 out of 1,500 sent out.

A less urban society study was done in the tristate area of Minnesota, Iowa, and South Dakota.

Dr. Cecil Bliss, an eminent dentist and known internationally, has sent this information to me, and they found that dentists would be pleased in that area to accept from 30 to 50 percent more patients.

Gentlemen, no shortage exists and no severe shortage in the future can be responsibly predicted. I trust you will see through the thicket of special pleading so voluminously prepared for you.

Eighty percent of existing dental colleges are operating below capacity at last report by the American dental schools.

The dental school applications declined from 7,376 in 1956 to 5,841 in 1961.

We are constantly confronted with the imaginary specter of a so-called population explosion.

For a decade this prediction has been held over our heads like the sword of Damocles, but it has never fallen.

The population in welfare, as far as forecasting population increases, must always include three major factors: One, the crude birth rate; two, the fertility rate; and three, the percentage of women between 15 and 44 years of age.

The latest data that I have is from HEW. It was printed in 1962 but covers through the year 1961.

There has been, since 1957, a decline in the crude birth rate. It has moved from 25 live births for 1,000 of population in 1957 down to 23.4 per 1,000 population in 1961.

The fertility rate also slowly declines. In 1957 the fertility rate was 121.2 live births per 1,000 women of child-bearing age. In 1961 there were 117.7, a reduction of 3.5 live births per 1,000 women between 15 and 44.

There is a constant decline shown in the percentage of total population consisting of women of childbearing age.

In 1940 those women composed 24.3 percent of our total population. In 1961 they were only 19.9 percent of the total.

Another significant factor in population levels and predictions is the death rate.

Despite the popular misconception that longevity in this country is growing by leaps and bounds, the hard truth is that the death rate remains relatively constant.

In 1954 the age-adjusted death rate stood at 7.7 per 1,000 population; with slight rises during the influenza epidemic in 1957, and a return to the same 7.7 deaths per 1,000 in 1959, there is no present evidence of a lowering death rate in the immediate or foreseeable future.

Gentlemen, there is a vast gap between the dental needs of the people in this Nation and dental wants. This is still a nation of free choice.

The patient must be allowed to choose to be treated dentally, and to serve the needs of our people would occupy a great and vast resource, greater than we now have or could conceive.

Again, Dr. Cecil Bliss, of Sioux City, Iowa, a nationally known lecturer and author, has written:

To measure dental needs by population-dentist ratio is an unrealistic, dishonest approach because there are millions of people who would not accept complete dental attention even if it were free.

We should not, and must not, plan to increase drastically the number of dental schools and the number of dentists to care for a nonexistent demand.

In reading the testimony of last year, I remember Senator Yarborough's statement or his story of the fellow in his outfit during World War II, who went "over the hill" because he was going to have to have all of his teeth removed.

He was recaptured and brought back, but no one would prefer charges.

The Senator made the point very well.

Our opposition is not based on mere conservatism or some misguided desire to maintain status quo. Thousands of us in the private practice of dentistry oppose any form of a crash program to build dental schools on cold, hard facts.

In the Dental Management, a national business magazine for dentists, for the month of July 1963, Dr. John O. Wilson, of Atlanta, Ga., spells out some of these facts and briefly one is—

no dentist in America has more preventive or restorative service demanded of him than he can find ways to provide.

The vast majority of dentists need and desire more patients.

Few dentists are able to set aside anything more than small sums of money during their productive years on which to retire with some dignity.

These are all quotes. Now I have many more, but in the interest of time, and since they are in my statement, I shall not read them.

These opinions are shared by many.

Opposition to H.R. 12 is the majority opinion in the State of Senator Tower and Senator Yarborough, and my home is Texas.

The Texas Dental Association has gone on record each of the past 3 years in opposition to Federal aid to dental education and specifically against H.R. 12 this year.

The Texas Medical Association is also on record as opposed to Federal aid to medical education.

Gentlemen, this is a valid and current standing.

I am proud of my profession and of our country, even as you. We grew to greatness in dentistry through the free enterprise system of individual professional pride and incentive.

In the name of all humanity, for nations everywhere look to American dentistry as a monument to freedom in practice, do not vote to make dentistry dependent upon the Federal Government, do not set us up for instruction.

Former Secretary Ribicoff made it abundantly clear that New Jersey physicians had no moral right to use Government-supported and equipped facilities for their practice, and then refuse to practice medicine as per the Government's plan.

His statement was harsh but not unreasonable.

But mostly, sir, do not deter us with self-seeking and poorly talented men in our midst.

When we have a system that works, tests its men and its philosophy daily, and has never had to stand the spotlight of any single proven failure to meet our challenges to the people, there is no excuse for the wasteful use of funds and Government dependence as is being here proposed.

I beg of you, deny your support to this monstrous mistake in legislation.

Should this form of paternalism be made into law we shall all truly suffer, including you, sirs, and your children and theirs. I thank you.

The CHAIRMAN. Doctor, would you like to add something?

Dr. BODDICKER. Yes, Mr. Chairman. I do not believe I introduced myself. I am Dr. Vernon Boddicker, a private practicing dentist from Phoenix, Ariz.

The CHAIRMAN. From where? Arizona?

Dr. BODDICKER. Yes, sir. I am presently president of the Association of American Dentists, an organization formed to offer a voice for the private practicing dentist in dental health affairs and in legislative matters pertaining thereto. Our association incorporated as a nonprofit organization, has grown to have memberships in 31 States during a period of only 18 months.

I might add, that in 19 months we now have 38 State memberships.

Both Dr. Whitney and I have been on the faculty of the dental college at the State University of Iowa; he in oral surgery, I in prosthetic dentistry. We have been aware of the problems of financing

and maintaining good dental schools and are alert to possible problem developments in the future.

I represent the Association of American Dentists when I say that we believe in research as a way toward progress in the treatment and especially the prevention of dental disease. My point in bringing up the subject of research is that if research is done, progress is certain to be made. Why then should we plan as if such were not the case?

To illustrate, let us assume that an organization of farmers in 1951 had made a survey of agriculture similar to the survey of dentistry done some 5 or 6 years ago by organized dentistry. Although the survey of dentistry was financed in large part by dental organizations the private practicing dentist was almost totally neglected when picking men to work on the survey.

He was not represented except for one man.

But let's assume that farmers made this survey and that figures of population, number of farmers, yields, and levels of efficiency prevailing at that time were used to project some 15, 20, or 30 years into the future.

And let's assume that these figures were projected 15 or 20 or 30 years into the future.

The needs for agricultural schools would have been determined, and organized farmers and Agricultural Department personnel would have been pressed for legislation seeking Government help to construct and finance those schools. They might have asked for loans to students in order to bring the number of trained personnel up to the projected levels. This, of course, appears ridiculous to us today since it failed to take into account such things as increases in efficiency and yields due to advances in machinery, hybridization of plants and animals, fertilizers, animal feeding and many other things that have since developed from research in agriculture and animal husbandry.

In 1984, will it not look equally silly for us to have legislated Government help to health professions training schools based on arbitrary figures that disregard the change and progress that is inevitable in a dynamic society such as ours; a change that has been occurring rapidly to date.

When we consider present problems we must not make the same mistake but must plan realistically for the future lest we create more problems than we solve. Disregarding the possibility of benefits, from the billions of dollars being spent by individuals, organizations, and governments for research in health related fields today, is hardly the constructive way of viewing such efforts.

I am proud of the way dentistry, along with other health related fields, has progressed without the guidelines or accreditation of Government bureaus and departments. A look at the dictionary will disclose that regulation which is allowed in this bill is synonymous with control which is supposedly not allowed.

We have progressed to a standard of practice envied by all the people of the world regardless of their economic systems employed. This is no coincidence. The book, "Financing Medical Care," Caxton Press, is a compilation of essays written by men in the fields of health, economics, and politics who live in the various countries of Europe and the United Kingdom. They live where governments have experimented with different degrees of governmental financing and

regulation health professions. The opinions expressed in that book show a conviction that such high standards as those attained here could not have been attained under any system lacking our freedom to try and to learn by successes and failures.

But the point is, we do learn and thereby create more beneficial and effective ways of treating our patients. It is the public who has gained most and will continue to benefit from our advances.

The various trials and methods employed, by dentists in their own offices, in cooperation with dental supply companies and dental schools, have brought forth more progress to the profession than has any other source. I am sure this will continue to be so as long as we maintain the private practice professions and schools that are geared, in their thinking and in their financing, to encourage individually and to discourage regulation.

Regarding the projected numbers of dental schools, their financing and S. 911, the planners' figures may be correct if no benefits from the fluoridation of water supplies were to be gained; if no further improvements in the efficiency of dental personnel and dental equipment were to occur and if no benefits were to result from nutritional research and teachings.

But I believe you will agree that that is quite an assumption. There will undoubtedly be breakthroughs in the prevention of dental disease, not yet dreamed of, which will add to the known beneficial changes that should be considered in planning the future of financing health professions education.

You may agree with my estimates of variables in future developments but what of financing our schools today?

Present statistics show according to reports of officers and councils, 1962, American Dental Association, pages 13 and 14, 80 percent of existing dental colleges are operating below capacity. The American Dental Association dental practice surveys show that dentists became less busy during the 1950's. The waiting period for an appointment, which is not of an emergency nature, decreased from 13.6 days in 1952 to 11.8 days in 1958. It would be lower today, at least in my area. Emergency appointments are always handled without delay, when humanly possible.

Productivity of the average dentist has more than doubled in the past 30 years due to considerations already mentioned, according to the Survey of Dentistry. I hesitate to quote from the Survey of Dentistry because it is undergoing critical examination and has not been accepted by the members of the American Dental Association even though American Dental Association leaders have been using it to back legislation such as the proposed bill S. 911 and H.R. 12. Many of its statistics resemble those used by planners of government regulated health schemes in Europe and that type of planning will never be accepted by the private practicing dentist who realizes how health services deteriorate under such social experiments. If the American Dental Association had given practicing dentists these facts, it would never have been necessary to form our organization, the Association of American Dentists.

The Association of American Dentists, a voice for the private practicing dentist, opposes S. 911 and H.R. 12 for its lack of consideration

of the inevitable progress and future preventive developments which our health professions will continue to make if allowed to do so.

Yesterday I heard one statement that there was no "forgiveness" clause in S. 911.

Mr. Chairman, I would like to ask you to refer to page 19, lines 17 through 20, and page 21, lines 14 through 20, and ask if these are not "forgiveness" clauses in the bill.

The CHAIRMAN. They are not in H.R. 12.

Dr. BODDICKER. They are not?

The CHAIRMAN. In H.R. 12.

Dr. BODDICKER. They are in S. 911, as I understand it.

The CHAIRMAN. But not in H.R. 12, as passed by the House of Representatives.

Dr. BODDICKER. I see.

The CHAIRMAN. Not in H.R. 12 as passed by the House of Representatives.

Dr. BODDICKER. Thank you, Mr. Chairman. Well, do they plan to delete those from—

The CHAIRMAN. Well, that will be a matter for the committee to decide. Is there anything further, Doctor?

Dr. BODDICKER. No, sir. Thank you very much for the opportunity of appearing here.

The CHAIRMAN. Doctor, let me ask you this: How many dues-paying members do you have on the rolls of the Association of American Dentists?

Dr. BODDICKER. We would like not to disclose this fact until we get a majority of the American Dental Association, and that is rather hard for you to understand unless you know a little of the background of how some of us are being treated by those who do not feel that we should have our opinions expressed.

The CHAIRMAN. You do not wish to disclose then how many dues-paying members you have?

Dr. BODDICKER. No, sir. I wish I could, sir.

The CHAIRMAN. Did you want to say something, Doctor?

Dr. WHINERY. Mr. Chairman, I can give you a little bit more information on that, I believe.

In our District Dental Society there are about 100 men and we have better than 70 percent as membership of the Association of American Dentists.

After 3 months of this organization's activities we had members in 25 States.

There was considerable—I hesitate only to say that I believe that the word is correct—a considerable smear job done on our organization, and this did deter our getting members.

We now have members in up to about 38, I believe it was, at the last count.

It is a fact that I have sat in the American Dental Association meeting halls in convention, as a delegate, and heard two past presidents' characters assailed because they opposed the policies of the American Dental Association.

We have many evidences of this down through our organization to which Dr. Boddicker and I also are dues-paying members.

And these damaging actions do fall our way. And, therefore, we are, in the simple protection of our members, not saying whom they are or exactly how many they are.

The CHAIRMAN. You spoke of how many members you have in your district.

How much territory does your district cover?

Dr. WHINERY. We have 22 counties in the panhandle, I believe. It is the entire Panhandle of Texas.

The CHAIRMAN. How many counties are in Texas?

Dr. WHINERY. How many counties are in Texas?

The CHAIRMAN. Yes.

Dr. WHINERY. If I had been born there I would surely know, but I was not.

The CHAIRMAN. All right. I think we can ascertain that.

But there are 22 counties in your district to which you referred?

Dr. WHINERY. Yes, that is right.

The CHAIRMAN. There are 22 counties in that district.

Is that right?

Dr. WHINERY. Yes, sir, to the best of my knowledge.

The CHAIRMAN. Do you know what percent the 22 are of the whole?

Dr. WHINERY. No, sir, I do not.

The CHAIRMAN. We can ascertain that.

Dr. WHINERY. I can provide you that information.

The CHAIRMAN. Well, it is true, is it not, that the house of delegates of the American Dental Association voted last year in support of Federal aid to dental education by a vote of 348 to 38?

Dr. WHINERY. I would accept those figures. I would also point out that the Indiana delegates voted for it, whereas their State dental society opposes it.

The CHAIRMAN. Well, that is an interesting question.

It came up in the old days when U.S. Senators were elected by members of the legislatures, and Senators did not always follow the resolutions of the legislature.

Dr. WHINERY. Yes, I understand that that is why the Senate is so constituted.

The CHAIRMAN. Anything else you gentlemen would like to add?

Dr. BODDICKER. I might make just one comment in that regard, that any place that I know of where there has been a survey, whether it is in Arizona or Texas or Iowa or Detroit, that in every case the private practicing dentist has voted to oppose this bill where he has been given the opportunity to actually vote on it.

And I think that that means something, because he has never been given the opportunity, and the reason I am quite sure of this statement is that nothing has ever come out in the ADA Journal disputing that statement here.

And I think if they ever had a winning vote on this thing that it certainly would have been put out.

(Additional views were subsequently transmitted to the committee, as follows:)

ADDITIONAL STATEMENT OF JOHN G. WHINERY, D.D.S., IMMEDIATE PAST PRESIDENT, ASSOCIATION OF AMERICAN DENTISTS, IN RESPONSE TO TESTIMONY OF OTHERS

Wants versus needs.—Those appearing in favor of H.R. 12 and S. 911 made it infinitely clear they want Federal aid to dental education, but failed totally to establish the existence of need. It is apparent there is ample and superior dental service available to the people today. Dental educational facilities are not being fully used. Dental research facilities and funds exceed the supply of creditable projects and personnel.

The vast difference between want and need here so avidly adopted is parallel to the issue at discussion. The dental needs of our people will likely never be met so long as we remain free to choose and decide for ourselves. Deplorable though may be the oral condition of millions, our people are still, at least at this hour, permitted to legally walk the countryside with diseased or inadequate dental facility. Dental disease is not contagious—not a threat to other individuals. There is care, treatment, and attention for them, when they want it.

The waste of additional student loan funds.—Dr Lyons, representing the American Fund for Dental Education (and others), pleads for student loan funds and scholarship aids. He contends that the primary reason for a drop in enrollment in existing dental colleges lies principally in the lack of money for the individual student to meet the expense of a dental education.

(a) Existing funds for dental education go "a begging" in almost every dental college. In both the University of Texas and Baylor University dental colleges in Texas, the deans report loan and student aid funds are never exhausted. In all States with dental colleges, private funds-auxiliaries, local and district components of the American Dental Association, individual dentists, and private groups not publicized, except to dental college officials, consistently have funds available, but not applied for. Interest on such loan funds range from 3 to 5 percent.

(b) The National Defense Education Act provides up to \$1,000 per year to a maximum of \$5,000. The latest available date shows the average loan from the National Defense Education Act last year was less than \$700. Claims that H.R. 12, with its more liberal terms—2,000 per year to \$8,000 maximum—is necessary—are here discredited.

(c) The still existing, and peculiarly American, ambition to succeed is discounted in these aid promoting programs. Any golden opportunity, affording ample patients or clients, and accompanied by freedom to prove himself truly professional and leading to fair income will attract the ablest young man among us. Note the wondrous attractions of the challenge and financial reward inherent in the space, missile, and nuclear fission fields. Men are desperately needed there and they are responding. When, and if dentistry is revealed as a field of real opportunity, thousands of young men and women will avail themselves of dental education * * * without subsidization.

What of teachers.—Where do the professors come from to staff these cried for teaching facilities. Qualified instructors are in short supply, as it is. Artificial attractions, such as proposed here, could easily enlist less than able students; crowd existing and extended class rooms; produce a dental force in excess of need; lower the treatment and intellectual standards of dentistry; and irreparably damage our posture of leadership to the dental world.

The spokesman for the American Association of Dental Schools apparently misinterpreted the American Dental Association finding of a decrease in "waiting time for appointment." He inferred that this finding was for emergency (toothache, etc.) appointment. It was not. The decrease from 13.6 to 11.8 days (1952-58) was for routine appointments. My statement includes in its entirety the Detroit Dental Society Survey findings that a new emergency patient need wait an average of 0.37 days and a regular patient with emergency need wait only 0.15 days.

On demands for direct relief to existing dental colleges.—Baylor University and its dental college, in Texas, is a Baptist institution with an enviable record of dental instruction. They do not use—have not asked for—do not need Federal aid, or intervention. They are among the schools that report a constant student loan and aid program not altogether utilized. They enlarge their facilities every year. They increase their investment every year. They improve their teaching standards every year. They turn out excellent to superior dental graduates every year. And, all this without Federal aid to education. It can't be done? It is being done. Here, and in many, many other places.

What is socialism.—Dr. Lyons in testimony stated: "It is socialism of a type, but in this instance, socialism is defined as a philosophy that indicates that this something is adapted to the social needs of the people and, therefore, is good."

There, precisely, is the staggering threat implicit in this determined effort to force Federal intervention into still one more free enterprise, thoroughly responsible, proven capable segment of our economic-political-professional life. Here we have an outstanding dentist-professor-college educator engaged in

a not-for-profit enterprise. He here advocates, as socialists have done for decades, that anything that is "adapted to the social need of the people * * * is good."

Public health officials, Federal Government-paid dentists, educators, and empire builders of a frightening array, now establish themselves as judge of what is good for the people.

They compile mountains of meaningless statements; conjure up visions of "Valhalla;" propound theories of the perfect way; and, totally disregard the valid, and intellectually sound judgment of those most qualified to decide—the private, practicing dentist and his patient.

Dr. Lyons stated, "Incidentally, on the subject of socialism, I find it rather difficult to understand why people who rant and rave about socialism, as a threat to health care, do not also rave about the same considerations with reference to education." * * * "And we found it necessary to socialize, in the finer sense of the word, our national defense and other aspects of our national life, all for the good, and in terms of education we have felt similarly about it."

It would appear that Dr. Lyons is making a plea for the acceptance of socialized health care on the basis that the Armed Forces and education are socialized. The inconsistencies of these statements and deductions are surely apparent to the committee. The intent of the statement is also apparent. It cannot be mistaken. Dr. Lyons clearly attempts to justify the acceptance of Federal aid to education as a form of socialism which is acceptable. If indeed he represents the thinking of the American dental educators and leaders, then socialized dentistry is not far off.

The CHAIRMAN. I find here that there are 254 counties in the State of Texas. So a district with 22 would be less than 10 percent, would it not?

Dr. WHINERY. It is a very big State, that is true.

The CHAIRMAN. Anything you gentlemen would like to add further?

Dr. WHINERY. No, sir.

The CHAIRMAN. We want to thank you very much.

Dr. WHINERY. Thank you, sir.

The CHAIRMAN. Thank you very, very much.

Now, Dr. Harry Lyons, of the American Association of Dental Schools.

STATEMENT OF DR. HARRY LYONS, PRESIDENT, AMERICAN ASSOCIATION OF DENTAL SCHOOLS; ACCOMPANIED BY REGINALD H. SULLENS, SECRETARY

The CHAIRMAN. Doctor, you are the president of the American Association of Dental Schools and also dean of the School of Dentistry of the Medical College of Virginia. Is that right, sir?

Dr. LYONS. Yes, Senator Hill.

The CHAIRMAN. Well, we are happy to have you here with us, sir.

Dr. LYONS. Thank you, sir.

It has been my privilege to appear before this committee on a number of previous occasions, and I should like to thank you again for the courteous treatment with which you have always accorded me and other representatives of the American Association of Dental Schools and the American Dental Association.

The CHAIRMAN. Well, we are always glad to have you here, Doctor.

I was about to say that you are an old friend of this committee, but I find in some instances people do not like that word "old."

You have been here before though and have been most helpful to us many times.

You are also a member of the committee of consultants to this committee of which Mr. Boisfeuillet Jones is the chairman.

He has rendered a very fine service, and we are glad to have you here this morning.

Dr. LYONS. It was a compliment to me to be appointed to that committee, and I was very pleased to work with it.

Senator Hill, I am appearing before you today with a background of 40 years' experience in dental education. During part of that time I engaged in a part-time practice on a private practice basis, and also found time to engage in dental politics, and so I have had the opportunity at least to view the problems of the dental profession from all of its aspects.

And the figure of 40 years leads me to tell you that we are aware that you have now spent 40 years of dedicated service in the legislative branch of our Government, both as a Congressman and as a Senator, and I should like you to know that the dental profession is very lastingly indebted to you for your dedicated life of service directed to many interests but more specially in the field of health.

And I think it is fair to state as a fact that no one in the country has contributed more to the health and welfare of our people than the senior Senator from the Great State of Alabama.

The CHAIRMAN. Thank you, Doctor. You are most generous, most generous, and I am deeply grateful to you, sir.

Thank you, sir.

Dr. LYONS. We had hoped to have Dr. Volker here with us this morning but he found it in the interests of the University of Alabama to appear before the State legislature in that State, and he extends his greetings and regrets.

Senator Hill, I should like your permission to submit for the record a prepared statement on H.R. 12.

The CHAIRMAN. We will be happy to have that and it will appear in full in the record.

(The statement follows:)

PREPARED STATEMENT OF THE AMERICAN ASSOCIATION OF DENTAL SCHOOLS, PRESENTED BY DR. HARRY LYONS

I am Dr. Harry Lyons, dean of the School of Dentistry of the Medical College of Virginia and president of the American Association of Dental Schools. It has been my privilege to appear before this distinguished committee on several occasions, both as a dental educator and as president of the American Dental Association. These appearances, plus an awareness of the long and dedicated service of this committee, have demonstrated repeatedly the concern which the committee and its chairman have for the health of the people of our country. I am particularly pleased, therefore, to have this opportunity once again to testify in support of the important legislation now before this committee.

The American Association of Dental Schools has a long and consistent record of support of legislation which would help solve some of the serious dental manpower problems confronting the citizens of the United States by providing critically needed financial support for our dental schools and dental students. It is our belief that the Health Professions Educational Assistance Act of 1963, as adopted by the House of Representatives in April 1963, represents a realistic approach to solving some of the problems facing dental education, thus the association which I represent would urge this committee to support H.R. 12.

INTRODUCTION

Over the past decade and a half, there has been a marked awakening within dental education and within the dental profession at large to the problem of providing the quantity and quality of dental health care that a rapidly expanding and increasingly health-conscious American population demands and expects. In a forthright attempt to meet the challenges of modern-day social progress,

dental educators and dental practitioners, through their organizations, have spearheaded on a broad front many efforts to control dental diseases and to extend the availability of dental care.

Over a very brief period, extremely significant achievement has been made. Dental research, concentrated in dental educational centers, has advanced at a heartening rate, bringing with it new perspectives in the fields of prevention and treatment of dental diseases and new and improved standards of dental teaching and dental education generally. Since as recently as 1956 when the National Congress first made a beginning toward providing financial support on a realistic basis, the dental research programs in the schools have multiplied many times over. Funds available for this purpose are at last beginning to approach an equation with the need and the seriousness of the dental disease problem. Although these programs are still in their infancy, the public already has received a rich return on the expenditures that have been made.

Yet, much more remains to be done both in dental research and in other critical areas that have been neglected. The manpower shortage, both in teaching and in dental practice, looms as the foremost obstacle to continued progress in dental health. The capacity to produce dental teachers, researchers, and practitioners continues to be outpaced by the explosive production of new generations of health-aware Americans. The acute need for additional personnel has been established. Study upon study by responsible Government and private groups has pointed up and documented the critical nature of the situation.

Again this year the President of the United States made reference to the critical health manpower problem facing our country in his Presidential address. In thus focusing national attention on the need for increasing dental personnel, the President was echoing the forewarnings that have emanated in increasing volume from dental educators and the dental profession over the last several years.

The American Association of Dental Schools believes firmly that unless specific action is taken immediately and with vigorous purpose the size and the rate of growth of the problem will reach insurmountable proportions.

There must be prompt action to provide funds for additional and improved dental educational facilities. In addition, there must be provided increased financial support for dental schools and dental students to help meet the already high and steadily rising costs of educating dental personnel. Dental educators will continue to seek expanded support from all sources but, in the belief that the health of the American people is as surely a national asset as any segment of today's society, the association wishes to urge prompt approval of the programs presented in H.R. 12.

GRANTS FOR CONSTRUCTION OF DENTAL TEACHING FACILITIES

On the basis of all valid studies of dental manpower projections, it is apparent that the number of dental graduates must be increased promptly and appreciably if we expect to keep pace with the expanding population and the increase in demand for dental services. The accomplishments of this objective will demand an immediate increase in the capacity of existing institutions and the construction of many new dental schools. It is certain that the degree of expansion needed cannot be achieved with the resources of local and State funds alone; there must be liberal assistance and encouragement from the Federal Government if we are to meet this impending national health emergency.

The American Association of Dental Schools is on record as favoring Federal legislation which would provide funds for use in the construction of dental teaching facilities. It is felt that the Federal support should be based on a matching formula which is realistically designed so that the Federal Government shall supply the major portion of such funds. As a further indication of the attitude of dental educators on this important potential Federal legislation, the association emphasizes that any legislation in this area should include provision for the rehabilitation of existing institutions as well as the construction and equipping of new or expanded dental education facilities.

We are pleased to see that H.R. 12 makes provision for the construction of expanded training facilities as well as the building a new dental schools. The association believes that the investment of Federal construction funds in those institutions which have, over the past 15 years, spent more than \$80 million for the construction and equipping of their educational facilities is a sound investment. These schools, the 48 dental schools now in operation, have re-

ported plans for nearly \$170 million in construction expenditures during the next 10 years, if Federal matching funds are made available. The expansion of existing facilities in this amount would provide for more than 700 additional dental graduates a year by 1975 and would contribute considerably to meeting the projected manpower needs by that time.

In addition, the construction plans of existing dental schools during the next 10 years would provide training facilities for greatly increased enrollments of auxiliary personnel. The most recent survey of the dental schools indicates that the planned \$170 million construction expenditure would permit the training of over 900 additional dental hygienists each year, would increase the production of chairside assistants by about 715 a year, and would add almost 300 more dental laboratory technicians annually. By performing duties for which they have been specially trained, these auxiliary personnel relieve the dentists of many tasks to which he would otherwise have to devote his time, thereby increasing the productivity of the dentist. Definitive studies on the impact of dental auxiliaries on the productivity of the dentist are still in process, but it is known that the efficient use of a single chairside assistant can increase the treatment capacity of a dentist by about 50 percent. Thus, the training of an additional 715 dental assistants a year can be expected to reduce materially the number of new dental graduates needed by 1975.

The additional manpower which can be expected from the expansion of existing institutions, the increased productivity which will inevitably come from more effective and broader utilization of auxiliary personnel, and the reduction of the incidence of dental disease which can be anticipated from the constantly expanding research programs will still not, in the minds of responsible authorities, be sufficient to meet the dental care needs of the population in the years ahead. We must find the resources to construct additional dental schools and this construction must be started at the earliest possible time.

It is estimated that 3 to 4 years of planning time is required for the inauguration and construction of a new dental school. Add to this the 4 years required to educate the dental student and it is obvious that those plans which are started next year will not produce dental practitioners until 1970 or 1971. It is increasingly urgent, therefore, that favorable consideration be given to construction grant legislation which has appeared in Congress during nearly every year of the past decade.

As the committee is well aware, the health of the American people is a matter of national concern. Forty-eight of our privately and publically supported universities have found it possible to establish and support a school of dentistry, but these 48 institutions are located in only 26 States plus the District of Columbia and Puerto Rico. This means that 24 States throughout our country must depend upon institutions in other States for the education of their dental practitioners and for the provision of educational opportunities for their young citizens who are interested in a career in dentistry. Recent studies made by the American Association of Dental Schools and the American Dental Association, in cooperation with the Division of Dental Public Health and Resources of the Public Health Service, suggest \$6 to \$8 million as a reasonable cost for constructing and equipping a school of dentistry today for an enrollment of about 100 students per class. In addition to this sizable capital investment, the university which inaugurates a dental school of this size must be willing and able to provide an annual operating budget of nearly \$1 million.

The association has been acquainted with several State and privately supported institutions which are interested in establishing a school of dentistry, if financial assistance can be found to provide the teaching facility. These institutions, at least four of which are in States that presently have no dental school, will provide a share of the construction cost on the basis of the formula contained in H.R. 12 and, long range, will invest a far greater amount in the health of our people by providing the annual operating expenses for their dental education programs.

In final comment on part B of H.R. 12, the association would like to endorse the plan to establish a National Advisory Council on Education for Health Professions. The experience which dental education has had with the excellent administrative mechanism in existence at the National Institutes of Health suggests that the careful selection and effective utilization of a National Advisory Council is one of the best means of assuring the proper relationship between the Federal Government and higher education.

SUPPORT FOR DENTAL STUDENTS

During the past 3 years, national and local dental organizations have invested thousands of dollars in programs designed to attract a larger number of highly qualified students to the study of dentistry. Publications, films, exhibits, and guides for high school and college counselors have been produced and circulated throughout the country. Dental schools, dental societies, and individual members of the profession have increased their efforts to acquaint young students with the opportunities available in a career of health service to the public. I assure you gentlemen that these efforts will be continued and expanded, but we must face the fact that one of the greatest barriers to our recruitment efforts is the constantly increasing cost of an education in dentistry.

At the present time, a majority of freshmen dental students have completed 3 or more years of preprofessional education at an annual cost of about \$2,000. Four years of dental education costs the average student nearly \$18,000, according to figures obtained in a study conducted in May 1963. Before accepting his first patient, the young dental graduate must invest about \$12,000 in office equipment and supplies. It is apparent from these figures that the average young scientists contemplating a career in dentistry must face the awesome burden of a \$37,000 investment before he is prepared to render dental service to his first patient. It is small wonder, therefore, that a large portion of our bright, young students must forgo any thought of a dental education.

For the past decade, there has been a steady and alarming decline in the number of applicants to dental school. The low point in this decline was reached during the 1961-62 school year, at which time there were only 5,841 applicants for the 3,605 freshman students accepted. Largely as a result of the tremendous increase in the number of college students, there has been a small increase in the number of dental school applicants during the past 2 years to the point where the dental schools have filled their freshman classes for the 1963-64 school term. As encouraging as this increase in the number of applicants has been, however, dental educators and the dental profession are far from complacent, for there is much yet to be done. Ways must be found to make it possible for qualified young men and women with limited resources to attend dental school. Steps must be taken now to assure an increased number of applicants for the expanded capacities which dental schools will offer in the years ahead. Provisions must be made to attract a share of the outstanding young scholars to dental education today, for these young people will be the teachers, the research scientists, and the leaders of dental practice in the years ahead. It is perhaps an oversimplification to say that all of these challenges will be met by providing more adequate financial support for dental students, but we do believe that they cannot be met unless there is a substantial expansion of loan funds for dental students in the near future.

About 2 years ago the dental profession demonstrated its awareness of the increasing seriousness of this problem by the creation of the American Dental Association-Fund for Dental Education student loan program. Nearly \$200,000 have been distributed to the dental schools through this program and assurance has been given that the dental profession will continue to support this activity. Dental students have received slightly over \$1 million in loans from the National Defense Education Act of 1958 during the past year and additional private funds have been available in an amount sufficient to increase total loan and scholarship funds to slightly more than \$3 million during 1961-62. As helpful as it has been, this level of financial assistance is inadequate. As an illustration of the inadequacy of the loan and scholarship support, it might be noted that this total amount would have provided just a little over \$200 for each student enrolled in dental school during the past year.

There is no way to state precisely the number of students who might have considered the study of dentistry had not this formidable economic barrier existed. We do know, however, that the students who are enrolled incur a very substantial debt during their education. Sixty percent of the sophomore dental student have an average indebtedness of \$4,700 and by their senior year more than three-quarters of the students are in debt by an average of \$6,300. As an additional facet of this problem, I would like to return to the observation that the survey information which we are able to obtain is necessarily based on those students who are enrolled in the dental schools. It is obvious that many of these students are in serious need of much greater financial assistance, but these statistics do not identify the excellent students and scientists who have been

lost to dental education because of their inability to carry the heavy financial burden of preprofessional and professional education.

The committee is well aware of the great benefit which has been realized from the support which such agencies as the National Science Foundation, the National Institutes of Health and the Office of Education have given to graduate students in many of the scientific disciplines. The programs of these agencies are deservedly receiving increased support from Congress. It is our belief that graduate education in preparation for one of the health professions, which dental education surely is, needs and deserves Federal assistance in the form of student loans if we are to assure the level of dental education and research which we all want for the people of this country.

The American Association of Dental Schools is in full support of part C of H.R. 12 and urges the committee to give prompt and favorable consideration to this important legislation. With the additional financial support for students which would be made available by this legislation, we are confident that real progress can be made in attracting a larger number of qualified students into dental education.

CONCLUSION

In summary, the American Association of Dental Schools is fully in support of the progress proposed in H.R. 12. The critical needs toward which this bill is directed have had extensive study by professional, educational, and governmental agencies, with apparent agreement that prompt, affirmative action must be taken if the country is to avoid a crippling shortage of professional health personnel. We urge this committee to give H.R. 12 full support with the view to securing its approval during this session of Congress.

I appreciate the opportunity to testify on this important legislation in behalf of the American Association of Dental Schools. I will be pleased to comment on any questions which the committee may have or to provide additional information for the record.

Dr. LYONS. I might summarize that statement, which details our support, by stating to you that the American Association of Dental Schools is fully in support of all of the programs proposed in H.R. 12.

And I might also state to you that not one single word of opposition has been heard from any of the dental school deans in the United States.

We believe that the bill is essential to the health and welfare of the country, and I specifically speak for dentistry, but I believe it is fair to state that the same holds true for the other health service professions.

And, Senator Hill, I should like to have your permission to submit, within the next few days, a statement of rebuttal to all of the points raised by the previous witnesses representing the Association of American Dentists.

I believe I could rebut all of the points that they made verbally at this time, but I do not wish to take up the time of the committee today because you have other witnesses to hear.

I might point out just one point and rebut it at this moment.

The statement was made that dentists are not as busy now as they were in the 1950's, that a patient seeking dental care may now be seen in 11 days as contrasted to 13 days.

Senator Hill, if you were suffering a chronic dental infection and presented yourself to a dentist it would be little comfort to you if this dentist told you that you were an extremely fortunate individual; he could now begin treatment 11 days from now, but if you had come in in 1950 he would have had to keep you waiting 13 days. [Laughter.]

All of the other statements made by the previous witnesses, I am sure, will be rebutted with equal force.

I am sure, Senator Hill, that you are aware that disease is a national problem. Dental disease is a national problem, and conversely, health is a national asset, and it is just as important that we have the asset of

health as it is that we have the asset of financial means and missiles and other items related to our national welfare.

The CHAIRMAN. Doctor, will you excuse me there for just a moment.

When we opened these hearings yesterday morning I quoted from Benjamin Disraeli.

He perhaps more than any other man was responsible for the building of the mighty British Empire that we knew a certain number of years ago.

In that quotation he said that health was the foundation of the people's happiness and of their power and strength and of their nation.

Dr. LYONS. You are encouraging me to philosophize a bit, Senator Hill, if I may.

The CHAIRMAN. I will be glad to have you do so, sir.

Dr. LYONS. We understood many years ago that there were three important considerations in the good life, namely, food, shelter and clothing.

Subsequently in this country we added a fourth consideration, namely, education.

It was deemed necessary by our forefathers that this fourth element be added in order that we, as a democracy or as a representative type of government, might survive, because I am sure you recognize that where a government is ruled by the ballot that it is important that the voting populace include at least one more wise man than fool.

So we have accepted public education, financed from tax facilities and made compulsory in many States, as a necessary aspect of our American life.

Incidentally, on the subject of socialism, I find it rather difficult to understand why people who rant and rave about socialism, in reference to H.R. 12, as a threat to health care, do not also rave about the same considerations with reference to general public education.

Here in this country where we have education publicly supported and made compulsory, usually to the age of 16, and we deem that to be in our national welfare and interest, and they accept that.

This is socialism of a type but it is a different definition, of course, from the Marxist's definition of socialism.

And we found it necessary to "socialize," in this finer sense of the word, our national defense and other aspects of our national life, all for the good, and in terms of general public school education we have felt similarly about it.

Now, this leads me to pose the question of what is the fifth aspect of a good life, and it is generally agreed that this fifth consideration is health.

And we might make some effort to equate health with education. What good is it to have an educated person if he is too ill to use his educated mind?

This question of disease and dental disease, specifically, was pointed out rather sharply in connection with the two World Wars 20-odd years apart.

In the instance of the Second World War it was deemed necessary to put 22 million men in uniform to defend this Nation. In order to put 22 million men in uniform it was necessary to resort to the military draft.

And in the course of selecting these individuals they were examined for physical fitness.

It is of dental interest to note that of all the draftees rejected because of physical defects, over half of them were rejected because of dental defects.

And the only dental requirement which these draftees had to meet in order to be put into uniform in the defense of their country was that they have six teeth, three above opposing three below and, Senator, before we were able to put 20 million men in uniform in the defense of our country it was necessary to eliminate this dental health requirement, and young men of draft age were put in uniform, men who wore total dentures, without a single tooth in their head, and I say to you, Senator Hill, that this is a national disgrace bearing on the health problem.

Now, it isn't that these individuals were without teeth for purposes of esthetics.

This represented disease, and this disease was not limited in its influence to the dental field but surely we know it had an effect on their total body welfare, and this Nation cannot support any longer the indifference toward the dental diseases that are so rampant in this country.

Now, let's suppose we would have found it necessary to put 30 million men in uniform. How seriously involved would we have been in connection with health problems if we had been unable to find 30 million healthy people in this country in order to defend our form of life?

And I say to you, therefore, Senator Hill, that health is not merely a State problem. Disease is not limited by the borders of our 50 States but these are considerations of national importance and national responsibility to the degree that there are national considerations, we ask that the National Government share financial responsibility. H.R. 12 does that while it leaves the major burden of responsibility to the States and communities and allows effective operating control to remain there.

Now, again with reference, and I mean special reference, to dentists, the U.S. Government employs currently over 6,000 dentists.

At one time during World War II the Government found it necessary to have the services of 22,000 dentists.

And I submit to you, Senator Hill, that the U.S. Government has not only a privilege but it has the responsibility to make some contribution toward educating the dentists of this country inasmuch as it is currently utilizing 6,000 dentists continually.

I would like to revert back to the statement made by the representatives of the Association of American Dentists, the statement that they made on the point of their membership.

I gathered an inference sitting in the back of the room that they were not willing to reveal their membership figures because the American Dental Association did not permit them to or would not permit them to.

I hope I am not misinterpreting their statement.

But I should like the record to show, Senator Hill, that the American Dental Association has absolutely nothing to do by way of controlling the membership or the activities of the Association of American Dentists.

The American Dental Association membership is not a type of membership that is based upon direct election to membership in the American Dental Association.

The dentists from Virginia and from Texas, who are members of the American Dental Association, acquire that membership through admission to membership in their local dental society which at one and the same time affords them membership in their State association and in the American Dental Association.

And I say again to you, Senator, the American Association of Dentists, so far as the ADA is concerned, is certainly free to reveal any information about itself that it may care to reveal, and there is no punitive action that the American Dental Association can take or would ever wish to take on any matter pertaining to the activities of other associations.

And I make that statement to you as the past president of the American Dental Association, fully acquainted with the policies.

Now, Senator—am I taking too much time?

The CHAIRMAN. No, go right ahead, sir. Take your time.

Dr. LYONS. There are three elements that make up a good dental school—an adequate, happy, financially rewarded faculty; a good student body, able to afford the costs of dental education; and then an acceptable facility in which to bring the two together, the faculty and the student body, in order that the one may have its educational influence on the other.

H.R. 12 deals with two of these elements—the facility and the support of students.

And I say to you, without fear of successful contradiction, that all phases of this bill pertaining to facilities and the support of students, are desperately needed at this time.

The statement was made that dental schools have not enjoyed full enrollment in recent years. That is true.

I understand that the schools, however, will be filled this year. There is good reason why the schools did not have full enrollment in recent years, and one of them has an important bearing on the inability of many competent students to meet the costs of dental education.

In order to gain admission to a dental school it is necessary for students to spend 3 or 4 years, and in a few instances 2 years, in an academic college.

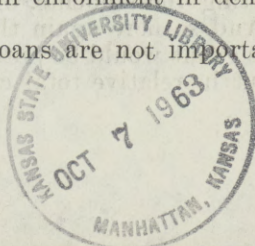
Then there are 4 years of costly education in the undergraduate dental school, after which the individual is faced with the cost of \$8,000, \$10,000, or \$12,000 to establish his office.

The cost of dental education through his 4 years now ranges somewhere from \$15,000 to \$18,000, and there are a tremendous number of fine boys and girls with superior minds and great ambition to study dentistry who have to turn to other fields for financial reasons.

There is very little support for the student in the realm of dental education. What little there is, is woefully inadequate.

But this same fine student may turn to other fields and be liberally supported, and it is the competition, related to the question of student aid, that has had much to do with a drop in enrollment in dental schools.

And anyone who tells you that student loans are not important



devices in recruitment is unacquainted with the facts of life as far as they pertain to dental education at this moment.

The CHAIRMAN. You speak as a dean, Doctor?

Dr. LYONS. What is that?

The CHAIRMAN. You speak as a dean?

Dr. LYONS. Yes, sir. Now, yesterday a rather strange inference was made, one which I as dean of a dental school resent somewhat, and that statement in effect stated that medical students were different from other students in the field of the health sciences.

I question the validity of that statement and contend with you, Senator Hill, that medical students and dental students and students of pharmacy and public health and nursing are all human beings and, in general, they suffer all of the strengths and all the weaknesses of other human beings.

And the inference was made that medical students are above such things as "stooping" to accept Federal aid and again I question the validity of that statement.

Now, I am aware of the fact that the American Medical Association has a student loan fund based on guaranteed bank loans.

I happen to be vice president of the Fund for Dental Education and in the past 2 years the American Dental Association has given this fund \$150,000 for student loans.

And the officers of the American Fund for Dental Education considered the advisability of setting up a guaranteed loan program through banks, such as the AMA has, and we rejected it for several reasons, one being that this type of loan was too costly for dental students.

The interest rate, a minimum, runs somewhere between $5\frac{1}{2}$ and $6\frac{1}{2}$ percent, and if these loans have to be refinanced before they may be paid up the cost may run, and does run, as high as 8 percent.

Now, a medical student, borrowing \$6,000—\$1,500 a year over 4 years—may well find himself paying for this \$6,000 loan a total cost of \$10,500, whereas, the same amount of money, borrowed under the loan provisions suggested in H.R. 12, would cost the same student only \$7,200.

I submit to you that that difference in cost is going to be, and is, an important bearing or is going to have an important bearing on recruitment of individuals in the field of the health sciences and certainly in dentistry, and I may speak only for dentistry.

I deny that the American Medical Association has the right to speak for dentistry for the simple reason that they are no more acquainted with dental problems than I am acquainted with medical problems.

I am not going to speak for them, and I do not believe that they have the right to speak for the dental profession.

Now, the question has been raised that H.R. 12 provides too much of a giveaway. I should like to call your attention, Senator Hill, to the fact that if a State or a university gets a matching grant, under H.R. 12, it would still have to put up one-third of the cost of the facility, plus incurring an annual cost, in the instance of a dental school admitting 100 students, of approximately \$1 million a year forever.

And so here again the university or the State that would receive this grant would be putting up much more than the Federal Government in relative total costs of a dental education program.

And I should like to call your attention, Senator Hill, to a fact which I am sure you are aware of: Similar grant programs have stimulated local fundraising. I refer especially to the Hill-Burton Act.

I believe it is a safe assumption that the localities which now enjoy good hospital facilities as a result of the Hill-Burton Act, might not have been stimulated to raise any funds whatsoever on their own had it not been for the stimulus which the Hill-Burton Act has offered these communities to do a little something for themselves or to do a lot for themselves in order to match the challenge offered by these grant programs.

And, incidentally, may I refer again to your magnificent contributions to the health and welfare legislation in connection with the Hill-Burton Act.

Now, one more point, Senator Hill, and then I will give your ears a rest.

The CHAIRMAN. You go right ahead, Doctor.

Dr. LYON. There are only about 40 percent—

The CHAIRMAN. After that last declaration you made, Doctor, you can take your time. [Laughter.]

Dr. LYON. Senator Hill, of the many speeches that I have made in my life the one that gave me the most pleasure was the one that I was privileged to offer in connection with your citation for an honorary fellowship in the American College of Dentists.

There are only about 40 percent of the people in the United States who now receive any dental care whatsoever in a calendar year, and many of these do not receive adequate dental care but only emergency or limited dental care.

Now, if health is an important consideration in the welfare of this country it is necessary, in the very near future, that all of our people receive the benefits of dental health care by some means or another with at their own resources, if possible, and if they are indigents, provision should be made for them to receive the benefits of dental health care because they, too, are human beings and citizens of the United States and important to our welfare.

Now, all of this talk—I am not going to play the numbers game with you about how many dentists we have now and how many dentists we are going to need in 1975.

But I should like to make a categorical statement, that if we are to afford the benefits of dental health care to all of the people of our Nation for any reasonable number of years irrespective of research findings and other considerations, it is inconceivable that we will ever be able to prepare enough dentists to meet this challenge without H.R. 12.

And the Federal Government, it occurs to me, has the responsibility in this connection because health is a national asset.

Federal support of dental education would do one more thing. It would equalize the burden now borne only by about 24 States and a few privately endowed universities.

Let's take Arizona as an example. Arizona has a sizable dental profession and until very recent years, when it began making a limited contribution to a regional compact plan, Arizona received the benefits of dental education without contributing one Indian head or Lincoln penny in payment for them.

And I say to you, Senator, that this is unfair to the 24 States that are supporting dental education.

And there is not any reason in the world why some of the tax money from Arizona should not help the taxpayers of Virginia educate dentists for their State, and I might add, Senator Hill, that my school, which is a State-supported school, has sent a few dentists to Arizona.

We are happy to state that they are highly respected practitioners and are contributing significantly to the dental health of the residents of Arizona.

Senator, you have been more than kind to the dental profession.

I have Mr. Sullens with me, who is the esteemed secretary of the American Association of Dental Schools.

I am sure he is known to you.

The CHAIRMAN. Yes, he is.

Dr. LYONS. If you have any questions to put to the representatives of the American Association of Dental Schools I would judge that Mr. Sullens might be quite helpful in answering them.

The CHAIRMAN. Is there anything you would like to add?

Mr. SULLENS. No, sir, unless you have questions.

The CHAIRMAN. Do you agree with everything that the doctor said?

Mr. SULLENS. Yes, sir. He is the president.

The CHAIRMAN. Doctor, I shall write our good friend, Dr. Volker, and tell him that you are sorry that he could not be with us this morning, but I shall also tell him that the case was most ably presented by you. Thank you.

Dr. LYONS. Thank you.

(Additional views were subsequently submitted to this committee, as follows:)

COMMENT BY AMERICAN ASSOCIATION OF DENTAL SCHOOLS ON STATEMENTS BY
ASSOCIATION OF AMERICAN DENTISTS

The American Association of Dental Schools has unanimously approved the provisions of S. 911 and H.R. 12. The house of delegates of the American Dental Association, representing 85 percent of the dentists in this country, approved Federal assistance to dental education by a vote of 348 to 38 at its last annual meeting. In contrast, the Association of American Dentists refused to disclose the size of its membership during the course of the hearings on S. 911 and H.R. 12 and, therefore, it is not possible to ascertain just how many dentists are represented in opposition to the legislation.

The Association of American Dentists stated in their testimony that our problem is more one of too many dentists at present rather than too few, and this hypothesis seems to constitute the major basis for opposing H.R. 12.

We now have approximately 1 dentist per 1,900 of population in the United States, and about 40 percent of the population see their dentist each year. Not all of those who see their dentist receive complete care since only emergency services are furnished to some of the 40 percent.

If we are to maintain the prevailing ratio of dentists to population, we will have to double the size of the numbers of graduates in dentistry by 1975. The population figures used in this projection are those prepared by the Bureau of the Census and they take into account the factors cited by the Association of American Dentists; i.e., birth rate, fertility rate, death rate, etc.

Merely to keep pace with population growth and preserve the existing ratio of dentists to population, therefore, will require a doubling of our graduates in dentistry by 1975.

1. "First, proponents of Federal aid to dental education * * * (say) we are facing a 'mountainous dental health problem * * *' * * * truth is * * * that the 1975 shortage of dentists would be only 13 percent—not 100 percent as now claimed."

Comment: It is the number of dental graduates that must be doubled not the number of dentists, if we are to maintain the present ratio of dentists to population. The total number of dentists would be increased by about 13 percent if we doubled the size of the graduates by 1975.

2. "Secondly, we are constantly confronted with the imaginary specter of a 'population explosion'."

Comment: The American Association of Dental Schools accepts the increase in population as estimated by the Bureau of the Census.

The population each year has not been declining, but increasing. And while fertility rates of the last few years have not, in fact, shown much change from the 1955-57 average, this average is precisely the premise upon which the Bureau of the Census bases its population projections which, in turn, are the projections being used in estimating future need for dentists.

3. "There is no shortage of dentists in the United States. To the contrary, in the total, the current supply of dentists is more nearly too many than too few."

Comment: In a recent survey, 43 percent of all dentists said they were so busy they either had to refer patients to others or worked more hours than they wished or were so rushed that they considered themselves overworked. At the same time, fewer than half the people see a dentist once a year. As the population increases and as a higher proportion of it appreciates the need for regular dental care, this pressure can be expected to increase significantly.

4. "'Waiting (for appointment) time' dropped from 13.6 days in 1952 to 11.8 days in 1958."

Comment: See comment to No. 3. Also, the years from 1950 to 1960 saw a revolution in dental productivity in this country, largely due to a switch from low-speed to high-speed cutting instruments and utilization of dental auxiliaries. Productivity during that decade rose 42 percent. Even with that remarkable increase in productivity, waiting time was reduced only slightly and nearly one out of two dentists still considered themselves overworked and even turned patients away.

5. "Authority for data presented to the House of Representatives on hearings related to H.R. 12, was, often, 'The Survey of Dentistry in the United States.'"

Comment: The publication cited is not the authority for the dental profession's support of H.R. 12. Independent knowledge of the growth of population, the increasing demand for services by a larger proportion of the population, and the current rate of dental graduate production demonstrate the need for legislation such as H.R. 12.

6. "Eighty percent of existing dental colleges are operating below capacity."

Comment: The Nation's 48 fully operating dental schools reported no vacancies whatever for the 1963-64 freshman class. Further, the number of young people taking dental aptitude tests in 1963 rose 12 percent over 1962, from 5,992 to 6,788. Either of these figures is well above the freshman class capacity of dental schools.

7. "Federal support of student loan programs is unnecessary."

Comment: The formal statements of the American Association of Dental Schools and the American Dental Association show in great detail that most dental students need assistance, that most schools have little or no money available to lend them, and that as a consequence many young men and women qualified for a dental career are unable to pursue it.

8. "Funds for dental research are already generously available * * * there seems no reasonable excuse to launch a new vehicle for financing dental research."

Comment: H.R. 12 does not authorize appropriations for the support of research.

The CHAIRMAN. Now, the National Farmers Union.

STATEMENT OF WILLIAM TRUITT, ASSISTANT DIRECTOR, LEGISLATIVE DIVISION, NATIONAL FARMERS UNION

Mr. TRUITT. Before I begin my statement, the National Farmers Union would like very much to associate itself with the remarks from the distinguished doctor from the State of Virginia, which is my home

State, and to completely disassociate itself from the remarks made by the Association of American Dentists.

Mr. Chairman, we appreciate this opportunity to appear before the committee to express the point of view of the more than 250,000 farm families who are members of our organization.

The National Farmers Union wishes to express strong support for S. 911, the Health Professions Educational Assistance Act of 1963.

We do so because we recognize the serious need of the Nation as a whole for more doctors, dentists, and health specialists of all kinds. But more especially we wish to bring to the attention of the committee the even more critical shortage of professional people in the small towns of rural America where they could be of service to farm people.

The traveling country doctor who once served rural America is now long gone from the countryside. Today more typically farm people—especially children—must depend upon the occasional services of the public health doctor and nurse or travel, sometimes great distances, to the nearest town or city.

This means, of course, that in many emergency cases of acute illness, where time and space spell the difference between life and death, that the scales are tipped heavily on the side of death for farm people because of the scarcity of doctors in rural areas.

In other words, the miracle men and the miracle drugs of modern medicine have little meaning for people who are denied their aid because of time and space.

I am sure this is no new problem which I bring before this committee but for the record I direct your attention to statistics from the Health Manpower Source Book of the U.S. Department of Health, Education, and Welfare, table II.

This shows that there are 37 States which fall below the national average of 125.3 doctors per 100,000 of the civilian population.

The shortage is most acute in Southern, Midwestern, Great Plains, and Rocky Mountain States. South Dakota, for example, has only 70.7 doctors per 100,000 people.

These figures are for the States as a whole. Now look at table III, which shows that in the isolated areas of these States, the ratio falls below 50 physicians per 100,000 population. There are 881 counties which fall in this "isolated rural" category.

Slightly better off are 1,107 "isolated semirural" counties with about 75 doctors per 100,000 population.

It is these two categories constituting about two-thirds of all the countries in America which are our most serious problem.

We believe that there are two main reasons why it is difficult to secure doctors for these rural areas. One is cultural background—the other is money.

Let us consider the first reason. There is an old saying that you can take the boy out of the country but you can't take the country out of the boy. This old saying has a kernel of truth which we believe the committee should consider and which is borne out in statistical evidence.

From the Journal of Medical Education we find that the place where the boy is brought up is the most significant factor in determining where he will practice after leaving medical school. We refer you to table I attached. Therefore, the problem, it seems to us, resolves

itself down to the question of how we get more farm boys and girls to study medicine.

Here we find the second hard fact that the vast majority of young men who study medicine come from families with incomes of over \$10,000 per year. According to 1962 statistics, farm income is \$1,430 per capita, or about 58.5 percent of nonfarm income which is \$2,445.

It is not hard to see from these figures that few farm families can afford the long and expensive training necessary to make doctors out of their sons or daughters.

Now, Mr. Chairman, I come to my only criticism of this bill. If we are to really solve this problem of doctor shortage in rural areas in the best and in the long run the most economical way—if we are to really get more young men and women of rural background to study medicine we must give them a better opportunity than this bill offers.

In my opinion, the “forgiveness” of 50 percent of loans for medical school education is hardly sufficient to attract very many along the almost impossible road they must travel.

We must, I think, bear in mind that for a young high school graduate to become a doctor means 10 or 12 difficult years of hard study even without any financial worries. Add to this the fact that it will cost \$20,000 for the privilege of doing this study and the obstacles will seem to be insurmountable to a young person brought up in the frugal atmosphere which surrounds the declining rural communities of America. He will ask himself, “How can I ever pay back that much money if I must practice in this depressed rural economy.”

I believe we should offer the hope that if he gets through the first 4 years of college for which he will undoubtedly be in debt he will then be given a chance to have any future debt substantially paid by Federal aid if he goes on to study and practice medicine in an area of doctor shortage.

Therefore, I suggest that the bill should be amended to extend the “forgiveness” feature indefinitely, if the professional practice is continued in an area of shortage.

There are powerful forces at work in our country today tending to impoverish the rural community, leaving it economically and socially deprived. This is due in part to the constant movement of young people from the country to the city.

This fact alone it seems to Farmers Union is strong justification for Federal aid to medical education or any kind of education.

Mr. Chairman, may I close by saying that the agricultural technological revolution is forcing many of our young people out of farming.

It seems to us both wise and fair, as well as in the national interest, to make it possible for these young people to get the kind of professional education that will allow them to go back to their childhood surroundings to serve the people of those areas as doctors and dentists which are so badly needed.

Mr. Chairman, thank you.

The CHAIRMAN. We want to thank you very much, Mr. Truitt.

We appreciate your presence and your statement.

Thank you, sir.

Mr. TRUITT. Thank you.

The CHAIRMAN. Now, Mr. Truitt, do you wish your table and chart placed in the record?

Mr. TRUITT. Yes, sir, please, sir.

The CHAIRMAN. All right. That will appear in full in the record.

Mr. TRUITT. Thank you, sir.

(The tables referred to follow:)

TABLE 8.—*Percent distribution of medical college graduates in private practice whose prior residence was in various size communities by size of community of practice: 1950 class*

Size of community of practice	All sizes	Size of community of prior residence				
		500,000 and over	100,000 to 499,999	25,000 to 99,999	5,000 to 24,999	Under 5,000
Number of graduates.....	13,311	850	729	577	488	590
All sizes.....	100.0	100.0	100.0	100.0	100.0	100.0
500,000 and over.....	17.6	45.6	7.3	9.5	7.4	7.3
100,000 to 499,999.....	19.7	10.8	41.3	13.2	14.9	15.9
25,000 to 99,999.....	19.8	13.8	14.7	40.4	20.9	14.6
5,000 to 24,999.....	22.9	17.6	19.9	22.5	36.7	22.7
Under 5,000.....	19.6	11.8	16.4	14.4	20.0	39.5
Foreign or not reported.....	.4	.4	.4			

¹ Includes 77 graduates whose community of prior residence was outside the United States or was not reported.

TABLE 9

PHYSICIAN-POPULATION RATIO IN EACH STATE AND TYPE OF PRACTICE OF PHYSICIANS

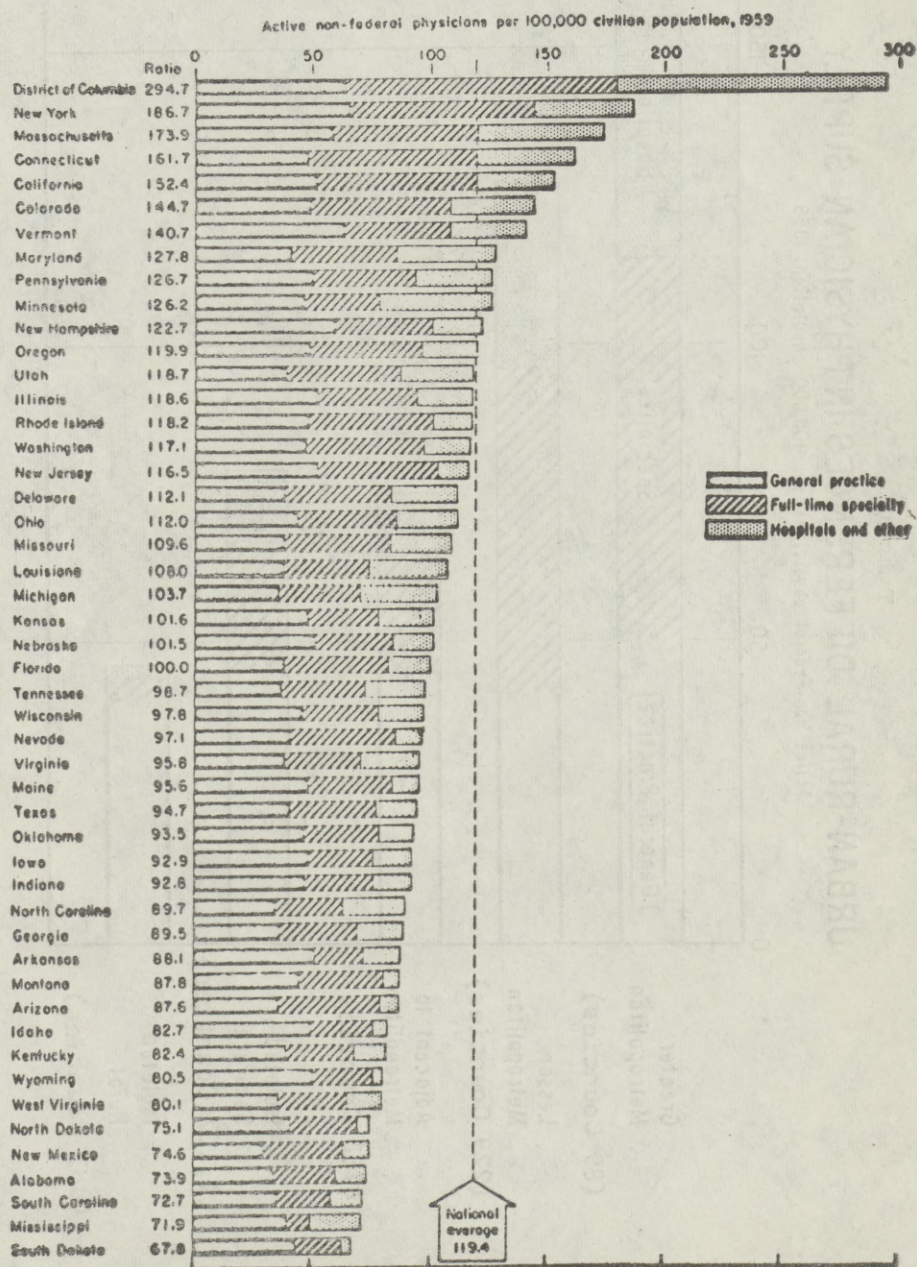
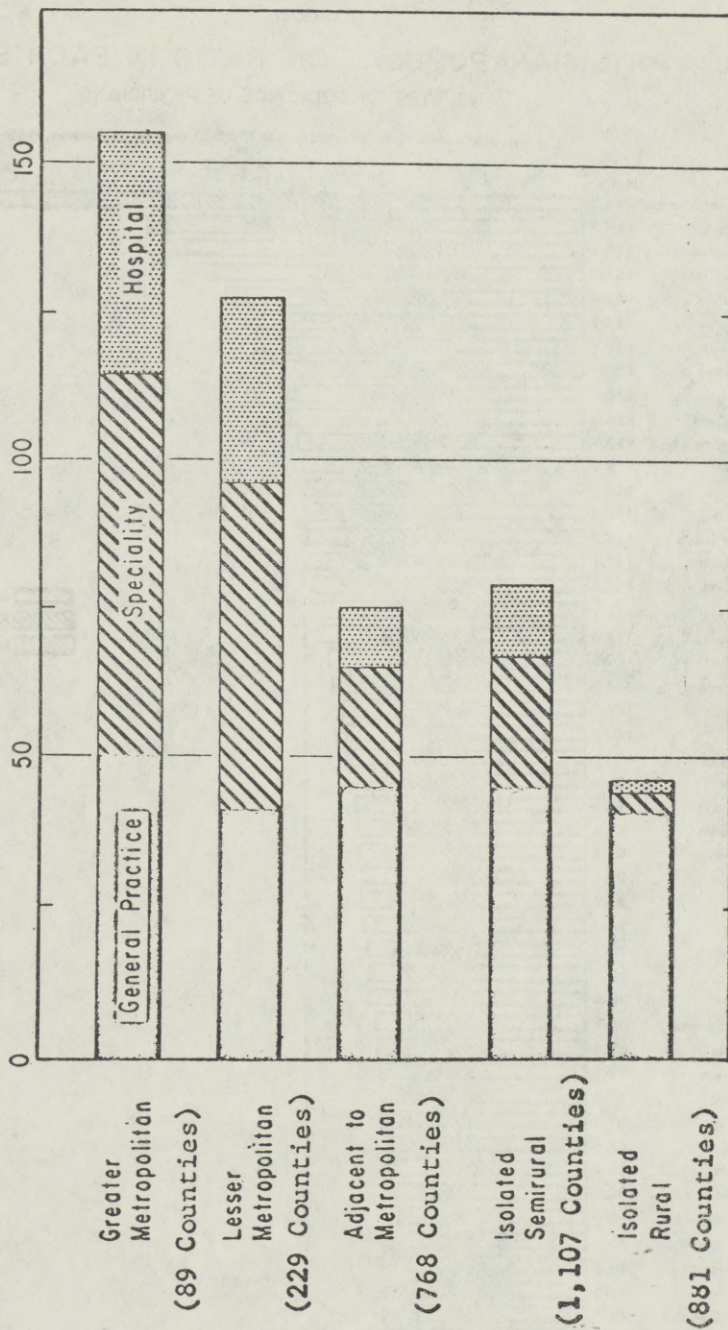


TABLE 10

URBAN-RURAL DIFFERENCES IN PHYSICIAN SUPPLY

Active non-Federal physicians per 100,000 population, 1959



The CHAIRMAN. Now, the American Association of Colleges of Pharmacy.

STATEMENT OF DR. CHARLES W. BLIVEN, EXECUTIVE SECRETARY, AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY; ACCOMPANIED BY DR. JOSEPH B. SPROWLS, CHAIRMAN, EXECUTIVE COMMITTEE

Dr. BLIVEN. Mr. Chairman, I have with me Dr. Joseph B. Sprowls, who is dean of the Temple University School of Pharmacy, in Philadelphia, Pa.

The CHAIRMAN. We will be happy to have you come here and join us, Dr. Sprowls.

Dr. BLIVEN. He has no prepared statement, but he will be happy to make comments or answer questions.

The CHAIRMAN. We are happy to have both of you here.

Dr. BLIVEN. Thank you, sir. I have a prepared statement. I will read portions of it, but I will ask that the entire report be included in the record.

My name is Charles W. Bliven. I am executive secretary of the American Association of Colleges of Pharmacy, and present the statement in this capacity. Before assuming this office I served, for 14 years, as dean of the School of Pharmacy of the George Washington University, Washington, D.C.

I appear before you in behalf of the membership of the American Association of Colleges of Pharmacy, which consists of 76 schools and colleges of pharmacy. Seventy-five of our member schools are located in 44 States and the District of Columbia. All of them are nationally accredited. Approximately 1,100 teachers are engaged in the instruction of some 10,600 undergraduate and 1,140 graduate students enrolled in our schools.

The curriculum leading to the undergraduate professional degree has required 4 years since 1932, and a minimum of 5 years since September 1960. Two of our member schools offer only a 6-year curriculum, and two others offer this longer program on an optional basis.

In the 5-year program a minimum of 3 years of work in the professional subjects is required in addition to a 2-year basic science program. In the 6-year curriculum at least 4 years are mandatory beyond the 2 years of science.

The objective of the American Association of Colleges of Pharmacy is the promotion of education and research within the member institutions. Our association is a nonprofit organization.

I appear before you in support of S. 911 and H.R. 12, which would increase the opportunities for training health science personnel. This legislation would make schools of pharmacy eligible for grants for the construction of teaching facilities. While this support would materially assist the pharmaceutical segment of the health professions to maintain and improve its professional service in the years ahead, we ask that students of pharmacy be included in the student loan provision of the bill.

Our member colleges have the responsibility of graduating an adequate number of pharmacists at both the undergraduate and graduate

levels to meet not only the replacement needs of the profession but also the demands of our rapidly expanding area of the health sciences.

A rather constant pharmacist-to-population ratio of 67 to 100,000 has existed from at least 1920 until recently. If this ratio is used in the projection of manpower needs, schools of pharmacy will need to produce annually, during the period 1965-70, twice as many graduates as are currently being graduated; during 1970-75 the average annual number of graduates must be increased by 15 percent over 1965-70 if the ratio is to be maintained.

The 67-to-1,000,000 ratio is based on the 1960 population of 180 million and 120,000 pharmacists. Information compiled recently by the U.S. Public Health Service, shows that as of 1962 there were 123,997 licensed pharmacists residing in the State of registry.

On the basis of this figure and a population of 188 million, the current pharmacist-population ratio is 65.9 to 100,000.

Approximately 90 percent of our professional personnel are practicing in the community pharmacies throughout the country. The remaining 10 percent are engaged in the many other areas of the profession: in the pharmacies of our hospitals; in the control, research, or product development laboratories of the manufacturing plants; as medical service representatives to the physicians; in our educational programs; in Government; and in the Armed Forces.

The schools of pharmacy are making every effort to respond to the demands for personnel from all of these public health areas. The educational program in pharmacy provides our graduates with an excellent background in the basic sciences as well as in the professional courses.

For this reason, our allied health fields are utilizing an increasing number of our graduates. To provide an adequate number of pharmacists for the profession and for the allied health fields, our schools and colleges of pharmacy need financial assistance beyond that currently available.

During the period 1958-62, 16 new buildings were erected for schools of pharmacy and at least 30 acquired additional space. During the period 1947-62, about 39 schools—slightly more than one-half of our total number—acquired new buildings.

Thus, while many of our schools have good physical facilities, others must seek funds from outside sources to provide this essential. In fact, in some instances where new buildings have been constructed, total funds available were insufficient to provide libraries, an adequate number of classrooms, or the desired research facilities.

The greatest need exists for modernization and rehabilitation of existing structures, and expansion of some of them to meet area needs. However, there does not appear to be a need for the origin of new schools within the next few years.

We realize, however, that quantity as exemplified by square feet and the numbers of students is not in itself, sufficient to meet our public health responsibilities; quality of students and staff are equally essential to the education of tomorrow's pharmacist. All of these needs have been priority in the thinking and planning of our college administrators.

There is an increasing need for financial aid to students in order that pharmacy can continue to supply the essential number of well-qualified graduates. Inclusion of students of pharmacy in the loan pro-

visions of S. 911 would aid in meeting this responsibility. The increased possibility of financial aid offered through these provisions would have a salutary effect on the number of students undertaking the study of pharmacy.

Two sources of funds through pharmacy foundations are now available to our students. The American Foundation for Pharmaceutical Education makes available \$600 annually to each of the 176 schools for scholarship purposes.

And this is an outright grant and, of course, nonrepayable.

Since 1942, \$250,000 has been awarded to 2,332 students. Since 1957, the John W. Dargavel Foundation, founded by the National Association of Retail Druggists, has made 964 loans totaling \$294,000 to pharmacy students. During the 1961-62 academic year, 247 loans averaging \$295 were made.

Currently, loans are limited to \$350 a semester, but qualified students may receive two such loans during the year. While these funds are most helpful, they cannot meet the full need for funds. Even with these and other sources, almost a half of the deans of our schools report an unmet need for financial aid among their students.

An increased number of well-qualified students is essential, not only in the undergraduate curriculum but also in the graduate programs where our future teachers and research personnel are trained.

The excellent graduate programs developed by many of our schools are a vital part of the educational program for pharmacy, and the facilities for such advanced training must be expanded in the years ahead.

A survey conducted in September 1962, after the school year had begun, showed that there was a shortage of 70 teachers in the 75 continental schools; 38 schools lacked 2 or more teachers. The need for the academic year 1963-64 is approximately 120 teachers. With less than 100 doctor of philosophy graduates likely by September 1963, (there were 87 graduates in 1961-62) and with about one-half of this number taking positions in industry, a shortage of teachers will prevail again next year.

I might mention here that our schools have been very fortunate in being included in the grant program of the National Institutes of Health, and we are very pleased with that, and this, as mentioned by a previous speaker, has served a very definite stimulus to the development of our graduate programs during the past decade.

Federal assistance in the form of health research facility grants and research grants from the National Institutes of Health has had a pronounced beneficial effect on our graduate program and, hence, on the number of teachers for our schools and research personnel for the pharmaceutical industry.

Through 1960 our members schools received grants estimated at \$2 million for the construction of research facilities. A recent survey indicates that for the period 1963-65, 47 schools will require funds in excess of \$20 million based on total cost of construction for new research facilities, remodeling, and for equipment.

During the period July 1, 1961-62, schools of pharmacy had available research funds amounting to at least \$2.5 million, about one-half of which was being used for research on cancer, mental health, and cardiovascular diseases.

The figures on research facility grants and on research funds indicate the increased interest and activity of pharmacy schools in fundamental and applied research in our branch of the health sciences. In the 9-year period, 1951-60, the number of projects in pharmacy schools receiving NIH support increased more than 20 times; the dollar value of the projects increased more than 30 times.

The administrators of our member colleges are grateful for Federal support in the construction of research facilities and in research projects. The inclusion of our schools in the provisions of S. 911 will be another important step in assisting pharmacy in meeting the personnel demands essential to care of the health needs of our increasing population. Thank you very much, Mr. Chairman. I would ask that the tables be included with the statement.

The CHAIRMAN. We will be glad to do that, sir.

(The tables referred to follow:)

TABLE 11.—*Undergraduate enrollment in U.S. schools of pharmacy, 1958-62*

Year	Last year	2d from last year	3d from last year	Total
1958-59.....	3,901	3,880	4,492	12,273
1959-60.....	3,645	3,872	4,982	12,499
1960-61.....	3,691	4,075	5,823	13,589
1961-62.....	3,906	4,784	12,137	10,827
1962-63.....	4,484	12,004	4,145	10,633

¹ The small enrollment in this class is the result of the transition from the 4- to the 5-year program in 1960 by those schools not already on the longer program.

TABLE 12.—*Graduates from undergraduate curriculums of U.S. schools of pharmacy, 1958-63*

Year:	Graduates Year—Continued		Graduates
1958.....	3,683	1961.....	3,438
1959.....	3,686	1962.....	3,699
1960.....	3,497	1963.....	¹ 4,350

¹ Estimated.

TABLE 13.—*Average annual number of pharmacists, requirements for replacements and new entrants, and total need for pharmacists for 5-year periods, 1960-75*^{1 2}

Period	Average annual number of pharmacists ³	Requirements		
		Replacements ⁴	New entrants	Total
1960-65.....	122,200	4,300	2,200	6,500
1965-70.....	133,400	4,700	2,400	7,100
1970-75.....	146,000	5,100	3,000	8,100

¹ Submitted by Senator Hubert Humphrey to Senate Labor and Public Welfare Committee during hearings on S. 1072 of the 87th Cong.

² Based on population increase as being linear.

³ Based on 1960 pharmacist-to-population ratio of 67:100,000.

⁴ Calculated at 3.5 percent of number of pharmacists.

The CHAIRMAN. Anything you would like to add?

Dr. SPROWLS. Thank you, Senator, but Dr. Bliven covered this subject so well, I do not believe I need to take any of the committee's time.

The CHAIRMAN. I agree with you. He certainly covered it very well.

We want to thank both of you.

Thank you very much.

Dr. BLIVEN. Thank you.

The CHAIRMAN. Now, the American Pharmaceutical Association.

STATEMENT OF CALVIN BERGER, CHAIRMAN, HOUSE OF DELEGATES; AMERICAN PHARMACEUTICAL ASSOCIATION; ACCOMPANIED BY RAYMOND J. DAUPHINAIS, DIRECTOR, LEGAL DIVISION

The CHAIRMAN. We now have Mr. Calvin Berger, of New York, and who is chairman of the House of Delegates of the American Pharmaceutical Association.

Mr. BERGER. I have a prepared statement, Senator, and with your permission I shall submit that for the committee in the interest of time.

The CHAIRMAN. It will be inserted in the record.

(The prepared statement of Mr. Berger follows:)

PREPARED STATEMENT OF CALVIN BERGER, AMERICAN PHARMACEUTICAL ASSOCIATION

My name is Calvin Berger. I am a pharmacist engaged in community practice, a member of the New York State Board of Pharmacy, a trustee of Columbia University's College of Pharmacy, and chairman of the American Pharmaceutical Association House of Delegates. It is for the American Pharmaceutical Association that this statement is presented.

The American Pharmaceutical Association is the national professional society of pharmacists. Since its inception in 1852, the American Pharmaceutical Association has concerned itself with promoting the public health through improved professional pharmaceutical practice.

An objective of the American Pharmaceutical Association, as stated in its constitution, is: "To provide a system of education and training in the art of pharmacy, calculated to produce competent personnel through all phases of the practice of pharmacy and the training of pharmacists as the means of providing the greatest protection for the public at large."

On behalf of the high standards of professional competence we have fostered, and which we seek not only to maintain but improve, the American Pharmaceutical Association favors congressional consideration of means of making funds available in order to foster adequate facilities for public health education and the training of professional health personnel. For these reasons, the American Pharmaceutical Association endorses S. 911 and supports its general purposes. The program proposed by S. 911 would significantly contribute to producing essential professional health personnel including pharmacists. Through grants for construction, the bill would assist in constructing necessary teaching facilities.

As with medicine and dentistry, it is necessary and desirable to encourage the development of skills and talents of pharmacists. The public health function of pharmacists is not merely a phase of their practice but rather, the practice of their profession is an integral phase of the practice of public health.

Pharmacists engage in a wide range of professional services directly concerned with public health. Pharmacists contribute daily to health care from a variety of areas of practice as, for example, in Federal and State government service, in the Armed Forces, in education, and in hospital and community pharmacies. The contributions of pharmacists have been made possible by modern pharmaceutical education. There has been a professional curriculum which rests upon extensive laboratory and course work in synthetic and analytical chemistry, pharmacology, physiology, bacteriology, and other allied sciences related to pharmacy.

Since time immemorial pharmacists have joined with other members of the public health team endeavoring to achieve the highest obtainable type of health care. Today, the pharmacist's public health role is an ever expanding one as

newer, more effective, chemotherapeutic agents are made available and new approaches to the mitigation and cure of disease are developed.

Much time could be spent referring to the impressive advances in the medical and pharmaceutical sciences which have occurred in recent decades. The resulting tremendous increase in prescription-medication use and the pharmacist's role in dispensing increasing numbers of prescription orders could also be described. There is, however, another aspect of the pharmacist's practice to which attention should be given in discussing his professional contribution to public health. The aspect of the pharmacist's professional and legal responsibility to which we refer is that of advising persons, as required, as to the contents, therapeutic values, hazards, and uses of the drugs and therapeutic devices patients purchase or employ without having visited a physician.

Physicians should be acknowledged as the practitioner who should diagnose and prescribe, and who must see patients early so that illness may be prevented or aborted before it has reached the point of no return. At the same time, everyone has a personal responsibility to take care of himself and to maintain his usual condition of health. Efforts to do so result in autotherapy or self-treatment of illness.

It is most unrealistic to assume that a physician will be, or ought to be, consulted on minor everyday ailments. Autotherapy or self-treatment is that type of medical self-help in which ordinary illnesses are recognized and treated with simple remedies and procedures.

This brings us to the layman's problem of selecting drugs for self-medication which are both effective and safe for his particular use. There is also the problem of assisting the layman to recognize limitations upon his competency in autotherapy as well as the risks involved. A third problem area, one of economics and consumer protection, involves assisting the patient to obtain maximum dollar value in his purchase of drugs, vitamins, therapeutic devices, and related health needs.

If the national effort of our country is to be directed to improving the health of the people and, thus, to increase the strength of the Nation, to enhance the felicity of our citizens, and to minimize the toll of disease in both dollars and suffering, the skills and talents of the pharmacist are going to be required. So long as drugs, vitamins, and related articles are manufactured for autotherapy, and the layman seeks such articles for self-treatment, there will be need for pharmacists.

A pharmacist is more than a purveyor of drugs; he is a member of the team of experts who have been scientifically trained to provide medical care to the people. The pharmacist is available not only as a consultant to the prescriber and as the custodian of the drugs for the community, but also as a public health practitioner dedicated to serving the patient in the area of proper autotherapy.

A health problem confronting our Nation today is how to create in a layman a greater capability to differentiate trivial or temporary symptoms and conditions of health from those which require prompt attention by physicians. The problem is to educate patients in the matter of reasonable autotherapy and the importance of seeking professional medical assistance early, when necessary, without swamping physicians with complaints of minor illness. This is one of the many areas in which the pharmacist serves.

The pharmacist, among all health professionals, has the most frequent personal contact with the public. Not only does the pharmacist dispense prescribed medication, but he is also available to supply, where appropriate, drugs, vitamins, therapeutic devices, and related health articles for proper day-to-day, personal health-care.

National concern has also been expressed about quackery in relation to drugs, dietary supplements, and related articles for self-help. The bare fact is that the present educational level of the American public is not a sufficient defense against many of the questionable products which are promoted for autotherapy. Moreover, in the commercial promotion of drugs and related health articles, there is a tendency to over dramatize symptoms which frequently leads to patient preoccupation with illness in the presence of minor symptoms. Generally, the pharmacist is the only person readily available to the consumer for making an objective appraisal of a drug in terms of what it may do for, or to, both his person and his purse.

If the pharmacist did not already exist, it would be necessary to invent him. Presently, however, action need only be taken to encourage and prepare pharmacists to continue joining with physicians, dentists, and other members of the professions serving the public health.

S. 911 would enable pharmaceutical education to move forward without delay. With the program S. 911 proposes, the public will be assured of the availability of competent personnel to provide comprehensive health services—preventative, curative, and restorative, and thus achieve for this Nation the highest obtainable standard of health care.

Mr. BERGER. I would like to point out a few items.

My name is Calvin Berger. I am a pharmacist engaged in community practice, a member of the New York State Board of Pharmacy, a trustee of Columbia University's College of Pharmacy, and chairman of the American Pharmaceutical Association House of Delegates. It is for the American Pharmaceutical Association that this statement is presented.

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agents are made available and new approaches to the mitigation and cure of disease are developed.

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This brings us to the layman's problem of selecting drugs for self-medication which are both effective and safe for his particular use. There is also the problem of assisting the layman to recognize limitations upon his competency in autotherapy as well as the risks involved.

A third problem area, one of economics and consumer protection, involves assisting the patient to obtain maximum dollar value in his purchase of drugs, vitamins, therapeutic devices, and related health needs.

If the national effort of our country is to be directed to improving the health of the people and, thus, to increase the strength of the Nation, to enhance the felicity of our citizens, and to minimize the toll of disease in both dollars and suffering, the skills and talents of the pharmacist are going to be required. So long as drugs, vitamins, and related articles are manufactured for autotherapy, and the layman seeks such articles for self-treatment, there will be need for pharmacists.

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S. 911 would enable pharmaceutical education to move forward without delay. With the program S. 911 proposes, the public will be assured of the availability of competent personnel to provide comprehensive health services—preventive, curative, and restorative, and thus achieve for this Nation the highest obtainable standard of health care.

The gentleman on my left is Mr. Raymond Dauphinais, the director of the legal division of the American Pharmaceutical Association and, Senator, if you have any questions to ask either Mr. Dauphinais or me, we will attempt to answer them.

The CHAIRMAN. Is there anything you would like to add, sir?

Mr. DAUPHINAIS. No, thank you, sir.

The CHAIRMAN. Well, we certainly want to thank you for this statement. I may say that I have never heard a better presentation for pharmacists than you have made here this morning.

Mr. BERGER. Thank you very much, sir.

The CHAIRMAN. We certainly appreciate both of you being here this morning.

Mr. BERGER. Thank you very much.

STATEMENT OF JOSEPH COHEN, DIRECTOR, PROFESSIONAL SERVICES, NATIONAL ASSOCIATION OF RETAIL DRUGGISTS

The CHAIRMAN. Now, the National Association of Retail Druggists. We have now Mr. Joseph Cohen. We are glad to have you here, sir, and you may proceed in your own way.

Mr. COHEN. Thank you, Mr. Chairman.

I have a prepared statement, but I wish to submit it for the record, including the tables.

The CHAIRMAN. All right. We will have it appear in full in the record.

(The statement submitted by Mr. Cohen, follows:)

STATEMENT OF JOSEPH COHEN, WASHINGTON REPRESENTATIVE AND ASSOCIATE GENERAL COUNSEL, NATIONAL ASSOCIATION OF RETAIL DRUGGISTS

Mr. Chairman, I appear here this morning in behalf of the National Association of Retail Druggists, a small business association having a nationwide membership of 36,000 family pharmacists. As you know, the NARD speaks for its retail pharmacist members on all national legislative matters affecting their competitive and professional interests.

The NARD is deeply appreciative of this opportunity to testify in support of S. 911 and H.R. 12, which would increase the opportunities for training of professional health personnel. You may be assured that my testimony on this subject will be brief and to the point. I understand the practical problems involved in scheduling the many witnesses who desire to be heard on this very important measure.

In both principle and purpose, the NARD endorses S. 911 and H.R. 12. The Nation's retail pharmacists have no hesitancy in supporting efforts to relieve the serious manpower shortages existing in the health professions. In fact, such an undertaking deserves and, I am sure, enjoys the support of all American citizens interested in the maintenance of our high health care standards.

While generally supporting S. 911 and H.R. 12, however, the NARD wishes to call attention to an obvious shortcoming or, perhaps, oversight evidenced in the scope of the bill. I refer to the failure of the measure to include pharmacy students among those eligible for student loans. Although agreeing that student loans should be available to medical, dental, and public health students, the NARD respectfully urges that S. 911 and H.R. 12 be amended to offer loan benefits to all students in the health professions, including pharmacy, in which an appreciable personnel shortage is found.

Available statistics reveal that the supply of registered pharmacists has not kept pace with a growing America. Since 1930, when there were only 88,000 registered pharmacists, the United States has enjoyed a ratio of 67 pharmacists to every 100,000 persons in the population. Today, by comparison, there are only 65.9 pharmacists per 100,000 persons, although we have about 123,997 registered pharmacists in the country. But an even more serious manpower shortage is disclosed, if only the 116,000 pharmacists currently registered and actively engaged in the practice of pharmacy are considered. The ratio then drops to 64 to 100,000 (see table "A").

These statistics become even more meaningful when it is considered that, some 30 years ago, almost all registered pharmacists were working in retail drugstores, while currently about 10 percent are employed in such related health areas as pharmaceutical research and development, pharmacy education, ethical drug promotion and distribution, hospital pharmacies, and Federal and State public health agencies, including military dispensaries. In other words, the failure to keep the supply of registered pharmacists in line with population growth since 1930 has been aggravated by the fact that at least 10 percent of today's pharmacists are not available for retail pharmacy work. Small wonder, then, that a vexing shortage of pharmacists for prescription counter duty is found to exist in retail drugstores across the country.

At the same time, it should be understood that the registered pharmacists active in the related health fields mentioned do not satisfy the numerical requirements for pharmacists in those areas, either. The demand for pharmacists in such areas far exceeds the available supply. Over the past 30 years, very little preparation of any kind was made to meet what have become the substantial needs for trained pharmacists in such associated fields of interest.

As one informed observer of the pharmaceutical scene has reported, " * * * the current shortage of pharmacists seems certain to become even more pronounced in the years ahead * * * . More than 160,000 registered pharmacists will be required 15 years from now to satisfy the needs stemming from continued popu-

lation growth only, assuming that current ratio of availability of pharmacists can be termed adequate. Of this number, an estimated 10,000 will be needed in hospital pharmacies and another 2,000 to meet what are probably the minimum requirements for teaching and research. For the most part, the others will be engaged in retail pharmacy and allied health fields, as is the case today" (see Table "B").

In planning to meet the needs for pharmacists in the future, attention must be given also to the rapidly developing trend in retail pharmacy toward the 8-hour day and the 5-day week. Even now, the smaller retail pharmacist is sorely pressed to provide his customers with professional pharmaceutical services throughout the 14-16 hours of his daily operations. Bear in mind that 40 percent of all drugstores operate with only one pharmacist and another 45 percent are serviced by only two. Once retail pharmacy generally adopts the 40-hour week enjoyed by the other health professions, a substantial increase in the supply of pharmacists will be required. The alternative would be a deterioration in the quality and convenience of pharmaceutical service.

These observations concerning current and future shortages in pharmacy manpower find confirmation, I believe, in the 1959 report of the Surgeon General's Consultant Group on Medical Education entitled "Physicians for a Growing America." According to the consultant group, "shortages of trained people [exist] in practically every one of the many professional and technical careers in the health field. Intensive recruitment of young people for these many essential health services, including medicine, is imperative."

The desirability of coupling the problem of medicine with those in the related health professions was recognized by the consultant group. " * * * Physicians cannot carry their load of responsibility without competent and well-trained teammates and associates.

"There is increasing recognition of interrelated responsibility of health workers with a variety of skills and educational preparations. One evidence of this is the development of university-based health centers with closely related schools of medicine, dentistry, nursing, and other health professions.

" * * * In 1900, for every physician in practice there was one other professional health practitioner; today, there are four such persons for every physician."

After outlining our pharmacy manpower requirements, our task is to meet them. To achieve even our minimum goals in the supply of registered pharmacists will require much larger pharmacy school enrollments and graduations. That being the case, pharmacy school facilities will have to be substantially enlarged and teaching staffs correspondingly increased to take care of the additional students to be enrolled, all without reducing the present high quality of pharmaceutical education. For success in this important undertaking, some Federal assistance will be required by the pharmacy schools just as with the medical and dental schools.

In view of these considerations, the NARD feels justified in asking that S. 911 and H.R. 12 be amended to make pharmacy students eligible for the scholarship funds that the bill would offer medical, dental, and public health students. Practical justice for American pharmacy would seem to require that the needs of the health professions be met in a comprehensive and nondiscriminatory manner.

TABLE A

States	Population (in thousands)	Pharmacists	Ratio of pharmacists per 100,000 population	States	Population (in thousands)	Pharmacists	Ratio of pharmacists per 100,000 population
Alabama.....	3,267	1,402	42.9	Nebraska.....	1,411	980	69.4
Alaska.....	226	74	32.7	Nevada.....	285	265	92.8
Arizona.....	1,302	873	67.0	New Hampshire.....	607	356	58.6
Arkansas.....	1,786	892	49.9	New Jersey.....	6,067	3,567	58.7
California.....	15,717	9,667	61.5	New Mexico.....	951	557	58.5
Colorado.....	1,754	1,796	102.3	New York.....	16,782	14,364	85.5
Connecticut.....	2,535	2,086	82.2	North Carolina.....	4,556	1,659	36.4
Delaware.....	446	209	46.8	North Dakota.....	632	354	55.9
Florida.....	4,952	3,494	70.5	Ohio.....	9,706	5,656	58.2
Georgia.....	3,943	2,568	65.1	Oklahoma.....	2,328	1,591	68.3
Hawaii.....	633	191	30.1	Oregon.....	1,769	1,435	81.1
Idaho.....	667	467	69.9	Pennsylvania.....	11,316	9,400	83.0
Illinois.....	10,081	5,948	59.0	Rhode Island.....	859	673	78.3
Indiana.....	4,662	2,986	64.0	South Carolina.....	2,383	1,042	43.7
Iowa.....	2,758	1,557	56.4	South Dakota.....	681	450	66.1
Kansas.....	2,179	1,347	61.8	Tennessee.....	3,567	2,197	61.5
Kentucky.....	3,038	1,215	39.9	Texas.....	9,580	5,426	56.6
Louisiana.....	3,257	2,198	67.4	Utah.....	891	599	67.2
Maine.....	969	440	45.3	Vermont.....	390	182	46.6
Maryland.....	3,101	1,701	54.8	Virginia.....	3,967	1,636	41.2
Massachusetts.....	5,149	4,500	87.4	Washington.....	2,853	2,671	93.6
Michigan.....	7,823	5,839	74.6	West Virginia.....	1,860	612	32.8
Minnesota.....	3,414	1,957	57.3	Wisconsin.....	3,952	2,299	58.1
Mississippi.....	2,178	941	43.2	Wyoming.....	330	280	84.8
Missouri.....	4,320	3,081	71.3	District of Columbia.....	764	900	117.8
Montana.....	675	354	58.3				

NOTE.—National ratio of pharmacists per 100,000 of population, 64.

Source: Bulletin of the National Association of Boards of Pharmacy, vol. 12, No. 12, October, November, and December 1961.

TABLE B.—Pharmacists for a growing America¹

Year	Total U.S. population (in thousands) ²	Need of pharmacists at present ratio of 67 per 100,000	Annual replacement need at 3.5 percent ³	Actual replacement total ⁴
1960.....	180,000	120,000	4,200	3,200
1965.....	196,000	131,000	4,600	-----
1970.....	214,000	143,000	5,000	-----
1975.....	240,000	161,000	-----	-----

¹ Submitted by Senator Hubert H. Humphrey to the Senate Labor and Public Welfare Committee during public hearings in 1961 on S. 1072, a companion measure to H.R. 4999.

² Based on series 2 figures from Bureau of Census.

³ Factor of 3.5 percent supplied by the National Association of Boards of Pharmacy.

⁴ Represents pharmacy school graduates.

Mr. COHEN. My name is Joseph Cohen. As director of professional services, I appear here this morning on behalf of the National Association of Retail Druggists, a small business association, having a nationwide membership of 36,000 family pharmacists.

As you know, the NARD speaks for its retail pharmacist members on all national legislative matters affecting their competitive and professional interests.

The NARD is deeply appreciative of this opportunity to testify in support of S. 911 and H.R. 12, which would increase the opportunities for training of professional health personnel. In both principle and purpose the NARD endorses H.R. 12 and S. 911.

The Nation's retail pharmacists have no hesitancy in supporting efforts to relieve the serious manpower shortages existing in the health

professions. In fact, such an undertaking deserves, and I am sure, enjoys, the support of all American citizens interested in the maintenance of our high health care standards.

While generally supporting S. 911 and H.R. 12, however, the NARD wishes to call attention to an obvious shortcoming or perhaps oversight evidenced in the scope of the bill.

I refer to the failure of the measure to include pharmacy students among those eligible for student loans.

Although agreeing that student loans should be available to medical, dental, and public health students, the NARD respectfully urges that S. 911 and H.R. 12 be amended to offer loan benefits to all students in the health professions, including pharmacy, in which an appreciable personnel shortage is found.

There are tables included in my statement which refer to the present status of pharmacy personnel and to the future needs, which I shall not read at this time.

In planning to meet the needs for pharmacists in the future attention must be given, also, to the rapidly developing trend in retail pharmacy toward the 8-hour day and the 5-day week.

Even now the smaller retail pharmacist is sorely pressed to provide his customers with professional pharmaceutical services throughout the 14 to 16 hours of his daily operations.

Bear in mind, that 40 percent of all drugstores operates with only one pharmacist and another 45 percent are serviced by only two.

Once retail pharmacy generally adopts a 40-hour week enjoyed by the other health professions, a substantial increase in the supply of pharmacists will be required.

The alternative would be a deterioration in the quality and convenience of pharmaceutical service. These observations concerning current and future shortages in pharmacy manpower find confirmation, I believe, in the 1959 report of the Surgeon General's Consultant Group on Medical Education entitled "Physicians for a Growing America."

I quote excerpts from that report in my statement, which I shall not read either, Mr. Chairman.

After outlining our pharmacy manpower requirements our task is to meet them. To achieve our minimum goals in the supply of registered pharmacists it will require much larger pharmacy school enrollments and graduations.

That being the case, pharmacy school facilities will have to be substantially enlarged and teaching staffs, correspondingly, increased to take care of the additional students to be enrolled, all without reducing the present high quality of pharmaceutical education.

For success in this important undertaking some Federal assistance will be required by the pharmacy schools just as with the medical and dental schools.

In view of these conclusions, the NARD feels justified in asking that S. 911 and H.R. 12 be amended to make pharmacy students eligible for the scholarship funds that the bill would offer medical, dental, and public health students.

Practical justice for American pharmacy would seem to require that the needs of the health professions be met in a comprehensive and nondiscriminatory manner.

Thank you, Mr. Chairman.

The CHAIRMAN. Well, we will have your tables appear in full in the record, sir. (See p. 200.)

Mr. COHEN. Yes, sir.

The CHAIRMAN. We certainly do want to thank you, sir, for your appearance here this morning and we appreciate your statement very, very much.

Mr. COHEN. Thank you, sir.

The CHAIRMAN. Thank you.

The subcommittee will now stand in recess until 10 o'clock Monday morning.

(Whereupon, at 11:45 o'clock the subcommittee was recessed, to reconvene at 10 a.m. Monday, August 26, 1963.)

MEDICAL, DENTAL, AND PUBLIC HEALTH TEACHING FACILITIES

MONDAY, AUGUST 26, 1963

U.S. SENATE,
SUBCOMMITTEE ON HEALTH OF THE
COMMITTEE ON LABOR AND PUBLIC WELFARE,
Washington, D.C.

The subcommittee met, pursuant to recess, at 10:02 a.m., in room 4232, New Senate Office Building, Senator Lister Hill (chairman of the full committee) presiding.

Present: Senators Hill (presiding), Pell, and Yarborough.

Committee staff members present: Stewart E. McClure, chief clerk; John S. Forsythe, general counsel; Robert W. Barclay, professional staff member of the subcommittee; and Raymond D. Hurley, minority associate counsel.

The CHAIRMAN. The subcommittee will come to order.

We have first Dr. Homer D. Babbidge, a member of the American Council on Education.

Dr. Babbidge?

STATEMENT OF DR. HOMER D. BABIDGE, PRESIDENT, UNIVERSITY OF CONNECTICUT, ON BEHALF OF THE AMERICAN COUNCIL ON EDUCATION

Dr. BABIDGE. Yes, sir.

The CHAIRMAN. Will you come around, please, Doctor?

You are currently president of the University of Connecticut, are you not?

Dr. BABIDGE. I am.

The CHAIRMAN. Well, you have been with us in the past and we are vrey glad to have you back again.

Dr. BABIDGE. Thank you, sir.

The CHAIRMAN. You may proceed now in your own way.

Dr. BABIDGE. It is a great pleasure to be here, Senator Hill.

I am Homer D. Babbidge, president of the University of Connecticut. I appear before you today as a representative of the American Council on Education, a national oragnization in higher education.

I have a prepared statement, Mr. Chairman, which I should like to make available to you for the record.

The CHAIRMAN. We will have that appear in full in the record, Doctor. (See p. 207.)

Dr. BABIDGE. Thank you.

The CHAIRMAN. And you may proceed in your own way to make any supplemental statements you may see fit.

Dr. BABBIDGE. Among the more than 1,000 educational institutions with membership in the council are all those accredited universities that have schools of medicine and dentistry.

This subcommittee has three bills pending before it that would provide assistance for the construction of teaching facilities in the health professions and would also provide loans for students preparing to enter the health professions. The bills are S. 911 introduced by Senator Hill, the chairman of the subcommittee, S. 470 introduced by Senator Ribicoff, and H.R. 12 introduced by Representative Harris, of Arkansas, and passed by the House on April 24. The two Senate bills are identical, but the House bill differs from the Senate bills in one or two particulars. Basically, the purpose of all these bills is the same: to provide matching grants to colleges and universities for construction of academic facilities required in the teaching of medicine, dentistry, public health, nursing, and other health professions; and to establish a special student loan fund for medical, dental, and osteopathic students.

The American Council on Education supports the purposes of these bills, particularly as they relate to construction of teaching facilities in the health professions. Our policy with respect to loans for students in certain of the health professions is less explicit, although the council generally believes that there is need for appropriate Federal action to lower the financial barriers to higher education for qualified students. Certainly, this should include easing the financial burden of obtaining education in medicine, dentistry, or osteopathy where tuition tends to be much higher than tuition for other fields of instruction, where a longer period of training is involved, and where internship and residency requirements postpone the time when income is adequate to support the young professional man or woman.

The urgent need for Federal assistance for the construction of teaching facilities in the health professions has been documented before this subcommittee by other witnesses representing the various health professions. As the members of this subcommittee are well aware, the colleges and universities to which professional schools in the health fields are attached are desperately in need for funds to expand all of their academic facilities, graduate and undergraduate, as well as in the professional fields. In the case of institutions such as my own, and this situation also obtains in some other States, we are trying to establish a medical school where there has not been one before. Again, this must be done while we are trying to meet the need for expansion of all the academic facilities of the university. Thus, the university president who is planning to expand his facilities for instruction in the health professions or to build new facilities, must weigh this demand upon his institution's sources of financial support, whether public or private, with other equally pressing demands for construction of classrooms, libraries, and laboratories for undergraduate instruction and in other graduate and professional fields.

S. 911, S. 470, and H.R. 12 recognize that there are two ways to develop additional training facilities for the health professions. The first is the creation of new schools of medicine, dentistry, nursing, and so forth; the second is through expansion and improvement of

existing facilities. Those who have studied this problem closely realize that substantial progress in providing new facilities will depend upon aid from the Federal Government, since this is the only way to meet the tremendous cost involved.

It should be pointed out, too, that although the creation of new schools for the health professions would make possible an eventual increase in the number of persons in these professions; a more immediate gain can be secured through the encouragement which the proposed legislation would give to the existing schools to undertake substantial expansion. In this connection, I might comment that the bills before the subcommittee are on sound ground in recognizing through variable matching the need for stimulating the expansion of existing facilities on the one hand while encouraging the construction of new facilities where they do not exist (as is the situation with my own institution), on the other.

Let me discuss briefly the student loan features of the three bills pending before this subcommittee. Certainly it is essential not only to create more training facilities for the health professions, but also to recruit additional well-qualified students to these professions. Loans for students enrolled in schools of medicine and dentistry would open up training opportunities in the health professions to many young men and women who, for financial reasons, cannot now consider such training. The health professions, especially medicine and dentistry, are attracting fewer and fewer young people who come from families with limited incomes. The low interest rate and the generous period for repayment proposed in the pending bills parallel the loan provisions of the National Defense Education Act, but there is a difference between the Senate bills and the House bill with respect to forgiveness of a portion of this loan in the case of those borrowers who later undertake professional practice under special circumstances. Having had some experience with the administration of student assistance programs as an official of Yale University and later as an official of the U.S. Office of Education, I should like to suggest that the subcommittee consider carefully whether it is advisable to extend the concept of loan forgiveness to professions where the expectation of income is somewhat higher than, say, in teaching. My raising this question does not mean that I am opposed to the loan forgiveness feature in the two Senate bills, nor does it mean that the American Council on Education is opposed to loan forgiveness; but I do think we should examine carefully the analogy that is being drawn between loan forgiveness for teaching as defined in the National Defense Education Act and loan forgiveness for certain kinds of service as a doctor, dentist, or osteopath.

I should like also to suggest that, since the costs to the individual student of medical and dental education approximate \$4,000 per year, the limitation in the bill of \$2,000 on borrowing in a single year should be reviewed. It should be noted, too, that although other non-Federal loan programs have been instituted for medical students, higher rates of interest and the absence of provisions similar to those in S. 911, S. 470, and H.R. 12 reduce the attractiveness of such loans for young people from low-income families. Many highly qualified students who lack financial resources are reluctant to undertake the large debt which they would incur for financing their entire medical education through most existing plans.

Finally, I should like to call the subcommittee's attention to the provisions in section 712 of S. 911 and S. 470 for the construction of—

The CHAIRMAN. Doctor, I wish you would discuss the loan features of these bills a little bit, as to what your feeling is as to the need for the loan provisions—

Dr. BABIDGE. I think there is no question at all—

The CHAIRMAN (continuing). Because you have had considerable experience in this field.

You were down at HEW for some years before you became president of the University of Connecticut, were you not?

Dr. BABIDGE. Yes, I was, and in that capacity I was responsible for the student loan program of the National Defense Education Act which, I gather, the provisions in your bill and Senator Ribicoff's bill are based on.

I think there is no question, Mr. Chairman, that there is a great need for additional financial assistance for students in the health professions.

The mounting costs of education at all levels and especially at professional levels are such that steps should be taken to lower the economic barriers to the successful completion of these professional courses.

The Federal loan, long-term low-interest loan, is a well-accepted device, thanks to our happy experience with the financial program—

The CHAIRMAN. It worked out well under the National Defense Education Act, did it not?

Dr. BABIDGE. I believe it has worked out extremely well.

Certainly in my association with it, it has been a most helpful piece of Federal legislation, and I can certainly say from the institutional standpoint, at the University of Connecticut it has been an enormous help to us in assisting needy students. I should like very much to see special attention drawn, as your bill would, to the acute financial problems that confront students in the health professions.

As I say, the present ceiling in your bill and in Senator Ribicoff's bill, of \$2,000 for any one year for any one student, does seem to me to be a low ceiling in view of the fact that the annual costs to the student are perhaps double that.

My statement does express the hope that the subcommittee will look carefully at the forgiveness feature as it is embodied in the pending bills.

We question whether or not the analogy to the National Defense Education Act in this respect is entirely valid, but we certainly would like to be on record as favoring legislation which would help to lower the economic barriers to the successful completion of study in the health sciences.

I should like, therefore, Mr. Chairman, simply to indicate the strong support of the American Council on Education, the Association of State Universities and Land-Grant Colleges, and the State University Association, as well as my very strong personal support, for the legislation now under consideration.

The CHAIRMAN. Well, Doctor, we want to thank you very much for your testimony.

I know of your experience and the authority, therefore, with which you speak. We are very happy to have you here today and to have your testimony.

Thank you very much.

Dr. BABBIDGE. Thank you, very much.

(The prepared statement of Dr. Babbidge is as follows:)

PREPARED STATEMENT OF HOMER D. BABBIDGE, PRESIDENT, UNIVERSITY OF CONNECTICUT, STORRS, CONN., REPRESENTING THE AMERICAN COUNCIL ON EDUCATION

Mr. Chairman and members of the subcommittee. I am Homer D. Babbidge, president of the University of Connecticut. I appear before you today as a representative of the American Council on Education, a national organization in higher education. Among the more than 1,000 educational institutions with membership in the council are all those accredited universities that have schools of medicine and dentistry.

This subcommittee has three bills pending before it that would provide assistance for the construction of teaching facilities in the health professions and would also provide loans for students preparing to enter the health professions. The bills are S. 911, introduced by Senator Hill, the chairman of the subcommittee; S. 470, introduced by Senator Ribicoff; and H.R. 12, introduced by Representative Harris of Arkansas and passed by the House on April 24. The two Senate bills are identical, but the House differs from the Senate bills in one or two particulars. Basically, the purpose of all these bills is the same: To provide matching grants to colleges and universities for construction of academic facilities required in the teaching of medicine, dentistry, public health, nursing, and other health professions; and to establish a special student loan fund for medical, dental, and osteopathic students.

The American Council on Education supports the purposes of these bills, particularly as they relate to construction of teaching facilities in the health professions. Our policy with respect to loans for students in certain of the health professions is less explicit, although the council generally believes that there is need for appropriate Federal action to lower the financial barriers to higher education for qualified students. Certainly, this should include easing the financial burden of obtaining education in medicine, dentistry, or osteopathy where tuition tends to be much higher than tuition for other fields of instruction, where a longer period of training is involved, and where internship and residency requirements postpone the time when income is adequate to support the young professional man or woman.

The urgent need for Federal assistance for the construction of teaching facilities in the health professions has been documented before this subcommittee by other witnesses representing the various health professions. As the members of this subcommittee are well aware, the colleges and universities to which professional schools in the health fields are attached are, for the most part, desperately in need for funds to expand all of their academic facilities, graduate and undergraduate, as well as in the professional fields. In the case of institutions such as my own, and this situation also obtains in some other States, we are trying to establish a medical school where there has not been one before. Again, this must be done while we are trying to meet the need for expansion of all the academic facilities of the university. Thus, the university president who is planning to expand his facilities for instruction in the health professions or to build new facilities, must weigh this demand upon his institution's sources of financial support, whether public or private, with other equally pressing demands for construction of classrooms, libraries, and laboratories for undergraduate instruction and in other graduate and professional fields.

S. 911, S. 470, and H.R. 12 recognize that there are two ways to develop additional training facilities for the health professions. The first is the creation of new schools of medicine, dentistry, nursing, and so forth; the second is through expansion and improvement of existing facilities. Those who have studied this problem closely realize that substantial progress in providing new facilities will depend upon aid from the Federal Government, since this is the only way to meet the tremendous cost involved.

It should be pointed out, too, that although the creation of new schools for the health professions would make possible an eventual increase in the number of persons in these professions; a more immediate gain can be secured through the encouragement which the proposed legislation would give to the existing schools to undertake substantial expansion. In this connection, I might comment that

the bills before the subcommittee are on sound ground in recognizing through variable matching the need for stimulating the expansion of existing facilities on the one hand, while encouraging the construction of new facilities where they do not exist (as is the situation with my own institution), on the other.

Let me discuss briefly the student loan features of the three bills pending before this subcommittee. Certainly it is essential not only to create more training facilities for the health professions, but also to recruit additional well-qualified students to these professions. Loans for students enrolled in schools of medicine and dentistry would open up training opportunities in the health professions to many young men and women who, for financial reasons, cannot now consider such training. The health professions, especially medicine and dentistry, are attracting fewer and fewer young people who come from families with limited incomes. The low interest rate and the generous period of repayment proposed in the pending bills parallel the loan provisions of the National Defense Education Act, but there is a difference between the Senate bills and the House bill with respect to forgiveness of a portion of this loan in the case of those borrowers who later undertake professional practice under special circumstances. Having had some experience with the administration of student assistance programs, as an official of Yale University and later as an official of the U.S. Office of Education, I should like to suggest that the subcommittee consider carefully whether it is advisable to extend the concept of loan forgiveness to professions where the expectation of income is somewhat higher than, say, in teaching. My raising this question does not mean that I am opposed to the loan forgiveness feature in the two Senate bills, nor does it mean that the American Council on Education is opposed to loan forgiveness; but I do think we should examine carefully the analogy that is being drawn between loan forgiveness for teaching as defined in the National Defense Education Act and loan forgiveness for certain kinds of service as a doctor, dentist, or osteopath.

I should like also to suggest that, since the costs to the individual student of medical and dental education approximate \$4,000 per year, the limitation in the bill of \$2,000 on borrowing in a single year should be reviewed. It should be noted, too, that although other non-Federal loan programs have been instituted for medical students, higher rates of interest and the absence of provisions similar to those in S. 911, S. 470, and H.R. 12 reduce the attractiveness of such loans for young people from low-income families. Many highly qualified students who lack financial resources are reluctant to undertake the large debt which they would incur for financing their entire medical education for most existing plans.

Finally, I should like to call the subcommittee's attention to the provisions in section 712 of S. 911 and S. 470 for the construction of regional facilities for research in the health fields. Assistance for teaching facilities in the health professions and for students in certain of these professions as proposed in the first part of the bills pending before the subcommittee must be complemented by programs of research in the development of sciences that underlie the practice of the health professions. Teaching and research are inseparable, and we cannot expect to prepare more students to enter the health professions unless we at the same time support the development of new knowledge in the health professions and of persons to impart this knowledge to successive generations of students in the health professions.

The American Council on Education urges the enactment of the proposed health professions educational assistance act of 1963. I hardly need emphasize that teaching facilities in medicine, dentistry, and the other health professions are not only much more costly than other kinds of academic facilities, but also take more time to plan and build because of their complexity. I hope, therefore, that we may see favorable action on the legislation pending before this subcommittee before the end of this session of the 88th Congress.

I appreciate the opportunity to appear before the subcommittee.

The CHAIRMAN. Dr. W. T. S. Thorp, of the American Veterinary Medical Association. Dr. Thorp is dean of the College of Veterinary Medicine, the University of Minnesota.

Dr. Thorp, we are very happy to have you here.

Dr. THORP. Thank you.

The CHAIRMAN. You may proceed now in your own way, sir.

STATEMENT OF DR. W. T. S. THORP, ON BEHALF OF THE AMERICAN VETERINARY MEDICAL ASSOCIATION

Dr. THORP. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I am appearing on behalf of the American Veterinary Medical Association as chairman of their joint committee on veterinary education, and I am also dean of the College of Veterinary Medicine, University of Minnesota, St. Paul, Minn.

A brief prepared statement of this joint committee has been forwarded to the committee staff, and we are asking that this be placed in the record of the hearings on S. 911 and H.R. 12 with the additional information I wish to present at this time.

The CHAIRMAN. All right, sir. We will have that appear in the record in full. (See p. 212.)

Dr. THORP. The material that I am going to give this morning will be a brief supplement to that for the record.

The CHAIRMAN. Thank you.

Dr. THORP. The committee and the American Veterinary Medical Association have followed very closely the development of the proposed legislation represented by H.R. 12 and S. 911. As you may or may not know, there were proposals for veterinary medical educational facilities in the 87th Congress, specifically S. 1393 and H.R. 2451. It was the decision of the American Veterinary Medical Association and others that, due to the specific needs of veterinary medicine, their importance to the health and welfare of the people in this country, and the history of the part of veterinary medicine to be included in legislation for medicine, dentistry, and osteopathy, to introduce separate bills in the 87th Congress. It is the intent that these will be reintroduced in the 88th Congress based upon additional information. A draft of the needs in veterinary medical education in the form of a proposed bill is being called to the attention of the Members of the Senate and the House; therefore, I wish to make it clear that we are not asking at this time for an amendment to S. 911. We are only asking that the needs in veterinary medical education be included in the record of these hearings as an indication of intent. Detailed information will be provided more extensively at future hearings which we hope to be favored with.

Physicians and scientists have long recognized that the several branches of medicine, including veterinary medicine, are essentially inseparable for man is biologically classified as a member of the animal kingdom. Knowledge of the basic life processes involved in health and disease are applicable to both man and the lower animals. This is emphasized by the utilization of millions of animals in health research and the large number of research grants being made for comparative medical studies of diseases common to animals and man as well as those transmissible to man. The Science Information Exchange reports there is between \$4 and \$5 million in project grants in veterinary schools and departments of veterinary medicine.

The interrelationship between man and animals and between human medicine and veterinary medicine has never before been recognized so clearly as during the last decade, and by increased study in this relationship and application of the knowledge gained, significant and far-

reaching contributions to the health and welfare of man are being made. A report by a committee of consultants entitled "Federal Support of Medical Research," May 1960, to the Committee on Appropriations of the U.S. Senate said "less than half of the basic medical research in this country will be done by physicians and dentists." This substantiates the fact which many have known for some time that much of the basic medical and biological research is carried on by highly trained individuals without a medical degree.

The colleges of veterinary medicines are the sources not only of those who will participate in public health work, laboratory animal medicine, and basic medical science but those who will carry on research as a part of a research team. This research will deal with studies on various types of cancer, including leukemia, cardiovascular disease, air pollution, radiobiology, toxicology, and space medicine.

It has been estimated that by 1980 we will need 47,250 veterinarians to carry on the increasing responsibility of the veterinary profession not only to agriculture but primarily to those extended areas of applied public health, health research, and the application of veterinary medical skills to problems having a human-animal relationship.

The needs of veterinary medical schools and colleges, as in all science the future is determined by the skill of its manpower and by the adequacy and effectiveness of the undergraduate and postgraduate training. This Nation's 18 veterinary medical colleges are the most advanced in the world. We would, however, be the first to concede the problems in meeting the needs for today and tomorrow.

The doctor of veterinary medicine spends an average of 7 years in college acquiring his education. Two to four of preprofessional study followed by 4 years of the professional curriculum in 1 of the 18 colleges of veterinary medicine.

Scholarships and fellowships should be provided for veterinary medicine as they are being provided for other branches of medicine. It is necessary that we attract young people with ability and dedication to this area of medicine to fill the increasing needs for improving the health and welfare of this Nation and our neighbors. Educational opportunities for those individuals with ability in areas which will not eventually be affected by automation is worthy of consideration. We need to double the opportunity for high school graduates to avail themselves of an education when there is demonstrated ability. Further than automation due to the changes in agriculture only 1 or 2 out of 10 high school graduates of rural areas will remain on the farm. These individuals with the qualifications and the ability, most of which have had some experience with animals, are ideal candidates for training in the health professions, especially veterinary medicine; thus, anything that we can do to provide these educational opportunities by scholarships and fellowships, but primary loans for those with a professional ability, should be given every consideration.

Another very important new dimension for the veterinarian is what is now known as laboratory animal medicine including the management of laboratory animals. Some 37 million animals—mice, rats, rabbits, guinea pigs, monkeys, chimpanzees, dogs and cats, and others—are employed each year as a tool with which scientists carry on medical research. These are being used to screen cancer-causing

agents and anticancer activity of certain chemicals, measuring the effects of radioactivity, and studying the reactions of the living organism in space. The adequacy and effectiveness of this activity by members of the veterinary profession is dependent upon the adequacy and the facilities available to train the veterinarians for this responsibility, not only the undergraduate who may make his contributions in practice, but those in postgraduate training.

In the 1962-63 academic year there were 4,016 students studying for the doctor of veterinary medicine degree enrolled in the 18 veterinary medical schools. A new nonfunctioning college of veterinary medicine has been established at Louisiana State University, although construction dates are indefinite.

You are well acquainted with the role and significance that veterinary medicine plays in the well-being of the people of the United States in maintaining high standards to insure wholesome and safe food of animal origin. You are also aware that veterinary medicine is the indispensable guardian of a vast livestock and poultry industry providing the protein foods to maintain the health of man. Of the 21,565 veterinarians in the United States engaged in some aspect of veterinary medicine, 14,000 to 15,000 are in private practice. The veterinarian in private practice is the first recourse for owners of livestock and other animals when illness strikes their animals. The dollar value of livestock and poultry per each veterinarian in the United States is \$888,270. The practicing veterinarian is the first to observe signs of animal disease that may be a threat to the human health and welfare of this Nation.

There are more than 100 animal diseases that may be transmissible to man. As any of these are controlled or eliminated a source of disease for man is also controlled or eliminated. Veterinarians have participated in research which has provided new knowledge of tuberculosis, brucellosis, sleeping sickness, hookworm disease, leptospirosis, and other diseases transmissible to man from animals. Others of importance are rabies, insect-born virus encephalitis in which man and horses may be accidental hosts.

As we have tried to indicate, both in this presentation and in the statement for the record, the prime limiting factor in our veterinary medical institutions is one of educational facilities. I can use as an example the University of Minnesota College of Veterinary Medicine where we have not been able to increase the number of students in the undergraduate veterinary curriculum and where we have had to turn down doctors of veterinary medicine seeking postgraduate education, although they had Public Health Service fellowship support, even though we do have one of the largest graduate programs among the colleges in the country. Related to this there are projects relative to all types of research in which these individuals wish to carry out a specialized career but are unable to do so because of the lack of physical facilities.

The National Institutes of Health health research facilities program has provided about \$5 million of research space for veterinary medicine. As a member of this council there is about another \$3 million of approved grants for research facilities which has not been funded. This program has provided about \$10 million of animal facilities for all types of medical institutions. About another \$10

million remains to be funded. This fact, and the development of laboratory animal medicine and improved animal care does not justify restrictive legislation in this area of animal research.

In closing may I express to the chairman and members of the subcommittee my personal thanks and that of the American Veterinary Medical Association for the opportunity to appear before you and place in the records of these hearings the problems and needs of veterinary medicine and our intent at trying to solve them. Further, on behalf of the American Veterinary Medical Association we pledge our fullest cooperation to this committee or any other to provide additional information concerning the facilities and needs of veterinary medical education so that we can better serve the Nation. As one of the medical professions we do appreciate this opportunity.

Thank you.

And I want to emphasize again that we are not asking for an amendment to H.R. 12 or S. 911. This is a matter of intent and an expression of our needs.

I thank you very much.

(The prepared statement of Dr. W. T. S. Thorp follows:)

PREPARED STATEMENT OF DR. W. T. S. THORP, CHAIRMAN, JOINT COMMITTEE ON
EDUCATION OF THE AMERICAN VETERINARY MEDICAL ASSOCIATION

The expended dimensions and horizons of modern veterinary medicine demand educational facilities never envisioned in the early days of this profession, much the same as human medicine. The teaching, research, and professional activities in veterinary medicine are inseparable from the problems of human medicine and public health. To illustrate this relationship, Dr. Luther L. Terry, Surgeon General, Public Health Service, in his address, "A Century's Progress in Public Health," is given on the occasion of the centennial of organized veterinary medicine, stated:

"For in my review of your past as a profession, I am also reviewing my own branch of the medical profession. And as I turn through the moment of the present to look into the future, I can predict with confidence that your profession and mine will continue to move forward together, learning from each other and reinforcing each other. We share common achievements, and a common challenge. The 100th anniversary of organized veterinary medicine is, in the fullest sense, a centennial in public health."

The veterinary medical profession has definite responsibilities in safeguarding the health of the people of this country, although not obvious to the general public. It is true that the veterinary profession has a definite responsibility to the animal industry of the Nation; however, the development of present-day medicine has placed this profession in a responsible position from the standpoint of our general health and welfare.

The expanded horizons of public health have required veterinary medicine to bring its special knowledge and skills to bear on problems having human-animal interrelationships. Although the veterinary schools have increased in the past two decades from 10 to 18, the ratio of veterinarians to each 100,000 population has decreased in spite of this increase in veterinary medical facilities. The fact that veterinary education facilities to train doctors of veterinary medicine cannot keep pace with the growth of the total U.S. population poses a problem of national concern and one needing careful consideration by this Congress.

To meet the needs of an increase in the activities in public health and other fields in North America by 1980, we will need 1.75 veterinarians per 10,000 population or approximately 47,250. It is estimated that of this increased number, 35,000 will be required by the United States. There are at present 21,565 veterinarians in the Nation. A recently completed survey of each of the 18 colleges of veterinary medicine indicates that the firmly estimated needs for construction and facilities for the next 10 years will total \$145 million. These range from \$500,000 to \$31 million, most approximating \$5 to \$10 million.

The demands for personnel making up the professions of the health sciences have increased markedly. The expanded dimensions of veterinary medicine are

part of this demand creating new areas of specialization in public health, space medicine, radiation research, and in laboratory animal medicine. The urgent need for veterinarians in general medical research has led a number of schools of medicine to offer specialized postgraduate training in laboratory animal medicine as well as radiobiology, cardiovascular disease, pathology, neurology, toxicology and environmental health for veterinary graduates. In addition to laboratory animal medicine, those veterinarians with special training indicated above are participating as members of health-research teams in all types of institutions. This includes our larger medical centers and colleges, the National Institutes of Health, the Communicable Disease Center of the U.S. Public Health Service, laboratories such as the Argonne National Laboratory, the Brookhaven National Laboratory of the Associated Universities, and the U.S. Department of Agriculture.

As of March 1, 1962, there were 21,565 veterinarians in the United States, a ratio of 11.1 veterinarians for each 100,000 persons in the United States; however, there are only 10.5 non-Federal employed veterinarians for 100,000 persons in the United States. The number of veterinarians relative to population varies a great deal in certain sections of the country.

There is a need for additional veterinarians in governmental programs and research institutions. There is a current shortage of about 535 veterinarians reported by State and local health departments and the U.S. Public Health Service. We still have many problems requiring personnel from the health professions including veterinary medicine. This last March two lives were lost in Detroit under a situation which is incredible in our civilization. Health problems in animals parallel those of man in many instances. A few examples: the epidemiology of cancer in animals, the isolation of viruses producing avian leukemia, bovine lymphomatosis, canine mast cell tumors, mouse polyomas, and bovine warts. Some of these have the ability to produce tumors in other animals.

As a member of Secretary Freeman's Agriculture Science Advisory Committee for the past year, in making a study of the animal disease and parasite research program and others in the agricultural research service needing veterinarians, it was determined that there is a marked shortage of veterinary medical personnel available to the Department of Agriculture. The total needs in this area are approximately 400 within the next 5 years. The work conducted by these veterinarians, for the most part, is related to diseases important to man. Diseases of animals can deprive man of animal proteins that are essential to his nutrition and health; thus diseases of animals may adversely affect human health. We enjoy in the United States high standards of animal health which prevent these losses; nevertheless, in spite of the efforts of the U.S. Department of Agriculture's veterinary medical personnel, there was an annual loss of \$2.7 billion from animal diseases during the years 1942-51.

The demands for veterinary medical service in rural areas is not completely met by the professionally trained veterinarians graduated by the 18 institutions. The question raised about a veterinary personnel ratio to population as a measure of need, particularly in those areas where livestock production is primary industry, could be a meaningful measure; however, in every State the demands for veterinary service in the fields of public health, the basic medical sciences, and others justifies the use of population ratios as an index of inadequacy.

The present-day veterinarian, who has spent 6 to 8 years in acquiring his education, 2 years minimum preveterinary work and 4 years in the colleges and schools of veterinary medicine, in essence becomes an arm of public health in his day-to-day practice.

The veterinary medical profession provides benefits to human health in several broad areas: (1) The removal of animal reservoirs of infection to man through the eradication and control of those diseases transmissible to man; (2) The development of preventatives or treatments for animals that can be adapted for use in human medicine; (3) Programs in food hygiene that protect the consumer against foodborne diseases; (4) Participation in the basic medical sciences in elucidating the disease processes in animals, especially analogous or similar to those in man.

Basic medical science is finding more and more evidence of domestic and wild animals acting as a reservoir for agents which may and do affect the human population. If one is to look at the weekly morbidity and mortality reports of the Public Health Service, of the Department of Health, Education, and Welfare, you will note that there is a consistent reference to brucellosis in humans, animal rabies trends, and very frequently the observation of infectious

disease in animals which is similar or identical to the agents which may affect man.

This last spring in Illinois, Florida, New York, Delaware, Ohio, and Kentucky there were outbreaks of equine influenza in horses which were called to the attention of veterinarians in research institutions and at the Communicable Disease Center of the Public Health Service. It was shown that the agent belonged to the type A influenza group. Dr. Shope in his early work pointed out that the influenza virus in swine was similar to the agent which caused the 1918-1919 pandemic of influenza in man. Subsequently, there has been evidence of other types in swine and more recently investigators have revealed that swine, sheep, and horses are susceptible to the Asian-type influenza virus, also horses are reported to have developed a clinical disease when exposed to these agents. These are only a few examples of the role that veterinary medicine plays, not only in its day-to-day practice but in our Government, teaching and research institutions that carry on activities related to human health.

The increased funds available for medical research in the past two decades have provided the institutions employing veterinarians an opportunity to carry out research in what can be considered the grey area between that research strictly related to human medicine and research related to animal disease per se. In practically all of our veterinary schools and colleges there are projects supported by Government agencies dealing with those diseases similar or related to human disease.

It is not by chance that the National Institutes of Health has made numerous grants to veterinary medical colleges and departments of science throughout the Nation. These range from several thousands of dollars to \$1 million on cardiovascular disease. This speaks well for the role of the veterinary medical profession in our universities when in the granting process these project applications are in competition with those from outstanding medical centers. It is an indication of the recognition on the part of the medical sciences on the need for veterinary medical know-how in the fight against diseases of all types in both man and animal. The veterinarian is adding materially to our basic medical knowledge when working on those diseases similar or transmissible to man.

The Subcommittee on Reorganization and International Organizations of the Committee on Government Operations, U.S. Senate, in its report of August 10, 1961 entitled "Veterinary Medical Science and Human Health" provides extensive information on the place of the veterinary medical profession in the control of animal and human disease. Further, in April 1960, during the preparation of the report, Senator Humphrey stated in introducing legislation to construct veterinary medical schools that, "The two are inseparable, human health and the health of animals, whether most laymen recognize this fact or not."

This publication by the Senate committee and staff is considered by the veterinary medical profession as an "encyclopedia" of veterinary activities. It includes work of the veterinary medical profession not only in the United States but from an international standpoint.

There are many ways in which the doctor of veterinary medicine and the doctor of human medicine are essential collaborators in their professional activities leading to the control of certain human disease. These are in the area of epidemiology, drugs and biologics, disease prevention and control, basic medical research, laboratory animal research, and in teaching. One has the definite impression when reviewing these reports in detail that we are more and more coming to the realization expressed by Sir William Osler that in reality there is only one medicine.

The recently expanded veterinary medical activity in the field of laboratory animal medicine and participation in basic medical research is a logical one which has been recognized for the best part of the past century. Seventy-five years ago Rudolph Virchow made the statement, "Between animal and human medicine there is no dividing line nor should there be. The object is different but the experience obtained constitutes the basis of all medicine."

There have been many instances where valuable contributions to science and to medicine have been made whether the worker was a physician or veterinarian. The demonstration that ticks transmitted Texas fever, by Drs. Theobald Smith and Cooper Curtice, gave important impetus and in fact showed the way for the control of yellow fever and malaria. Veterinarians were pioneers in the development of tetanus toxoids and diphtheria toxoids. The discovery

by Dr. Maurice Hall of the efficacy of carbon tetrachloride for hookworm in dogs was followed by its use as a therapeutic agent for humans. His associate, Dr. Willard Wright, of the National Institutes of Health likewise made outstanding contributions to medical science in the field of tropical medicine. Medical men of vision and foresight always have believed that the medical sciences, human and veterinary, are based on the same fundamental principles, that the fields of human and veterinary medicine are complementary and that the veterinarian has a wide and important place in society.

There are approximately 250 veterinarians engaged in laboratory animal medicine to a varying degree throughout the United States. These are in all types of medical research institutions, Government, State and local, as well as the pharmaceutical industry. The demand is steadily increasing in this field.

In 1959 to 1960, 7 percent of all veterinary graduates were engaged in graduate studies. Although this has undoubtedly increased in the past 2 years, nevertheless it has not been possible to increase significantly the number of graduate students following the D.V.M. degree who ultimately will be the leaders in research, teaching, and specialized activities such as veterinary pathologists, public health veterinarians, and workers in laboratory animal medicine. The training grant program of the National Institutes of Health has made possible some increase in the graduate enrollment in the schools and colleges of veterinary medicine.

The expansion of facilities in our veterinary medical schools becomes even more important when we consider this graduate program and the training of additional veterinarians, a percentage of whom will become engaged in research directly related to man. The report of the Committee on Federal Support of Medical Research and the Subcommittee on Departments of Labor, and Health, Education, and Welfare of May 1960, indicates physicians and dentists constitute less than half of the professional personnel engaged in medical research and will continue to do so. It would appear that the increase in graduates with the doctor of veterinary medicine degree with or without special training is an important part of the whole medical manpower situation, particularly as it involves the research necessary to control many of our human and animal diseases.

SUMMARY

The statement of the joint committee has attempted to point out a few of the interrelations with human medicine in a large number of areas, many of which are highly technical. Aid to veterinary medical education is not a matter of building or expanding each medical school or more veterinary schools but is one of meeting the Nation's health needs.

The American Veterinary Medical Association is of the firm opinion that the maximum medical and scientific potential of this country cannot be reached without meeting the needs of teaching and research for their branch of the health profession. While the research, teaching, and professional activities in the field of veterinary medicine are closely related to and in many instances inseparable from the problems of human medicine and public health, there is a rapidly expanding demand for the services of highly trained veterinarians in disciplines falling within the broad definition of public health. To meet these needs of the Nation, it is necessary that the educational facilities first, and in turn the research facilities, be expanded.

The CHAIRMAN. Doctor, we want to thank you for your statement.

I was very much interested in what you had to say about medical research and the contributions of the doctors of veterinary medicine to medical research in the conquest of disease.

I might say that just the other evening I was reading one of the medical journals which had a most interesting article, enumerating a number of the fine contributions that the doctors of veterinary medicine have made to the medical research and to the conquest of disease.

The truth of the matter is that we are all in this together, are we not?

Dr. THORP. That is right.

The CHAIRMAN. I was saying to some friends the other day that we seem to forget the fact that man is an animal. He is a more intelligent animal, of course, much more intelligent than other animals. But,

when you get into this field of biology, you find out that what happens to one animal may often throw light on what will happen to other animals.

Dr. THORP. That is right.

There are certain diseases in our animal kingdom that are very similar to the diseases of mankind, for instance, certain types of leukemia and arthritis and there are other examples. And there are diseases that go directly from animal to man.

The CHAIRMAN. Doctor, you have been speaking of laboratory animals. I may say that one of the problems posed before this committee is the matter of better care and treatment for laboratory animals. I realize that that is off the subject that we now have under discussion, but I am sure you have thought about this matter, and if you have some ideas or suggestions we would be very glad to hear from you at some future time with reference to them.

Dr. THORP. All I would like to say in connection with that is that there has been a committee on animal care or a panel made up of veterinarians and other people who came up with a guide on the facilities and care of laboratory animals, which is just recently available.

It has been my observation that a lot of individuals have made strides in the improvement of facilities, not only from the standpoint of the animal but from the standpoint of better research in the past 10 years, let's say.

The CHAIRMAN. I am sure there are cases though where we need still better improvement.

Is that not true?

Dr. THORP. There are cases where we need better facilities. I was chairman of a committee of the National Research Council that did a survey and, as you labeled the facilities, as you looked at various institutions, it was in direct relation to the number of dollars that were available to build the facilities and do the job.

The CHAIRMAN. Senator Pell?

Senator PELL. No questions. Thank you, Mr. Chairman.

The CHAIRMAN. Well, Doctor, we certainly appreciate your coming here and giving us this very helpful statement.

We thank you very, very much.

Dr. THORP. Thank you.

The CHAIRMAN. Senator Williams was unable to be here this morning but he asked me to include a statement in the record for him that he has here and it will be inserted in the record at this point.

(The statement by Senator Harrison Williams follows:)

STATEMENT OF HON. HARRISON A. WILLIAMS, JR., A U.S. SENATOR FROM THE STATE OF NEW JERSEY

Mr. Chairman, in this day and age there can be no argument about the importance of good vision for all of our citizens, both young and old. Unfortunately, like so many things that come naturally, we fail to recognize the importance of caring for our eyesight until trouble develops.

For most of us, the first symptoms come when we find our arms are not long enough to hold the newspaper that we are reading or that the telephone company in printing its latest directory has attempted to economize by reducing the size of its print.

Fortunately, there is a substantial group of our citizens who have been trained as optometrists to detect our visual anomalies and by means of various types of lenses or vision training preserve and improve our seeing capabilities.

These men and women are well educated and dedicated to the service of the public, and today approximately 75 percent of all Americans visit optometrists when they seek vision care. Unfortunately, however, in many regions of our country optometrists are in short supply. With our rapidly expanding population, we should be training more optometrists. But this is not the case. In fact, during the past few years the number of optometric graduates has been less than the number who, through death or retirement, have left the ranks of the active practitioners.

There are only 10 accredited schools and colleges that are training our fellow citizens to render this service, and the optometric curriculum is a long and difficult one. The cost of an optometric education has, moreover, increased to a point where, unless the students come from a family with substantial means, they must rely upon scholarships or go in debt for their education.

The amendments which I have proposed simply authorize the use of Federal funds for student loans to schools and colleges of optometry upon the same terms that they are made available to students of medicine, dentistry and osteopathy. When this legislation was first proposed in the 87th Congress, the bills provided for grants to students in these three health professions. But the bills now under consideration merely provide for interest-bearing loans which are to be repaid in installments, and I think it is important to note that optometrists who have completed their professional education through privately financed student loan funds have an outstanding record for repayment.

I am very gratified that the American Optometric Association supports these amendments, and I am confident, Mr. Chairman, that you and our colleagues will give Dr. Chapman's testimony most careful consideration. I believe that extension of loans to students of optometry would be an essential investment in our country's health care and I urge approval of these amendments.

The CHAIRMAN. Now we are delighted to have with us Congressman Don Fuqua, of Florida, and I am going to ask you if you would like to make a statement to present our next witness.

STATEMENT OF HON. DON FUQUA, A REPRESENTATIVE IN CONGRESS FROM THE NINTH CONGRESSIONAL DISTRICT OF THE STATE OF FLORIDA

Mr. FUQUA. Thank you very much, Senator Hill, and Senator Pell, for extending me this courtesy.

You have, of course, under consideration, the Senate bill and also the House bill relating to the Health Professions Educational Assistance Act of 1963, and included in this bill, as I understand it, is a part relating to our medical schools and also to optometry.

However, we in the House committed a gross error, Senator Hill. We did not include the scholarship provisions or student loan provision for optometrists in this bill.

We did for the medical schools, for the schools of osteopathy, and for the dental schools.

In Florida, as a member of the State legislature, I had the pleasure of working with this group and cointroduced a bill providing for five annual scholarships, up to \$4,000 each for 4 years' attendance at an accredited optometry school.

I feel very strongly about this. We have provisions in this bill that we are asking for the schools to provide 10 percent of the funds for the loan and also to be repayable within 10 years after 3 years of graduation.

There is no forgiveness feature in the bill. They have to be repaid.

We would like very much to have the Senate use better wisdom than the House did and include this portion in the bill.

In the United States we have 1 optometrist for every 12,000 people. Whereas, it is expected that probably the very minimum

of this is 1 for every 7,000. So you can see we are very much behind in this.

We have many other diseases, as we were talking about a few minutes ago, or as you were talking about with the gentleman from the veterinary profession.

Certainly sight preservation is something that we do need to know something about but we are doing very little. We have other diseases and illnesses that we don't know anything about, but we are trying to learn, but this is one field that we know a great deal about.

And I am very proud at this time to have representing this association, the American Optometric Association, not only a constituent of mine, but a very long-time friend of mine that I have worked with on a number of occasions.

And I would like to present to the committee at this time Dr. Judd Chapman of Tallahassee, Fla., so that he may present his testimony in behalf of this bill.

The CHAIRMAN. Thank you, Congressman Fuqua.

May I ask a question, Congressman? How is your loan program? How long has it been in operation now?

Mr. FUQUA. We just passed it in 1961, and we are expecting some students to graduate within the next year.

One other point I would like to add is, as these students come back or as they graduate and as they come to the State Board of Optometry, they assign them to areas in the State that do not have optometrists. That is in most cases some of our rural areas.

Many doctors find it more glamorous and find that they can make more money to go to the larger metropolitan areas, but these go to more rural areas where we really need help.

The CHAIRMAN. Thank you, Congressman.

Now, Dr. Chapman, we would be happy to hear from you.

STATEMENT OF DR. W. JUDD CHAPMAN, O.D., PRESIDENT, AMERICAN OPTOMETRIC ASSOCIATION; ACCOMPANIED BY DR. LAWRENCE FITCH, O.D., PRESIDENT, PENNSYLVANIA STATE COLLEGE OF OPTOMETRY; WILLIAM P. MacCRACKEN, JR., WASHINGTON COUNSEL; AND DAVID C. SHARMAN, DIRECTOR, WASHINGTON OFFICE, AMERICAN OPTOMETRIC ASSOCIATION

Dr. CHAPMAN. Senator Hill, and Senator Pell, and gentlemen, and Congressman Fuqua. Don, thank you so much for the very kind and gracious introduction and for taking the time out of your schedule to appear in my behalf. I appreciate that very much.

Senator, I would like to introduce three gentlemen who accompanied me this morning.

On my right is the president of our Pennsylvania State College of Optometry, in Philadelphia, Dr. Lawrence Fitch. Lawrence has served optometry for many years and particularly in the area of education, as he was a member for many years of our council, the accrediting body.

The CHAIRMAN. We are glad to have you. I am afraid you cannot introduce Mr. MacCracken, however, as he is an old friend of this committee. We have known him very well for a very long time.

Dr. CHAPMAN. He is a very fine friend and has been with optometry for many years as well, and we are indeed pleased to introduce him to this committee as well.

Mr. David C. Sharman, who is the administrative director of our Washington office, is also in the back of the room.

The CHAIRMAN. We would be happy to have him sit at the table with you.

Dr. CHAPMAN. Thank you. Very briefly, Senator, and without referring to written dialog, I would like to informally discuss with you some of the provisions of S. 911, indicating to you that I practice my profession in Tallahassee and, as Congressman Fuqua has indicated, recently I was elevated to the presidency of this association.

I am a member of the American Academy of Optometry. I serve as president of our State board, and I have been privileged over many years to be given the right and the honor to serve optometry in many capacities.

My association represents the 50 State-affiliated associations throughout the country, including the District of Columbia.

We are very pleased to have in our midst over 400 commissioned optometry officers in the various branches of the armed services of this country, and also we have a number of our people who are employed by the various Federal agencies concerned in our field as well.

There are about 20,000 optometrists in this country, of which more than half are members of our association.

I am grateful, sir, for the opportunity of appearing before this committee and supporting the amendment of Senator Williams of New Jersey to S. 911, which makes available to the optometric schools of this country the student loan provisions of part (c) of that bill.

Both H.R. 12 and S. 911 at present make loans available to schools of medicine, osteopathy, and dentistry.

I would like to indicate at this point, gentlemen, that we are deeply concerned about providing, for the vision care and needs of this Nation, well-qualified and well-trained people.

As presently constituted, it requires 2 years of preoptometry and then 3 or 4 years in specialized optometric work, to graduate from our schools.

Dr. Fitch's school has a 6-year course, including all of the preoptometry courses and the graduate work as well.

We are concerned that this type of care and this type of training be extended to greater heights.

Each graduate of these schools must pass a State board examination in all of the States of the Union, and it is a requirement that they have the type of training described before they can even take the State board's examination.

I would indicate here that it is understood that the American Medical Association has made statements regarding the student loan provision as being either impractical or not necessary, but at the same time there has been a contrary opinion expressed by the students of medicine, which indicates that the loan provision is something which they desire.

I would point out in this reference that only 2 percent of these funds, which are being supplied or would be supplied for the implementation of this provision, would be required to carry out the needed requirements of our optometry amendments to the bill.

The CHAIRMAN. Only 2 percent, you say, Doctor?

Dr. CHAPMAN. Yes, sir. That is correct, according to the figures as we have been able to develop them.

I would indicate, too, sir, and gentlemen and Senator Pell, that the interest in optometry in this need for increased students is taking a great deal of the time of this profession.

Individual practitioners, those who serve with us, and the whole ophthalmic industry complex, are making efforts each day for the improvement of this situation, in bringing into our schools additional young men and young women, but we are not able to meet the demands.

As Congressman Fuqua indicated to you, the minimum need is 1 per 7,000, and we are a long way from that. We have the extreme problem of providing vision care to the rural sections of the country.

So many of the practitioners in medicine and veterinary, and optometry, who are concerned in this field, are in the metropolitan areas, and those people in the outlying districts are not able to secure the type of professional care that we want them to have, and I am sure you want them to have.

In a statement before the House committee, when it was considering this bill, Dean Pheiffer of our school of optometry in Houston indicated that in many instances it was impossible for qualified students to take advantage of the education that this fine university offers the optometry student because of the lack of funds to do so.

I would also like to indicate to you as well that the other section of this bill, which has to do with the fabrication of new institutions and the improving of those which already exist, is an additional item for which or with which we are deeply concerned.

We have 10 optometry schools in this Nation, fine schools which are doing a fine job, but there are many sections of our country which need the additional facilities and need schools in which we can train these people to do the job that is so desperately needed in our Nation.

I am going to submit for the record, with your permission, a copy of our "Scholarships in Optometry, 1963," which I will give you, and this will give you and the committee an indication of the interest we have in the field and for the work that we are trying to do in it.

The CHAIRMAN. We will be glad to have that and we will insert it in the record immediately following your remarks. (See p. 239.)

Dr. CHAPMAN. Thank you, sir.

I would like to say, in closing, gentlemen, that as you work with this type of thing each day you become so close to it and so dedicated to it, as I do and as my constituents and colleagues do throughout this Nation, and we recognize that we have a responsibility to fulfill in the work that we do to the people that we serve, and I bring this message to you and I bring this description of our problem to you, certainly not in behalf of my profession alone, but in behalf of those people we serve and the people we will serve in the future who need the care that only the optometric profession can give.

I want to thank you, sir, for the privilege of being here this morning.

The CHAIRMAN. Dr. Chapman, which one of the schools of optometry is the oldest?

Do you recall?

Dr. CHAPMAN. The oldest school, Senator? I expect Dr. Fitch could answer that better.

I suspect yours is, is it not?

Dr. FITCH. No, the Illinois School of Optometry is the oldest school. It was founded somewhere, I believe, around 1890.

Dr. CHAPMAN. It has since changed names. That was my alma mater and it is still in existence.

We have a fine school in Memphis, the Southern College of Optometry, but that is a long way from others in our Southern States, and I suspect in time we are going to be very anxious to have additional facilities there.

The CHAIRMAN. That is about the only one in the South, is it not?

Dr. CHAPMAN. We have one at the University of Houston.

The CHAIRMAN. But they say they are "southwest" out there.

Dr. CHAPMAN. Yes, sir, I understand that. But we would be most happy, Senator, if there are any other specifics regarding our feelings in this matter, with Mr. MacCracken here and Dr. Fitch, to—

The CHAIRMAN. Dr. Fitch, is there anything you would like to say?

Dr. FITCH. I think Dr. Chapman has covered the subject very well. I have nothing to add, thank you, Senator.

The CHAIRMAN. How about you, Mr. MacCracken?

Mr. MACCRACKEN. Senator, I have here a letter dated August 23, addressed to me by Dean Pheiffer, of the University of Houston, and he is telling about a conversation he had with a member of the subcommittee who is not here this morning, Senator Yarborough.

And I thought that it might be of interest to the whole committee if I took the liberty of reading it.

The CHAIRMAN. All right.

Mr. MACCRACKEN. It says:

I informed Senator Yarborough and Mr. Sullivan that of last year's entrant class some 7 percent wrote at the last minute they could not enter for financial reasons.

So far this year some 8 percent of those students, whose applications have been approved, have written stating that they were not able to enter for financial reasons.

The CHAIRMAN. What percentage did you say?

Mr. MACCRACKEN. Eight percent.

The CHAIRMAN. Eight percent?

Mr. MACCRACKEN (reading):

When you consider that our number of approved applications is approximately 80 and the total number of students we can enroll is 50, 8 percent is a sizable portion.

I thought those figures might be worth putting in the record.

I know that Senator Yarborough will not forget them but in the record—

The CHAIRMAN. We are happy to have them. They are very revealing and we are happy to have them in the record.

Mr. MACCRACKEN. Now, Dean Pheiffer testified, I think, before the House committee on H.R. 12.

Dean Hofstetter, of the Indiana School of Optometry, I think, testified before this subcommittee in the 87th Congress.

The CHAIRMAN. Yes, he was here with us.

Dr. CHAPMAN. That is right.

Mr. MACCRACKEN. And Dean Rosenbloom, of Illinois College, testified in the 87th Congress before the House committee on that bill, H.R. 4999.

Now, we have copies of their statements here in case the committee or the staff would like to have them readily available.

I do not think that the proceedings before the subcommittee in the 87th Congress were printed.

The CHAIRMAN. They were not printed. We would be very happy to have copies of those statements.

Mr. MACCRACKEN. I thought it might be convenient.

We have them here, and we will leave them.

The CHAIRMAN. Dr. Chapman, your supplemental statement and these other statements will be inserted in the record at this point.

Dr. CHAPMAN. Thank you.

(The documents referred to follow:)

SUPPLEMENTAL STATEMENT OF W. JUDD CHAPMAN, O.D.

Mr. Chairman, we were asked to contain our oral testimony to 10 minutes, and I have attempted to do so. However, we have received many questions about optometry from Senators, which they say are important to this bill, so, with your permission, I would like that this supplemental statement appear in the record of your hearing.

Before discussing some of the problems we share with the professions of medicine, dentistry, and public health, it might be well for us to briefly present a background picture of our profession so that you will have a better understanding of optometry.

DEVELOPMENT OF THE PROFESSION

The roots of the profession of optometry lie in the history and development of research in physics, mathematics, and optics, as well as in physiology and psychology. Modern optometry, however, really dated from the 19th century, when scientists of that period were busily engaged in Europe in measuring the eye and inventing instruments for testing sight. Developments in the field of refraction led to the refractive testing of the eye, or optometry, in the sense of "diagnosis of refractive error," which first appeared in a textbook in 1870, and in the next 30 years optometry slowly evolved as a specialized vocation to become the independent, autonomous profession which it is today.

In 1897 a national association of optometrists, or practitioners who practiced refraction, was formed in the United States. Its leaders began immediately to campaign for legal recognition of the group and for the establishment and improvement of optometric education facilities.

By 1901 the first State law regulating the practice of optometry was passed in Minnesota. At the present time the practice of optometry is recognized as an independent health profession and regulated by State laws in every State in the Union and by Federal law in the District of Columbia. It is also regulated in each Province of Canada and in the possessions and territories of the United States, and in some foreign countries. These laws are similar in intent to those regulating the practice of medicine, dentistry, law, and other professions.

EDUCATIONAL REQUIREMENTS

The optometric schools and colleges of America require a minimum of 2 to 3 years preoptometric college education before admission to the optometric curriculum. Students must have completed a minimum of 5 years (the trend is toward a minimum of 6 years) spent in study beyond the high school level before receiving an optometric degree.

Advanced degrees in optometry, such as the Ph. D. in physiological optics, which can only be obtained from schools of optometry, take as much as 7 years at the college level.

The professional curriculum in optometry is presented chronologically in three intimately related groups of courses. They are: (1) the basic sciences, offered in the preprofessional curriculum; (2) the basic optometric sciences; and (3) the clinical optometric sciences.

The requirements for the practice of optometry, which a professional man must be able to understand and skillfully undertake, are, in general:

1. The refraction of the human eye to determine the degree of hyperopia, myopia, and astigmatism.

2. The analysis of the function of the visual mechanism, especially at the near-point or working distance, and the evaluation of the visual skills which affect visual efficiency and comfort.

3. The use of visual training in the development or reeducation of the visual skills.

4. The use of orthoptic treatment in the correction of squint or strabismus.

5. The differentiation of nonpathological from pathological cases, with sufficient skill to enable the optometrist to refer pathological cases for treatment or surgery.

6. The adaptation of ophthalmic devices, such as conventional lenses, telescopic and microscopic systems, aniseikonic lenses, and contact lenses to the needs of the patient.

7. The dissemination of the basic principles of ocular hygiene and participation in optometric preventive and public health activities.

A student preparing for these professional requirements must take the following typical courses: mathematics, physics, chemistry, zoology, psychology, general anatomy, cranial and neural anatomy, ocular anatomy, physiology, pathology, bacteriology, geometric optics, physical optics, and physiologic optics.

In addition to the traditional material of optometry courses, such topics as contact lenses, occupational vision, school vision problems, illumination, and vision screening methods are presented from both the theoretical and practical viewpoint.

In each optometry school there is at least 1 year of intensive, carefully supervised, clinical training wherein the student is given an opportunity to engage in all phases of optometric practice.

Under the heading of "Professional cultural courses" are grouped those courses whose primary aims are to inculcate in the student ideals of his profession and to clarify for him the meaning and responsibilities of professionalism in determining his conduct in regard to the respective standards of (1) morality, (2) economics, and (3) legality. Such courses include: professional ethics, professional economics, professional jurisprudence, and professional sociology, or public health optometry.

ACCREDITED SCHOOLS AND COLLEGES OF OPTOMETRY

The laws of all States provide that no one shall be eligible to take a licensing examination unless he is a graduate of a school or college of optometry in the United States. All 10 of these are fully accredited by the Council on Optometric Education, which is an institution of the National Commission on Accrediting and so listed and recognized by the U.S. Department of Health, Education, and Welfare.

The curriculums and standards of these optometric schools and colleges have been steadily augmented to keep pace with scientific advancement. All colleges operate outpatient clinics, in which the student secures clinical experience.

Generally, graduates are awarded the degree of doctor of optometry. Some of the accredited schools and colleges of optometry award the degree of bachelor of science in optometry and master of science in optometry.

SPECIALTIES

While optometry as a whole is a specialized field, it contains within its scope certain subspecialties. Many of these are of recent origin insofar as widespread application to the public is concerned. Among them are visual training, the fitting of telescopic spectacles and similar devices for the near blind, the fitting of contact lenses, industrial optometry (the investigation of visual efficiency, safety, and productivity), and the relations of proper lighting and similar factors to efficiency. Almost all of these specialties require further study after graduation as an optometrist.

PROFESSIONAL ORGANIZATIONS

The American Optometric Association, which I am privileged to serve as president, is the professional organization of optometrists. The association is

a federation of divisional societies, each of which represents a State. Foreign members are given an associate status. There are also county, district, and city societies. Licensed practitioners who meet State association requirements covering ethics and rules of practice are eligible for membership.

The American Optometric Foundation is a nonprofit corporation, organized to raise funds for the advancement of research and education in optometry and for other purposes related to the fulfillment of the profession's obligation to the public.

The American Academy of Optometry is an organization of scientifically minded practitioners, teachers, and research workers. Licensed practitioners who meet the standards of practice and can pass the examinations of the academy are accepted as fellows.

The Association of Schools and Colleges of Optometry is an organization of representatives from the accredited optometric educational institutions in the United States and Canada.

The optometric extension program is a nonprofit corporation, organized to continue the education of the practicing optometrist. It operates primarily through study groups at the local level. It conducts regional educational congresses so that every optometrist will have an opportunity to attend at least one each year at a convenient location near his practice.

The International Association of Boards of Examiners in Optometry is an affiliation of the legalized boards of licensure in the various States. The concern of this association is with problems involving practice, reciprocity between States, and similar matters.

There are also national honorary fraternities, college fraternities, and specialized associations.

THE NEED FOR VISION CARE

In 1961 the National Health Education Committee of New York City compiled and published findings which are presented in its publication, "Facts on the Major Killing and Crippling Diseases in the United States Today." The following figures taken from its study reveal the need for vision services in the general population:

An estimated 100 million people in the United States—as many as 58 percent of the population—require some form of vision care (correction by glasses, visual training, or other treatment).

About 9,800,000 children need vision care; a large number of these children should be wearing glasses.

About 35,000 persons are legally blind. (Some 75 percent of this number can be rehabilitated to function as normally sighted persons.)

Some 1,500,000 persons are blind in one eye.

An estimated 2,600,000 Americans have, or have had to some degree, a crossed eye. This condition has caused about 1 million persons to have reduced vision in one eye.

Although visual impairments exist in a majority of our population, the most serious need occurs among our aging population. Sometime back, the U.S. Public Health Service published the following with respect to vision defects in relation to age:

	Percent
Under 20.....	23
20 to 30.....	39
30 to 40.....	48
40 to 50.....	71
50 to 60.....	82
60 to 70.....	85

The importance of good vision to the welfare of our country is only partially realized when we understand that 85 percent of all learning takes place through our vision. No one disputes the fact that of all our human senses vision is the most wonderful and its loss the most tragic.

It is stated as a matter of fact that of all the health professions only the practitioner of optometry is specifically and exclusively educated, trained, examined, and licensed to care for the vision of the public. Approximately 75 percent of all Americans visit optometrists when they seek vision care. The demand for such care is growing faster than new optometrists can be trained to provide it. The supply-and-demand problem for optometry has become serious

indeed. We trust in this committee to assist us in meeting the visual requirements of our population by adopting the amendment offered by Senator Williams.

Thank you for allowing me to be present and to testify for this bill which can do so much in closing the health gap which exists in our country today.

STATEMENT OF CHESTER H. PHEIFFER, O.D., DEAN, COLLEGE OF OPTOMETRY,
UNIVERSITY OF HOUSTON, HOUSTON, TEX.

Mr. Chairman and members of the committee, my name is Chester H. Pfeiffer. I reside in Houston, Tex. My appearance is on behalf of the American Optometric Association. This organization represents more than two-thirds of the practicing optometrists of the United States.

I received an A.B. degree with honors in psychology from the University of Louisville in 1943, an M.A. degree from the Ohio State University in 1944 and the Ph. D. degree in 1949. At Ohio State University, I taught courses in general and experimental psychology and summer postgraduate research laboratory for optometrists and also worked on the gustatory and olfactory problems of certain distillates for Seagrams, and of powdered milk for the armed services in conjunction with the dairy department, as well as conducted a project on the visual discrimination of areas for the Air Materiel Command.

In 1949 I joined the staff of the Southern College of Optometry teaching general and child psychology, psychological optics, and visual training. For service to the students and to optometry, I was given the L. A. Farmer award in 1950. In 1954 I received the O.D. degree, having completed the required courses.

I joined the staff of the University of Houston College of Optometry in 1954. Among the courses I taught were: psychology of vision, analysis of optometric data, visual training, history of optometry, sociological aspects, illumination, and clinical practice. In 1958, I was appointed director of clinics; 1959, full professor; 1961, dean of the college of optometry. During the 1960-61 academic year, I was elected chairman of the faculty assembly, the highest elected post a faculty member can achieve. My research interests have been in the field of children's visual care, visual phenomena, and caecanometry or the effect of toxic involvements on vision.

Approximately a year ago when similar bills were considered by this committee of the 87th Congress, Dr. Alfred Rosenbloom, dean of the Illinois College of Optometry, testified and suggested certain amendments. It is my understanding that the testimony taken at that time will be made available to the members of this committee and, therefore, I will refrain from repeating the facts set forth in Dr. Rosenbloom's statement. However, I endorse them wholeheartedly and commend them for your careful consideration. It is particularly gratifying to note that some of the amendments which Dr. Rosenbloom suggested were adopted by the committee and are in H.R. 12.

Part C of H.R. 12, entitled "Student Loans" differs in its entirety from part C of H.R. 4999 (87th Cong.) as introduced, although it conforms to that bill as reported. The original H.R. 4999 provided for scholarship grants; the bill as reported and now before the committee provides for student loans. All we asked a year ago was that our students be granted the same financial assistance as that to be made available to students of medicine, osteopathy, and dentistry. Our position today is the same but we believe it is even stronger because we are not asking for grants for optometry students, but merely loans which will be repaid with interest. We believe the bill should be amended so as to make the student loan provisions available to optometry students as well as to students of medicine and dentistry. This can be accomplished by a few simple amendments on pages 18, 19, and 20 of H.R. 12. (The suggested amendments are attached to my statement.)

We recognize that a group must be important to the public welfare in order to obtain financial assistance, thus it would seem necessary to point out the importance of optometry to the public welfare. We believe that we can give you some idea of optometry's importance with just a few summary sentences. Very few people past the age of 45 are able to perform efficiently in our modern culture without the help of a vision specialist. Many of our children and young people are hampered in their academic work as well as in their everyday life without the assistance of a vision specialist. Since the future of our Nation is dependent on our children, as they are hampered so is our Nation. In addition

to caring for the visual welfare of the public, optometry has also participated in producing a great amount of important scientific knowledge. The increased demand on vision by our culture not only in everyday life on the surface of the earth, but under the seas, in the air and in space, points up the importance of vision and thus of the vision specialist; namely, the optometrist in today's educational, cultural, and economic worlds. While our primary objective is to provide for the visual welfare of the civilian population, we hope you will bear in mind the fact that last year between 15 and 20 percent of the members of our graduating classes were commissioned as optometrists in the armed services. In addressing our annual meeting in 1961, Maj. Gen. O. K. Neiss, Surgeon General, U.S. Air Force, after describing a number of air research projects in which optometrists were engaged, including study of radiation damage to the eye, eye protection of aircrew personnel, feasibility of contact lenses for flying personnel, etc., said:

"While the research of Air Force optometrists is necessarily devoted to problems related to military requirements, the results of our research may have far-reaching benefits to man's efforts to conquer space.

The optometrist performs an important function in finding and properly referring patients with pathology. It is worthwhile to note that there are fewer optometrists in the South than in other regions of the United States and that the incidence of blindness in the South is higher than for other regions. Optometrists are relatively well distributed geographically. Without them many small communities would not have visual care readily available and large communities would not have adequate visual care. Were it not for optometrists, many people in the low and middle income groups would be forced to go without visual care.

Our most recent surveys have indicated that there should be 1 practicing optometrist for every 7,000 members of the population. The average the country over falls far short of meeting this requirement, and the situation is growing steadily worse. The figures based on 1958 data which were submitted to the 1960 White House Conference showed, Mr. Chairman, that in your State of Arkansas there was 1 licensed optometrist for every 11,079 of the population. In Congressman Robert's State of Alabama there was 1 for every 15,222 of the population; in Florida the average was 1 for 10,704; in Louisiana 1 for 11,938; in Maryland 1 for 14,923; in Mississippi, 1 for 15,833; in my own State of Texas there was 1 for 10,751. Time will not permit my giving the figures for all 50 States, but I will be glad to furnish them for any member of this committee who is particularly interested in his own State. During the decade from 1950 to 1960, the population of Colorado increased 32.4 percent but the number of optometrists increased only 1.2 percent. This was the situation several years ago. It has grown steadily worse and our estimates are that unless there is a substantial expansion both in the facilities and the student population of our schools and colleges of optometry, by 1975 the ratio in New York State will be 1 optometrist for every 17,300 persons. The figures submitted in 1960 showed that at the time they were compiled there was 1 optometrist for approximately every 8,000 persons in New York State.

A report prepared by the office of development projects of the University of Houston states: "A detailed statistical study indicates that the future need for optometrists in a 16-State region encompassing the entire South (a region with a 1960 population of 57,160,000) is approximately 220 new optometry graduates yearly." In this area are located only two optometry schools. These two schools entered 131 new students in 1962. I can assure you that some will not graduate for lack of application; others because the need to work will cut into their study time so deeply that they will not be able to make their grades and yet they are unable to attend school without working.

The 1960 Blue Book of Optometrists lists 4,317 licensed optometrists in the southern region. The 1962 Blue Book lists 4,322. It can readily be seen that the number of optometrists required to provide adequate visual care in the South is not being met. It has been estimated that the minimum need for optometrists in Texas alone during the years ahead will be 28 annually just to maintain the present ratio of 1 optometrist to every 12,000 Texans.

Not only is there an acute shortage of optometrists in this country, but there is an even greater shortage in the underdeveloped countries; particularly in South America. In December, Dr. H. Ward Ewalt, Jr., of Pittsburgh, Pa., president of the American Optometric Association, and Dr. Ralph Wick of Rapid City, S. Dak., retiring president of the American Academy of Optometry, headed a

delegation to attend the Colombian Optometric Congress held in Bogota, Colombia. Our president-elect, Dr. Judd Chapman, of Tallahassee, Fla., will head a delegation which is going to attend the International Ophthalmic Congress in Geneva, Switzerland, this April. All the nations are looking to us for leadership in this area as well as many others. This will give you some idea of the seriousness of the situation which is developing and against which corrective measures need to be taken.

In order to meet the need for optometrists in the Nation as well as in the South, it is first necessary to increase the enrollment in the optometry schools. At present it is not possible to produce the number of optometrists necessary to satisfy the public needs in terms of deaths and retirements of optometrists as well as the population increase, due to lack of physical facilities. Secondly, students have difficulty not only in finding finances to begin the program, but to complete it. Many optometry students are forced to prolong the length of their program by the necessity to work, thus shortening their years of service to the public. Florida now has five 4-year scholarships issued each year; South Carolina has an assistance award of \$300 per student per year. A number of other States have made attempts or are planning to secure financial assistance for students from their respective States.

Another mode developed to help potential optometry students in the South was the creation of the better vision scholarship fund by the University of Houston. Optometrists in the South make donations to this fund which is then used to assist 10 to 12 first-year professional students each year. It must be recognized that this fund assists the student through the first year; he is then thrown upon his own resources after that. I believe that very few professions can brag of a contribution record to education such as that possessed by optometrists. But how long can we expect a small group of valiant, dedicated men to finance the entire optometric visual-care program for the public. While talking about the contribution of optometrists, it might be well to point out that the University of Houston College of Optometry was founded at the request of the optometrists of Texas who contributed \$100,000 during the first 5 years of its existence. This is not completely unique in Texas, as California and Indiana optometrists arranged for their annual license renewal fee to be increased and for the increase to go to optometry schools in their States.

Indications of the need for financial assistance by prospective students of optometry is demonstrated by the fact that 30 percent of the letters of inquiry also include requests for financial assistance. Of the 70 approved applications for last year's entering class, some 7 percent wrote at the last minute that they were financially unable to enter. How many of the remaining 30 percent that did not appear at registration time for financial reasons is not known. Our office of loans and scholarships at the University of Houston has informed me that they were compelled to reject some 60 requests for national defense student loans during the past year by optometry and preoptometry students. How many of these were from the 116 students enrolled in the college and how many were students seeking entrance into the college was not known. However, loans and scholarships informed me that many of the accepted students who did not receive these defense loans did not show up at registration time. Since optometry students are high-quality people, they fall in the upper 25 percent of the college population; the reason for their not receiving these loans must be sought elsewhere than academic record. The main reason is that those groups high on the priority list, namely, education, certain language groups, and the pure science students, utilize all the money available long before optometry students are given consideration. From the foregoing, it can be seen that too many highly qualified people are being denied, by inadequate financing, the education necessary for them to provide the public with the important service of visual care and that other optometry students are being hampered in their academic pursuits by the necessity to work many hours.

Loans and scholarships also informed me that the number of small loans from university funds made to optometry students is greater proportionately than the number made to any other group. They also reported that optometry students have an excellent reputation for repaying these short-term loans. Better than 45 percent of our students are working and attempting to go through professional school at the same time. Some 70 percent, or better, of the students' wives are working also. In many cases both student and wife are working in order to meet the heavy expenses of an optometric education. It is very disturbing to watch these young people striving to accomplish a

difficult curriculum and earn the financial means simultaneously. We estimate that the requirements for loans to optometry students would be less than 1 percent of the loan authorization in the bill.

Along with the steadily increasing visual demands upon both our civilian and military population, a situation has arisen which cannot be tolerated. Some of the State legislatures are doing a little, but the Federal Government must point the way. All the professions are competing for students and the competition with industry becomes more severe each year. To provide loans for students of medicine and dentistry but not for optometry would give us another handicap to overcome. Our national association is undertaking a vigorous program of student recruitment under the leadership of our committee on vocational guidance. The adoption of the amendments suggested and the passage of the bill with the amendments will be of great assistance to the work of that committee.

The need for high quality vision specialists, namely optometrists, to provide the people of the South, as well as of the Nation, with the best vision care possible so that they are adequately prepared to meet the visual demands of our present culture is evident. Optometrists have earned great honor by their unselfish devotion and contribution to the public visual welfare, by their constant striving for higher standards both professionally and educationally. It seems only fair that a part of the financial assistance needed by those who will provide visual care for our people should be furnished by the Federal Government.

In closing, let me again stress the point that we are not asking for gifts for our students but merely for loans to be repaid when the recipients are established in practice.

The opportunity to make this presentation is sincerely appreciated, Mr. Chairman, and if you or any of the members of the committee have any questions or desire additional information, I will be most happy to answer them or to furnish additional facts.

SUGGESTED AMENDMENTS TO H.R. 12, 88TH CONGRESS, 1ST SESSION

Page 18, line 3, after the word "osteopathy" insert the word "optometry."

Page 18, line 12, strike out the period and insert in lieu thereof a comma and the words "or doctor of optometry or an equivalent degree."

Page 19, line 17, after the word "osteopathy" insert the word "optometry."

Page 20, line 7, before the word "or" insert the word "optometry."

Page 20, line 9, after the word "physicians" insert the word "optometrists."

Page 20, line 11, after the word "physicians" insert the word "optometrists."

Page 20, line 13, after the word "physician" insert the word "optometrist."

Page 20, line 20, after the word "physicians" insert the word "optometrists."

STATEMENT OF DR. HENRY W. HOFSTETTER, DIRECTOR OF INDIANA UNIVERSITY DIVISION OF OPTOMETRY AND CHAIRMAN OF THE AMERICAN OPTOMETRIC ASSOCIATION COMMITTEE ON RESEARCH

Mr. Chairman and members of the subcommittee, my name is Henry W. Hofstetter. I reside at 936 Hawthorne Lane, Bloomington, Ind. My position is that of professor and director of the Indiana University Division of Optometry. In addition to a degree in optometry, I hold the M.S. and Ph.D. degrees in physiological optics from the Ohio State University where I served on the faculty from 1942 to 1948. From 1948 to 1952 I was dean of the Los Angeles College of Optometry, and in 1952 I assumed my present position with the establishment of the optometry school at Indiana University. I served 4 years as president of the Association of Schools and Colleges of Optometry, and I am presently chairman of the American Optometric Association Committee on Research. My primary interest outside of research and teaching has been the study of optometric education—its history, development, and needs. My studies included a major survey of optometry in the Union of South Africa during a sabbatical leave in 1959-60, and my activities here included extensive correspondence with optometrically informed persons in approximately 30 different countries over the globe.

I personally feel that the use of public funds in support of optometric education and research promises at this time the best possible investment

in the health care field in terms of direct personal benefits to the American public, the closing of the gap of manpower shortage in the health care services, the possible service toward advancement in underdeveloped countries, and in the research contributions in the visual sciences.

Optometric education in the United States is represented by a college level curriculum 5 to 6 years in length in 10 schools and colleges of optometry, five of which are integral parts of well-known universities, including three major State-supported institutions. An outline of these programs is provided in the accompanying document, entitled "Professional Degree Program in Optometry," prepared by the Armed Forces Liaison Committee of the Association of Schools and Colleges of Optometry, June 30, 1959. Almost immediately upon completion of any of these courses and the passing of a State licensing examination, the graduate is prepared to go into full-time practice, thus to carry his full share of the health care field manpower needs at a minimum of cost to the taxpayer. Presently the 10 schools are able to process between 350 and 400 graduates per year, a pittance in the face of immediate optometric replacement needs of approximately 700 per year and additional population expansion needs of 360 per year for the foreseeable future.

From the point of view of geographical distribution, there is presently an immediate and critical need for another optometry school in New York and a school in one of the Southeastern States. The fundamental difficulty in getting schools established in either of these areas is lack of finances. Lack of funds necessitated the termination in 1955 of the almost half-century-old optometry school at Columbia University. When the University of Houston made it known in 1954 that it could no longer carry the financial burden of its optometry college, the optometrists of Texas instituted a program of contributions totaling \$20,000 per year. The schools at the University of California and Indiana University are similarly afforded supplementary support from optometrists by legislated increases in the annual license renewal fees of all registered optometrists in the respective States. Such support, derived directly from the profession, has been more than equaled by independent fund drives in support of optometric education and research. This enthusiasm and support has been motivated in large part by the optometrists' desire to raise optometry's educational standards and to increase optometry's research contribution, but not in the least part by the conviction that such bootstrap-lifting efforts would win aid from such public funds as have been made available to educational and research efforts in other health care professions. If I may borrow a word, let me express the opinion that such motivation is by no means inexhaustible.

On the research side, let me point out that the only graduate research training programs in physiological optics in the United States are all located on campuses with optometry schools, and that in each instance the optometry faculties constitute the core of such programs. This is true in spite of the fact that physiological optics has been a recognized science discipline for more than 100 years and its students have been the principal contributors to the visual science aspects of applied optics, optometry, and ophthalmology. These graduate programs are described in the accompanying document, "Graduate Degree Programs for Optometrists," prepared by the Armed Forces Liaison Committee of the Association of Schools and Colleges of Optometry, April 10, 1959. There are over 350 commissioned optometrists on active duty in the Armed Forces. They hold ranks ranging from second lieutenant to colonel or their equivalent in the Navy. The armed services have detailed officers to some of our schools and colleges of optometry for postgraduate study in physiological optics. As previously mentioned, all of these programs in the United States are sponsored by institutions with optometry schools and the members of the optometry faculty furnish most of the staff for these programs. The programs are designed primarily to enable optometrists to prepare themselves for academic and research positions through the acquisition of masters and Ph. D. degrees. These programs have been so handicapped by lack of funds that more than three-fourths of the optometry school teaching personnel must continue to be made up of optometry graduates without supplementary qualifications in research and education. In a survey published in 1957 (*American Journal of Optometry*, vol. 34, No. 10), it was estimated that to meet the demand for properly qualified optometric teachers during the subsequent decade "the graduate training in physiological optics or equivalent programs would have to be stepped up to approximately six times the production rate of these programs during the previous decade for M.S. or equivalent degrees, and approximately three times for the Ph. D. or equivalent degrees." The actual rate of production has remained constant, due to lack of

additional funds. These estimates of need did not take into account the recent rapid developments of optometric education in other countries and the demands for such personnel from such wide-flung areas as Canada, England, India, Australia, the Philippines, New Zealand, and South Africa. In addition, personnel trained in physiological optics have had to meet new and increased demands in all three branches of the military, in civil service, in ophthalmological research centers, in industry, and in specialized areas of private practice, not to mention occasional demands from such fields as biophysics, psychology, physiology, illumination and human engineering.

The needs we can anticipate in the optometrically underdeveloped countries are just now threatening to materialize with newly or recently contemplated optometric education programs. At present there are several schools offering extremely limited optometry training in several Central and South American countries, and there are strong movements afoot to supplant these or develop them into adequate programs. From personal knowledge I can say that these same pressures are being felt in Spain and Italy. On the continent of Africa there is only one optometry school, located at Witwatersrand in Johannesburg, and with enrollment limited to white students. The secretary of the legislature (Bunga) of the Transkeian Bantu Territory in South Africa assured me that we could anticipate the establishment of an optometry school for Africans in one of the Bantu universities in the very near future. The phenomenal increase in literacy among both children and adults in such countries as Ghana, Liberia, and the east African federations will make a rapid increase in optometrists imperative. Up to now the optometrists of all of the British Commonwealth were trained in London, but this source of optometric personnel is already falling abysmally short of the needs. However these needs may be met, we can be sure that a large share of the burden will fall on American centers of training in optometry and physiological optics.

In concluding my remarks, I wish to add the important point that any legislation designed to give support to research and education in the health care field must clearly stipulate optometry as one of the eligible groups, for otherwise optometry is operationally excluded. This situation exists by reason of inter-professional antagonisms and policies which make it virtually impossible for optometric institutions to obtain consideration on a merit basis.

Congress, by legislation in 1924, provided for licensing of optometrists in the District of Columbia. In 1947, Congress passed the Medical Service Corps law which authorized the commissioning of optometrists in our Armed Forces. In 1950 Congress, in the social security amendments of that year, forced that agency, now part of the Department of Health, Education, and Welfare, to make optometric services available to beneficiaries of the aid to the blind program who desired to utilize them. Only last year, Congress amended the law which established the Department of Medicine and Surgery in the Veterans' Administration so as to specifically make optometric services available to veterans entitled to outpatient vision care. All of these enactments have been in the public interest and I firmly believe that it is likewise in the public interest to amend S. 1072 to specifically include optometry in its provisions. The suggested amendments are attached to this statement.

AMENDMENTS TO S. 1072 SUGGESTED BY HENRY W. HOFSTETTER

Amend the title of the bill by inserting after the word, "dentists", the word, "optometrists".

Page 1, line 6, before the word, "and", insert the word, "optometric".

Page 2, line 11, after the word, "osteopathic", insert the word, "optometric".

Page 2, line 18, after the word, "physicians", insert the word, "optometrists".

Page 2, line 24, after the word, "personnel", insert the word, "optometrists".

Page 3, line 8, after the word, "osteopathy", insert the word, "optometry".

Page 4, line 15, after the word, "osteopathy", insert the word, "optometry".

Page 5, line 1, after the word, "osteopathy", insert the word, "optometry".

Page 6, line 20, after the word, "dentistry", insert the word, "optometry".

Page 10, line 18, after the words, "school of osteopathy", insert the words, "school of optometry".

Page 10, line 22, after the word, "osteopathy", insert the words, "doctor of optometry or an equivalent degree".

Page 11, line 12, strike out the word, "four", and insert in lieu thereof the word, "five".

Page 11, line 14, after the word, "osteopathy", insert the word, "optometry".

Page 11, line 18, after the word, "dentistry", insert the word, "optometry".
Page 14, line 6, after the word, "osteopathy", insert the word, "optometry".
Page 14, line 12, after the word, "dental", insert the word, "optometric".
Page 14, line 23, after the word, "physicians", insert the word, "optometrists".
Page 15, line 2, after the word, "osteopathy", insert the word, "optometry".
Page 15, line 6, before the word, "or", insert the word, "optometry".

PROFESSIONAL DEGREE PROGRAMS IN OPTOMETRY¹

All of the 12 schools and colleges of optometry of the United States and Canada are presently members of the Association of Schools and Colleges of Optometry and are listed in the accompanying table. Eleven of the programs require a minimum of 5 academic years of specified collegiate courses to qualify for licensure. One requires 6 years. These curriculums are basically similar in content, the variation consisting mainly of differences in sequence and emphasis. Six of the schools identify the O.D. degree with this curriculum, the other six having various other degrees or types of certification of completion, which, for professional, academic, and licensing purposes are regarded as equivalent. It is anticipated that eventually all professional degree identifications will be uniform.

The basic curriculum, common to all schools, represents credits expressly applicable to the professional role of the optometrist. Other, additional, or incidental collegiate credits that the optometry student may have earned outside of these specified curricular requirements are not credited toward the professional qualifying degree. Hence the fact that many current graduates show a total of more years of college work than is required in the basic curriculum need not necessarily be interpreted as "training pertinent to the specialty." However, the advanced training in graduate programs designed especially for optometric graduates would be clearly creditable as "training which is pertinent to the specialty."

GRADUATE DEGREE PROGRAMS FOR OPTOMETRISTS²

Six colleges and universities in the United States offer advanced study programs designed to accommodate graduates of regular optometry curriculums who wish to pursue specialized study leading to graduate degrees. These programs serve not only to meet the further academic interests of individual students but also to qualify graduates for college teaching, research careers, and specialized clinical and administrative assignments. Each of the programs is highly adaptable to the individual student's special talents and objectives. The various offerings are outlined briefly in table I. All of the institutions listed are members of the Association of Schools and Colleges of Optometry and are accredited by the American Optometric Association Council on Optometric Education.

Admission to these programs varies in several respects and almost always requires individual negotiations between the applicant and the institution. This procedure typically involves the establishment of qualifications, the evaluation of previous credits, the determination of the applicant's interests, abilities, and objectives, and the specification of undergraduate course deficiencies which may have to be taken as extra or preliminary work. Since these considerations normally require individual interpretation on the part of a faculty committee it is not practicable to specify these details in a manner which would cover the wide variety of previous academic qualifications which the applicants may present.

An example of the need for interpretation is in the specification of the "B.S. degree or equivalent" as a basis for admission. Each institution has its own criteria for baccalaureate degrees, so that, while the phrase "B.S. degree or equivalent" conveys in a general way the extent of academic background demanded, the applicant's total training and experience has to be considered in determining whether or not he is prepared to undertake graduate level

¹ Statement prepared by the Armed Forces Liaison Committee of the Association of Schools and Colleges of Optometry, June 30, 1959.

² Statement prepared by the Armed Forces Liaison Committee of the Association of Schools and Colleges of Optometry, Apr. 10, 1959.

courses in the field to which the applicant applies. Similarly, a given institution may stipulate "the completion of mathematics courses through elementary calculus" to convey in a general way the level of mathematical ability demanded, an ability which may be judged independent of the fact that the applicant may have, at one time, earned a grade of "C" in a calculus course.

In general, the current optometry curriculum with its typical inclusion of mathematics, physics, chemistry, psychology, zoology, physiology, the humanities, and the social sciences provides the desired background for admission to these programs. Undergraduate work in calculus and advanced psychology are also specified as background for some of the programs.

The duration of the training period can be specified only as a minimum residence requirement. Undergraduate deficiencies, thesis and dissertation difficulties, quality of work, performances in comprehensive examinations, and foreign language and other special course requirements that may be specified for the individual student may all contribute to the need for additional time. In no instance is the granting of a degree assured by the student's attendance for a stipulated period. Most graduate programs can be entered at the beginning of any regular term and pursued the year around, including summer sessions. Under typical conditions, for example, the total attendance time for a master's program varies between 12 and 18 months, and a total Ph. D. program typically extends over a period of 36 to 48 months. The time spent in earning a master's degree is normally credited toward the attendance time required for the Ph. D. degree if the two degrees are in the same field.

The plan of study in the typical graduate program is worked out individually for each student. This ordinarily represents major concentration in an area identified with the title of the program and minor studies in outside areas selected to broaden the student's total view.

The "Physiological Optics" programs tend to place emphasis on the fundamental aspects of visual science and the determination and interpretation of the facts of research. The studies may range from intensive analysis of a single attribute of the visual process to the comprehensive appraisal of visual performance factors in classified groups. The "Optometry" and "Clinical Optometry" programs tend to place emphasis on the applied aspects of vision care. The studies may range from the evaluation or design of a clinical testing technique or criterion to the development of broad clinical concepts and procedures applicable to general clinic organization. The "Perceptual Psychology" program places emphasis on the problems of perception in relation to the fundamental psychological processes, as the title implies.

In terms, however, of preparing the student for the management and direction of optometric activities encountered in out-of-the-ordinary practices and in organized vision programs, such as exist in clinics, schools, industry, and the military services, all of the programs have a great deal in common. In particular this is true by virtue of the motivation and objectives of the student during his graduate study. Unlike the attitude often taken in undergraduate and purely professional courses, the indoctrination and attitude of the graduate student cultivates an integration of his knowledge with virtually all areas of activity in any way related to vision and optometric services.

The types of activities for which these programs provide a special preparation can, perhaps, be best illustrated by the following examples of assignments and accomplishments represented among those who have completed one or another of these programs:

1. Instruction:
 - (a) Optometry courses.
 - (b) Ophthalmological courses.
 - (c) Opticianry and optical design courses.
 - (d) Hygiene, indoctrination, and orientation courses involving vision.
2. Editorial and writing:
 - (a) Journal editing.
 - (b) Research and technical report processing.
 - (c) Operating, instructional, and indoctrinational manuals and brochures.
 - (d) Advertising and public relations copy.
 - (e) Reviews and abstracts of literature.
3. Instrumentation:
 - (a) Evaluation.
 - (b) Design.
 - (c) Construction.

- (d) Application.
- (e) Explanation.
- 4. Administration :
 - (a) Planning and development.
 - (b) Purchasing.
 - (c) Personnel selection.
 - (d) "Trouble shooting."
 - (e) Professional relations.
 - (f) Promotional.
 - (g) Executive.
- 5. Clinical :
 - (a) Organization and program planning.
 - (b) Screening.
 - (c) Time and motion studies.
 - (d) Data and records processing.
 - (e) Supervision and direction.
 - (f) Evaluation of occupational vision needs.
 - (g) Evaluation of current clinical developments; e.g., contact lenses, safety lenses, subnormal vision aids, reading training, orthoptics, etc.
- 6. Research :
 - (a) Fundamental problems of vision and optics.
 - (b) Applied problems of vision and optics.
 - (c) Project supervision.
 - (d) Data evaluation.
 - (e) Consultation on team projects involving vision factors.
 - (f) Occupational analyses in terms of vision requirements.
- 7. Coordination :
 - (a) With other clinical areas; e.g., medical and psychological.
 - (b) With other research areas; e.g., perceptual, physiological, psychophysical and psychological.
 - (c) With other technical areas; e.g., optical, safety, illuminating, and human engineering.
 - (d) With other administrative areas; e.g., library, legal department, insurance, hospital, sanitation, public health, architecture, and ordinance.

STATEMENT OF DR. ALFRED A. ROSENBLOOM, JR., DEAN OF THE ILLINOIS COLLEGE OF OPTOMETRY AND MEMBER OF THE AMERICAN OPTOMETRIC ASSOCIATION COUNCIL ON OPTOMETRIC EDUCATION

Mr. Chairman and members of the committee, my name is Alfred A. Rosenbloom. My residence is 6829 South Cranston Avenue, Chicago, Ill. I graduated from Northern Illinois College of Optometry, cum laude, in 1948 with the degree of Doctor of Optometry, after receiving an A.B. degree from Pennsylvania State University in 1942. Since 1948, I have been a member of the faculty at Illinois and in 1956 was appointed dean of the college. Currently, I am completing the requirements for a Ph. D. at the University of Chicago, Department of Education, having already received a master's degree from that institution. For the past 6 years I have served as optometric consultant for the Chicago Lighthouse for the Blind. My appearance here is as a member of the Council on Optometric Education of the American Optometric Association.

In this day and age people have a tendency to take too much for granted and this is particularly true with what is sometimes referred to as "God's greatest gift to mankind," namely, eyesight. The visual tasks which are required of children, college students, men and women in our offices, factories and research laboratories, on the highways, in the air, for national defense, and in outer space, as well as the enjoyment of added years of life were unknown at the beginning of the century and are not fully appreciated by most people today.

The vision care of your fellow citizens rests primarily on the shoulders of the members of the optometric profession. There are some 18,000 practicing optometrists in the United States and approximately two-thirds of them are members of the American Optometric Association. We have always advocated that there should be 1 practicing optometrist for every 7,500 of our population; today the ratio is less than 1 to 10,000. The number of practicing physicians and dentists is declining in relation to the population, but so is the number of

practicing optometrists. Their ratio of decline is more rapid than that of physicians and dentists, the demand for whose services is being reduced through sanitation, vaccination, fluorination, and other preventive measures. While our population increase affects all age groups, the greatest increase is in the group over 50, the vast majority of whom are in need of optometric services to enable them to continue to contribute to our economy, to enjoy the well earned rewards which should be theirs in their later years and to enable them to be self-reliant.

All 50 States and the District of Columbia have laws regulating the practicing of optometry and the licensing of optometrists. One entering our profession today must have successfully completed 5 years of study in an accredited school or college of optometry, at least 3 years of which are devoted to subjects dealing with our specialty, following which they must pass a State board examination.

There are only 10 accredited schools and colleges of optometry in the United States. These are:

- The Massachusetts School of Optometry, Boston.
- The Ohio State University School of Optometry, Columbus.
- The Pacific University College of Optometry, Forest Grove, Oreg.
- The Pennsylvania College of Optometry, Philadelphia.
- The Southern College of Optometry, Memphis, Tenn.
- University of California School of Optometry, Berkeley.
- University of Houston College of Optometry, Houston, Tex.
- The Illinois College of Optometry, Chicago.
- Indiana University Division of Optometry, Bloomington.
- The Los Angeles College of Optometry, Los Angeles.

These schools are all faced with serious financial problems in order to continue their operation. In Texas, for example, the optometrists themselves supported a bill which passed the State legislature raising the annual fee charged practicing optometrists, the additional money to go to support the Optometry School at Houston University. A similar program was adopted in California, the additional money to go to support the School of Optometry at the University of California. None of our schools and colleges can boast of substantial endowment funds, although all of them do receive support from their alumni and other optometric groups, such as the Women's Auxiliary of the American Optometric Association and the American Optometric Foundation, a nonprofit corporation whose funds are derived almost exclusively from members of our profession and their families.

Our profession was first recognized by Congress in 1924 when it enacted the District of Columbia optometry law. Incidentally, although attempts have been made to update that law, it has not been amended in the 38 years that have elapsed.

In 1945 Congress passed the optometry corps bill over the strenuous objection of the War Department and the American Medical Association. President Truman vetoed the bill but only after he had been assured by the War Department that following the cessation of hostilities in World War II, the Department would sponsor legislation to commission optometrists in the armed services. In 1947 the Medical Services Corps law was enacted which provided for commissioning of optometrists in the armed services. Today there are on active duty in the Army, Navy, and Air Force, something over 350 commissioned optometry officers and more are needed. Their ranks range from second lieutenant to colonel, or their equivalent ranks in the Navy.

The 1950 amendments to the social security law provided that optometric services should be made available to the beneficiaries of the aid-to-the-blind program who desired to utilize them, and in 1959 the same privileges were accorded to veterans entitled to outpatient vision care. The enactment of these last two laws prompts me to call your attention to the fact that ophthalmologists and oculists who provide eye surgery and medication, as well as performing other service comparable to those provided by optometrists, are primarily located in the larger centers of population. The board certified ophthalmologists who are practicing number less than one-third the number of practicing optometrists. The vision care of those citizens residing in the smaller cities and rural areas is provided almost exclusively by optometrists.

The draft-doctors law included optometrists and President Kennedy has just appointed P. N. DeVere, of Morganton, N.C., a past president of the American Optometric Association, as a member of the National Advisory Committee to

the Selective Service System on the Selection of Physicians, Dentists, and Allied Specialists. The committee was established by an act of Congress.

Optometry performs a unique and distinct vision care service. Its uniqueness stems from its extensive education not only in the sciences of physiology, anatomy, and pathology given in the training afforded all the health care professions, but in addition the exclusive formal education in physiological optics. The only courses of graduate studies leading to the Ph. D. degree in physiological optics are found on campuses where schools of optometry exist. The hard core of their faculty teaching this subject is composed almost exclusively of optometrists.

Highway safety is a subject that has been of vital interest to this committee. It is my understanding that one-third of the automobile mileage in this country is driven between sundown and sunrise, but that two-thirds of the automobile accidents occur during that period. The Indiana University division of optometry, with the backing of the American Optometric Foundation, is engaged in a research program dealing with night vision for automobile drivers. Prior to the time this program was undertaken, there had never been any attempt to determine the visual requirements for night driving. This is only one instance among many others in which our profession has pioneered in the interest of safety for the American public.

It may have occurred to some of you that the adoption of the amendment which I am about to suggest will add greatly to the cost of the program. These bills authorize annual appropriations of \$75 million for new or enlarged schools of medicine, dentistry, osteopathy, and public health. I am suggesting that this amount be increased by only \$750,000 a year. This is 1 percent of the annual total authorization, a mere pittance as far as the overall cost of the program is concerned, yet it will be of great benefit to the public in that it will enable our schools and colleges to graduate more and better trained optometrists to provide for the visual welfare of our American citizens.

Six or seven years ago we lost one of our largest and oldest schools of optometry, which was located at Columbia University in New York City. Since then our profession has been trying to establish a new school of optometry in that area. The inclusion of optometry in this bill will greatly facilitate the accomplishment of that important objective. Another area which is greatly in need of a school of optometry is the southeastern section of the United States. Virginia, West Virginia, the Carolinas, Georgia, Alabama, Mississippi, and Florida are greatly in need of such a school. The Florida Legislature makes an annual appropriation for the expenses of a few students from that State to attend one of our accredited optometric institutions. West of the Mississippi River to the Sierras and north of the Texas border there is not a single school or college of optometry. Young men and women living in this vast area must go either to the Pacific coast, Houston, Tex., or east of the Mississippi River in order to obtain an optometric education.

To give you some idea of the work being done by our profession through the committees and departments of the American Optometric Association, I should like to name them—council on education, department of education, committees on contact lenses, ethics, international affairs (this committee, among other things, is struggling for a solution of the Cuban refugee problem as it affects optometrists), motorists vision and highway safety, occupational vision, orthoptics and visual training, research, social and health care trends, standards, vision aid to the partially blind, vision care of the aging, visual problems of children and youth, vocational guidance.

May I pause here to state that the problem of student recruitment for schools and colleges of optometry, which is very serious, will become more so if this legislation is enacted without including optometry students. The most recent committee to be appointed is that on visual problems of aeronautics and space. This month they met in Washington and conferred with representatives of the Federal Aviation Agency, Office of Naval Research, and the Armed Forces Committee on Vision. Time will not permit my describing the work of these committees but their names will give you some idea of the important contributions they are making to the modern demands of vision in their respective fields. They are cooperating with agencies of our Federal Government interested in these subjects and have received many commendations for the work they are doing.

In the interest of conserving your time, much that I would like to say, and which I hope would be of interest to you, has been omitted from this statement, but I am attaching to it some material which I trust when you come to study this legislation you will find interesting and helpful in leading you to include optometry colleges and students in this legislation. The amendments which we propose are also attached.

OPTOMETRIC AMENDMENTS TO H.R. 4999

Page 1, line 6, before the word "and" insert the word "optometric."
 Page 2, line 9, after the word "osteopathic" insert the word "optometric."
 Page 2, line 15, strike out "\$45,000,000" and insert "\$45,750,000."
 Page 2, line 16, after the word "physicians" insert the word "optometrists."
 Page 2, line 22, after the word "physicians" insert the word "optometrists."
 Page 3, line 8, after the word "osteopathy" insert the word "optometry."
 Page 4, line 18, after the word "osteopathy" insert the word "optometry."
 Page 5, line 4, after the word "osteopathy" insert the word "optometry."
 Page 6, line 23, after the word "dentistry" insert the word "optometry."
 Page 7, line 5, after the word "dentists" insert the word "optometrists."
 Page 10, line 23, after the words "school of osteopathy" insert the words "school of optometry."

Page 11, line 2, after the word "osteopathy" insert the words "of doctor of optometry or an equivalent degree."

Page 11, line 14, strike out the word "four" and insert in lieu thereof the word "five."

Page 11, line 16, after the word "osteopathy" insert the word "optometry."

Page 11, line 20, after the word "dentistry" insert the word "optometry."

Page 14, line 6, after the word "osteopathy" insert the word "optometry."

Page 14, line 12, after the word "dental" insert the word "optometric."

Page 14, line 23, after the word "physicians" insert the word "optometrists."

Page 15, line 2, after the word "osteopathy" insert the word "optometry."

Page 15, line 6, after the word "or" insert the word "optometry."

Page 18, line 3, strike out the line and insert in lieu thereof the following:

SEC. 3. (a) Section 702 (4) of the Public Health Service Act is amended by inserting "Optometry" after "dentistry."

"(b) Effective with respect to appropriations for."

Page 18, line 10, strike out "(b)" and insert in lieu thereof "(c)."

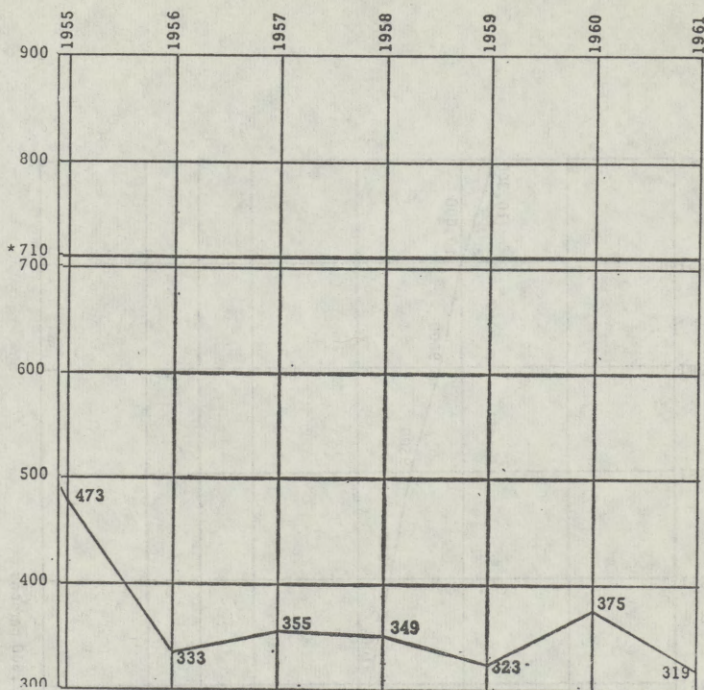
Page 18, line 13, strike out "(c)" and insert in lieu thereof "(d)."

Page 18, line 20, strike out "(d)" and insert in lieu thereof "(e)."

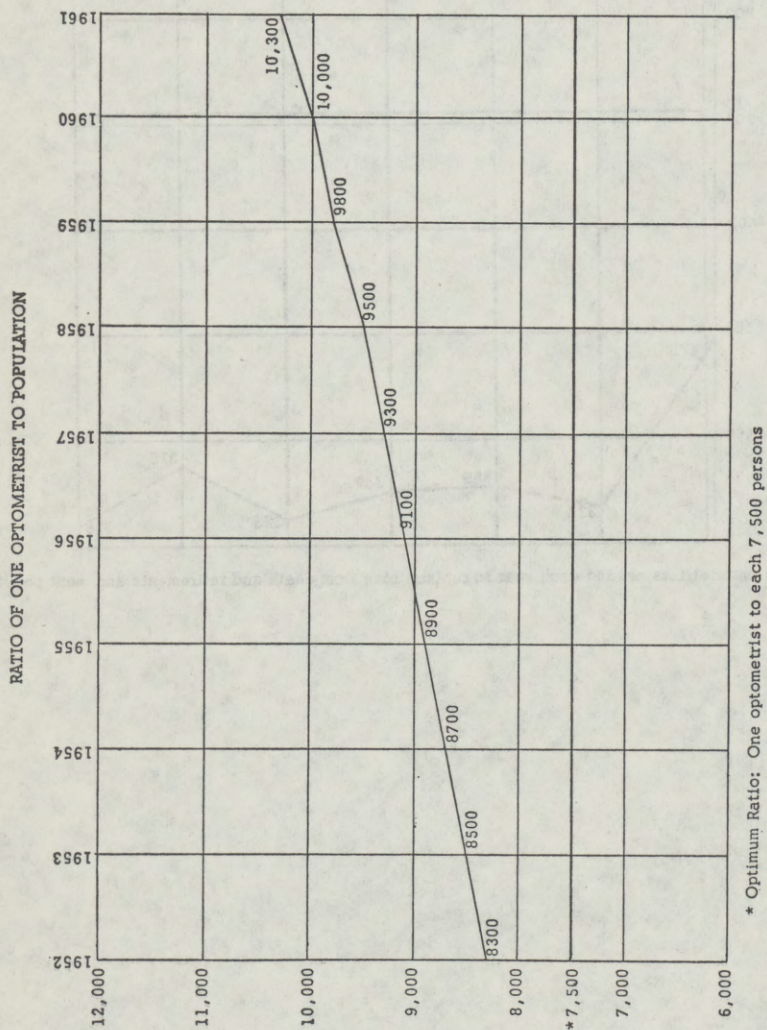
Page 19, line 8, strike out "(e)" and insert in lieu thereof "(f)."

Page 20, line 6, strike out "(f)" and insert in lieu thereof "(g)."

GRADUATES OF OPTOMETRIC SCHOOLS AND COLLEGES BY YEARS



* 710 new optometrists needed each year to replace loss from death and retirements and meet population growth



**SCHOLARSHIPS AND LOAN FUNDS AVAILABLE
FROM AMERICAN OPTOMETRIC ASSOCIATION
STATE ASSOCIATIONS, STATE WOMEN'S
AUXILIARIES, AND OTHER ORGANIZATIONS**

ALABAMA

(Contact The Alabama Optometric Association, Department of Public Information, P.O. Box 441, Aliceville, Alabama.)

Scholarships

Alabama Optometric Association

The Alabama Optometric Association conducts a campaign for collection and sale of old gold with proceeds going to college scholarships. Individuals also contribute to various scholarship funds and the Better Vision Program of the University of Houston provides the Alabama Association with one scholarship.

The Alabama Optometric Association will award a \$500.00 scholarship for use at the commencement of the first year of optometry college to a senior student in the State of Alabama.

CALIFORNIA

(Contact California Optometric Association, 926 "J" Building, Suite 810, Sacramento, California.)

Scholarships

Central California Society Annual Scholarships

Scholarships in the value of \$50 each are available for pre-optometry study at Fresno State College, Fresno City College, Porterville College, College of Sequoias (Visalia), Coalinga College, and Reedley College.

Woman's Auxiliary to the Central California Society

\$100 scholarship for a student entering optometry school.

Woman's Auxiliary to the California Optometric Association

Two \$200 annual awards, one each at the University of California School of Optometry and Los Angeles College of Optometry, to fifth year students in optometry.

Loan Funds

Woman's Auxiliary to the California Optometric Association

Available to senior students at Los Angeles College of Optometry and University of California. Students must be a resident of California for five years.

FLORIDA

(Contact Florida Optometric Association, Suite 326, 308 Tampa Street, Tampa 2, Florida.)

Scholarships

State of Florida

Five annual scholarships up to \$4,000 each for four years' attendance at accredited college of optometry. Available upon completion of pre-optometric requirements and acceptance by college. Recipients must be a resident of Florida no less than five years. Must agree to practice in locale designated by State Board. (Apply Florida State Board of Optometry, 202 North Howard Avenue, Tampa 6).

Loan Funds

Seymour G. Schneider Memorial Fund

(See Illinois College of Optometry)

Florida Optometric Association Loan Fund

Limited short-term emergency loans, when funds are available, to optometry students.

GEORGIA

(Contact the Georgia Optometric Association, 1024-25 Candler Building, Atlanta 3, Georgia.)

Scholarships

Georgia Optometric Association, the Woman's Auxiliary to the Georgia Optometric Association, and Cummins-Robertson, Inc.

One \$500 scholarship is awarded to an optometric student each year.

IDAHO

(Contact the Idaho Optometric Association, 1111 Manor Drive, Boise, Idaho.)

Scholarships

The Idaho Optometric Association

A \$500 scholarship award is made to an Idaho high school senior for use during his first year of enrollment in one of the following optometry schools: Illinois College of Optometry, Los Angeles College of Optometry, or Pacific University School of Optometry.

ILLINOIS

(Contact the Illinois Optometric Association, 3546 Ridge Road, Lansing, Illinois.)

Scholarships

Illinois Optometric Association

Full tuitional scholarships to Illinois College of Optometry cover three years of professional study. \$800 each year. Total commitment of Illinois Optometric Association for a year is \$2,400.

INDIANA

(Contact the Indiana Optometric Association, 419 Bankers Trust Building, Indianapolis, Indiana.)

Scholarships**Woman's Auxiliary to the Indiana Optometric Association**

\$200 scholarship in optometry to candidate currently enrolled as full-time college student in upper third of class and eligible to enroll in an optometry school by September. Selection will be based on academic performance and ability, leadership, character, personality and on evidence of financial need.

Fee remission scholarships and other special scholarships are made available through the office of Scholarship and Financial Aids, Indiana University, Bloomington.

KANSAS

(Contact Kansas Optometric Association, 820 Quincy, Topeka, Kansas.)

Scholarships**Kansas Optometric Association**

One scholarship is awarded each year to a young man or woman that is a high school graduate. The scholarship provides for tuition and fees for the years in optometry school. The recipient is selected on the basis of scholarship, leadership, and financial need.

KENTUCKY

(Contact the Woman's Auxiliary to the Kentucky Optometric Association, c/o Mrs. Wyman B. Porter, Shelbyville, Kentucky.)

Scholarships**Woman's Auxiliary to the Kentucky Optometric Association**

Funds are available for scholarships for optometric students.

LOUISIANA

(Contact Louisiana Optometric Association, George Isaac, O.D., P.O. Box 195, Sulphur, Louisiana.)

Scholarships**Women's Auxiliary to the Louisiana State Association of Optometrists.**

One scholarship

MARYLAND***Scholarships*****Woman's Auxiliary to the Maryland Optometric Association**

\$250 scholarship to student in Maryland meeting scholastic requirements. Contact Mrs. Carole Rubin, 2510 Colebrook Drive, Hillcrest Heights, Maryland.

MASSACHUSETTS

(Contact Massachusetts Society of Optometrists, 101 Tremont Street, Room 603, Boston, Massachusetts.)

Scholarships**Massachusetts Society of Optometrists**

Four \$200 scholarships are given annually to worthy students who give promise of achievement in the study of optometry. Students must attend the Massachusetts College of Optometry and those who are awarded these scholarships are eligible for continued payment of the stated sum as long as they continue to maintain grade levels placing them in the upper half of their classes and they continue to demonstrate need for financial assistance. Applicants must be residents of Massachusetts and must signify their intention to practice within the Commonwealth.

MICHIGAN

(Contact Michigan Optometric Association, 321-22 Hollister Building, Lansing 8, Michigan.)

Scholarships**Woman's Auxiliary to the Michigan Optometric Association**

Three \$250.00 scholarships are given annually to optometric students from Michigan. Recipients may attend the optometry college of their choice.

Students must have a "B" average in pre-optometric studies to be considered and must show financial need. Grant will be renewed yearly if scholarship level is maintained and need for financial assistance continues.

Emil H. Arnold Scholarship

Two \$300.00 scholarships are maintained at Ohio State University for optometric students from Michigan. Requirements are at least a "B" average in pre-optometric studies. Scholarships will be renewed yearly if scholastic average is maintained.

MINNESOTA

(Contact the Minnesota Optometric Association, 2901 Pleasant Avenue, Minneapolis 8, Minnesota.)

Scholarships**Woman's Auxiliary to the Minnesota Optometric Association**

\$250 scholarship to Minnesota student enrolled in second year of college. Must be in upper one-third of class and following course leading to optometric study. Cannot be employee of, or related to, anyone in optometric or optical field.

MISSISSIPPI

(Contact the Mississippi Optometric Association, Lexington, Mississippi.)

Scholarships**Mississippi Optometric Association**

Scholarship provided through Better Vision Program of University of Houston. (See University of Houston).

Mississippi Optometric Foundation

Provides scholarship assistance through Memorial Fund.

MISSOURI

(Contact the Missouri Optometric Association, 234-1/2 East High Street, Jefferson City.)

Scholarships**Woman's Auxiliary in Cooperation with Missouri Optometric Association**

\$500 scholarships awarded annually to high school senior who, in Selection Committee's opinion, shows promise of achievement in study of optometry.

Loan Funds**Missouri Optometric Credit Union**

Loan funds may be obtained from this organization. (Address: 4714 East 24th Street, Kansas City, Missouri.)

MONTANA

(Contact the Woman's Auxiliary to the Montana Optometric Association, c/o Mrs. E. A. Kuntz, First National Bank Building, Helena, Montana.)

Scholarships**Woman's Auxiliary to the Montana Optometric Association**

One \$250 annual award to student entering study of optometry. May be awarded to pre-optometry student, but funds are not to be used until student enters school of optometry.

NEBRASKA

(Contact the Nebraska Optometric Association, Box 460, Wayne, Nebraska.)

Scholarships**Woman's Auxiliary to the Nebraska Optometric Association**

Two \$200 scholarships. Each awarded annually to man or woman with proper pre-optometry credits. Recipients selected on character, financial need and scholastic achievement. Contact: Mrs. Ardith Macaluso, 630 North D, Fremont, Nebraska.

NORTH CAROLINA

(Contact the North Carolina State Optometric Society, Post Office Box 1153, Wilson, North Carolina.)

Scholarships

North Carolina State Optometric Society and the Woman's Auxiliary to the North Carolina State Optometric Society

Two \$500 scholarships to be awarded to optometric students each year.

NEW HAMPSHIRE

(Contact the New Hampshire Optometric Association, 3 Central Square, Keene, New Hampshire.)

Scholarships

New Hampshire Optometric Association and Woman's Auxiliary

Joint scholarship of \$200 to \$250 annually.

NEW YORK

(Contact the New York State Optometric Association, 250 West 57th Street, New York 19, New York.)

Scholarships

New York State Optometric Association

Two scholarships.

PENNSYLVANIA

(Contact Pennsylvania Optometric Association, 218 North Street, Harrisburg, Pennsylvania.)

Scholarships

Pennsylvania Optometric Association

\$3,200 four-year full tuition scholarship at Pennsylvania State College of Optometry to residents who meet pre-optometric college requirements. Candidate must be in upper half of class. Recipients must remain in upper half of class during course. Members of immediate families of optometrists are not eligible.

Woman's Auxiliary to the Pennsylvania Optometric Association

One \$3,200 four-year full tuition scholarship to women residents of the Commonwealth of Pennsylvania for admittance to the Pennsylvania State College of Optometry. Two years of pre-optometric college work and a ranking in the upper half of the class during the last academic year in college is necessary to be eligible. Each scholarship will remain in full force until graduation if the scholastic standing maintained in the professional curriculum ranks the recipient in the upper half of her class.

SOUTH CAROLINA

(Contact South Carolina Optometric Association, 904 Pendleton Street, Greenville, South Carolina.)

Scholarships**South Carolina Optometric Association**

One \$500 scholarship each year as a loan to be repaid after graduation.

TENNESSEE

(Contact the Woman's Auxiliary to the Tennessee State Optometric Association, c/o Mrs. Robert D. Sullivan, 2713 Woodlawn Drive, Nashville, Tennessee.)

Scholarships**Woman's Auxiliary to the Tennessee State Optometric Association**

One \$500 annual award to any resident of Tennessee upon entering a school of optometry.

Loan Funds**Tennessee State Optometric Association**

Loan funds of \$300 per year at 3% interest, with terms of repayment to be arranged, are available to students enrolled in a school of optometry.

Contact Tennessee State Optometric Association, 602-A Main Street, Savannah, Tennessee.

VIRGINIA

(Contact the Virginia Optometric Association, 2110 Spencer Road, Richmond 30, Virginia.)

Scholarships**Virginia Optometric Association**

One \$500 scholarship available to a Virginia resident on completion of pre-optometry requirements and acceptance by an optometric school or college.

Loan Funds**Alma H. Wilcox Educational Fund**

Loan funds may be obtained from the Alma H. Wilcox Educational Fund administered by trustees appointed by the Virginia Optometric Association.

WEST VIRGINIA

(Contact the West Virginia Optometric Association Auxiliary Scholarship Chairman, c/o Mr. Eugene Merrill, Executive Secretary, Room 2, Strong Building, Parkersburg, W. Va.)

CANADA

ONTARIO

(Contact Optometrical Association of Ontario, 2 Bloor Street, East, Toronto 5, Ontario, Canada.)

Scholarships

Optometrical Women's Auxiliary Scholarship

\$75 awarded by the Women's Auxiliary to the Optometrical Association of Ontario, to third year students who have the highest total marks for the first three years in the subject of Optometry.

\$50 awarded by the Women's Auxiliary to the Optometrical Association of Ontario to the second year student who has the highest total marks for the first two years on the subject of optics: geometrical, physical, and mechanical.

The Board of Examiners in Optometry in the Province of Ontario

Two \$450 scholarships awarded to two Ontario applicants of outstanding ability on the basis of academic standing. No more than one of these recipients may be a resident of the City of Toronto.

QUEBEC

(Contact the Minister of Social Welfare, Ottawa, Quebec.)

Loan Funds

Provincial Government of Quebec and the Pret d Honneur of the St. Jean Baptist Society

Loan fund of \$400 to \$500 per year at University of Montreal.

PROVINCE OF SASKATCHEWAN

(Contact the Saskatchewan Optometric Association, 513 McCallum Hill Building, Regina, Saskatchewan, Canada.)

Scholarships

The Saskatchewan Optometric Association

Two \$360 scholarships to residents of Saskatchewan who have completed studies in certain specified subjects at the University of Saskatchewan.

OTHER ORGANIZATIONS

Scholarships

Foundation for Education and Research in Vision, Inc.

Six \$200 scholarship per year. The student must be enrolled and in good standing at an accredited optometric school or college.

Contact Foundation for Education and Research in Vision, Inc.,
308 West Fifteenth Street, Austin, Texas.

American Optometric Foundation

Fellowships are awarded annually in amount of \$1,500 for graduate study. These are approved on a year-to-year basis for a three year maximum, dependent upon progress. Applicants must possess a graduate degree in optometry, an academic degree, must be working toward their Ph.D., and plan to make teaching in an optometric school their career.

Contact American Optometric Foundation, Inc., 111 South Meramec Avenue, St. Louis 5, Missouri.

SCHOLARSHIPS AVAILABLE FROM THE WOMAN'S AUXILIARY TO THE AMERICAN OPTOMETRIC ASSOCIATION

(Contact National Auxiliary President, American Optometric Association, Administrative Office, 4030 Chouteau Avenue, St. Louis 10, Missouri.)

Many state auxiliary affiliates provide \$250 scholarships, with matching grants available from the following:

- Illinois College of Optometry
- Indiana University, Division of Optometry
- Los Angeles College of Optometry
- Massachusetts College of Optometry
- Pennsylvania State College of Optometry
- Pacific University College of Optometry
- Southern College of Optometry
- University of Houston

**SCHOLARSHIPS, FELLOWSHIPS, AND LOAN
FUNDS AVAILABLE FROM SCHOOLS AND
COLLEGES OF OPTOMETRY**

ILLINOIS COLLEGE OF OPTOMETRY

(Contact the Illinois College of Optometry, 3241 South Michigan Avenue, Chicago 16, Illinois.)

Scholarships

Midwest Optometric Scholarship Fund

Established by anonymous donors, this fund provides several full or part tuition scholarships and is administered by the college. They are available to any student who has completed the pre-optometry curriculum required for admission to Illinois College of Optometry and are granted on the basis of scholarship and need.

Fellowships

One or more full or half tuition fellowships are offered to students entering their first professional year of study. Applicants must present evidence of the satisfactory completion of two years of college work at an accredited institution. Awards will be based on scholarship, student interviews, recommendation from professional and community leaders, and the performance in a competitive essay on "The Contribution of Optometry to My Community." Fellowships are also available at the end of the first and second years of study. One or more full or half fellowships in the amount of a half year tuition will be awarded at the end of these respective years to those students who maintain an excellent academic record and also make distinguished contributions in leadership and service. One half of this amount will be applied toward tuition in each semester in the year in which it is awarded.

Loan Funds

Four student loan funds are presently available at Illinois College of Optometry. Approximately \$40,000 is available in the National Defense Student Loan Fund, and the Doctors Wesley-Jessen Fund, Morris Manus Memorial Fund, Martha Guddar Student Aid Fund, and the Illinois College of Optometry Student Loan Fund, total over \$11,000. Loans are limited in amounts to approximately \$500.

These student loan funds are available to any student who has satisfactorily completed one academic year of study at the Illinois College of Optometry. A loan must be repaid no later than one year after graduation.

National Defense Student Loans are repayable over a ten year period after graduation.

Dr. Seymour G. Schneider Memorial Loan Fund

Applicant must be Florida resident attending ICO. Loan bears 3% interest on unpaid balance, and must be repaid within one year after graduation.

INDIANA UNIVERSITY

(Contact Director of Scholarships and Financial Aids, Maxwell Hall, Indiana University, Bloomington, Indiana.)

General University Scholarships

At least two state scholarships are offered to students in each county of the state. There are some 250 Merit Scholarships awarded each year as well as many endowed scholarships.

University Loan Funds

Students in good standing in the Division of Optometry are eligible for loans which are available to University students in general.

LOS ANGELES COLLEGE OF OPTOMETRY

(Contact Registrar, Los Angeles College of Optometry, 950 West Jefferson Boulevard, Los Angeles 7, California.)

Scholarships**Alpha Gamma Sigma**

Honorary fraternity in California junior colleges may nominate one man and one woman annually to receive scholarships. Given only to students in junior colleges. Information available from chapter representative on junior college campuses.

Los Angeles College of Optometry Alumni Association

Alumni, in cooperation with local societies, jointly sponsor \$100 scholarships each to students enrolled in pre-optometry courses at an accredited junior college. Participating societies are Los Angeles County, Long Beach, Rio Hondo, Mojave Desert and San Gabriel Valley. Applications may be made to society president in area of student's junior college, or to: Registrar, Los Angeles College of Optometry.

Woman's Auxiliary to the California Optometric Association

\$200 scholarship granted annually to optometry student in final year. Must be California resident for at least five years. Must maintain 2.00 grade point average for first two years in optometry. Award also given on basis of leadership and interest in profession, and financial need.

State Optometric Association Awards

Various state optometric associations award scholarships. Students interested in applying can contact the college, or presidents of their home state optometric associations, or the pre-optometry advisor in their college.

Student Council Award

Student Council administers funds, supported by student activ-

ities, each year which are distributed as scholarships. Award provisions are determined yearly by the Council after consultation with the college administration. Recipients selected from the student body.

Tom C. Hinds Scholarship

Available to Negro student enrolled in optometry. Selected by Mr. Hinds and the administration. Scholarship valued to \$1,000.

Philippine Optometry Awards

One year scholarships equal to full or partial tuition available to graduates of Centro Escolar University School of Optometry, Manila.

Loan Funds

Alumni Association Loan Fund

\$500 loan fund established as part of association's Development Fund. Available at no interest to seniors; repayable within one year after graduation. Selection made by college business office.

Woman's Auxiliary to the California Optometric Association

Limited fund for senior students on basis of: (1) California residence for four years; (2) grade point average of at least 1.50 during first two years; (3) financial need. Applications may be made to Auxiliary President or through the college business office.

National Defense Student Loan Fund

Full-time students with financial need to continue education may apply for a loan each semester under this act. Applications and details available from the Registrar-Comptroller.

MASSACHUSETTS COLLEGE OF OPTOMETRY

(Contact Massachusetts College of Optometry, 178 Newbury Street, Boston 16, Massachusetts.)

Scholarships

Maurice H. Saval Tuition Scholarships

Two \$600 (\$300 per year for two years) to student who gives promise of achievement in optometry and meets all requirements. Must be in the upper third of his class at the end of the year to be eligible for the second installment of the scholarship. Application to be made before the first of August for the following September.

Massachusetts Society of Optometrists' Scholarships

Four \$200 scholarships annually. Must be residents in the state of Massachusetts and must signify their intention to practice in the Commonwealth. Application to be made before the first of August for the following September.

Alumni Association Tuition Scholarship

Two \$150 scholarships annually to a needy and worthy student

of the fourth year class. Recipient to be selected by the faculty Committee on Scholarships and Awards.

National and State Auxiliaries Scholarships

The Woman's Auxiliary of the American Optometric Association together with the Woman's auxiliary of state affiliated groups will provide one year tuition scholarships of \$250. Scholarship to be matched by the Massachusetts College of Optometry.

Woman's Auxiliary-Massachusetts Society of Optometrists

\$150 toward the tuition fee of a student eligible for admission to the program leading to the Doctor of Optometry degree. Amount to be matched by the Massachusetts College of Optometry.

George Comstock Scholarship Foundation

\$300 Scholarship given by the Connecticut Optometric Society. Must be a resident of Connecticut.

New York State Alumni Scholarship

Two \$250 scholarships given annually. Must be residents of New York.

Optical Wholesalers Association of New England

Two annual scholarships. \$375 to worthy undergraduate, New England resident beyond first year of study. \$300 to worthy New England resident eligible for Advanced Optometry.

Loan Funds

National Defense Student Loan Program

The college participates in the National Student Loan Program through which eligible students may borrow funds to help finance their education. The maximum amount a student may borrow in any one fiscal year, from July 1 to June 30, is \$1,000, and the total amount during the duration of the program is limited to \$5,000.

The Rose and David Berlowitz Student Assistance Fund

A \$500 fund to provide needy and deserving students with the opportunity to borrow small sums to meet emergencies. These loans are to be repaid without interest after graduation.

Western District Massachusetts Society of Optometrists Auxiliary Loan Fund

The Western District Massachusetts Society of Optometrists Auxiliary Loan Fund was established to aid students who are in need. Loans are available to students who have completed one academic year of study at the Massachusetts College of Optometry. The loans must be repaid not later than one year after graduation.

OHIO STATE UNIVERSITY

(Contact the Ohio State University, Columbus, Ohio.)

Scholarships

General University Scholarships

These are provided by the University on the basis of scholarship and need. A student must be in the upper one-third of his class in optometry. Grants range from \$200 to \$300 per year. Eight students received aid in 1961-62.

Privately Provided Scholarships

Two \$250 scholarships are provided by the Woman's Auxiliary to the Michigan Optometric Association, to Michigan residents enrolled at the University.

Emil H. Arnold Scholarships in Optometry

Two scholarships of \$300 each will be offered to students entering in 1962 who reside in Michigan. In order to qualify for consideration, applicants must have earned at least a B average in their pre-optometry college courses. The pre-optometry courses may be completed in any accredited junior college, college, or university. Recipients will be eligible for renewal of their scholarships for the same amount each year of their enrollment in the School of Optometry, if they maintain a B average or better.

Loan Funds

University Loan Funds

Student loans are handled by the University Scholarship and Financial Aid Office. Students who are on scholarship grants may also receive loans. The university will loan as much as \$1,000 at a low interest rate to be repaid in small installments following graduation.

PACIFIC UNIVERSITY

(Contact Pacific University, Forest Grove, Oregon.)

Scholarships

Ten 4 year scholarships, (\$250 per year) matching funds in the amount of \$1,000, have been extended to British Columbia, Manitoba, Colorado, Idaho, Iowa, Kansas, Minnesota, Wisconsin, Nebraska, North Dakota, and South Dakota.

Scholarships offered at Pacific University are of four kinds and are all awarded in full consideration of the following factors:

1. Academic achievement and promise as indicated by high school records and school recommendations.
2. Relative financial need.
3. Qualities of character and promise of contribution to the college and to the community.
 - a. Honors at entrance — These will be awarded to a limited number of entering freshmen in recognition of distinguished achievement in secondary schools and promise of success at Pacific University. All high ranking in-

coming freshmen are automatically considered for this award, therefore no application is required.

- b. Scholarship awards – In this group financial assistance is awarded to sophomores, juniors, and seniors who achieve outstanding scholastic success at Pacific University. For freshmen, awards will depend on high school scholarship records and rank in the senior class. No applicant for this award will be considered whose grade point average is below 2.75.
- c. Grants in aid – These awards are made to freshmen, sophomores, juniors, and seniors, and are intended to recognize financial needs and the prospect of outstanding contributions to co-curricular activities on the campus.
- d. Athletic awards – These awards are made in strict accordance with regulations of the Pacific Inter-Collegiate Athletic Council.

By submitting one's application form to the Committee on Admission, Scholarships, and Reinstatement prior to May 1 of each year, the prospective recipient of assistance assures himself automatically of consideration for all scholarships for which he may be eligible. It is not necessary for him to specify the scholarships for which he is applying.

All recipients of financial aid are required by action of the Board of Trustees, to reside in university housing or at home. Exceptions are made only in cases where the student is engaged in a work situation which requires him to live off the campus.

Matching Scholarship Program

Individual churches participate in Pacific University's Church Matching Scholarship Program, whereby Congregational Churches may forward an amount to Pacific University to assist a student and that amount is matched from Pacific University's General Scholarship Fund. Bethel Congregation Church of Beaverton, Portland First Congregational Church, Westminster Congregational Church of Spokane, First Congregational Church of Salem, and Fauntleroy of Seattle are presently participating in this program.

Oregon Congregational Conference, Pacific University Scholarship Program

A number of awards are available to members of Pilgrim Fellowship Groups in Oregon, coming through the Congregational Conference at Pacific University Matching Scholarship Program.

The Wehrhan Scholarship

The combined churches of the Tacoma area in Pacific University Matching Funds offer several scholarships annually.

The Elbridge and Mary Stuart Scholarship

Three \$325 per year Scholarships to worthy students of Christian character from the State of Oregon and/or Washington.

The W. E. McKnight Memorial Scholarship

A \$3,000 fund available for the purpose of providing scholarship

aid to worthy students.

The William Morgan Kent Memorial Fund

Available fund of \$3,400 to worthy students majoring in Social Science, who have successfully pursued studies in college in such field, for at least one year, preferably two years.

The William Robertson Warren Memorial Award

A \$10,000 fund available to needy men students enrolled in the University.

Pacific University Guild Scholarships

Supported by the income from a fund of \$5,000 to aid worthy students desiring to attend the University.

Forest Grove Woman's Club Scholarship

Offered annually to a woman graduate of the Forest Grove Union High School.

Phi-Beta-Tau Scholarships

A scholarship of about \$150 offered annually to one or more high school senior boys upon entering the University.

A. H. Harding Memorial Fund

The income from this fund provides scholarships for outstanding students.

P. E. O. Sisterhood Scholarship Fund

A \$125 scholarship grant to apply on tuition for high school senior girls with high scholarship.

Eastern Star Scholarship Fund

\$100 scholarships annually to women students who are members or daughters of members of the Order of the Eastern Star in Oregon. Scholarships are to be presented at the end of the junior year to worthy students in need of financial assistance for the senior year. Women students majoring in religious education will receive preference; however, the scholarships are not limited solely to this field.

Price Memorial Scholarship

This fund provides a scholarship each year for some deserving upper class student.

Loan Funds

Government Funds

Recently allocated funds totaling about \$17,000.

The Pacific University Guild Loan Fund

This fund now totals over \$7,000. Available to junior and senior students.

Blance M. Fuller Memorial Loan Fund

This fund now totals \$485, and is available for loan to students at any college level actively interested in the Christian program on the campus.

Maude Brown Pendleton Loan Fund

Total of approximately \$2,700. Loans are available to all students.

Daughters of the American Revolution Loan Fund

This fund amounting to \$900 is available to junior and senior students only.

R. A. Booth Loan Fund

This fund amounts to \$790 and is available to all students.

Ralph Moser Loan Fund

This fund is available to students who need immediate financial assistance for a short period of time.

Mayflower Loan Fund

This fund amounts to \$650. It is available to all students.

Annie Roberts Foundation

Provides loans not to exceed \$200 per year per student.

Eastern Star Loan Fund

This fund makes loans of not more than \$300 to senior women students who are members or daughters of members of the order of the Eastern Star in Oregon. Notes draw 4% interest and are due not later than one (1) year following graduation.

Other loan funds included are the Charles H. Thompson Loan Fund for Women, the Crawford Loan Fund available at the United States National Bank of Portland, and the Ben Selling Loan Fund, First National Bank of Portland. These are held in trust by the Portland institutions which have requirements essentially the same as the University's in making the loans.

Students interested in educational loan funds maintained by the Independent Order of Odd Fellows may inquire at the business office at the University. For detailed analysis of methods for financing, write to the Director of Information, Pacific University, Forest Grove, Oregon for the pamphlet entitled "Financing a College Education."

PENNSYLVANIA STATE COLLEGE OF OPTOMETRY

(Contact Pennsylvania State College of Optometry, 6100 North Twelfth Street, Philadelphia 41, Pennsylvania.)

Scholarships

Pennsylvania State College of Optometry Scholarships

Three 4 year scholarships available to applicants who complete their pre-professional college work in a college or university accredited by the Commission of Higher Education of the Middle States Association of Colleges and Secondary Schools. \$800 each per school year. Any student who has completed or will complete entrance requirements of the college prior to the beginning of the next academic year, is eligible to compete. Application must be submitted before May 1st of the entering

year. The applicant must have a good scholarship record in high school and college, and be recommended by the dean or pre-professional advisor where he took his pre-professional work.

The recipient must maintain an academic standing in the upper half of his class to continue holding his scholarship.

Student Loans

National Defense Education Act

The College is a participant in the National Defense Education Act, Student Loan Program. Limited funds are available for loans to students under this program.

There is a student loan fund administered by the Student Council, which provides small short term loans, interest free.

SOUTHERN COLLEGE OF OPTOMETRY

(Contact M. E. Broom, Ph.D., President, Southern College of Optometry, 1246 Union Avenue, Memphis, Tennessee.)

Scholarships

The College will match four (4) scholarships in the amount of \$250 per year, when the initial award is made by a State Auxiliary, for a period of one (1) year. Such scholarship awarded by Southern College is for one (1) year, and may be made to a student in any classification.

The College awards for one (1) year the following scholarships:

(a) Two one-year scholarships in the amount of \$350 to students enrolled in the Junior class; (b) Two one-year scholarships in the amount of \$450 to students enrolled in the Senior class.

Loan Funds

The College participates with a local bank in operating a loan fund to assist students. The present limitation is \$500 during any one (1) year. Basis for award of scholarships and for approving loans is: good academic achievement, need, and good promise for future practice of Optometry. These programs operate under the supervision of Dr. Ina B. Cramer, Secretary-Treasurer of the College.

UNIVERSITY OF CALIFORNIA

(Contact Dean, School of Optometry, University of California, Berkeley 4, California.)

Scholarships

General University Scholarships

There are a number of scholarships which are granted either by the Dean of Students or by a committee on undergraduate scholarships. These are granted on the basis of need and scholarship to any student registered at the University of California.

California Optometric Alumni Association

Several scholarships available. \$500 to graduating high school

seniors. \$450 to college pre-optometry students. \$400 to students entering School of Optometry. \$200-\$400 to second and third year optometry students. High school awardees receive \$50 at high school graduation, \$50 at end of first year of satisfactory pre-optometry work at accredited college, and \$400 during first year at UC School of Optometry. Pre-optometry students receive \$50 at end of first year of satisfactory work at accredited college, \$400 during first year of optometry school. Entering students and second and third year students in School of Optometry receive four equal installments in October, November, March and April of academic year. Scholarship Committee accepts applications between February 1 and May 1. By May 15, all applicants notified of awards. Winners must signify acceptance by May 25.

George L. Schneider Memorial Scholarships

Two \$250 grants to fifth-year students of exceptional scholarships and potential ability as clinicians, who are candidates for an advanced degree (M.O.) in the field of optometry on the Berkeley campus.

General Optometric Scholarship Fund

One \$250 scholarship grant to be awarded to an entering student based on need and scholarship. This scholarship is administered by the Dean of Students of the University of California with the advice of the Dean of the School of Optometry. Ordinarily this scholarship will be granted to an out-of-state student and will be used to match scholarships granted by out-of-state agencies such as optometric associations, women's auxiliaries, etc.

Ralph S. Minor Memorial Scholarship

\$400 to a School of Optometry student. Scholarship awarded from special funds collected by the Optometry Alumni Association and granted on scholarship and professional promise.

Fellowships

Katz and Klein Graduate Fellowship in Optometry

\$400 to fifth-year students in the School of Optometry on the Berkeley campus who have been California residents for at least three years, and who have shown outstanding academic, clinical, and professional potential in the field of optometry.

Loan Funds

General University Loans

These are limited funds available for loan to needy students by the University. These loans are administered by the Dean of Students.

National Defense Student Loan Funds

Loans up to a maximum of \$1,000 per year for a total of \$5,000 are available for full-time needy students. These loans are administered by the Dean of Students of the University of California.

UNIVERSITY OF HOUSTON

(Contact University of Houston, College of Optometry, Houston 4, Texas.)

Scholarships**Better Vision Scholarships**

\$500 tuition awards for first year optometry students for the University of Houston. At least one scholarship will be given to a qualified applicant in each of the following states: Alabama, Arkansas, Florida, Georgia, Louisiana, Kansas, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, and Texas. In addition, there will be at least one Better Vision Scholarship specifically designated for women students.

The recipient will be selected on the basis of financial need, scholastic ability, and admission to the University of Houston, College of Optometry. All that is required is an approved admission which can be granted conditionally upon completing the remainder of your pre-optometry courses.

While grades are a consideration and a C average is required for admission to the College of Optometry, financial need and overall ability of the applicant weigh heavily.

If any state listed above does not have a qualified applicant by August 15, the Faculty Scholarships Committee will consider applicants from other states for the scholarship.

The Foundation for Education and Research in Vision

Offers 4 scholarships of \$200 each.

Unrestricted Scholarships

These are offered by the University and optometry students may apply.

Loan Funds**Education Funds Plan**

Provides funds to meet any or all costs of an education. Repayment is by convenient monthly installments.

National Defense Student Loan Program

Full-time students or prospective full-time students are eligible to apply. Students may borrow up to \$5,000 at the rate of \$1,000 per year, based on financial need, ability to do college work and character. Repayment of loans must begin one year after termination or graduation. Loans bear simple interest on the unpaid balance at the rate of 3% per year. Total loans and interest thereon must be repaid within 10 years after termination or graduation.

University Loan Funds

Any student who has established a satisfactory academic record for at least one year at the university and who has a good financial record is eligible for a loan. Loans are made for a term of one to three months depending upon the amount borrowed. A few long-term loans are made to students of upper class standing, subject to repayment during the summer or after graduation.

The CHAIRMAN. Any questions, Senator Pell?

Senator PELL. Thank you.

I think all of us who are plagued with bad eyesight are particularly sympathetic to your profession, and I am speaking as a Senator from Rhode Island, and I have particular admiration for your president there, Dr. Harris Wolf, and many of your optometrists up there with whom I have the most cordial relations.

I do have a couple of questions.

First, in connection with the present enrollment in your schools, what is the percentage of capacity being used by the 10 accredited schools as of now?

Dr. CHAPMAN. I am going to ask Dr. Fitch, if I might, Senator, to answer that question for me.

Dr. FITCH. Several of the schools are working at capacity. Several others are working somewhat slightly below capacity. I do not know that I could give you any exact percentage. I would guess in the overall situation it would probably be 75 or 80 percent of capacity throughout the country.

Senator PELL. In other words, it might seem more logical that you should be included in the loans rather than in the construction portion of the bill?

Dr. CHAPMAN. May I answer that or make comment on that, Senator?

Senator PELL. If you had to take one or the other?

Dr. CHAPMAN. Well, perhaps so. I would have to agree that perhaps so.

However, one of the problems in having the capacity is the location of the school itself, and the difficulty and the expense of attending such schools by many of our young people who are interested in it.

And, therefore, this is almost a two-way street, in the sense that we require the additional help for the young people to take advantage of that which we have available.

And I think when we do, if we were able to have additional facilities, in fact, that we will see our enrollment rather markedly increased in filling those available slots.

Senator PELL. I notice you mentioned that about a little more than half of the practicing optometrists are members of your association. Why are not more members or more practicing optometrists members of your association?

Dr. CHAPMAN. I think the major answer to that, Senator Pell, would be in the area of the concern which we have as a profession for the very professional, ethical practice of optometry by all of our people, and the very nature and the use of this profession as a profession. In the history of professions in this country, we are new and we are in the process constantly of bringing up the abilities and the standards of the practice of optometry in each State of the Union.

But in many of those areas an individual's practice methods are not acceptable to the professional optometrists of today.

Senator PELL. So would you be willing to hazard the thought that those optometrists who could meet the standards that you set are almost always members of your association?

Dr. CHAPMAN. Yes, I would say that; yes, and we are now making one of the extremely provocative objectives of this association, the bringing up to the standards that we feel is necessary for the vision, care, and welfare of this country, so that we can bring these people up to those standards and make them members.

Senator PELL. If it were to appear that it would be impossible to accept Senator Williams' amendment, do you still believe the bill as presently drafted, the House bill, would be an advantage to your profession?

Dr. CHAPMAN. Yes, sir; it would be an advantage to our profession, but we need students more than we need additions to present facilities.

Senator PELL. And finally, I notice it takes 2 extra years to get a degree in physiological optics.

What does that mean?

Dr. FITCH. Physiological optics you might say is the science of optometry or the clinical application of physiological optics so that the graduate degree, which is given by the three universities which confer a graduate degree, is the Ph. D., doctor of philosophy in physiological optics.

Senator PELL. But what does a man learn more of and why does he have to know this?

Dr. FITCH. Let's say he is trained as a scientist and a teacher through pursuing his graduate work.

He is most likely to go into teaching or research work rather than, say, make use of the clinical practice of optometry of which he has a former or previous knowledge.

Senator PELL. I see.

Dr. CHAPMAN. This goes beyond the clinical stage, Senator. It goes into the very deep realm of the science itself and the teaching of it and the research factors of optometry.

Senator PELL. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Congressman Fuqua, is there anything you would like to add?

Mr. FUQUA. No, Senator Hill. I just appreciate the courtesy that you have extended to us this morning.

The CHAIRMAN. We are very glad to have you here. We appreciate your contribution and, gentlemen, we appreciate the contribution that you have made here this morning.

We want to thank each of you very, very much.

Now the American Podiatry Association, Dr. Philip Brachman of Chicago, Ill., who is chairman of the council on education.

STATEMENT OF DR. PHILIP BRACHMAN, CHAIRMAN, COUNCIL ON EDUCATION; ACCOMPANIED BY SEWARD P. NYMAN, SECRETARY-TREASURER, AND LLOYD E. BLAUCH, CONSULTANT, AMERICAN PODIATRY ASSOCIATION

The CHAIRMAN. Doctor, we are glad to have you here with us and these other gentlemen also. You may present them to us.

Dr. BRACHMAN. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, on my right is Dr. Lloyd E. Blauch, formerly U.S. Assistant Commissioner for Higher

Education, and on my left is Dr. Seward P. Nyman, secretary-treasurer of the American Podiatry Association.

I am practicing podiatrist from Chicago, Ill.; a member of the faculty of the Illinois College of Podiatry and of the staff of the American Hospital, both of that city. I am here as chairman of the council on education, of the American Podiatry Association. With me is Seward P. Nyman, D.S.C., secretary-treasurer of the American Podiatry Association, and our consultant, Lloyd E. Blauch, Ph. D., formerly U.S. Assistant Commissioner for Higher Education.

The American Podiatry Association is a voluntary nonprofit federation with 52 component societies and celebrated its 50th year of service to the profession and the public in August 1962. Our membership comprises 68 percent of the 7,600 practicing podiatrists. The council on education was created in 1921, assuming and expanding the functions of a committee on education which preceded it.

The council on education of the American Podiatry Association is recognized by the Commission of Education, U.S. Department of Health, Education, and Welfare, as the accrediting agency for podiatry schools, two of which were founded 52 years ago.

We have four colleges of podiatry. Podiatry schools are listed in the Directory of Higher Education, published by the Office of Education.

We support the proposals to provide assistance to education for the health professions which include podiatry schools. Extensive hearings in this and previous Congresses have elicited much testimony regarding this need for this type of legislation. We believe that our presentation will persuade you to continue to include podiatry schools.

Since we devote our services exclusively to the foot, we recognize that we have a major obligation to society to insure that there shall be an adequate supply of well-trained professional people caring for the Nation's foot health problems. Accordingly, in August 1960 our house of delegates authorized the establishment of the special commission on the status of podiatry education to "examine, from a broad point of view, the profession's educational program and advise on steps necessary to improve this program."

William K. Selden, LL. D., executive secretary of the National Commission on Accrediting, agreed to chair the commission and select the other members. Their report, "Podiatry Education in the 1960's, Status and Opportunities," has been published. Our leadership has, with a very large gulp, accepted the challenges laid down in the commission's 26 recommendations. A perusal of the report will establish that podiatry schools face problems parallel to those reported for medical and dental schools.

At this point I should like to quote one of the commission's recommendations:

10. It is recommended that attention be focused on the strained financial conditions of the colleges of podiatry and that the following measures be adopted immediately:

(c) that the American Podiatry Association represent to the appropriate legislative and executive officials of the [Federal] Government the need and social advisability of making financial provisions for podiatry education in ways similar to those made for the other health services.

What are we podiatrists doing to help meet our schools' needs? For one thing, we are here today. Some measures are:

(a) We have organized a fund for podiatry education and research. This has stimulated the giving by alumni and friends of our schools of more than \$250,000 in its first 3 years.

(b) We have increased our dues structure to make available \$10,000 annually to our schools through matching grants, for full-time teaching and research personnel salaries.

(c) One alumni association of less than 2,000 members raised \$35,000 in one recent drive, and is in the middle of another which, in a year or two, will produce for the schools each year \$50,000, through life-time pledges of annual giving.

(d) Another college and its alumni have embarked on a \$3¼ million growth project. From the first half million, a small teaching hospital and a diagnostic and laboratory facility are already in operation.

(e) The house of delegates of our association less than 2 weeks ago authorized \$60,000 over a 2-year period for some special studies on (1) podiatric manpower and needs, (2) guidelines for construction, expansion, improvement, and rehabilitation of podiatric educational facilities, and (3) a podiatry curriculum study. Grants are being sought to support the last.

(f) In the past 4 years there has been a 20.5 percent increase in first year enrollment, 18.6 percent of this in the last 2 years. Indications are that this fall two and perhaps three schools will have filled all the first year spaces and that 90 percent of our total first year capacity will have been reached. By 1966, at the latest, our present schools will be unable to accept all the qualified applicants having the prerequisite 2-year baccalaureate work.

I must point out that these things were accomplished by a small group of men. We are a small group compared to the other larger professions.

The CHAIRMAN. How many schools have you, Doctor?

Dr. BRACHMAN. We have four schools, sir.

The CHAIRMAN. Four?

Dr. BRACHMAN. Unfortunately the increased enrollment is actually overtaxing our facilities, and there is imminent danger of a decrease in the quality of the educational program. What was satisfactory in the late thirties and forties, and even early fifties, is inadequate to keep pace with the rapidly expanding rate of growth of new knowledge. A recent accreditation survey of one school suggested—in fact, was pointed out by the school officials—that present rated capacity of 50 per class should more properly be rated at 30 per class.

We have touched on our schools' needs, but is there a public need for foot health service? A 1951 Public Health Service report on the physical status of men examined through selective services in World War II disclosed that twice as many registrants were rejected for foot problems, 1.4 percent, as were for dental problems, 0.7 percent. In all examined registrants, 90.1 per 1,000 had foot defects as compared with 116.1 per 1,000 for dental defects.

These numbers pale when compared with the incidence of foot problems in the rapidly expanding older population. One short quote from publications and reports of the 1961 White House Conference on Aging seems to be in order here—

The institutionalized or home-care patient, once moving about with pain-free feet, is more easily motivated for total rehabilitation; 85 percent of these older people have foot problems.

Dr. E. L. Tarara, podiatrist at Mayo Clinic, in a study made in preparation for the White House Conference, reported that in a survey of 182,491 patients treated in the offices of 228 podiatrists, 27.67 percent were 65 or over—9 percent of the U.S. population is 65 or over. A few podiatrists had as high as 65 percent of their patients in this age bracket.

I think you would like to know other facts about podiatrists.

In a hearing before a congressional committee, May 3, 1961, on H.R. 4998, Dr. Huntington Williams, city of Baltimore health commissioner and president, U.S. Conference of City Health Officers, said:

I would like to point out in a different direction the need for more adequate facilities to provide health and medical care to elderly persons in vital items that are often overlooked in current programs. I will mention three—eyesight, hearing, and care of the feet in the elderly.

The question might be raised, "Isn't foot health care and service provided by the medical profession?" The American Medical Association says no. In a report of its judicial council, published in April 1939, it says that this field "too often is neglected. General opinion seems to be that podiatry fairly well satisfies a gap in medical care that the (medical) profession has failed to fill." Samuel L. Andelman, M.D., M.P.H., commissioner of health, Chicago Board of Health, says podiatry is not just filling a gap; actually it is filling a vacuum.

Podiatry extends, complements, and supplements the physician's service. Because we are licensed to treat independently, we free him for other services. Also it has been our experience that early evidence of many systemic and chronic diseases first manifest themselves in the foot. One of our schools is presently cooperating with the Chronic Disease Section of the Public Health Service to determine the incidence of certain previously undiagnosed systemic and chronic diseases present in patients complaining only of foot problems.

Another significant factor was pointed out by Walter C. Alvarez, M.D., in an editorial in the May 1961, issue of *Geriatrics*. He was commenting on the importance of podiatry service to the older patient and related how the podiatry service in a home for the aged kept patients ambulatory who might otherwise be bedridden. "And this is important," he writes, "because in 1950 the cost of a bedridden patient was \$4.03 a day while that of an ambulatory patient was only \$1.78 a day."

Early in 1960 we desired to obtain some quantitative data about our services. A survey questionnaire was designed and the replies were collected and tabulated by an IBM subsidiary. A total of 3,296—40.19 percent—replies were received. Among others, we learned the following facts about podiatrists—

- 64.6 percent perform some institutional service;
- 31.2 percent serve in nursing homes;
- 28.8 percent serve homes for the aged;
- 19.8 percent serve on a hospital surgical service;
- 19.0 percent serve on other hospital service; and
- 9.3 percent serve some governmental institution.

Obviously many of our respondents serve more than one institution. From the same survey we learned that, although the average number of office visits per week was 63.27 and that in 1959 the respondents treated an average of 730.03 different patients one or more times, the entire profession could only serve 6 million of our patients.

At present there is 1 podiatrist for every 23,000 persons, a completely inadequate number. Until 10 years ago, the growth of the podiatry population was running ahead of the general population growth. In the past 10 years it has been static and without the impetus that could be given by the legislation under consideration, the ratio will worsen. Appended is a table which shows the widely ranging ratio of podiatrists to State population as of 1960.

In recent years in our four schools—all accredited, private, non-profit institutions—funds that had been set aside to provide for development, expansion, and rehabilitation of existing facilities have been called on to simply maintain standards. Financial assistance is needed to prevent deterioration. Our schools report that by 1965 they will require \$4,787,349, for improvement and rehabilitation of physical facilities. A fifth school is in the planning stage. It is in association with a large metropolitan hospital and presently offers internships, residencies, some graduate training, and refresher courses. It anticipates expanding to include the 4-year professional curriculum of 4,400 hours as soon as financial arrangements can be assured. Our special studies will tell us where additional schools should be developed. An amount equivalent to 1 percent of that being considered for construction grants is suggested for podiatry schools.

I should like to present one other item for your consideration. The problem of the continuously and rapidly increasing body of knowledge in the health sciences cannot be solved by adding additional years of training to the already lengthy training required for medical specialization. Some medical schools are now experimenting on shortened programs for exceptional students. Dentistry has and podiatry is demonstrating that competent qualified practitioners can be trained for service in limited fields by complete specialized separate programs. This should be encouraged, as it will be with the passage of the legislation being considered.

We respectfully solicit your continued inclusion of podiatry in the Health Professions Educational Assistance Act and urge its early enactment so that the necessary impetus can be given to the public's well-demonstrated need for more health professions personnel.

Thank you for the opportunity to come before you and present this information. We are appearing in person in order that the members of this committee will have the opportunity to elicit any further information from us that it deems it needs.

The CHAIRMAN. Doctor, what is the geographical location of your four schools?

Dr. BRACHMAN. That is very interesting because a recent study made by Dr. Selden, on the commission studying our educational needs and requirements, has pointed out that our schools are all in the East and North, across the central part of the country, northern part of the country.

We have no schools in the South, Southwest, or none in the Northwest. We need some schools desperately to enable some of the potential students to go to school much closer to their homes.

The CHAIRMAN. I was interested in your statement and I was also very interested in this quotation of Dr. Alvarez.

That was a very strong statement on behalf of the podiatrists and, of course, the thing we have to remember is that we have so many more old people today than we had 25 or even 40 years ago. Is that not true?

Dr. BRACHMAN. Yes, sir; and if these people can be rehabilitated, it would take so many of these people off of public pensions and pay-rolls—I mean public welfare.

They can do work but they cannot get to the job.

The CHAIRMAN. In other words, they can then continue productive lives?

Dr. BRACHMAN. They certainly can.

The CHAIRMAN. If they are not physically disabled?

Dr. BRACHMAN. I am getting to that age myself.

The CHAIRMAN. Senator Pell?

Senator PELL. No questions.

Thank you.

The CHAIRMAN. Is there anything you gentlemen would like to add?

Dr. BRACHMAN. There is one point that Dr. Blauch points out, and I think it is very well taken, and that is that the podiatrists per population in the State of Massachusetts is 1 podiatrist to every 9,000-and-some-odd people, and it goes up and down, but in Alabama, Senator, there is 1 podiatrist for every 108,000-plus.

The CHAIRMAN. That is quite a difference.

How are they in Rhode Island?

Senator PELL. Well, just figuring that out very roughly, that would mean that we would only have 10 in Rhode Island, and I am sure we have more than that.

Dr. BRACHMAN. You don't; I am certain you do not.

Senator PELL. We do not?

Dr. BRACHMAN. You have a few in Providence, but that is about all.

Senator PELL. Then there are people who are listed as podiatrists, it would seem to me, in the classified section of the telephone book, who perhaps do not meet your specifications?

There are more people than that practicing foot care.

Dr. BRACHMAN. There may be a few more, but there are not very many. And if they are listed, they have met the qualifications.

Senator PELL. But not every chiropodist would meet the qualifications of a podiatrist?

Dr. BRACHMAN. Yes, sir; it is just a synonym. The new name was adopted 4 years ago.

They are exactly alike today.

Senator PELL. Well, I am being educated today. I thought they were more than that.

Dr. BRACHMAN. Unfortunately there are not. We would like to have more.

The CHAIRMAN. Is there anything you would like to add?

Dr. NYMAN. Well, it seems that Senator Pell is a little more current than Dr. Brachman on these figures. He comes from Chicago.

There are approximately 50 podiatrists who are members of our association from the State of Rhode Island.

Dr. BRACHMAN. I am sorry.

The CHAIRMAN. Any further questions, Senator Pell?

Senator PELL. No, thank you.

The CHAIRMAN. Gentlemen, we certainly want to thank you. We appreciate your statements very, very much.

Dr. BRACHMAN. Thank you.

STATEMENT OF JOSEPH P. ADAMS, COUNSEL, INTERNATIONAL CHIROPRACTORS ASSOCIATION

The CHAIRMAN. Now, the International Chiropractors Association. Mr. Adams?

Mr. ADAMS. It was the hope and intention of the International Chiropractors Association to be represented at these hearings by Dr. John Q. Thaxton, the president, and by Dr. Grady V. Lake, the chairman of the ICA Legislative Committee but, unfortunately, the dates of these hearings are in direct conflict with the annual meeting of the association, which is concluding today and has been held last week in Davenport, Iowa.

For that reason, Chairman Hill, they have asked their Washington, D.C. counsel to present this statement.

The CHAIRMAN. All right, sir.

Mr. ADAMS. If I may ask to have the statement included in the record, I would like to recite briefly some excerpted statements from it for the record.

The CHAIRMAN. All right, sir.

We will be glad to have you proceed that way, sir, and your statement will appear in full in the record. (See p. 268.)

Mr. ADAMS. Thank you, Chairman Hill.

Chiropractic today is the second largest healing profession in the United States and has earned and deserves your consideration for its inclusion in legislation now the subject of this committee's study.

Included in the statement is a brief report from Dr. O. D. Adams, who is the educational consultant to the ICA, but I would prefer instead to comment briefly from the various ICA colleges of chiropractic and their presidents.

First, Dr. C. S. Cleveland, president of the Cleveland Chiropractic College, which is located in Kansas City, Mo.

He says that most all States are crying for more chiropractors:

Many States, such as Nebraska, Colorado, West Virginia, and many others, are even subsidizing new graduates as an inducement to get them to come to their State.

He says further:

Our profession is losing many fine young men because they do not have the necessary funds to put themselves through chiropractic college without help.

Dr. Ernest G. Napolitano, president of the Columbia Institute of Chiropractic, which is located in New York, states that—

last year we had requests from qualified prospective students for tuition scholarships which amounted to some \$35,000.

Many of these individuals would have satisfied a national need that currently exists for qualified doctors of chiropractic but because of our schools not being able to carry this added financial load these candidates were not accepted.

The Logan College of Chiropractic, which is in St. Louis, Mo., Dr. William N. Coggins states:

At the present time Logan College of Chiropractic, St. Louis, Mo., has a request for a \$300,000 loan for student housing on file with the Federal Housing Development under HEW—

which is undoubtedly helpful to them although not a legislative matter that comes under this committee.

Now, the Palmer College of Chiropractic, which is located in Davenport, Iowa, President David D. Palmer points out that—

During the past 2 years we have experienced requests from acceptable matriculants for student scholarships in excess of \$100,000.

We have innumerable students the past year desperately in need of tuition assistance in order to permit them to continue uninterrupted in their professional studies.

To continue, I should like to point out that chiropractic is a licensed profession in 47 States of the Union. Chiropractic is generally recognized not only by national and State governments, but also by independent insurance companies, unions, industry, and the public.

Some industries now have staff doctors of chiropractic and many routinely refer injured employees to chiropractors.

Management-labor contracts provide for chiropractic care. Workmen's compensation laws in most States provide for chiropractic care.

The public is utilizing services of doctors of chiropractic in ever-increasing volumes.

In the report I have included the specific amendments which would be material to the inclusion of chiropractic in either of the sections of your legislation concerning construction grants or student loans.

And, in conclusion, I should like to pledge the support of the members of the International Chiropractors Association to the principles of S. 911 and the concept that medical, dental, and chiropractic schools constitute a national resource that should be both encouraged and developed to the fullest extent.

Your committee is aware of the fact that while there has been a tremendous growth in the number of college graduates since World War II, the number of applicants for training in the professional health services has decreased.

Mr. Chairman, I appreciate the invitation extended—

The CHAIRMAN. Mr. Adams, I want to ask this question. How many doctors of chiropractic are members of your association in the United States?

Mr. ADAMS. Approximately 5,000.

The CHAIRMAN. 5,000?

You do not have a breakdown showing where they are, so far as the States are concerned, do you?

Mr. ADAMS. Well—

The CHAIRMAN. That is not too important but—

Mr. ADAMS. They are in all 50 of the States, Chairman Hill, and I do not have a breakdown but I will be glad to supply that.

The CHAIRMAN. Well, now, I notice that the title is the International Chiropractors Association.

The word "international," what does that cover?

Mr. ADAMS. Well, the country that includes the majority of these chiropractors is Canada and Canada is represented, for example, today in the Davenport convention.

The Canadian chiropractors are represented and serve on the board of control of the ICA to the same extent as those in the United States.

The CHAIRMAN. This association is largely one then of Canadians and persons of the United States is it?

Mr. ADAMS. Yes, sir, that is true.

There are chiropractors who have participated in ICA conventions in England, France, Australia, New Zealand, South Africa, Mexico, and in Japan, and I would hesitate to make a further statement on that because I do not have the individual figures by country of affiliation.

The CHAIRMAN. How many schools do you have today in the United States?

Mr. ADAMS. The ICA has accredited five schools, the four mentioned in this statement and the Cleveland College of Chiropractic of Los Angeles, and there is another association that has several schools, the exact number of which I cannot state.

The CHAIRMAN. Any questions, Senator Pell?

Senator PELL. Yes.

How many chiropractors are members of your association in the United States?

Mr. ADAMS. I said that I thought the membership was approximately 5,000.

Senator PELL. Well, then let me phrase it another way—how many people have shingles out saying that they are chiropractors?

Mr. ADAMS. Oh, I believe the last occupational census indicated approximately 20,000 chiropractors.

Senator PELL. And of those, who are licensed in your profession, do all of them have 4 years of post-high school training?

Mr. ADAMS. Well, the courses at the chiropractic colleges that I have mentioned here today, have 4 years as the minimum course, yes, sir.

The CHAIRMAN. Yes.

Senator PELL. But all of those are members of your associations. Are they all graduates of such schools with the existing requirements?

Mr. ADAMS. Well, not exclusively, no, sir, Senator.

I mean, as far as the association and the schools are concerned, there is no direct relationship in that regard.

Senator PELL. In other words, the association does not require 4 years of post-high school training to be a member of the association?

Mr. ADAMS. I believe that is correct.

Senator PELL. Thank you.

Mr. ADAMS. I believe that the requirement—I mean, I know that the requirement is that the chiropractor be admitted in each of the States of the 47 States where they have licensure, and they take the same general type of State examinations in those States that are given to other professional groups.

Senator PELL. Thank you.

The CHAIRMAN. All right, Mr. Adams. We certainly do want to thank you. You have been with us before, and we are always very glad to have you with us.

Mr. ADAMS. Thank you, Mr. Chairman.

(The prepared statement of Joseph P. Adams follows:)

STATEMENT OF JOSEPH P. ADAMS, WASHINGTON, D.C., COUNSEL OF THE
INTERNATIONAL CHIROPRACTORS ASSOCIATION

Chairman Hill and distinguished members of the Senate Labor and Public Welfare Committee, I am privileged to address this committee on behalf of the International Chiropractors Association of 741 Brady Street, Davenport, Iowa. My position with the association is that of Washington, D.C., counsel. The International Chiropractors Association is active and represents member chiropractors in all States of the Union. It is dedicated to the public welfare and to the promotion and preservation of high professional standards. It maintains that all citizens are entitled to freedom of choice of doctor for their personal health care.

Certainly, gentlemen, there are compelling reasons why the science of chiropractic should be included in any consideration of the "Health Professions Educational Assistance Act of 1963," by appropriate amendment. Chiropractic today is the second largest healing profession in the United States, and has earned, and deserves your consideration for its inclusion in legislation now the subject of this committee's study. Research and development in the chiropractic colleges of this country will probably afford the greatest dollar's worth of value purchasable in the entire health field today while at the same time increasing the output of doctors whose training will be made possible by the student loan section of the act.

Being cognizant of the great number of witnesses and the length of testimony that will be presented to this committee, it is my hope that I can summarize and clarify the needs of the chiropractic profession by the inclusion in the statement of material made available by the leading educators in our field. To this end I will proceed to excerpt statements from the ICA educational consultant and the presidents of the following chiropractic colleges, all of whom are in complete support of S. 911, companion bills and the intent of the legislation to bolster the Nation's health resources.

STATEMENT OF DR. O. D. ADAMS, ED.D., EDUCATIONAL CONSULTANT FOR THE EDUCATION COMMISSION OF THE INTERNATIONAL CHIROPRACTORS ASSOCIATION

"For 10 years past the Education Commission of the International Chiropractors Association has had an accrediting agency. The purposes have been to regularly inspect and evaluate the colleges it represented under strict educational standards. These regulations have been effective in graduating thousands of chiropractors who are required to pass the same basic science examination as the medical doctor for licensure. The Federal Government through the provisions of the GI bill have approved these chiropractic colleges for veteran education. Rehabilitation funds have been used also to reimburse the colleges for chiropractic students.

"All but three States now recognize the graduates of chiropractic colleges by regulatory provisions governing the profession. These laws provide in the main for 4 years of study beyond high school. The practicing doctors of chiropractic are subject to the laws safeguarding the health of the public applying to the licensed healing arts.

"To refuse chiropractors inclusion in this bill is to prohibit thousands of young people the right to attend a college of their choice, but most of all it will deny the public the right to choose their own doctor because the present school system finds it difficult to meet attrition rate through its graduating classes alone. This is a worthy cause and it is for our own citizens and our own young people. Help the chiropractic colleges help themselves by including them in this bill.

CLEVELAND CHIROPRACTIC COLLEGE, PRESIDENT, C. S. CLEVELAND, JR., B.S., D.C., PH.C.

"Every effort should be exerted to assure the inclusion of chiropractic in any consideration of the Health Professions Educational Assistance Act of 1963 by appropriate amendment.

"The enrollment of Cleveland Chiropractic College, Kansas City, Mo., is growing, and we need more classrooms, more laboratories, and more equipment and facilities.

"Most all States are crying for more chiropractors. Many States, such as Nebraska, Colorado, West Virginia, and many others are even subsidizing new graduates as an inducement to get them to come to their State.

"Our profession is losing many fine young men because they do not have the necessary funds to put themselves through chiropractic college without help.

"As you know, Cleveland Chiropractic College has been forced to discontinue the basic research program because of lack of funds. In our research we have been subluxating specific vertebrae in rabbits by a spinal splint to create pressure on the nerves that emit through the openings between the vertebrae and then studying the diseased conditions that result from these nerve pressures. After the pathology has run its course we mechanically adjust the vertebrae to its normal position, relieving the nerve pressure and then we study the retracing schedule as the animal goes from its diseased state back to health. We have found many important physiological facts. We urgently need to step up this research.

We need money to build larger laboratories, to buy more research equipment and supplies, and to hire adequate personnel."

It is respectfully called to the attention of the committee that in the case of President Cleveland, he expressly urges the inclusion of chiropractic students in the loan fund sections of the legislation under consideration.

COLUMBIA INSTITUTE OF CHIROPRACTIC, PRESIDENT, ERNEST G. NAPOLITANO,
D.C., F.A.C.C.

"It is a privilege and a pleasure to respond to the invitation of this committee to present the needs of the chiropractic profession insofar as they relate to the proposed legislation which would provide grants for the construction of facilities and provide for student loans.

"Last year we had requests from qualified prospective students for tuition scholarships which amounted to some \$35,000. Many of these individuals would have satisfied a national need that currently exists for qualified doctors of chiropractic—but because of our schools not being able to carry this added financial load, these candidates were not accepted.

"Needed funds for physical plant expansion: Although Columbia is housed in a modern plant recently renovated at a cost of \$82,000, the demand for increased facilities has reached an emergency pitch. We are, at present, finalizing architect's plans for new facilities that will require one-half to three-quarters of a million dollars.

"Research grants—many practitioners in the field have substantial ideas that would be worthy of research—research that I feel will develop additional facts in the health field which will be of benefit to humanity. We, likewise, have many talented instructors and students who are interested in pursuing research projects but due to limited funds, again, this is an impossibility. The science of chiropractic as it deals with the structural effect upon function, if researched, will open many new areas of interest for the health of the Nation. It is difficult to estimate the amount needed, for research of one particular phase has no time limitation or specific cost analysis. It would be my judgment that a minimum of \$10 million would be required to embark upon the following research projects.

"a) Structural effects of the spine and the resulting effect upon body physiology.

"(b) Research of chiropractic instrumentation.

"(c) Environmental effects upon structures of the spinal column and the result of these changes upon the chemistry of the body.

"There are, naturally many areas of research that could be pursued in the field of chiropractic. I only mention a few so as to give the committee an idea regarding costs involved.

"With new developments in science, many of our colleges could use funds for expansion of various laboratories.

"Our records indicate that there is a tremendous need for financial assistance to currently enrolled students. Federal assistance from the standpoint of tuition grants to present students could mean the difference between their interrupting studies and continuing to completion. Since September 1962, we have had requests for tuition assistance amounting to \$11,000. We, naturally, could not grant anything close to these requests."

Here, again, in the testimony of President Napolitano, he specifically refers to the need for both facilities construction aid and student loans.

LOGAN COLLEGE OF CHIROPRACTIC, PRESIDENT, WILLIAM N. COGGINS, D.C.

"At the present time Logan College of Chiropractic, St. Louis, Mo., has a request for a \$300,000 loan for student housing on file with the Federal housing development under HEW. We are trying at the present time, to obtain funds for building a classroom building, for we, just as other educational institutions, require assistance for facilities to meet the rising student population. We also have a request for student loan funds, for we find that many students require assistance going through school."

PALMER COLLEGE OF CHIROPRACTIC, PRESIDENT, DAVID D. PALMER, B.S., D.C., PH. C., LL.D

"It has been the experience of the Palmer College of Chiropractic, Davenport, Iowa, that our enrollments increased tremendously immediately after World War II, and immediately created a need for increased classroom facilities. Since that expanded enrollment, the students who matriculated under the GI bill has

lessened but chiropractic student enrollments are still increasing. There now exists a need in chiropractic colleges for financial assistance for increasing classroom and laboratory facilities, and there is definite need for the availability of scholarships and tuition loan assistance to many worthy students with good scholastic aptitude.

"During the past 2 years, we have experienced requests from acceptable matriculants for student scholarships in excess of \$100,000.

"We have been delayed for lack of funds in research programs which would be most advantageous to the needs of the general public, but have been unable to adequately supply research grants to undertake studies in the following areas:

- "1. Improved analytical and spinal diagnostic instruments.
- "2. Spinal impingements of vital nerve pathways.
- "3. Approved spinal adjustment procedures.

"We have had innumerable students the past year desperately in need of tuition assistance in order to permit them to continue uninterrupted in their professional studies.

"The Palmer College of Chiropractic would be most grateful for much-needed Federal assistance in these areas if S. 911 could be amended to include chiropractic."

These comments, though brief, are directly from the field of present-day experience in the field of chiropractic education and these college heads are the best qualified representatives of their profession to offer testimony before the distinguished committee.

Chiropractic is a licensed professional in 47 States of the Union. Chiropractic is generally recognized not only by National and State Governments, but also by independent insurance companies, unions, industry, and the public. Some industries now have staff doctors of chiropractic and many routinely refer injured employees to chiropractors. Management labor contracts provide for chiropractic care. Workmen's compensation laws in most States provide for chiropractic care. The public is utilizing services of doctors of chiropractic in an ever-increasing volume.

Illustrative of the national concern with chiropractic, the conservative Wall Street Journal, on October 16, 1961, published a comprehensive article headlined, "Chiropractors Made Headway in the Struggle To Win Complete Acceptance." That article commented that Dr. Charles Bechtol, chief of orthopedics at the University of California, at the Los Angeles Medical Center, said: "Chiropractic has a place in the healing arts. * * * Established professions tend to look down their noses too much at professions which may not be so well established, and therefore, the older professions miss what good there can be in the newer ones."

Samuel Grafton, in an article in McCall's magazine, October 1959, reported: "A certain number of M.D.'s have been impressed by chiropractic enough to make use of some of its methods, and to offer their patients spinal manipulation. Medical opposition in this country is so strong that this type of acceptance has spread more rapidly abroad. A group of 200 West German M.D.'s, including members of the medical school faculties, has formed an organization for research and work in chiropractic. One of its leaders, Dr. L. Zukschwerdt, professor of surgery at the University of Hamburg, has praised chiropractic in the German Medical Press, recommending that physicians not neglect the application of so worthwhile a method."

In considering S. 911, with appropriate amendments to include chiropractic and its companion bills, you have an opportunity to make significant gains for the American people in their quest for health and fitness if you will permit the chiropractic profession to share in the responsibilities and opportunities afforded in the proposed legislation to increase the number of doctors so seriously needed by the public today.

Specifically, I request your serious consideration and approval of the following amendments to S. 911, which will fully meet the needs expressed in this testimony to date of the chiropractic profession, both from the standpoint of construction of educational facilities and individual student opportunities under the loan program:

S. 911

1. Amend line 7, page 1, to read: "7 osteopathic, *chiropractic*, and public health teaching."

2. Amend line 8, page 3, to read: "8 medicine, dentistry, osteopathy, *chiropractic*, pharmacy, optometry, podiatry."

3. Amend line 16, page 13 to read: "16 podiatry or doctor of chiropody, a degree of doctor of chiropractic, and a graduate."

4. Amend line 14, page 14 to read: "14 dentistry, osteopathy, chiropractic, pharmacy, optometry, podiatry, nursing."

5. Amend line 17, page 17 to read: "17 proved programs of training physicians, chiropractors, pharmacists, optometrists."

6. Amend line 1, page 18, to read: "1 school of medicine, osteopathy, chiropractic or dentistry."

7. Amend line 11, page 19, to read: "11 degree, doctor of osteopathy or doctor of chiropractic."

8. Amend line 16, page 19, to read: "16 course of study at a school of medicine, osteopathy, chiropractic or dentistry."

9. Amend line 7, page 20, to read: "7 dentistry, osteopathy or chiropractic in an area in a State determined."

In conclusion I should like to pledge the support of the members of the International Chiropractors Association to the principle of S. 911 and the concept that medical, dental, and chiropractic schools constitute a national resource that should be both encouraged and developed to the fullest extent. Your committee is aware of the fact that while there has been a tremendous growth in the number of college graduates since World War II, the number of applicants for training in the professional health services has decreased.

The legislation as presently introduced fails to take into consideration the needs for both construction of facilities and aid to students through student loans in the chiropractic profession, the second largest healing art in the United States. This discrimination will, if continued, prove a serious disappointment to the some 20 million Americans who today depend on the services of chiropractors and would be, in a sense, an unconscionable oversight.

Your consideration of the current needs of the chiropractic profession and its inclusion in the legislation presently before this committee is sincerely and honestly requested.

The CHAIRMAN. Now we have Mr. Clinton M. Fair of the AFL-CIO, and Mr. Fair is accompanied by Miss Lisbeth Bamberger.

Mr. Fair and Miss Bamberger, it is a pleasure to have you here.

STATEMENT OF CLINTON M. FAIR, DIRECTOR, DEPARTMENT OF LEGISLATION, AFL-CIO; ACCOMPANIED BY MISS LISBETH BAMBERGER, ASSISTANT DIRECTOR, DEPARTMENT OF SOCIAL SECURITY, AFL-CIO

Mr. FAIR. Thank you, Mr. Chairman.

Our statement is very short, so I think I will just read it.

For the record, my name is Clinton Fair, and I am legislative representative of the AFL-CIO.

I am accompanied by Miss Lisbeth Bamberger, assistant director of the AFL-CIO Department of Social Security.

Our interest in appearing before you today arises from our awareness of a doctor shortage in America that is growing steadily worse—a doctor shortage that cannot be dealt with effectively unless the Congress of the United States enacts legislation now to provide Federal assistance to medical schools and medical students.

The problem is that simple and that urgent.

Figures released only yesterday by the Children's Bureau of the Department of Health, Education, and Welfare show that in 1962 the United States slipped from 10th to 11th place in infant mortality rates among countries with populations of more than 300,000. Since 1950 five countries with infant death rates already lower than those in the United States cut their rates by from 20 to 40 percent, while in the United States the reduction in infant mortality of the same period has only been about 13 percent.

The relevance of these figures to the legislation before your committee now is considerable. Public health experts tell us that infant mortality rates are the health index that is most sensitive to differences in quality of medical care. When we in the United States, with the ability to provide a quality of medical care that is surpassed nowhere in the world, lag behind 10 other nations in this way, it is perfectly clear that not all Americans are receiving the benefits of the excellent care that the medical profession of this country is able to provide.

The gap between the best kind of care that is available in this country and the care that large numbers of people actually receive will grow larger, rather than diminish, unless we increase our supply of practicing physicians. That cannot be done without Federal aid to medical education.

Perhaps we can be of greatest assistance to this committee by avoiding the temptation of reviewing once more the massive evidence of the necessity for the passage of this legislation at the earliest possible time. Rather, let me simply assure you of the AFL-CIO's strong and firm support of your endeavors to secure prompt and favorable action on the bill before you now.

The doctor shortage is more than a phrase to our 13½ million members. They, like other parents and family breadwinners in communities all over the country are up against the problems created by the doctor shortage every day of their lives. Their convictions about this problem were forcefully expressed at the most recent AFL-CIO convention, when the delegates unanimously adopted a resolution reiterating the concern of our membership with the physician shortage and characterizing the training of additional health personnel as "among the most pressing of America's health needs."

While we prefer the provisions for construction grants contained in S. 911, we could also support the alternative provisions for financing construction contained in H.R. 12.

I should like to comment in some greater detail on the matter of financial aid to students in the health professions. We urge this committee to give most serious consideration to including in the legislation a program of scholarships to supplement or replace the provisions for student loans now contained in both H.R. 12 and S. 911. Our position with regard to student scholarships is based on these convictions:

1. If the field of medicine is to secure enough well qualified students in the future, and if the opportunity to study medicine is not to be denied on economic grounds to talented young persons, a substantial increase in student financial support is required.

2. Existing sources of financial support to medical students do not provide the resources adequate to the dimensions of the need.

3. There is ample evidence that persons whose primary interest is in studying medicine are going into other and related fields because of the much greater availability of scholarship aid in those other fields.

4. A program of Federal scholarship aid to medical students can be expected to do much to change the image of the medical profession, in the minds of young people, as a profession into which entry is at present limited largely to the economically privileged.

5. A program of loans with a forgiveness feature, which has some advantage over a program limited to fully repayable loans, has the great disadvantage of frequently preventing a young physician from entering promptly the type of practice to which he is best suited.

6. A scholarship program is preferable to a loan program because the recipient of a scholarship is less likely to be left, at the time he completes his medical education, with overwhelming financial obligations. Because we still believe that medicine is more of a profession than a business, more of a calling than a commercial undertaking, it seems to us extremely undesirable to burden a young physician with a great debt. If he is to repay it and at the same time support his family in some minimum comfort, he is left with little choice but to pursue the most lucrative type of practice available. This practice may be neither that to which he is best suited, nor that which is most socially useful.

It would be most unfortunate if a program of Federal aid to medical students were designed without taking this factor into account.

For these reasons we urge you strongly to reinstate in the bills before you a program authorizing Federal grants to accredited schools for use in making scholarship awards to talented students who are in financial need.

To return to the proposed legislation as a whole, the need for legislation to provide Federal assistance for training professional health personnel is so compelling, so well-documented, and so immense that it is difficult to justify further hesitation or delay.

We hope that this committee and the Senate will act with a sense of urgency to make sure that when this session of the 88th Congress is over, programs will be underway to deal with a problem which is so steadily increasing in severity.

Thank you.

The CHAIRMAN. Is there anything you would like to add, Miss Bamberger?

Miss BAMBERGER. No, thank you, Senator.

The CHAIRMAN. Any questions, Senator Pell?

Senator PELL. Yes, I have two questions.

I was much struck by your sad fact that we have dropped from 10th to 11th place in infant mortality among countries with a population of more 300,000.

Would you also agree with the statement that in the technologically advanced nations—that is, those in the West and northern Europe—the health care that the average person is now getting is probably inferior to that which is found in the United States?

Miss BAMBERGER. I think the question of measuring quality of care is very difficult, but to the extent that one can measure these factors, and certainly the infant mortality statistics are about as accurate a measure as one can get, what you say is absolutely true.

And the countries that are ahead of us here—Ireland just moved up. They just replaced us in 10th place.

Senator PELL. That is not a technologically advanced nation?

Miss BAMBERGER. But most of the rest are.

Senator PELL. Which are the other 10?

Miss BAMBERGER. I do not have the list of them here.

The ones that I remember are Great Britain, Holland, Sweden, Norway, Australia, and New Zealand—we can submit the rest for the record.

But they all have provisions that make the care that is available to wealthy people in the country more likely to be available to people who are poor.

And the probability of people in the lower income groups in this country, who are economically disadvantaged, of getting as good care as the people who are well off is much less.

Senator PELL. Thank you.

I was wondering if you would develop the third point cited in your testimony here, and that is "there is ample evidence that persons whose primary interest is in studying medicine are going into other related fields because of the much greater availability of scholarship aid in those other fields."

We have been struck by that in the other testimony.

I was wondering if you could enlarge on that with regard to what the evidence is that you have?

MISS BAMBERGER. That was evidence that was submitted in previous testimony, I believe, to the House, of questionnaires that were given to young people who were asked if the same kind of scholarship aid, as was available in various specified physical sciences, were also available in medicine, would they choose medicine, and the statistics—I do not know if I will be able to put my hands on them—were quite startling to us, too, of the number of students who said they would prefer to choose medicine but would not choose medicine because the scholarship aid was not available.

Senator PELL. This is already of record in the House testimony, is that correct?

MISS BAMBERGER. I believe it is in the House testimony.

Senator PELL. Well, maybe you might submit it for the record afterwards if it is not, as to the percentage of people who would have chosen medicine if scholarship aid had been available?

MISS BAMBERGER. Yes, sir; if we may, we will.

Mr. FAIR. May we submit a letter to you with those figures which she is quoting.

The CHAIRMAN. Yes, and I hope you get them to us as soon as you can, will you?

Mr. FAIR. Yes, sir.

The CHAIRMAN. And also in that letter will you give us the names of these five countries where the infant death rates have been reduced? Will you give us the names of those five countries?

Mr. FAIR. Yes, sir, we will.

The CHAIRMAN. Thank you.

Mr. FAIR. Thank you.

The CHAIRMAN. Any other questions, Senator Pell?

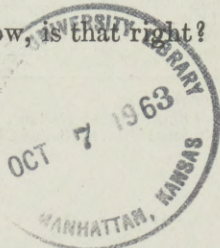
Senator PELL. No, thank you.

The CHAIRMAN. We want to thank you very much. Get us that letter as soon as you can, please?

Mr. FAIR. Yes, we will.

The CHAIRMAN. Because we want action now, is that right?

Mr. FAIR. Yes, sir.



The CHAIRMAN. Thank you both very, very much.
(Subsequently the following communication was received:)

AMERICAN FEDERATION OF LABOR AND CONGRESS
OF INDUSTRIAL ORGANIZATIONS,
Washington, D.C., August 26, 1963.

HON. LISTER HILL,
U.S. Senate, Washington, D.C.

DEAR SENATOR HILL: When Mr. Clinton Fair and I appeared before your committee this morning we promised to submit some additional information for the record.

1. The 10 nations with populations of more than 300,000 that had lower infant mortality rates in 1962 than the United States are the Netherlands, Sweden, Norway, Finland, Australia, Denmark, New Zealand, Switzerland, the United Kingdom, and Ireland.

2. The five countries that, with infant death rates in 1950 already lower than those in the United States, cut their rates by from 20 to 40 percent between 1950 and 1962, are the Netherlands, Sweden, Norway, Australia, and New Zealand.

The table from which this information comes, along with some additional statistics on infant mortality rates in the United States, is enclosed.

3. Among the evidence that we referred to in our testimony indicating that persons whose primary interest is in studying medicine are going into other and related fields because of the greater availability of scholarship aid in those other fields, is a study reported on by Charles C. Cole, Jr., in chapter VI of "Encouraging Scientific Talent; a Report to the National Science Foundation." The study is cited in "Physicians for a Growing America," the report of the Surgeon General's Consultant Group on Medical Education (1959), p. 22, and described as follows:

"A recent study of the career interests of high school seniors with high scores on college entrance examinations considered the extent to which the availability of scholarship aid would change the choice of career. If scholarships were available only in fields other than medicine, many boys planning a premedical major would shift to another field of study. In this group, 73 percent said that they would shift to the field of biological sciences if scholarship aid were available for that field. Among the same students given another choice, 72 percent would shift to physical science, or 34 percent to mathematics, or 33 percent to engineering, or 25 percent to social science if scholarship aid were provided in those fields."

We hope that you will find this information helpful. It was a pleasure to appear before your committee.

Yours sincerely,

LISBETH BAMBERGER,
Assistant Director, Department of Social Security.

TABLE 14.—Reduction of infant mortality, selected countries, 1950–62 or latest year

[Rates are deaths under 1 year per 1,000 live births]

Countries ranked on 1962 or latest rate	1962		1950		Percent decrease since 1950
	Rank	Rate	Rank	Rate	
Netherlands.....	1	15.3	3	25.2	39.3
Sweden.....	2	15.3	1	21.0	27.2
Norway (1960).....	3	18.9	5	28.2	33.0
Finland.....	4	19.2	11	43.5	55.9
Australia (1961).....	5	19.5	2	24.5	20.4
Denmark.....	6	20.1	7	30.7	34.5
New Zealand.....	7	20.3	4	27.6	26.5
Switzerland (1961).....	8	21.0	8	31.2	32.7
United Kingdom.....	9	22.1	9	31.4	29.6
Ireland.....	10	24.2	13	46.2	47.6
United States.....	11	25.3	6	29.2	13.4
Luxembourg (1961).....	12	26.2	12	45.7	42.7
Canada (1961).....	13	27.2	10	41.5	34.5
Japan (1961).....	14	28.6	15	60.1	52.4
Federal Republic of Germany.....	15	29.2	14	55.6	47.5

¹ Provisional.

Sources of data: United Nations, Statistical Office, and U.S. Department of Health, Education, and Welfare, National Vital Statistics Division.

TABLE 15.—*Infant mortality rates—United States, each State, 1960 and 1961 (by place of residence)*

State	Rate per 1,000 live births		Percent change	
	1961	1960	1961 from 1960	1960 from 1950
United States.....	25.3	26.0	-2.7	-11.0
Alabama.....	31.1	32.4	-4.0	-12.0
Alaska.....	37.0	40.5	-8.7	-21.8
Arizona.....	30.6	31.9	-4.1	-30.4
Arkansas.....	27.5	27.4	+0.4	+3.4
California.....	23.3	23.3	0	-6.8
Colorado.....	26.2	27.5	-4.7	-20.1
Connecticut.....	22.3	21.1	+5.7	-3.2
Delaware.....	26.2	23.8	+10.1	-22.5
District of Columbia.....	35.6	36.4	-2.2	+19.7
Florida.....	28.9	29.7	-2.7	-7.5
Georgia.....	29.4	33.0	-10.9	-1.5
Hawaii.....	21.7	23.2	-6.5	-3.3
Idaho.....	23.1	22.9	+0.9	-15.5
Illinois.....	24.3	25.0	-2.8	-2.4
Indiana.....	24.0	23.9	+0.4	-11.5
Iowa.....	20.6	21.9	-5.9	-11.7
Kansas.....	22.1	22.1	0	-14.0
Kentucky.....	27.8	27.9	-0.4	-20.1
Louisiana.....	30.3	32.0	-5.3	-7.5
Maine.....	25.3	25.5	-0.8	-17.5
Maryland.....	25.7	27.3	-5.9	+1.1
Massachusetts.....	21.6	21.6	0	-7.3
Michigan.....	23.9	24.1	-0.8	-8.4
Minnesota.....	22.2	21.6	+2.8	-14.0
Mississippi.....	37.8	41.6	-9.1	+13.4
Missouri.....	24.7	24.7	0	-15.4
Montana.....	25.6	25.0	+2.4	-11.4
Nebraska.....	22.8	21.9	+4.1	-12.4
Nevada.....	28.3	30.1	-6.0	-20.6
New Hampshire.....	24.4	23.6	+3.4	-3.7
New Jersey.....	23.6	24.6	-4.1	-2.4
New Mexico.....	29.6	33.2	-10.9	-39.4
New York.....	23.7	24.1	-1.7	-2.4
North Carolina.....	30.7	31.7	-3.2	-8.1
North Dakota.....	23.2	24.8	-6.5	-6.8
Ohio.....	23.1	24.0	-3.8	-10.5
Oklahoma.....	24.0	25.5	-5.9	-15.6
Oregon.....	22.9	23.2	-1.3	+3.1
Pennsylvania.....	23.6	24.5	-3.7	-11.2
Rhode Island.....	22.5	23.3	-3.4	-16.2
South Carolina.....	32.4	34.3	-5.5	-11.1
South Dakota.....	25.1	28.1	-10.7	+5.6
Tennessee.....	29.2	29.4	-0.7	-19.2
Texas.....	26.7	28.9	-7.6	-22.7
Utah.....	20.3	19.6	+3.6	-17.3
Vermont.....	27.2	24.1	+12.9	-1.6
Virginia.....	28.0	29.8	-6.1	-13.9
Washington.....	22.7	23.4	-3.0	-14.3
West Virginia.....	26.7	25.5	+4.7	-29.4
Wisconsin.....	22.7	21.8	+4.1	-15.2
Wyoming.....	27.0	28.2	-4.3	-13.2

Source of data: National Vital Statistics Division, Public Health Service.

TABLE 16.—*Infant mortality rates, by color, selected cities, 1960 and 1961 (by place of residence)*

Cities ranked by number of live births, 1961	Number of live births		Rate per 1,000 live births		Percent change in rate	
	1960	1961	1961	1960	1961 from 1960	1960 from 1950
New York City.....	160,395	157,706	25.7	26.3	-2.3	+5.6
White.....	123,258	122,640	21.4	21.6	-.9	-3.6
Nonwhite.....	37,138	35,066	40.0	42.6	-6.1	+9.0
Chicago.....	84,658	88,686	28.8	29.0	-.7	+14.2
White.....	55,222	57,768	23.4	23.4	0	+1.7
Nonwhite.....	29,435	30,918	39.0	39.5	-1.3	+13.5
Los Angeles.....	55,230	55,308	23.9	24.5	-2.5	-1.2
White.....	41,106	41,502	22.1	22.3	-.9	-3.5
Nonwhite.....	14,124	13,806	29.2	31.1	-6.1	-10.9
Philadelphia.....	44,704	44,606	30.0	31.6	-5.1	+1.6
White.....	28,756	28,620	23.5	26.2	-10.3	+1.6
Nonwhite.....	15,948	15,986	41.6	41.3	+.7	-12.0
Detroit.....	34,212	36,060	28.1	30.9	-9.1	+14.9
White.....	21,208	22,496	24.0	25.6	-6.3	+2.8
Nonwhite.....	13,004	13,564	35.0	39.7	-11.8	+14.7
Houston.....	25,710	19,972	26.6	28.5	-6.7	-.7
White.....	18,218	13,324	22.5	23.8	-5.5	-7.0
Nonwhite.....	7,492	6,548	36.7	38.2	-3.9	-.8
Baltimore.....	22,852	23,372	32.5	32.6	-.3	+16.4
White.....	11,694	12,096	25.6	25.0	+2.4	+10.6
Nonwhite.....	11,158	11,276	39.8	40.9	-2.7	+5.4
Cleveland.....	21,556	22,034	28.0	31.0	-9.7	+21.1
White.....	13,842	14,354	23.4	26.2	-10.7	+13.4
Nonwhite.....	7,714	7,680	36.3	39.8	-8.8	+14.0
District of Columbia.....	20,372	19,872	35.6	36.4	-2.2	+19.7
White.....	6,140	6,196	27.2	29.4	-7.5	-3.6
Nonwhite.....	14,232	13,676	39.2	39.6	-1.0	+30.7
St. Louis.....	18,538	19,432	31.5	32.6	-3.4	+26.4
White.....	11,296	11,894	24.6	24.5	+.4	+15.6
Nonwhite.....	7,242	7,538	42.3	45.5	-7.0	+11.2

Source: National Vital Statistics Division, Public Health Service.

The CHAIRMAN. Now, Mr. Samuel Wenk of Palo Alto, Calif.

Mr. Wenk, we are glad to have you here, sir. You may proceed in your own way.

STATEMENT OF SAMUEL WENK, PALO ALTO, CALIF.

Mr. WENK. Thank you very much, Senator.

For the record, my name is Samuel Wenk.

I wish to thank you for the opportunity of presenting my views in regard to S. 911 and H.R. 12. In my position, as manager of applications engineering for an industrial organization which supplies a highly specialized radiation device used in the treatment of cancer, I am in close contact with the radiation therapists of the United States. As a consequence, I believe I am somewhat knowledgeable of the problems they and their institutions face.

Statistics indicate that the current incident rate of cancer is 3 per 1,000 of population, and that 60 percent of all cancer patients will receive radiation treatment at some time during their illness.

Radiation therapy has been proven effective in three broad areas for the treatment of carcinoma:

(a) The treatment of those tumors which are nonoperative, principally in the head and neck area, as well as in the treatment of cancer of the cervix.

(b) In conjunction with surgery, either preoperative or postoperative, for treatment of tumors occurring in the breast, uterus, bladder, and lungs.

(c) For palliation.

Palliation in this context can be compared to that treatment afforded to the sufferer of a coronary attack; namely, continued treatment which, while not effecting a cure in the strictest medical sense, offers relief and extends the patient's useful life.

At the present time, there are approximately 145 physicians in the United States engaged in the full-time specialty of therapeutic radiology. On the basis of approximately 180 million population, this is a ratio of only 1 full-time radiation therapist per 1,250,000 population. There are currently approximately 25 unfilled positions for radiation therapists in the United States. However, due to the limited teaching facilities, specialists entering this field are barely balancing the attrition rate.

To place this in a frame of reference, we can use the metropolitan area of Philadelphia as one of the more favorable examples, since there are 10 radiation therapists in practice there. This area, with an approximate population of 6 million, has 5 radiation centers currently treating approximately 250 patients per day. This average of 50 people per 8-hour day, per center, is at the maximum possible with present facilities and staff. Assuming an average of 20 treatments per patient over a 6-week period, 50 patients per week are completing their treatment program, thus freeing this treatment capacity. However, new cancer patients are averaging approximately 200 per week referrals for radiation therapy. Consequently current waiting lists average 2 to 4 weeks. Second and third shift for additional treatment, is not feasible due to the shortage of trained personnel, which, in turn, relates to the present plight of the medical schools who do not have funds to provide the facilities for this type of training.

Since well over half the average cost of a radiation therapy installation is in the building construction necessary for radiation shielding, the provisions of S. 911 and H.R. 12 can do much to provide the necessary training facilities for alleviating this shortage of personnel.

As a member of industrial management, I would like to point out that there is an ever-increasing concern with our Nation's health. It is axiomatic that a healthy industry requires healthy individuals, and, hence, the need for adequate and competent medical service. In view of this, we have been appalled at the conditions under which many of our best known, and honored, medical schools are forced to operate, with antiquated facilities and obsolete equipment. We marvel at the job they are doing under the conditions they face.

In conclusion, I ask that I may be permitted to urge passage of this legislation.

The CHAIRMAN. Thank you, Mr. Wenk.

In Philadelphia we have five of the very best medical schools in the country, don't we? Don't they all stand pretty high?

Mr. WENK. Yes, sir. Might I point out, apropos of the remarks made previously by those people urging the loan fund, in a recent conversation with Dr. Lehman of Hanneman Hospital, this summer or the next semester they have received requests for \$60,000 in student loan funds. They have \$30,000 in their present student loan fund. They have to place restrictions so that single students with a gross per annum income of more than \$1,400 and married students with an income of more than \$2,100 are not eligible.

The CHAIRMAN. Senator Pell?

Senator PELL. I certainly agree with you, sir, that the need is acute for additional facilities for treating people with this kind of equipment. But isn't the need more acute for both technicians and facilities, because I notice in your testimony you made the point that facilities are only being used on a single-shift basis because of the shortage of technicians.

Mr. WENK. The shortage of therapists is in part brought about by the shortage of facilities in the teaching hospitals.

Senator PELL. So, in other words, your thought is that if adequate facilities were available in teaching hospitals, perhaps in Philadelphia and other areas, they would be going on a three-shift basis?

Mr. WENK. Yes, sir. The fact of the matter is this, that much of the teaching today is done on equipment which is antiquated by today's standards. Much of the pioneering effort on the development of high-energy therapy equipment was done in Great Britain. In Great Britain, with one-third the population there are only 10 fewer full-time radiation therapists in this country.

Senator PELL. That is a startling set of figures.

Mr. WENK. Doctors taking residency training at the schools for the most part do not receive training on modern equipment. Hence they tend not to go into this form of specialty.

The CHAIRMAN. Into what? I didn't get that.

Mr. WENK. I am sorry, Senator. I say they tend not to go into the specialty of radiation therapy, but rather into diagnostic radiology because of the lack of equipment for training.

The CHAIRMAN. Any questions?

Senator YARBOROUGH. Mr. Chairman, I want to commend the chairman for the diligence with which he has conducted these hearings and his great leadership in this field.

As he knows, I am a very strong supporter of him and his work in the field of public health and strongly support the bill.

I regret that other commitments have kept me away from these hearings. I assure the chairman it was not at any other committee hearing, because I think this is one of the most important matters pending in Congress. I was unavoidably called back to my home State.

The CHAIRMAN. I think we understand the compulsions that kept the Senator from Texas from being with us, and we are delighted that he is here this morning, and I know that no one on this committee will help more in the passage of this legislation than the Senator from Texas.

Senator YARBOROUGH. That is very kind of the chairman, very generous.

Senator PELL. I want to return to the comparison of Great Britain and the United States.

How do you account for the fact that they do have more therapists than we, with one-third the population, and they do have far more equipment than we do?

Mr. WENK. They pioneered in the field of high-energy therapy equipment starting in about 1952. The first installations were put in in about 1954. Perhaps this may be coincident with socialized medicine in Great Britain. However, it has become a fairly large field of specialty in Great Britain. At the time they had 12 high-energy therapy installations of this type; we had 1.

Senator PELL. And in general are these installations paid for by the Federal Government or by private sources? I mean the British Government.

Mr. WENK. In Great Britain I believe these are paid for by the Government. In Germany most of these installations are paid for by the hospitals themselves. In this country there have been some acquisitions on NIH grants, but these have been strictly research grants.

There is a problem in that individual donors are quite happy at times to give living memorials to their families in terms of a rather glamorous bit of high-energy equipment, but it is the rare individual who will give 6 feet of concrete necessary to shield it.

Senator PELL. What is the position of other Western European nations as compared to Great Britain?

Mr. WENK. Sweden probably ranks second to Great Britain. They, of course, have a high incidence rate. Great Britain, Sweden, the United States, Japan, Australia—have the highest in the world, as far as cancer is concerned. So that in the Western European countries, it is Great Britain, Sweden, Germany.

Senator PELL. Would you say that the United States stands fourth, then, in the percent of technicians, therapists, in population in the world today?

Mr. WENK. I believe that is correct in terms of population ratio.

Senator PELL. But not lower than fourth?

Mr. WENK. Not lower than fourth, but between fourth and fifth there is a long jump.

Senator PELL. Thank you very much.

The CHAIRMAN. Mr. Wenk, what about the cost of the equipment for a radiation center, an adequate center? Is it pretty expensive or not?

Mr. WENK. Yes, sir. Equipment of this type is expensive. If one looks first at cobalt 60, in order to get a source that is strong enough to handle a high patient load, high patient load being in the bracket of 50 to 75 a day, one has an initial investment of between \$80,000 and \$100,000 for equipment, and then due to the deterioration of cobalt, one must replace that source probably twice over a 7-year period. So that for equipment alone over a 7-year period, you may end up in the region—between \$150,000 and \$175,000. For linear accelerators and the betatrons, the equipment cost is approximately \$150,000 and \$125,000, respectively.

However, the cost of shielding for protecting the workers and surrounding population generally adds up to that cost or more, depending on the terrain. If it is possible to put it underground, it is less expensive. If it has to be put above ground, 7 feet of concrete costs quite a bit of money.

The CHAIRMAN. Would there be any other initial cost besides these to which you addressed yourself?

Mr. WENK. There are the normal costs of low energy diagnostic radiographic equipment for tumor localization. This is in the \$10,000 to \$25,000 region. The majority of patients that are treated by centers like this are in the out-patient category. Bed capacity is not needed to any great extent.

The CHAIRMAN. Any other questions?

Senator YARBOROUGH. Yes. I would like to ask Mr. Wenk a question.

Mr. Wenk, in cases of cancer, and there have been some in my family and my relatives and very close friends, I have run into this situation:

A patient goes to a doctor. If there is X-ray equipment in that town, he is referred there for treatment. I have had some radiologists tell me that much of this treatment being received in the country is not proper treatment. A radiologist doesn't know how to treat a malignancy and it is often applied at the wrong place, and that you must go to one of the real cancer clinics of this country to get proper treatment, radiotherapy.

Do you have any comments on that? I am looking for information.

Mr. WENK. Senator, as a layman, and I emphasize the fact that I am a layman, this is purely a personal opinion. There are a great many radiation treatment facilities throughout the country. There are probably 350 cobalt installations and many of these are being operated on a strictly part-time basis, and naturally the type of treatment techniques will tend to vary.

I am in the same position you are in, Senator, of having a member of my family stricken and, if it recurs, there are several selected centers throughout the country where I would refer members of my family.

Senator YARBOROUGH. Do you have any statistical way of knowing how many of these radiologists have been specially trained in the treatment of cancer, in the diagnosis of cancer, and where that treatment should be applied?

Mr. WENK. Yes, sir. The group of approximately 145, have formed the American Club for Therapeutic Radiologists. I have a copy of their membership list of 1962.

Senator YARBOROUGH. About 145 in the whole Nation?

Mr. WENK. That is right, sir. In the introduction of their directory it states that 145 of the members are diplomats of the American Board of Radiology. Fifty-four, or 33 percent, have taken the boards in therapeutic radiology.

Senator YARBOROUGH. Thank you.

The CHAIRMAN. What you say as to radiology would apply to a certain extent in a number of other fields; would it not?

Mr. WENK. Yes, sir, it does.

Before I leave, Senator Pell, have you seen the most recent issue of Scientific American? Apropos of your remarks on previous testimony, there is a very excellent article in here on medical care of the United States. If you would like, I would leave you my personal copy.

Senator PELL. Thank you very much.

The CHAIRMAN. I will ask Senator Pell to take a look at it and maybe we will want to put it in the record if it is reproducible.

(The magazine containing the article is in the committee files.)

The CHAIRMAN. We want to thank you very much. We appreciate your testimony.

Mr. WENK. Thank you very much for this opportunity.

The CHAIRMAN. We are mighty glad to have had you.

Mr. WENK. Thank you, sir.

The CHAIRMAN. Is there anyone—does anyone else wish to make a statement?

I have a number of letters from other parties, one a very strong letter from the American Hospital Association, which we will put in the record at this point, and a number of other letters. Unless there is some objection, we will put them in the record at this point.

(The letters referred to follow:)

U.S. SENATE,
COMMITTEE ON LABOR AND PUBLIC WELFARE,
August 5, 1963.

HON. LISTER HILL,
Chairman, Committee on Labor and Public Welfare, U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: The president of the New Jersey State Nurses' Association, Miss Margaret S. Maskrey, has sent me a letter expressing the association's endorsement of S. 911, a copy of which I am enclosing for your information.

I would greatly appreciate it if Miss Maskrey's letter could be included in the record of any hearings which might be held on S. 911 and H.R. 12.

With best personal regards.

Sincerely,

HARRISON A. WILLIAMS, JR.

NEW JERSEY STATE NURSES' ASSOCIATION,
Newark, N.J., July 25, 1963.

HON. HARRISON A. WILLIAMS,
*Senate Office Building,
Washington, D.C.*

DEAR SENATOR WILLIAMS: The New Jersey State Nurses' Association unqualifiedly supports bill S. 911, whose worthy goals include the increased opportunities for training of physicians and other professional public health personnel.

We, as an affiliate of the American Nurses' Association and holding fast to its ideals, are largely concerned with the quality of nursing skills and service and the improvement of methods of administering these services. In a period of great population growth, we feel the implementation of these ideals will suffer without an active program to help toward upgrading our services.

In New Jersey we know too well the lesson of need in this area of public health and the woeful inadequacies in the supply of our trained nurses since we are among the most densely populated States in the country and growing at a rate of 125,000 persons a year. In 1952 a total of 983 nurses were employed in official and voluntary public health agencies, while in 1962 the total is 880. New Jersey is a good example, too, of a State with a growing elderly population in relation to the whole. All of which, of course, is an added pressure, to increase the numbers of available trained nurses.

We, therefore, urge your endorsement and support of S. 911, particularly those sections which would back up the collegiate schools of nursing and enable expansion of such existing facilities which would allow schools to enroll more

students and thus gradually help meet the needs for faculty in all schools of nursing.

A recent study of nurse supply reveals that the total number of graduates from schools of nursing has remained fairly constant over the past 10 years but demands for nursing service have increased. Our experience in New Jersey shows this to be true and it is our experience that because the need for professional and practical nurses is overrunning supply, our hospitals have been employing ever larger numbers of nurses' aids as well as foreign nurses.

We agree with the Surgeon General of the United States that the problem is producing an alarming dilution of the quality of service. We ask again your support for S. 911 and respectfully request this letter be made a part of any hearing record on the subject.

Sincerely,

MARGARET S. MASKREY, R.N.,
President, NJSNA.

MARQUETTE-ALGER DISTRICT NURSES ASSOCIATION,
Marquette, Mich., June 28, 1963.

Senator PATRICK V. McNAMARA,
U.S. Senate,
Washington, D.C.

DEAR SIR: The members of the Marquette-Alger District Nurses Association of the State of Michigan ask that you support S. 911 during the hearings by the Subcommittee on Health, Senate Labor and Public Welfare Committee.

Your support is needed if this important bill is to be passed. The needs brought out in the Surgeon General's report and the goals set in order to meet those needs cannot be met without legislation to assist in the preparation of nursing practitioners in collegiate schools of nursing.

Anything short of a bill providing for a 10-year program will not meet these needs. It will take this long to operate numbers needed with baccalaureate degrees and maintain the nursing programs at this high level.

Yours truly,

(Mrs.) IRENE ANDERSON, R.N.,
Legislative Chairman.

THE JOURNAL OF THE
AMERICAN OPTOMETRIC ASSOCIATION, INC.,
March 30, 1963.

Senator JOSEPH CLARK,
Senate Office Building,
Washington, D.C.

DEAR SENATOR CLARK: When I was in Washington last week, attending the meeting of the Magazine Publishers Association, I took time to stop by your office in an effort to talk with you relative to H.R. 12, the bill that will provide grants to health institutions and student loans.

The very lovely receptionist from Scranton suggested that I write to you giving you my opinions regarding this proposed legislation.

I sincerely believe that the bill is a fine one and deserving of passage. There is, however, need for an amendment to the student loan provisions to permit student loans for optometric students. As currently written the bill provides for loans for medical and dental students only.

Pennsylvania has (in Philadelphia) one of the 10 schools of optometry in the United States. As is true with most health care schools, it is in need of financial assistance because of the high cost of education. Seventy percent of the vision care of the Nation is handled by the profession of optometry. Being the first line of defense against blindness, it is necessary that our Nation maintain and, if possible, increase the number of students securing optometric education.

I am asking our Washington representative, Mr. David Sharman, 1025 Connecticut Avenue, Washington, D.C., to contact you shortly regarding a proposed amendment to the bill that would permit optometric student loans. I would like your opinion on this proposal and urge your support of it.

You will be receiving the bill as a member of the Senate Labor and Public Relations Committee.

Many thanks in advance for your cooperation.

Sincerely,

IRVING BENNETT, O.D., Editor.

U.S. SENATE,
 COMMITTEE ON AERONAUTICAL AND SPACE SCIENCES,
 August 22, 1963.

Senator LISTER HILL,
 Chairman, Labor and Public Welfare Committee,
 Washington, D.C.

DEAR LISTER: I appreciate your advising me of the hearings on H.R. 12 to increase the opportunities for the training of physicians, dentists, and professional public health personnel. Our people of New Mexico have been very much interested in this legislation because of our desire to establish a much-needed medical school at the University of New Mexico. This legislation would be very helpful in this effort.

I believe that our university is in an exceptionally strong position to utilize the resources that H.R. 12 would make available. The University of New Mexico is among the first institutions to plan a new medical school in response to the Surgeon General's expression of the Nation's need. The school will be a resource for all of the health agencies in our State and its teaching and research programs will be of national and perhaps even international significance.

President Popejoy has just sent me a letter dated August 20 in which he comments on this legislation and supports it strongly. I am, therefore, enclosing President Popejoy's letter and would appreciate it being made a part of the record. I also enclose a copy of a letter from Dean Hamilton B. G. Robinson, of the University of Kansas City School of Dentistry, in which he points out that out of 62 students studying dentistry at his university, 24 of them are from the State of New Mexico. The students from New Mexico who desire to enter medical and dentistry schools usually have had difficulty finding room in the institutions of their choice. This probably partly accounts for the fact that our ratio of physicians to population is much lower than the national average. This letter is also for the record.

I appreciate the opportunity of presenting this material to you and sincerely hope that this legislation will be brought before the Congress in this session in order that we might act on it at an early date.

Sincerely yours,

CLINTON P. ANDERSON.

THE UNIVERSITY OF NEW MEXICO,
 Albuquerque, August 20, 1963.

Hon. CLINTON P. ANDERSON,
 Senate Office Building, Washington, D.C.

DEAR CLINT: I have discussed at length the implications of the Health Professions Educational Assistance Act with Dr. Reginald H. Fitz, dean of the school of medicine. Favorable consideration of the act is of great importance to the University of New Mexico and its developing school of medicine. Planning for the new school has reached a stage where the university would be able to take immediate advantage of the resources made available under the act for construction of new facilities. Indeed, should the measure fail, construction of the initial portion of the basic sciences building would move ahead but completion of the total building would necessarily be delayed a great deal. Assistance at the Federal level would permit the most effective total utilization of university funds in terms of the medical school program.

New Mexico's stake in the act can be expressed by our physician population ratio of 79 per 100,000, as against the national ratio of 140 per 100,000. It is anticipated that the development of a training facility at the university will attract additional physicians to the State well before the students who attend the school have an impact on the physician population rate. It is reasonable to believe that the support provided by the Health Professions Educational Assistance Act would encourage the development of new programs in other relatively unpopulous, but rapidly growing, sections of the country.

I have emphasized the aspects of the problem which relate specifically to New Mexico and the University of New Mexico in order to highlight the importance of the Health Professions Educational Assistance Act in a single instance. I am sure that equally positive statements can be made on behalf of institutions planning the expansion of existing facilities. I would like to rely upon your judgment as to whether the views expressed above would contribute significantly if submitted for consideration at the scheduled hearings on the Health Pro-

fessions Educational Assistance Act by the Senate Labor and Public Welfare Committee, and hope that you will feel free to use this letter in any way you see fit.

Sincerely yours,

TOM L. POPEJOY, *President.*

THE UNIVERSITY OF KANSAS CITY
SCHOOL OF DENTISTRY,
Kansas City, Mo., June 7, 1963.

HON. CLINTON P. ANDERSON,
U.S. Senate, Washington, D.C.

DEAR SENATOR ANDERSON: We have been informed that Senator Lister Hill will shortly be holding hearings on H.R. 12, the bill which would provide matching funds over a 3-year period for grants to aid in the construction of new dental and other health service teaching facilities and a 3-year program of loans to students of dentistry and to other health-related areas such as medicine and osteopathy.

The need for new dental construction and loans for dental students is quite acute for New Mexico. From the State of New Mexico, 24 of the 62 students studying dentistry are presently at the University of Kansas City School of Dentistry which occupies a building which was constructed over 40 years ago. The need for rehabilitation is acute and we have been able to raise approximately \$480,000 in gifts from our alumni and friends. With the cost of a new building of approximately \$6 million, you can see the futility of trying to construct such a building through private sources alone.

Insofar as loans are concerned, the cost of dental education has increased tremendously, not only to the schools, but to the students. It is my estimate that our single students spend between \$5,000 and \$6,000 per year for each of the 4 years they are in dental school after having had an average of 3 or 4 years of predental education at a college level. This sum is spent for tuition, instruments, books, and living expense. It is beginning to appear that only the affluent can afford this type of education and that some help in the form of loans is in order.

Any assistance that you can give to this bill will be aiding the dental education of young people from your State and the dental care of the people of the area.

Sincerely,

HAMILTON B. G. ROBINSON, *Dean.*

STATEMENT OF HON. J. HOWARD EDMONDSON, A U.S. SENATOR FROM THE STATE OF OKLAHOMA

Mr. Chairman, I am taking this opportunity to testify on behalf of the amendment to S. 911 offered by my distinguished colleague from New Jersey so that optometry students will be included in its provisions for student loans.

It is the declared public policy of my home State, Oklahoma, that its citizens receive the best possible visual care through the efforts of well-trained and qualified physicians and optometrists licensed under State law.

In giving optometrists part of the serious responsibility of providing the best possible visual care for Oklahomans, our State has done so with the knowledge that the art and science of optometry has made remarkable progress during this past generation.

Presently, before a candidate can be licensed to practice optometry in Oklahoma, he must not only be a graduate of a standard school of optometry but, in addition, he must pass State examinations in such complicated areas as general anatomy, physiology, physics, chemistry, ocular myology, and psychology, to name only a few.

Because of the high standards required of it and its own sense of duty and service, this profession is doing a commendable job in discharging its obligations with respect to the visual care of Oklahomans.

In fact, optometry has become a vitally important profession in my State because of our large rural population. It is commonly known that ophthalmologists, the medical eye specialists, tend to congregate in the metropolitan areas. This is evidenced by the fact that of the 29 board-certified ophthalmologists in Oklahoma, 20 are living in Oklahoma City and Tulsa. As a result, a

large segment of our farming and ranching population depend solely on optometrists for maintenance of normal efficient vision and the prevention of its deterioration and impairment. Thus, were it not for their presence, large areas of Oklahoma would be without visual care of any kind.

Using the ratio of 1 optometrist for every 7,000 population for adequate vision care, Oklahoma will need 62 more optometrists to take care of the attrition within the profession and the population the U.S. Bureau of the Census tells us we will have by 1970. And, at this point, I want to emphasize that in view of the rapid industrialization taking place, I believe that the Census Bureau's figure will prove to be a conservative estimate. However, if the 10 optometry schools and colleges of America continue to graduate only 350 to 400 students annually, we will be fortunate to obtain one-fourth the number of graduates needed by our State.

I cannot help but believe that the unavailability of money to meet the rising cost of optometric training serves to act as a barrier to many students desirous of entering this profession. The sizable percentage of accepted applicants who fail to enter school when they do not receive loan or scholarship assistance is evidence of this fact.

I, therefore, believe that in view of the continuing importance of the role of optometry, it is essential that our youth be encouraged to select it as a career.

Accordingly, I believe that the availability of the student loan funds will serve as an incentive to those with limited finances.

NEW HAMPSHIRE DENTAL SOCIETY,
August 21, 1963.

Senator THOMAS J. McINTYEE,
Senate Office Building,
Washington, D.C.

DEAR SENATOR: Last April I wrote you in regard to H.R. 12 and received a very satisfactory answer.

I am informed that Senate hearings on this bill are to be held in a few days. Speaking officially for the New Hampshire Dental Society, I can say that the New Hampshire dentists are very much in favor of passage of this bill. Unless money can be provided for new dental schools and help be given to present schools, a serious shortage of dentists will occur in the near future. When several millions are necessary to establish one dental school, it is apparent that only the Federal Government can furnish the needed funds.

I personally feel and I am sure most of our members feel that the Government should not give "hand outs" for purely political purposes but that help to the dental situation is among the worthy projects that should be given Federal help.

Sincerely yours,

DR. FLOYD E. WILLIAMS, *Secretary.*

U.S. SENATE,
COMMITTEE ON COMMERCE,
July 2, 1962.

Hon. LISTER HILL,
Chairman, Senate Committee on Labor and Public Welfare.

DEAR SENATOR HILL: Enclosed herewith is a letter which I received from William H. Havener, M.D., in which he expresses his opposition to S. 1072, particularly that section of the bill to authorize grants for construction of schools of optometry.

I believe that Dr. Havener's letter should be made a part of the hearings on S. 1072. Dr. Havener has given his consent to this.

It is my understanding that the hearings on S. 1072 have not been ordered printed. In the event they are printed, I respectfully request the inclusion of this letter in the printed hearings.

Sincerely yours,

FRANK J. LAUSCHE.

COLUMBUS, OHIO, June 7, 1962.

HON. FRANK J. LAUSCHE,
U.S. Senate, Washington, D.C.

DEAR SENATOR LAUSCHE: I note that Harrison Williams has proposed an amendment to S. 1072 to authorize grants for construction of schools of optometry. I personally am very strongly opposed to this. Among the reasons for my opposition is the fact that a large new building has been erected for the School of Optometry at Ohio State University. This has been completed for more than a year and yet its facilities lie largely unused because of the lack of students. I do not believe that there is a sufficient demand among students for optometric training to fill the present schools with adequate students, let alone to justify building additional ones. The second reason I oppose the building of more optometric facilities is that my practice of ophthalmology indicates to me that one of the greatest single causes of preventable blindness in the United States today is the false reassurance extended to patients with diseased eyes by optometrists who prescribe glasses and overlook most serious basic problems of the eye and the body as a whole. I hope that you are aware that the optometric curriculum simply does not equip these men to care for human eyes. I sincerely hope that it will be possible for you prevent the waste of money in the construction of new unneeded schools of optometry.

Cordially,

WILLIAM H. HAVENER, M.D.

STATEMENT OF HON. JOHN E. FOGARTY, A REPRESENTATIVE IN CONGRESS FROM
THE STATE OF RHODE ISLAND

Mr. Chairman and members of the committee, under any circumstances it would be a pleasure to appear before this committee. It is doubly so today, for it gives me an opportunity to offer my congratulations to your distinguished chairman, Senator Hill, on the recent marking of his 40th year as a Member of the Congress of the United States. They are 40 years in which the American people have been particularly well served, for Senator Hill has impressed his hallmark on many of the most memorable pieces of legislation enacted in our time.

It is fitting, then, that you, Senator Hill, should be one of the prime movers behind this effort to strengthen medical and dental education. Certainly, the bill before this committee today, while it is perhaps something less than either you or I would have wished, Mr. Chairman, is of utmost importance to the welfare of the American people. It addresses itself to one of the most critical problems facing us today—that of finding the means to attract and educate capable young men and women in the medical arts and sciences.

I do not propose to tell you what the specific provisions of this legislation are. You know them well. Rather, I propose simply to say that unless we provide Federal support for the construction of medical and dental training facilities, unless we make available to worthy students the low-cost educational loans which this bill provides, unless we do at least this much, we will soon see the day when we will have no assurance at all that medical and dental services will be available in time of need.

It is incredible to me that we have waited so long to face up to our responsibilities in this regard. To those of us who have worked long and hard to secure necessary public support for professional health education, it is ironic, indeed, that the support is yet to be forthcoming. Assuredly, the lack of such support is a departure from prevailing patterns. Look at the record. We, the people, are supporting the construction of research facilities for the prevention of disease. And who is not proud of the National Institutes of Health and of the research programs which the Institutes foster in almost every medical and dental school in the land? We are supporting the construction of facilities for the treatment of disease. And who, sir, is not grateful to you for the great complex of hospitals which have come into being as the result of the Hill-Burton Act?

No one would be fool enough to suggest that the people of this country should be deprived of the benefits which have accrued to them as a result of farsighted Federal programs in support of medical and dental research and medical and dental treatment facilities. Yet, in essence, any further failure to provide Federal support for the construction of medical and dental schools is to say

just that. To fail to provide adequate loan funds for medical and dental students is to say just that. When it comes to the prevention and treatment of disease, we are totally dependent upon our medical and dental practitioners. Yet, we are fast approaching the day when we will not have enough of these practitioners. We will not have them because we do not have the schools in which to train them. And there is no possibility that we can build enough schools, in time, unless Federal support is provided for their construction.

I am furthermore convinced that many of our most qualified young people will continue to be denied their opportunity to enter one of these great professions simply because of the cost of training. Dental education and medical education are costly, more so than any other types of professional training, and because this is true, a great many worthy students are undoubtedly having to forego the career of their choice simply because they do not have the money, because they cannot raise it.

Again, this is a departure from the general pattern. Though we have long since provided widescale Federal support for a variety of fellowship and loan programs, we have never—and this, too, strikes me as incredible—we have never yet designed a Federal program for the benefit of those very students who most need support—the candidate for the M.D. and the D.D.S. degrees. The Ph. D. candidate in one of the basic or physical sciences has recourse to Federal fellowships. But the medical or dental student, facing 4 rigorous years of professional education and a total school bill of staggering proportions, is denied that opportunity. I see no reasonable justification for this state of affairs. I am convinced that we must do something constructive about it and that we must do it now.

I do not in all candor look upon H.R. 12 as the final and perfect answer to the problems of medical and dental education. I personally was deeply disappointed at the striking of the scholarship provisions and the forgiveness features by the House. I would prefer a bill which offered schools some assistance in meeting operating costs. But whatever reservations I have on these points are far outweighed by the seriousness of the problems which exist in medical and dental education and by the fact that H.R. 12, as it passed the House, still offers an excellent beginning, a thoughtful and responsible beginning, toward the solution of those problems. I gave it my vote in the House. Today, I respectfully urge my colleagues in the Senate to give it theirs. Thank you for giving me this opportunity to appear before you.

AMERICAN HOSPITAL ASSOCIATION,
Washington, D.C., August 21, 1963.

HON. LISTER HILL,
Chairman, Committee on Labor and Public Welfare,
U.S. Senate, Washington, D.C.

DEAR SENATOR HILL: For a number of years the American Hospital Association has expressed its support of Federal legislation to provide increased numbers of qualified doctors and other essential health personnel in short supply. Representatives of the association appeared before this committee on May 3, 1961. It is realized that these hearings are to be brief and intended to provide an opportunity for any additional points of view to be expressed. It is our feeling, therefore, that it is not essential that we request time to appear before your committee in order to reiterate the position of the association as it has been previously stated.

This letter is to express the endorsement of the American Hospital Association of S. 1072 and H.R. 12. Hospitals are deeply concerned with both the quantity and quality of medical education. There is a growing need for a greater number of qualified doctors. To provide adequate numbers of good doctors, we must insure the availability of high quality medical education. The primary problem, therefore, is to modernize or replace many of the existing medical schools and also to provide new schools.

We believe the following brief statements set forth the situation with respect to medical education as it is seen by the hospital field:

1. Last year 7,138 students graduated from medical schools. The total number of approved internships and residencies has increased from 13,000 in 1940 to more than 30,000 this year. Hospitals are unable to fill a substantial percentage of available internships and residencies. We estimate one-fourth of these positions remain vacant.

2. Shortages of interns and residents have two serious effects upon hospital care. It diminishes the quality of care in some situations, and it serves to decrease the efficiency of doctors in their work within hospitals as it limits their capacity to provide for the increased patient demands. One immediate effect of this shortage is inadequate doctor coverage of emergency departments in many hospitals.

3. We support the desirability of insisting upon higher standards for foreign medical graduates to serve as residents in our hospitals even though these higher standards have reduced the number available and thereby contributes to the continuing shortage of residents.

4. Medical research and medical education are brought together in the teaching hospital. It is in the hospital that much of our medical research is translated into patient care. Our future progress in health affairs must be closely related to research. Increasing numbers of well-trained doctors are essential if we are to take advantage of the opportunities which medical research offers.

5. Two examples of population groups which in particular require large and increasing amounts of medical care are the mentally ill and the aged. Great improvement is needed in the whole field of mental health care. There is now a substantial shortage in the number of psychiatrists. The needs of the mentally ill are not likely to be met without more doctors. Older persons require substantially more care than younger age groups. The number of available doctors must increase just as the aged segment of our population has increased.

6. The need for increased numbers of doctors at all levels of Government has grown. Their services are needed in institutions operated by Government and in the whole field of public health. The provision of health services to our Armed Forces results in a constant drain on available doctor manpower.

7. Increased financing of health services through voluntary health insurance and by Government results in increased demands by the public for medical care.

8. World health has an important bearing upon international relations. Our ability to assist people in other parts of the world to meet their health needs is related to the availability of adequate numbers of doctors in this country.

We are particularly pleased that H.R. 12 recognizes the essentiality of teaching hospitals to the training of doctors so that the hospitals owned and operated by the 49 schools of medicine, as well as the 283 hospitals affiliated with medical schools, are given consideration in the program. The concerns of hospitals for medical education go beyond the medical student, since internships and residencies provided in hospitals are an integral part of the education of a doctor.

The legislation provides assistance to collegiate schools of nursing. This association is clearly on record urging the Congress to provide assistance to all approved schools, not only the collegiate schools, but to the hospital schools of nursing which provide 85 percent of graduate nurses. We feel it is most unfortunate that this legislation does not provide any assistance to the hospital schools. We have been assured, however, by both representatives of the administration and of the Congress that legislation will be introduced early in the next session which should give recognition to the problems of hospital schools. We stress the urgency of the nursing shortage and the need for Congress to give full consideration to the hospital schools if the nursing needs of the public are to be met.

The American Hospital Association deeply appreciates the opportunity of bringing its views to the attention of this committee and requests that this letter be made a part of the record.

Sincerely yours,

KENNETH WILLIAMSON,
Associate Director.

NATIONAL MEDICAL FOUNDATION FOR EYE CARE,
Washington, D.C., August 22, 1963.

HON. LISTER HILL,
*Chairman, Labor and Public Welfare Committee,
Senate Office Building, Washington, D.C.*

DEAR SENATOR HILL: We thank you for the courtesy extended to us in notifying us of the proposed public hearings that your Senate Committee on Labor and Public Welfare will hold on S. 911, known as Health Professions Educational Assistance Act of 1963.

We regret that it is not possible to arrange to have a representative of the foundation appear to present testimony due to the short notice of the proposed hearings. However, we respectfully request that this statement be incorporated in the official record for consideration by the committee.

The National Medical Foundation for Eye Care supports the fundamental objectives of this bill. Being cognizant of the unquestionable need for additional medical facilities, we specifically approve the provisions for construction grants-in-aid.

This proposal however, as adopted by the House of Representatives in the companion bill, H.R. 12, would include schools of optometry among institutions eligible for Federal construction grants. It should be pointed out that optometrists do not participate in the medical care of eye patients. Optometric service is a limited service.

The 1963 reports of the American Optometric Association Council on Optometric Education indicate that the 10 schools of optometry in the United States had an aggregate enrollment in their entering class of 482 in 1962 compared with a total of 552 in 1952. The following table is submitted for your review:

Size of entering classes, optometric schools in United States, 1952-62

Year:	New students	Year—Continued	New students
1952.....	552	1958.....	368
1953.....	439	1959.....	373
1954.....	393	1960.....	412
1955.....	413	1961.....	438
1956.....	378	1962.....	482
1957.....	390		

The same sources show that total enrollment in all classes in U.S. optometric schools was 1,319 in the fall term of 1962 as compared with 1,309 in 1941. The following table is submitted for your review:

Total U.S. optometric enrollment, 1941 through 1962

Year:	Total	Year—Continued	Total
1941-42.....	1,309	1952-53.....	1,959
1942-43.....	1,154	1953-54.....	1,631
1943-44.....	648	1954-55.....	1,396
1944-45.....	657	1955-56.....	1,233
1945-46.....	818	1956-57.....	1,175
1946-47.....	2,234	1957-58.....	1,155
1947-48.....	4,278	1958-59.....	1,136
1948-49.....	4,350	1959-60.....	1,235
1949-50.....	3,268	1960-61.....	1,168
1950-51.....	2,435	1961-62.....	1,422
1951-52.....	2,015	1962-63.....	1,319

It is clear that the number of students seeking training in optometry in recent years is considerably less than were enrolled for such training 10 or 12 years ago.

Similarly we find from the same sources that the U.S. optometric schools granted "terminal degrees" to 323 persons in 1958-59; 357 in 1959-60; 326 in 1960-61 and only 290 in 1961-62. This is contrasted with 1,452 graduates in 1947-48; 1,934 in 1948-49; and 1,572 in 1949-50. Indeed, as late as 1953-54, the optometric schools graduated 674 persons, more than twice as many as were graduated in either of the last 2 academic years.

The total optometric enrollment of 1,319 at the beginning of the 1962-63 academic year represented only 66 percent of the capacity of the 10 schools with their present facilities.

We submit that these data raise a very serious question as to the wisdom or necessity of Federal assistance being granted to provide added training facilities for schools now serving one-third or fewer students than they were able to serve 13 or 14 years ago.

We would further call attention to the fact that only 38 percent of the students enrolled in the 10 U.S. optometric schools at the beginning of the current academic year were enrolled in schools affiliated with recognized universities. In this connection, it should be noted that such universities as Columbia, Rochester,

Illinois, and the University of Southern California, which in the past offered optometric training directly or by affiliation, have discontinued the teaching of optometry.

Optometric literature contains many appeals for recruitment of additional students but few, if any, suggest that additional physical facilities are needed. The American Optometric Association is sponsoring an operation manpower—an aggressive national campaign to attract additional students to optometric schools.

With the extension of health education and a growing public understanding of medical care, including diseases of the eye and the visual system, more people are consulting physicians about their eye complaints, rather than assuming a need for glasses. At present, at least half the people who wear glasses did not get them without first having a medical examination of their eyes; whereas 30 years ago 4 out of 5 people who wore glasses obtained them without medical examination and diagnosis.

It would appear that the demand for simple optical service is diminishing and it is known that the demand for medical care is growing.

The National Medical Foundation for Eye Care firmly supports the basic purposes of this legislation. We seriously question, however, the desirability of providing funds for additional educational facilities for optometry, where existing facilities are clearly adequate to support a considerably greater number of students than are now seeking such a training. Whatever funds are available should be devoted, in our opinion, to the support of medical schools where there is an unquestionable need to provide additional facilities to train those who wish to qualify for a professional career.

Sincerely yours,

J. SPENCER DRYDEN, M.D.,
Vice President.

STATEMENT OF FREDERICK G. KILGOUR, LIBRARIAN, YALE MEDICAL LIBRARY, NEW HAVEN CONN., FOR THE MEDICAL LIBRARY ASSOCIATION

Mr. Chairman, gentlemen of the committee, my name is Frederick G. Kilgour. I am librarian of the Yale Medical Library and chairman of the newly established Committee on Federal Relations of the Medical Library Association. This past spring, the board of directors of the association formally went on record as supporting the objectives of H.R. 12, S. 911 and similar bills in the Congress. The Medical Library Association now requests your committee to make a favorable report on H.R. 12 as passed by the House.

The association is concerned with assuring increasing medical library contributions to the national welfare and security, particularly to our most important resource which is health. The association supports H.R. 12 because it believes that this bill will effectively stimulate much needed construction, renovation, and equipping of medical libraries as a necessary area in health research and teaching facilities. As I told Mr. Harris' committee in the House on an earlier occasion, medical education and medical research without medical libraries is unimaginable. Yet Federal funds have not been available to medical libraries during the period of successful expansion of research. In fact, Federal moneys have been so successful in stimulating research that there has been a powerful impact on medical libraries forcing them into desperate circumstances.

Research programs have trebled and quadrupled the numbers of library users, and at the same time, have immensely increased the amount of medical publications which libraries must have on their shelves. Enlarging educational programs are further increasing the burden. Multifold expansion in numbers of volumes and users has generated serious inadequacies for medical libraries, and inadequate space for readers, books, and staffs has become a critical deficiency requiring expensive correction. H.R. 12 will at least partially enable libraries to expand physically so that they can furnish effective services to advancing health programs.

The association, therefore, supports the objections of H.R. 12 and requests not only that your committee render a favorable report on the Health Professions Educational Assistance Act of 1963, but also that your committee specifically mention the needs of medical libraries in the report so that it will be clear that medical libraries will qualify to receive funds within the provisions of H.R. 12.

AMERICAN COUNCIL ON EDUCATION,
Washington, D.C., August 26, 1963.

HON. LISTER HILL,
Chairman, Committee on Labor and Public Welfare,
U.S. Senate, Washington, D.C.

DEAR SENATOR HILL: Since a question has been raised in the hearings on S. 911 and related bills about the financing of the American Council on Education's Survey of Dentistry in the United States, I quote the following from page ix of the Summary Report:

"The survey was made possible by generous grants secured through the efforts of leaders of the American Dental Association. The grants made to the American Council on Education were as follows: \$280,000 from the Kellogg Foundation, \$25,000 from the Rockefeller Bros. Fund, and \$5,000 from the Louis W. and Maud Hill Family Foundation. In addition, the American Dental Association itself contributed \$135,000."

For your further information I attach a copy of the Summary Report.¹

Sincerely yours,

HARRISON SASSCER,
Staff Associate.

NATIONAL TUBERCULOSIS ASSOCIATION,
New York, N.Y., August 16, 1963.

HON. LISTER HILL,
U.S. Senate,
Washington, D.C.

DEAR SENATOR HILL: As an organization working for optimum development of human resources, we were very pleased when H.R. 12 passed the House of Representatives, although deletion of the forgiveness feature of the loan program was disappointing. We believe that provision of more physicians for our expanding population is essential to our Nation's health and security and, for that reason, we are extremely eager that your bill and H.R. 12 be favorably considered by the Senate.

As a I wrote Congressman Harris in February, the NTA is particularly aware of the shortage of physicians because of the difficulty experienced in recent years in recruiting physicians into tuberculosis work. Years ago, personal experience with the disease led many medical school graduates to choose a career of diagnosing and treating tuberculosis. Although over 50,000 cases of tuberculosis are still reported annually, the great decline in incidence in this disease in recent decades naturally has influenced graduates to decide to enter of other fields in which needs are even greater. Thus, recruitment into the specialty of tuberculosis is at a disadvantage in the intense competition for a limited number of graduates.

This situation has been unfortunate for tuberculosis patients and also for those persons with other chest diseases, many of which are increasing rapidly, as you undoubtedly know. Reports from the Veterans' Administration indicate that the increase in their hospital population of patients with emphysema and cancer of the respiratory system has been at a far greater rate than anticipated and has more than offset the decline in tuberculosis patients. Concern has been expressed over the limited number of medical personnel available who are skilled in the advanced therapeutic techniques necessary for treatment of cases of pulmonary insufficiency. In addition, many physicians are needed to conduct research in respiratory diseases whose causation is so little understood.

With the increase in atmospheric pollution and the possibly adverse effects on respiratory conditions, we can hardly afford to be unprepared to treat diseases which may multiply in the decades to come.

I am sure that the committee is fully aware of the excessive costs of medical education today which closes the field to many able students who are not financially capable of financing such an expensive career.

Because the need for more doctors is so urgent, we respectfully request that your committee recommend approval of this legislation as passed by the House.

Very truly yours,

JAMES E. PERKINS, M.D.
Managing Director.

¹ In committee files.

MARYLAND NURSES ASSOCIATION,
Baltimore, Md., June 20, 1963.

Senator LISTER HILL,
Chairman, Senate Labor and Public Welfare Committee,
Senate Office Building,
Washington, D.C.

DEAR SENATOR HILL: The Maryland Nurses Association constituent of the American Nurses' Association, urges strong support of S. 911, to increase the opportunities for training of physicians, dentists and professional health personnel, and for other purposes.

Recently it was reported by the Surgeon General's Consultant Group on Nursing that 680,000 professional nurses and 350,000 practical nurses must be available by 1970. Nursing teachers will be needed to prepare the required 25 percent increase in nursing personnel. Therefore, additional collegiate schools of nursing will have to be constructed to prepare the educators of nursing personnel.

The patient is no longer able to bear the increasing financial burden placed upon him to support nursing education. However, all Americans will agree that the nursing needs of the patient must be fulfilled.

S. 911 will provide for the expansion of the facilities needed, over the next 10 years, for the enrollment of larger numbers of nursing students. An increase in college prepared nurses will help to meet the needs for faculty in all schools of nursing. Properly prepared nursing personnel will give better patient care.

The increased need for health services to all ages of the populous points to support by Federal funds. We therefore hope that the committee will give serious consideration toward the passage of S. 911.

Sincerely yours,

ALICE J. AKEHURST, R.N., *President.*

THE PENNSYLVANIA STATE UNIVERSITY,
University Park, Pa., August 26, 1963.

Senator LISTER HILL,
Chairman, Subcommittee on Health, Committee on Labor and Public Welfare,
U.S. Senate, Washington, D.C.

DEAR SENATOR HILL: On behalf of the Pennsylvania State University I wish to express support for the objectives of H.R. 12, which provides for aid to medical education.

We hope you will see fit at an early date to approve either H.R. 12 or S. 911.

Sincerely yours,

ERIC A. WALKER, *President.*

NATIONAL SOCIETY FOR RECIPROCITY
IN STATE DENTAL LICENSURE,
Brooklyn, N.Y.

COMMITTEE ON LABOR AND PUBLIC WELFARE,
U.S. Senate, Washington, D.C.

GENTLEMEN: In view of the fact that we were notified on August 17, 1963, that scheduled hearings before a Subcommittee of the Senate Labor and Public Welfare Committee would be held on August 22, 1963, we have prepared this statement since it is impossible to be present personally to testify on such short notice.

Although we are members of the American Dental Association, our opinion on the necessity of spending many millions of dollars of Federal funds to construct new dental schools differs from the official policy of our organization. However, since the American Dental Association did not poll its members on this question, it is our belief that this policy is contrary to the wishes of the great majority of American dentists. In the June 1963 Dental Survey, one of the big four monthly journals, it is stated, "that a majority of American dentists oppose Federal aid to dental schools." In the July 1963 Dental Management, a debate was printed on the necessity for more dental schools. The editor advised us that all the mail was 100 percent against the need for more dental schools.

The present method of State dental licensure should be examined by the committee. Unlike medicine, nursing, and pharmacy which have reciprocity in State licensing in the great majority of States, dentistry has almost no reciprocity in licensing.

There is ample evidence that some States use the State board examinations as a means of maintaining a deliberate shortage of dentists. Figures released by the American Dental Association reveal that there is about 1 dentist to 1,700 people in the United States. No State has admitted a shortage of dentists.

Alaska, with 1 dentist for 3,924 people, failed 40 percent of the candidates for State dental licensure in 1961. In the same year, Arizona failed 59 percent; California failed 37 percent; Colorado failed 26 percent; Delaware failed 40 percent; the District of Columbia failed 52 percent; Florida failed 22 percent; Idaho failed 27 percent; Maryland failed 24 percent; Montana failed 23 percent; Nevada failed 70 percent; New Jersey failed 28 percent; New Mexico failed 24 percent; Washington failed 29 percent; and Wyoming failed 27 percent. Delaware, which claims to have 1 dentist for every 2,765 people but actually has 1 dentist for every 3,230 people, if the retired dentists are not counted, has maintained a failure rate of approximately 50 percent over the last 10 years primarily for the out-of-staters. How will the construction of new dental schools solve the shortage, if the dentists are unable to practice in that State. Hawaii does not permit a candidate for licensure to take the examination unless he has been a resident there for at least 1 year. The fifth survey of dentistry conducted by the American Council on Education pointed out that 76 percent of State board examiners admitted that they favored graduates of dental schools in their State; 71 percent admitted favoring residents of their State; and a shocking 41 percent admitted "much depended on whom the candidate knew."

The well-established American dental schools are acknowledged to be the best in existence. There are no valid reasons for the high failure rates except that the State dental examining board express the desires of some of the dentists in those States. The dentists reap the financial rewards, the patients who must wait for appointments suffer.

In 1959 the results of an American Dental Association pool showed that 76.9 percent of the dentists desired reciprocity in State dental licensure. In September 1961, the author of this statement suggested, in a letter published by the Journal of the American Dental Association, that two agencies be created by the association; one to help promulgate reciprocity in State dental licensure, the other to investigate and report on areas where there is a shortage of dentists. These suggestions were ignored.

Since there were vacancies for about 160 students in the freshman classes entering dental schools in September 1962, there is a good possibility that reciprocity agreements in State dental licensure and honest examinations would make the study of dentistry more popular for more capable young people.

We conclude this very brief statement by stating we are opposed to the construction of new schools while the established schools are not filled to capacity. We are opposed to spending many millions of dollars to construct new schools while the present archaic State board dental examinations and the lack of reciprocity in State dental licensure make it highly improbable that the graduate of these new schools would be permitted to practice in areas where his services are really needed.

Respectfully submitted.

ANTHONY E. BEDRICK, D.D.S., *Secretary.*

STATEMENT OF STANLEY E. GOODMAN, D.D.S., LL.B.

TWO DOZEN MORE DENTAL SCHOOLS?—THE UNWANTED GIVEAWAY?

We have been told of a dentist shortage today. An even more serious shortage by 1975. And the only remedy, a 25 dental school federally subsidized crash building program. However, there are those who believe this to be an unrealistic and unsubstantiated interpretation of the real facts which, if carried out unfettered, must result in the untold waste of the boondoggle giveaway.

As a member of the American Dental Association and realizing full well this organization's fine history in advancing American dentistry to its present high position, I reluctantly find myself in disagreement with its policy of requesting Federal assistance in meeting the "coming dental shortage" by building two dozen or so additional dental schools.

I am not alone in this view. I believe the majority of practicing dentists disagree with dentistry's spokesmen re this point. The June 1963 issue of Dental Survey, one of the big four monthly dental journals, going to all dentists,

printed the results of its survey and stated that the majority of American dentists opposed Federal aid to dental schools, but did favor an expanded loan program to students. The July 1963 issue of *Dental Management*, another of dentistry's big four journals, printed a debate on the need for some two dozen more federally subsidized dental schools. The editor has advised me that the mail response has been running 100 percent against the need for more dental schools.

The problem of dentist shortage has been equated on the same basis as shortages in medicine. But the factors and considerations affecting the dental profession are different and dentistry has been carried along for the ride in being granted Federal crash building program funds.

The spokesmen for organized dentistry and governmental bureaus, though sincerely interested in the continued advance in citizen dental health, all too frequently clearly lack the perspective and understanding to judge or represent dentistry's in-the-field problems. These spokesmen, in almost every instance, are dentists or dental school deans who have not practiced dentistry at the grassroots level for 20 or more years, or the nondentist organization man of dentistry's organized society hierarchies or the nondentist governmental agency representative, who, from their limited personal experiences or total lack of them, are incapable of demonstrating the necessary perspective and judgment for interpreting the future needs of the profession.

Generally, the proponents of the plan to annually produce 3,000 additional annual graduates, double the present number of annual graduates, base their argument on (1) the future population growth, (2) the increased per capita demand for dental services, and (3) the declining ratio of dentists to population.

First, they point to a Census Bureau estimate of population of about 235 million in 1975 and 260 million in 1980. Second, Department of Commerce and Labor figures indicating that the amount of per capita dental care increased 36 percent between 1950 and 1960. And third, that in 1930 there was 1 dentist to 1,728 people and today there is 1 dentist for every 1,941 persons, and that the ratio disparity of dentists to population is ever increasing.

Herein lies the reasoning behind the cry for crash program Federal subsidy for the dental profession, and on the surface appears to demonstrate an obvious need for such a program. But what has not been emphasized and ballyhooed are factors lying beneath the surface of the waters, which may make up the remaining seven-eighths of the iceberg.

Statistics available from the same sources, dating back to 1930, indicate that the productivity of the average dentist in 1960 was 42 percent greater than in 1950, and in excess of 100 percent over that of 1930. Indeed, the last three surveys of dental practice, asking dentists how long the average patient had to wait for an appointment, excluding emergencies, reported the average wait as 13.6 days in 1952, compared to 12.8 days in 1955, and only 11.8 days in 1958.

The new picture shows that though the increase in per capita demand for dental services in the decade of 1950-60 was 36 percent, the increase in productivity of the average dentist was 42 percent. No wonder the director of the American Dental Association Bureau of Economic Research and Statistics recently stated, "Despite the declining ratio of dentists to population, the profession appears to be keeping ahead of demand for dental care." Who could say it more clearly?

In commenting on one of the factors responsible for increased dentist productivity, the introduction of the high-speed handpiece, the proponents continue with, "There is no certainty of any future development in dental equipment that will promote productivity to a degree comparable to that of high-speed drilling equipment." Such statements create the public impression that the high-speed handpiece was the significant reason for the dentists increased productivity in the past decade—but it is not the case.

The facts as reported in the American Dental Association Survey of Dental Practice indicate that to date the use and advent of the high-speed handpiece has resulted in making the dentist's work easier, reduced fatigue, reduced somewhat the number of hours of work for the dentist in a week, and in general reduced patient's tension and apprehension and that " * * * the ultimate effect would likely be an increase in the number of patients." In other words, the great advances from this source remains to be reaped in the future.

Though high-speed handpieces may have contributed some to the amazing 42 percent decade increase in productivity, it is more generally recognized that most of this is the result of increased use of auxiliary personnel and other office management and procedural developments—still relatively untapped sources.

Surveys and studies indicate conclusively that a dentist operating with one chair and one assistant has in increased productivity over a dentist operating with one chair and no employee of more than 60 percent, and a dentist practicing with two chairs and two assistants has an increased productivity over the dentist with one chair and no assistant of about 160 percent. Astounding, but fact. Unfortunately, the facts further indicate that at the present time about 18 percent of the Nation's dentists operate with no assistant or auxiliary at all, and approximately 18 percent work with only one part-time assistant. The remaining 65 percent engage one or more full-time dental assistants. But only 6 percent of the total of American dentists employ two or more auxiliaries. Only 14 percent of the dentists employ a dental hygienist, with more than half of these part time.

Further, studies indicate the uses and duties of dental hygienists and assistants can be easily expanded in many phases of dental practice as is being done successfully in our Armed Forces. However, ancient bugaboo laws existing in most States must be eliminated before these potential services could be utilized. For instance, more than half the States have statutes restricting the sex of hygienists to women. And in the States where it is legal, it is only academic as none of the Nation's schools for dental hygienists accept men. All this in spite of our Armed Forces proving conclusively that men make extremely valuable and efficient auxiliaries.

What it all adds up to is that the use of dental auxiliary personnel is in its infancy and the increase in dentist productivity to be expected from this avenue is tremendous.

Dentist productivity is being increased by varied procedural developments only today coming into vogue. Quadrant dentistry or longer single appointments are proving far more productive and beneficial than the short 15- or 30-minute appointments. It is no secret that a dentist can produce one-third more dentistry in a single hour appointment than he can in two half-hour appointments and even more than that over four 15-minute appointments.

The 42-percent increase in dental productivity between 1950-60 is "peanuts" compared to what can be expected in the next 10 or 15 years. It will require some changes, but this has been the history of the dental profession in the past 30 years.

Reviewed in the light radiated by all of the picture, the warning that the ratio of dentists to population is now 1 to 1,941 people while it was 1 to 1,728 in 1930, and that we must plan to maintain this ratio, is meaningless—especially when the facts show that, even with this expanding ratio and an increased demand for dental services, the dental profession has been " * * * keeping ahead of the demand."

Presently, there are about 50 million people living in areas where water supplies have had their fluoride content adjusted to a 1-part-per-million level or where fluoride occurs naturally in this amount. It is unfortunate that the message has not been put across to the public and convinced them as thoroughly as are 98 percent of the dental profession and virtually every other national scientific society.

According to Public Health Service estimates the adoption of this simple, efficient, safe, and inexpensive method for eliminating 60 percent of tooth decay would result in a saving for the people of this Nation of a half billion dollars annually in unnecessary dental bills, and a greatly increased measure of protection from tooth decay for almost 85 million people living in communities where fluoridation is practicable. Consider also the contribution that this expanded fluoridation would make toward alleviating the "great coming dentist shortage." Here is where a crash program is most needed.

Most responsible students of the dentist-shortage problem are in agreement that there is no dentist shortage in the United States at this time. This does not mean that there are no local, regional, State, or county shortages. But, such shortages are brought about by causes which even doubling the number of dentists wouldn't change.

First, there are areas where because of levels of education, income, and experience there is virtually no demand for dental services.

Second, men who have spent 7 to 10 years in and about the great university cultural areas and cities find it difficult to locate or even return to places lacking the facilities and general way of life to which they are or have become accustomed.

Third, and by far the most important, shortages of dentists existing in many States are not natural shortages at all, but artificially created shortages. And

the creation of these artificially created shortages can only be placed at the doorsteps of an archaic system of dental licensure, various State dental boards of examiners, and the antiquated laws that make the former possible.

Why is it that the average rate of failure of dental board licensure applicants in 10 States has consistently been between 40 and 45 percent while the failure rate in all other jurisdictions combined is 10 percent or less? Population trends and shifts are great. The services necessary for our people have been permitted to follow, whether physicians, teachers, or bakers. But in the States most affected by the population boom or shift we find the migration of dentists to follow and serve the growing population legally blocked.

These are no shortages of dentists in New York, Cleveland, Philadelphia, Buffalo, Boston, Pittsburgh, St. Louis, Chicago, Des Moines, Milwaukee, Indianapolis, Peoria, Newark, Columbus, Louisville, Providence, Baltimore—only serious oversupplies. And thousands of dentists in these large metropolitan areas have been constantly thwarted from entering into a number of dentist-short States by economic dental czars of the State board of examiners, who regulate the number of dentists to be licensed in order to maintain the most favorable dentist-population-purchasing-power ratios. It seems that 3,000 more dentist graduates each year operating under the present archaic licensure system will only contribute to a growing and greater maldistribution of America's dental talent.

A method for increasing the number of dental graduates at a sane and practical pace lies along the route which is only whispered for public consumption. Increasing the number of students in the present 48 dental schools. At present there are 21 dental schools graduating less than 60 dentists annually; 14 of these graduating less than 50, with 8 of the former having graduating classes of 35 or less, and 1, Harvard, graduates 11 or 12. Excellence in dental education does not depend upon smallness and it has been proven by a number of dental schools which graduates 90, 100, or more annually. Smallness for the sake of quality is one thing, but I fear that there has been too much worship of "smallness for the sake of smallness."

Dental school deans have been having their troubles finding and retaining sufficient numbers of qualified teachers, and the competition between dental schools is keen and intense. Expansion of our present dental school facilities, with their intact, experienced, and operational faculties, is a practical and realistic measure for increasing the number of annual dental graduates. Representatives of the dental education forces believe that expansion of present facilities could give us about 650 additional annual graduates. Other responsible, and less personally involved authorities, believe 800 would be the more correct figure. In this type of expansion Federal assistance can be most useful, along with matching university and State funds.

In the last 10 years a half dozen dental schools have been built and become operational, one school is scheduled for opening in 1964, two schools are imminently to go under construction, and another half dozen are under active discussion by State legislatures and university officials. The only thing that would stop continued normal expansion of the number of dental schools is the constant talk of a Federal Government giveaway program.

In the 1960-61 academic year there were 164 unfilled places in the freshman classes in the Nation's dental schools, and in 1962-63, after 2 years of crash-program recruitment efforts by the American Dental Association, there were between 144 and 170 unfilled places (apparently some disagreement in various official figures for this year). Even these figures do not give the entire picture. For instance, one eastern dental school built with facilities for a freshman class of 100, and expansion facilities for 25 more, has never been able to enroll more than 80 qualified students.

For many reasons, not the least of which is the increasing lure of qualified students into the more glamorous and romantic space-atomic-age sciences, the number of qualified applicants for dental schools has fallen off dramatically. Though the number of college students doubled in the last 20 years, the number of qualified applicants fell off by one-half. One well-known dental school has seen, in less than 15 years, a fall in the number of dental applicants from over 10 per school seat to 1.6 per school seat. The trend, borne out by the facts, indicates that we won't have enough qualified applicants to fill the dental school classes of more than 6,000 in 1975.

We proved during World War II that the program for 25 dental schools is unnecessary and wasteful. The dental schools have one-third of their potential dentist production lost each year. Dental schools have their plants empty and

fallow more than 3 months each year because of adherence to an educational "habit." By the obvious process of adopting a trimester program or adding three 10-week summer sessions, it is possible to graduate a dentist in 3 instead of 4 years, thereby increasing the capacity of every dental school by one-third. Relatively speaking, we could overnight have an additional 16 dental school equivalents, with the following benefits:

1. Faculties, paid on a full-year basis of dental school income, could receive better salaries, making it possible to add and hold more qualified teachers.

2. Dentistry, being a 3-year program, would be more attractive to many prospective applicants.

3. Eliminate the poor economy of use and waste of high cost maintenance plants and facilities.

During World War II thousands of medical, dental, engineering, etc. students were in year-round attendance with few complaints about pace coming from students or faculty. And the quality of the products of that educational process has never been found wanting.

Prevention of dental disease is the panacea for our Nation's dental health problems, not crashbuilding 25 dental schools. Without doubt the great boulevard leading to the ultimate of prevention lies in research. One investigator or team discovering a vaccine or chemotherapeutic agent to combat the bacterial processes causing tooth decay could do more for dental health than 50,000 dentists practicing restorative dentistry. And the studies and reports currently appearing in dental journals are so optimistic in nature and direction that it seems incredible that the "planners" refuse to recognize this avenue of dentistry's progress. Dentistry's future and America's dental health lies more in the "superhighway" of preventive medicine and less in the "pothole" route of restorative techniques. Here is where the crash program and financial assistance is needed.

There is a vast difference between the theoretical need for more dentists, based on population and caries statistics, and the actual demand for dentist services. This probably is the crux of the entire problem before us. Until it can be demonstrated that the dental profession is not keeping up with the demand for dentist services, there can be no logical reason for two dozen additional federally subsidized dental schools, and the facts irrefutably indicate that the dental profession has been keeping ahead of the demand. And until we see that the dental profession has met its obligations toward dental licensure reform and increasing dental productivity through known, efficient, and relatively inexpensive means now existing, and only now in the infancy of use, there can be no logical reason to build two dozen more dental schools.

FORT LAUDERDALE, FLA., August 23, 1963.

Senator LISTER HILL,

Chairman, Senate Committee on Labor and Public Welfare, New Senate Office Building, Washington, D.C.

DEAR SENATOR HILL: In reviewing the testimony given before the House of Representatives on H.R. 12, I note that the vast majority of those testifying were either educationalists or public health officials and near absence of testimony by the individual private practitioners. While it is true testimony was presented by officials of the American Dental Association in all candor, it must be pointed out that their views do not represent the views of the majority of American dentists on this particular subject, as poll after poll has indicated, running as high as 66 percent against Federal aid to dental schools.

As for a shortage of dentists at the present time, again, polls show less than 10 percent of the American dentists express the opinion that they are too busy to accept new patients. These are facts, not statistics, on the number of cavities in peoples' teeth. "Need" of dentistry should be distinguished from "want" of dentistry by the American public. All those Americans that "want" dentistry today can receive it. At the present time there is no shortage of dentists and, consequently, no need for additional dental schools at the rate requested by the administration. In addition, it must be pointed out that even the present dental and medical schools are experiencing difficulty in filling their classes.

But that's another story, why dentistry or medicine does not appeal to today's youth. The threat of socializing the health profession ranks the highest.

Of course, many of the existing dental schools need overhauling in their physical plants, but why should the taxpayer be forced to finance it. There are 95,000 dentists in the United States who average better than \$10,000 net income per year. This group can well afford to finance any upgrading of the physical plant of the Nation's dental schools. If each dentist contributed an average of \$100 per year nearly \$10 million per year would be available.

Since the fact is that the vast majority of American dentists do not want Federal aid of any kind, an intensive campaign waged by the American Dental Association and State dental associations, with a little encouragement from Congress, directed toward enlisting the private practitioners' support in pledging an average of \$100 per year would seem the most American way of solving the problem.

I respectfully urge you to not support a Federal program of aid to professional schools. The problem is ours, the dental profession, and we should meet it.

Sincerely yours,

FRED J. ACKEL, D.D.S.

PREPARED STATEMENT OF DR. EMMETT J. MURPHY, DIRECTOR OF INDUSTRIAL RELATIONS, NATIONAL CHIROPRACTIC ASSOCIATION, WASHINGTON, D.C.

The National Chiropractic Association urges the enactment of the proposed Health Professions Educational Assistance Act of 1963 (H.R. 12, 88th Cong.), with corrective amendments. We believe that this measure, as amended, represents one of the most important legislative proposals before the 88th Congress, and that if appropriately implemented it will substantially help to meet one of our most urgent national needs—the construction of additional teaching facilities and increased educational opportunities for students in the health professions.

I am confident that it is unnecessary for me to further burden these hearings with information to confirm the need for this legislation. This fact has been irrefutably established by others. The record is clear that without access to new avenues of assistance, such as proposed by the pending bill, the major health professions of this country will be unable to discharge their responsibilities to the public, because of the rapidly expanding demands for their services in the period which lies immediately ahead.

The National Chiropractic Association is a professional association representing the majority of the chiropractic doctors now licensed to practice under the laws of the various States.

As you know, chiropractic is the second largest of the three generally recognized healing professions. In the past decade our profession has experienced steady growth. The 1960 census shows that chiropractors have increased 10 percent in numbers during this period. Our studies indicate that this same trend will continue at an accelerated pace in the future, but only if additional training facilities and student assistance can be provided.

In recent years the National Chiropractic Association has embarked upon a rigorous evaluation of its educational program and facilities. This program is designed to establish and maintain the highest professional standards in the curricula and training offered at the seven colleges sponsored by NCA. We are determined that the doctors graduated from these colleges shall have the finest training available in the use of manipulative therapy, and to insure that they will be able to meet the most exacting standards of their profession. Toward this end, NCA has established an accrediting committee composed of several eminent doctors of chiropractic and two nationally known educators not associated with any of these colleges. The findings of this accreditation committee are highly encouraging. They indicate that our leading NCA sponsored colleges can qualify for inclusion in the accredited list of educational institutions maintained by the U.S. Office of Education. Once this determination has been made such colleges should be eligible for participation in publicly supported programs sponsored by the Federal Government.

NCA's bootstrap accreditation program includes the following standards of achievement—all of which are comparable to those established by our leading medical and osteopathic schools:

1. A full 4-year course of study, offered by a college chartered by State law to offer the degree of doctor of chiropractic upon completion of a minimum requirement of 4,200 hours of classroom, laboratory, and clinical instruction.

2. Basic science courses which are the same in both subject matter and time equivalent as those offered by medical and osteopathic schools.

3. Graduates subject to qualification in the basic sciences by the same State examinations taken by graduates of medical and osteopathic colleges.

4. Doctors of chiropractic are subject to all the laws which safeguard the public and which apply to any of the licensed healing arts.

5. If doctors of chiropractic are also members of NCA, they subscribe and are subject to a code of ethics demanding the highest standards of professional conduct.

Those who enter the chiropractic profession are inspired by the same ideals which motivate doctors of medicine and osteopathy. They perform a much needed humanitarian service, meeting many of the health needs of a rapidly increasing number of patients. They freely respond to the call of public duty and serve their country in time of emergency. They are respected members of their communities, serving on civic committees, paying taxes, and otherwise fully supporting their Government. Their services and treatment are recognized and accepted by more than 500 insurance companies operating in the United States on the same basis as other accredited members of the healing arts profession.

In view of the foregoing facts, it is difficult for NCA to believe that there is an express intention on the part of the sponsors of the legislation now before the Senate Subcommittee on Health to exclude any properly recognized healing art from participating in its benefits. Having established an accrediting agency to assure that its educational institutions meet all of the generally prescribed standards of excellence, and once such an agency is recognized by the U.S. Office of Education, and our colleges are able to meet all tests and inspections, and thereby become accredited institutions, such colleges should be permitted to enjoy full participation in any benefits provided by the legislation here proposed.

It would be both shortsighted and discriminatory, to say the least, to completely exclude from a public tax supported program such as this, expressly designed to increase the number of properly trained personnel in the healing arts profession, the second largest segment of that profession.

NCA respectfully recommends, therefore, certain changes in H.R. 12, as follows:

On page 1, line 8, after the word "facilities" add a comma, and insert the following phrase: "and other health training institutions which are or may be listed as accredited by the U.S. Office of Education."

The bill should be appropriately amended throughout to conform to the above change in order not to exclude any presently existing and duly accredited and licensed profession in the health field. The wording of our amendment should be added to accomplish this reasonable objective wherever professional occupations are specifically mentioned. A simple way to accomplish this would be to add the word "chiropractic" immediately following the words "osteopathic" or "osteopathy" wherever these terms appear in the bill.

Favorable consideration of these suggested amendments will be greatly appreciated by the entire membership of the National Chiropractic Association.

PHARMACEUTICAL MANUFACTURERS ASSOCIATION,
Washington, D.C., August 29, 1963.

HON. LISTER HILL,
Chairman, Committee on Labor and Public Welfare, Subcommittee on Health,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This letter is submitted on behalf of the Pharmaceutical Manufacturers Association on S. 911, a bill amending title VII of the Public Health Service Act and entitled the "Health Professions Educational Assistance Act of 1963." The views herein expressed have like application to H.R. 12, a companion bill which, we understand, in amended form has already passed the House of Representatives and is now before your committee for consideration.

It is believed that it may be helpful for you to know that this association represents drug manufacturers producing 95 percent of the Nation's total output of prescription drugs. We respectfully call attention to the historical fact that there has been no important development in the field of effective drug therapy for more than a quarter century where members of PMA have not played a significant role either in the discovery of the agent and/or in defining its utility and making it readily available to the medical profession.

The PMA supports the provisions of S. 911, establishing a Federal matching grant program for the construction, expansion and rehabilitation of medical schools. This program also had our support in the 87th Congress when H.R. 4999, the predecessor to H.R. 12, was before the House Interstate and Foreign Commerce Committee.

Since its inception, the PMA has recognized that the highest possible standards of medical education should be maintained in order to assure that the best medical care is provided to the American people. In recent decades impressive advances have been made in medical sciences. They have been accompanied by great changes in the pattern of medical education and medical care. Meanwhile, it has become well established that the adequacy of physical facilities bears an important relationship to the quality of medical education and hence, ultimately to the quality of medical care provided. If the goal of continual improvement in medical education is to be achieved, provision must be made to assure the adequacy of physical facilities.

The PMA also supports the inclusion of schools of pharmacy in this program. Graduates of these schools are meeting demands in many areas involved with the public interest, as for example in Federal and State governments, in the Armed Forces, in education, in research, in hospitals, and community pharmacies, and in industry.

Our support of this matching grant program is conditioned, however, on its not containing any factor diluting American medical or pharmacy education, and on its giving maximum assurance of freedom from Federal controls. In addition, we believe that it should give priority consideration to the construction of new medical and pharmacy schools in those areas where such facilities do not now exist.

Private funds are now supporting scholarships and student loan programs to alleviate financial difficulties among students and encourage careers in medicine and pharmacy. The success of programs such as the American Medical Association's medical education loan guarantee program and American Foundation for Pharmaceutical Education speak for themselves. We are pleased to call to the attention of this committee the fact that members of this association have contributed substantially to both these programs. To the extent that private funds are inadequate to provide all the financial aid that may be needed by well-qualified students, the PMA supports the loan provisions of S. 911 to include undergraduate and graduate students in medicine and pharmacy as a supplementary benefit.

The PMA favors short-term periodic review by the Congress of a program of this kind, and in fact of every Federal activity in the health field that can be so adapted. For this reason, we heartily concur in action taken by the House in limiting the initial period to 3 years, with the understanding that extensions will be given if Congress is satisfied with the operation. Also, this will give Congress an opportunity to make any needed changes in the direction of the program. We hope, too, that in administering the program the Department of Health, Education, and Welfare will, in every possible situation, lay down clear, unambiguous regulations, confined to the bounds granted by statutory authority.

It would be deeply appreciated if you would make this letter a part of the record of your committee's hearings on S. 911.

Sincerely yours,

AUSTIN SMITH, M.D.

ASSOCIATION OF SCHOOLS AND COLLEGES OF OPTOMETRY,
DIVISION OF OPTOMETRY, INDIANA UNIVERSITY,
Bloomington, Ind., August 26, 1963.

HON. LISTER HILL,
Senate Office Building, Washington, D.C.

DEAR SENATOR HILL: As president of the Association of Schools and Colleges of Optometry, representing all of the optometric training institutions in the United States and Canada, I urge you to support the amendment of S. 911 and H.R. 12 to provide for optometric student loans. The needs are critical and the presently available NDEA loans are inadequate and too restricted to meet these needs.

Optometric education is comparable in length of time to that required for a medical or dental degree. Optometry students have tuition, equipment, and professional training costs much greater than students holding priority on NDEA loans. After graduation they face heavy practice investment costs and a slow

income growth over a period of several years. Thus student loans more liberal in amount and in repayment provisions than the NDEA loans are needed.

The Nation's critical need for additional optometrists is grossly underestimated by the frequently expressed ratio of 1 optometrist per 7,000 population. Based on workload studies, 1 optometrist in a community of 7,000 could provide complete professional services to each member of the community only once in every 5 to 9 years, whereas the most conservative professional opinions call for vision examinations at least once every 2 years. The present ratio is less than 1 practicing optometrist per 12,000 population.

The shortage is particularly acute in rural areas, yet relatively few optometry students are derived from the 90 percent of the population residing outside the metropolitan areas in which the Nation's optometry schools are located. This reflects to some extent the high cost of education for those unable to live at home, and for those from lower income rural areas. The most severe shortage exists in the South where there are only two optometry schools to serve all of the Southern States, and students must, therefore, travel considerable distances to obtain optometric training.

Just to maintain the present inadequate ratio of 1 per 12,000 in a period of continued population growth will require graduation of over 1,000 students per year instead of the present average of 500 per year. The small number now being trained is in part attributable to competition for the small number of college age students available during the past few years. During the last 3 years, however, applications to optometry schools have been increasing more than 10 percent per year, while applications to other professional schools have declined or remained constant. This growth reflects increased interest in optometry as a career, but still falls far short of alleviating the need. The growth in teenage population assures a supply of interested students, but to achieve adequate supply of trained optometrists to provide vision care for the Nation will require that the interested students' financial needs be met.

Again, I urge your support of this amendment.

Sincerely yours,

GORDON G. HEATH, O.D., Ph. D.,
President, ASCO.

PHOENIX, ARIZ., August 29, 1963.

Mr. BARCLAY,

Senate Committee on Labor and Public Welfare, Subcommittee on Health, Senate Office Building, Washington, D.C.

DEAR MR. BARCLAY: I take this opportunity and ask to be entered into the record of this hearing this rebuttal to the testimony of Dr. Harry Lyons, dean, College of Dentistry, University of Virginia.

Dr. Lyons stated, and I quote:

"Let's take Arizona as an example. Arizona has a sizable dental profession and, until very recent years, when it has made a limited contribution to a regional compact plan, Arizona received the benefits of the dental profession without contributing one Indian head or Lincoln penny in payment for them. And, I say to you, Senator Hill, that that is unfair to the 24 States that are supporting dental education. And there is not any reason in the world why some of the tax money from Arizona should not help the taxpayers of Virginia educate dentists for their State, and I might add, Senator Hill, that my school, which is a State-supported school, has sent a few dentists to Arizona.

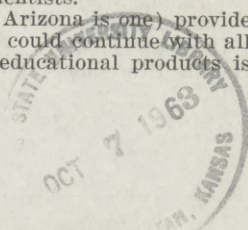
"We are happy to state that they are highly respected practitioners and are contributing significantly to the dental health of the residents of Arizona."

First of all, gentlemen, Dr. Lyons used the plural in referring to practitioners of dentistry in the State of Arizona from his school, when in truth, there has been one dentist from the University of Virginia practice here (Arizona) in the entire history of the State of Arizona.

Next, Dr. Lyons refers to 24 States providing all the dentists for 50 States. This is probably true and a little unfair to use such statistics—perhaps "short-sighted" is a better word. Because the proponents of this type of rationality show that they are so confined to their little sphere of influence that the total impact of the educational picture escapes them.

I note that more than half of the States provide all the dentists.

I note also that less than half of the States (of which Arizona is one) provide all of the mining engineers for all of the States. So we could continue with all phases of education and note that a balance of these educational products is probably in good apportion.



I note also that Dr. Lyons mentions not that the many foreign students studying in our schools are "unfair" (according to Dr. Lyons) to those States from which they derive their education.

In short, gentlemen, to confine one's criticism of education to one small segment is not only unfair but shortsighted.

I add this to your information and thank you for its allowance.

I also express my opposition to the legislation proposed in H.R. 12 and S. 911. Thank you.

WILLIAM L. LABADIE, D.D.S.

(COMMITTEE NOTE.—Dr. Lyons is dean of the Medical College of Virginia Dental School in Richmond, Va.)

THE AMERICAN LEGION,
Washington, D.C., August 23, 1963.

HON. LISTER HILL,
*Chairman, Senate Committee on Labor and Public Welfare,
Senate Office Building, Washington, D.C.*

DEAR CHAIRMAN HILL: I am writing to you in connection with the hearings presently being held by your committee on S. 911, the Health Professions Educational Assistance Act of 1963, and H.R. 12, a House-passed companion bill.

The American Legion has no official position concerning those portions of the legislation dealing with grants to certain institutions to be used for the construction and major repair of teaching facilities.

However, the American Legion has a firm position with respect to part C of the legislation which provides for student loans. There is no objection to the student loans per se, but we urge the committee to include in this legislation the same eligibility requirements and penalty provisions which Congress has so wisely included in the National Defense Education Act of 1958 and the National Science Foundation Act of 1950.

As you know, the above two acts originally contained a loyalty oath and a so-called disclaimer affidavit. For several years much opposition to the disclaimer affidavit was expressed principally by some university presidents and professors. Nevertheless, Congress did not repeal the affidavit requirement on the basis of this opposition. Congress did, however, amend both acts in 1962, undoubtedly because of the case of Edward Yellin, which demonstrated the weakness of the disclaimer affidavit. The amendment substituted certain additional eligibility requirements and criminal penalties for violations thereof in lieu of the affidavit. The loyalty oath, which was never seriously opposed by anyone, was retained.

Since part C of the subject legislation is similar in nature and purpose to the two prior acts mentioned above, the American Legion strongly urges that the same requirements be included in the bill reported by your committee. From the time the National Science Foundation Act of 1950 was enacted, Congress has steadfastly adhered to the policy of requiring student applicants for loans of Federal funds to subscribe to a loyalty oath and certainly Congress should require no less of applicants under this legislation. The full text of the provisions which we urge the committee to add to part C is enclosed for your convenience.

It is respectfully submitted that in the light of the policy followed by Congress in this respect, the amendment advocated herein should not unduly delay consideration of this legislation.

The American Legion is not requesting the personal appearance of a representative, but if there is no objection, it will be appreciated if this letter and the enclosure are included in the printed record of the hearings.

With best wishes and warm personal regard, I am,

Sincerely yours,

CLARENCE H. OLSON, *Director*

UNITED STATES CONFERENCE OF MAYORS,
Washington, D.C., August 27, 1963.

HON. LISTER HILL,
*Chairman, Senate Committee on Labor and Public Welfare, The Capitol,
Washington, D.C.*

DEAR SENATOR HILL: The United States Conference of Mayors endorses the Health Professions Educational Assistance Act as proposed in S. 911 and H.R. 12.

On behalf of the major cities of 30,000 population and over the conference requests that a resolution adopted by the mayors on June 13, 1963, be included in the hearings recently completed on this subject.

The resolution is attached hereto.

Very truly yours,

JOHN J. GUNTHER,
Executive Director.

PROFESSIONAL HEALTH TRAINING

Whereas the shortage of physicians, dentists, professional public health personnel, and nurses is acute and is increasing; and

Whereas to keep pace with population growth a 50-percent increase in the output of physicians, and an even greater increase in dentists will be required; and

Whereas facilities for the training of these professional health personnel are grossly inadequate in number, and new schools must be constructed and existing schools remodeled and expanded to meet enrollment needs; and

Whereas the high cost of constructing these schools effectively precludes States and institutions from building and expanding the needed facilities without Federal aid; and

Whereas the cost and length of education for medicine, dentistry, and osteopathy make it impossible for many well-qualified but needy students to enter such schools: Now, therefore, be it

Resolved, That the United States Conference of Mayors urge the Congress to enact legislation providing for Federal grant assistance to the States and other sponsoring agencies to construct, expand, and remodel schools for the training of professional health personnel; and be it further

Resolved, That Congress be urged to provide Federal assistance to needy and well-qualified students so they can pursue courses of study in medicine, public health service, dentistry, and osteopathy.

Senator PELL. And the record will stay open for a couple of days, as I understand.

The CHAIRMAN. Yes. But what we want to do is close it as soon as we can. We want to act on this bill as soon as we can, so as soon as we close our record, the better. Do you have any particular statement in mind?

Senator PELL. There may be one from the president of Brown University coming in.

(Subsequently the following communication and statement was submitted:)

BROWN UNIVERSITY,
Providence, R.I., August 23, 1963.

HON. CLAIBORNE PELL,
U.S. Senate,
Washington, D.C.

DEAR SENATOR PELL: I enclose a statement of Brown's needs appropriate to S. 911 and H.R. 12. We are grateful that you wish to read such a statement into the record.

Sincerely yours,

BARNABY C. KEENEY.

STATEMENT OF BARNABY C. KEENEY, PRESIDENT, BROWN UNIVERSITY,
PROVIDENCE, R.I.

THE NEW PROGRAM OF MEDICAL EDUCATION AT BROWN UNIVERSITY, PROVIDENCE, R.I.

A summary statement

Brown University has initiated a program in medical education based on a 6-year curriculum. A class of about 25 students will be enrolled in the program of medical education, the first to be offered in the State of Rhode Island in modern times. Brown, as the State's leading institution of higher education, has for many years been pressed from one side or another to get into medical edu-

cation. The university resisted these pressures, basically because it was unable to see any compelling reason why it should undertake a medical program.

Since World War II the costs of medical education have risen even more rapidly than those of higher education generally, and other things being equal, Brown would surely have stayed clear of involvement in academic medicine. Other things were not equal, however. First, it began to appear that existing medical schools would not much longer have the capacity to produce enough physicians to meet the needs of a growing population. This prospect in itself was sufficiently alarming to lead Brown to reconsider its position, since it was obviously one of the leading nonmedical institutions with a capacity for adding a medical program.

The Brown Corp., consequently, authorized a feasibility study. A faculty committee was appointed and several outstanding consultants were retained. The study had not progressed very far when it became clear that a second factor of major importance was involved in the current medical education picture. This was the tremendous ferment in the biological sciences that was providing for biology a quantitative basis and the status of an exact science. This meant that there was a requirement not only for more medical education, but for a new approach to medical education. The need for additional medical education spaces, by itself, might not have been enough to persuade Brown to enter the field. An affirmative decision was almost inevitable, however, as soon as it became clear that Brown was admirably fitted to be a leader in developing the new approach to medical education the times demanded.

The crisis in medical education today stems directly from the revolutionary advance in biological knowledge. Numerous technological break-throughs are enabling biologists to accumulate a fund of exact knowledge on the life process at the intracellular and macromolecular level. This knowledge can make an invaluable contribution to the practice of medicine, but first there must be physicians who understand it deeply enough to discern ways in which it may be usefully applied. The traditional medical school curriculum is not geared for the most effective production of such physicians. New approaches to medical education are called for.

Brown University has initiated an entirely new program in medical education based on an approach for which it has a possibly unique combination of qualifications. Chief among these qualifications are its independent status, its organization as a university-college, its great strength in those academic departments that contribute most significantly to the medical curriculum, and its association with a variety of medical care institutions eager to become involved in a medical education program.

The revolution in biology imposes an obvious requirement for the closest integration of the physical sciences and mathematics into the medical curriculum. The medical student must master these subjects in considerable depth, acquiring the habits and attitudes of a true scientist, if he is to make the progress in biology that he will need for a creative career in medicine.

The Brown medical curriculum provides a continuous educational experience from the freshman year in college to the master's degree level in the biological sciences relating to medicine. It is so ordered that the student's early work in physics, chemistry, and mathematics will provide a logical foundation for the sequence of biology courses that will begin in his second year and continue through the sixth and final year.

The curriculum has been designed to weave together in a coherent pattern the following main elements:

A steady and continuous flow of science from an unusually thorough start in the physical sciences, through a rich exposure to both modern and classical biology, into all of the basic sciences that undergird clinical medicine.

A significant contact with directly relevant portions of the behavioral sciences and sociology.

An undiluted experience in the humanities and social studies, accumulated particularly in the latter years when the student's judgment and emotion are beginning to mature.

A substantial research experience, including the preparation of a master's thesis.

A steadily increasing emphasis on the inculcation of habits of independent study and scholarship.

The Brown program includes at least four summers, making it somewhat longer than the ordinary period of preclinical education. It is a demanding program academically, and it is intended to be. A leading objective is to attract into medicine students with the capacity and desire to respond to a difficult curriculum. In its latter portion the curriculum offers a variety of concentration options, in consonance with the multiple opportunities for specialization that exist in medicine today.

In its financial aid policy the university is making every effort, through the accumulation of adequate scholarship and loan funds, to right the economic balance that in recent years has swung heavily against the medical student.

Because of its intellectual resources, independence, and interest, Brown is in a unique position to develop a new approach to medical education. The sole remaining requirement is for financial support on a scale adequate to allow Brown to realize the full potential of its new program.

Private support is available in fairly substantial amount for certain phases of planning, development, and current operations, but not for buildings and endowment. By 1970, the Brown medical program will require an investment in new plant of at least \$10 million, of which \$5 million must be available before 1966 for construction of the laboratory and library facilities required during the program's initial period.

The student scholarship need for the current academic year (1963-64) is approximately \$15,000. The need is expected to increase to about \$160,000 in 1969-70, the first year in which maximum enrollment—at the present projected level of operation—will be attained.

The CHAIRMAN. Is there anything else you would like to add?

Senator PELL. No.

Senator YARBOROUGH. No.

The CHAIRMAN. If not, this concludes the hearings. The subcommittee will stand in adjournment.

(Whereupon, at 11:40 a.m., August 26, 1963, the subcommittee adjourned.)

(Subsequent to the close of the hearings the following were submitted and ordered printed by the chairman:)

ASSOCIATION OF AMERICAN MEDICAL COLLEGES,
Evanston, Ill., August 30, 1963.

HON. LISTER HILL,
Chairman, Committee on Labor and Public Welfare,
U.S. Senate, Washington, D.C.

DEAR SENATOR HILL: The Association of American Medical Colleges is grateful for the opportunity of filing a special statement in support of the loan provisions of H.R. 12 and S. 911.

Although the number of medical school applicants has finally shown an upturn after the steady decline from 1956 to 1961 (as per table 1 of the statement submitted by the American Medical Association to your committee on August 22), there is evidence that our "talent pool" for medicine is unduly restricted to applicants from families in a relatively high income group. A study of the class of 1959 reveals that only 15 percent come from families having an annual income of \$5,000 a year or less. Yet, 40 percent of U.S. families are in this income group. Conversely, 45 percent of the class of 1959 come from families with annual incomes of \$10,000 a year or more. Only 10 percent of U.S. families are in this income group. The executive council of the Association of American Medical Colleges believes that these figures indicate that medicine is excluding talent from families with incomes of \$10,000 a year or less.

In the face of this, it should be recognized that the average total cost of 4 years of medical school for the class of 1959 was just under \$12,000. For single students it was less; for students with dependents, it was more—as high as \$18,000.

The cost of a medical education will continue to increase. Between the years of 1953 and 1963 the average tuition in private medical schools increased from \$831 to \$1,290; during the same period the average medical school tuition for nonresidents rose from \$685 to \$963, and that for residents from \$342 to \$558.

The slow but steady rise in the cost-of-living index is common knowledge to every housewife, including the wives of medical students.

The study of the class of 1959 revealed that 80 percent of the financing of the education of the class came from the student, his immediate family, or his wife's

earnings. Most medical educators believe that the demands of the medical curriculum are such that outside employment is detrimental to the study of medicine. Thirty percent of the class of 1959 had outside employment requiring 20 hours or more a week. Eighteen percent of these jobs were unrelated to medicine. A family with \$10,000 or less annual income, particularly if there are several children to educate, must face limitations as far as financing a medical education is concerned. At the time of graduation, 62 percent of the class of 1959 were married, and more than half of these had one or more children. A student with children can count on very little financial help from the earnings of his wife. Conversely, a student with children can be expected to incur greater indebtedness during the years he is in medical school. Twenty percent of the single members of the class of 1959 applied for loans; 45 percent of the married students with two or more children made such applications.

From the above facts it should not be surprising that 20 percent of the class of 1959 owed an average debt of \$6,600 at the time of graduation.

To the costs of 4 years at medical school must be added the low income, usually inadequate living cost of the internship and, for most physicians, to the 5 years of residency training.

The American Medical Association—Education and Research Foundation guaranteed loan program makes sizable loans available for medical students, interns, and residents at prime rates of interest—usually 5½ percent. Refinancing will involve an increase in this rate. While such loans may appear to provide financial assistance, it should be apparent that the higher rates of interest cannot help but add materially to the cost of medical education and to the stresses and strains that inevitably accompany debt. As justification for assuming the added debt of loans at prime rates of interest, the AMA's representative at the hearing of your committee on August 22 noted that "physicians receive a reasonable monetary rate for their investment in time and education," and further that "during the student phase of their total career" physicians should "pay the going rate of interest" upon borrowed funds. While it may be true that many physicians enjoy comfortable incomes, it is the contention of the Executive Council of the Association of American Medical Colleges that if a great debt confronts a physician who is starting in practice, this is very apt to cause him to place great emphasis on the income aspect of practice. To say the least, he would very likely be dissuaded from locating his practice in communities with low purchasing power or from going into fields with fixed income where great needs exist—public health, school health, industrial health, State hospitals, medical school faculties, military services, health departments, etc.

In addition to financial stresses and strains, it is important to recognize one other factor which is shrinking the pool of talent from which medicine must draw its students and also to recognize that this has happened because of the very ample financial assistance—a great deal of this as nonrefundable scholarships provided through the National Defense Education Act—that is available to students seeking advanced degrees in the sciences and related fields. The direct educational cost (tuition, books, instruments, etc.) for candidates for Ph. D. degrees in science are one-half those of medicine and the nonrefundable financial assistance available to them is four times that available to medical students. This puts the science graduate student in a position of enjoying an 8-to-1 fiscal advantage over the medical student. And when to this is added the growing status of the Ph. D. degree, plus its high earning capacity in less than half the time required to complete the course for the M.D. degree, the internship, residency, and military service, the situation with which medicine must compete is readily apparent.

It should be obvious that if loans at high-interest rates, as a major form of assistance, enter the financing of a medical education, this will increase the fiscal advantage of the Ph. D. student as compared to the M.D. This will inevitably work to the disadvantage of medicine.

Medicine needs the largest possible pool of well-qualified students. This is because the growing body of medical knowledge is making both the study and practice of medicine increasingly difficult. Also, the availability of more of the better qualified applicants should contribute to a reduction of medical school dropouts. It is common knowledge that between the time when a class starts and finishes medical school, 10 to 12 percent of its members have dropped from school. The present enrollment of the freshman class is a little over 8,000 in 87 schools of medicine. If the national attrition rate could be reduced by an average of only one student per school per year, we would increase the annual number of graduates by an increment equivalent to the output of one average-sized school of medicine.

I believe that the statement submitted to the committee on August 23, together with the comments made in this letter, reveal the care with which the Association of American Medical Colleges has arrived at the decision to support both the construction and student loan provisions of H.R. 12 and S. 911. I submit that if any individuals should understand the needs expressed in these bills, it is those who have dedicated their lives to the education of this Nation's physicians.

Very sincerely,

ROBERT BERSON, M.D.,

President-Elect, Association of American Medical Colleges, and Dean of the South Texas Medical School, University of Texas, San Antonio, Tex.

STATEMENT OF DR. J. S. DENSLOW, KIRKSVILLE, MO., SECRETARY, THE AMERICAN ASSOCIATION OF OSTEOPATHIC COLLEGES

I am Dr. J. S. Denslow, of Kirksville, Mo., member of the faculty and director of research affairs, Kirksville College of Osteopathy and Surgery, and secretary of the American Association of Osteopathic Colleges.

It was my privilege to appear before this subcommittee in May 1961 as the witness for the American Association of Osteopathic Colleges in support of legislation (S. 1072) similar to the pending bills S. 911, S. 470, and the House-passed bill, H.R. 12.

I recall that in 1949 the Senate passed S. 1453 to provide for a "program of grants and scholarships for education in the fields of medicine, osteopathy, dentistry, dental hygiene, public health, and nursing professions." But the House failed to act on the bill.

Fortunately the House has already acted on one of the currently pending bills, H.R. 12, and we wish to commend this subcommittee for scheduling these hearings to expedite passage of the legislation.

The American Association of Osteopathic Colleges endorses the provisions of H.R. 12 as passed by the House, including the necessary clarifying amendments added by the House to assure eligibility of osteopathic school-affiliated teaching hospitals to receive construction assistance on the same basis as provided for in the case of medical school-affiliated teaching hospitals. I am authorized to express the same endorsement on behalf of the American Osteopathic Association and the American Osteopathic Hospital Association.

This bill, offering as it does a program of matching grants for construction of teaching facilities and a program of student loans, will go far toward achieving the goal set in 1959 by the Surgeon General's Consultant Group on Medical Education, that "the number of physicians graduated annually by schools of medicine and osteopathy must be increased from the present 7,400 a year to some 11,000 by 1975—an increase of 3,600 graduates."

It is common knowledge that we face a shortage of physicians, particularly in the field of general practice. In an article appearing in the October 27, 1961, issue of Philadelphia Medicine, J. W. Williams, M.D., warns of the dwindling supply of general practitioners and says:

"As the medical group serving this area, just how well are we equipped to cope with this problem? One can reach his own conclusion when it is revealed that of the 3,600 members of the Philadelphia County Medical Society only 862 are family doctors. Of the 429 osteopathic physicians in the area, 348 are family doctors and 81 are specialists. It should be mentioned here that about 60 percent of the medical-care load of patients on DPA is done by the osteopathic physicians."

There are five colleges of osteopathy and surgery. Two are located in Missouri, one in Illinois, one in Iowa, and one in Pennsylvania. All are accredited by the American Osteopathic Association, and all are members of the American Association of Osteopathic Colleges.

The impact of the osteopathic colleges is truly national in scope. The 1962-63 student body was derived from 48 States and the District of Columbia. First-year students in 1962 received their required preprofessional training in 176 undergraduate colleges in 36 States. Their graduates are engaged in the legalized practice of their profession in each of the 50 States and in the District of Columbia. In 38 States and the District of Columbia, osteopathic physicians (physicians, D.O.) practice under unlimited licenses, including drug therapy and major operative surgery. Recently, Minnesota became the 39th State to authorize unlimited licenses for qualified osteopathic applicants.

Seventy percent of the entering freshmen in osteopathic colleges hold baccalaureate or advanced degrees representing 4 years or more of undergraduate college

work. Some others obtain B.A. or B.S. degrees after completing the first year at osteopathic college under combined degree agreements with various undergraduate colleges and universities. The standard curriculum of an osteopathic college requires at least 5,000 hours of professional instruction distributed over 4 college years. The graduate then begins an internship of 12 to 24 months in a hospital approved for intern training by the American Osteopathic Association. After internship, an increasing number of graduates enter on 3-year terms of residency training in approved residency training hospitals, followed by 2 years of specialty practice preparatory to examination for certification by specialty boards in such specialties as internal medicine, surgery, radiology, obstetrics, gynecology, pediatrics, and pathology. There are 85 osteopathic teaching hospitals approved for intern or residency training by the American Osteopathic Association.

A survey in 1958 indicated that the osteopathic colleges spent \$6.8 million for basic operations, only \$1.4 million, or 21 percent, of which came from tuition and fees. Gifts and grants and deficit financing supplied the rest.

During the past 17 years the profession has contributed over \$10 million to osteopathic education and research. Twenty-four State societies annually contribute directly to support-through-dues programs.

Much of our teaching activities are in overcrowded and obsolescent buildings. The osteopathic colleges cannot adequately meet their needs for construction of teaching facilities without additional assistance.

In recommending a 10-year program of Federal grants on a matching basis for the construction of medical teaching facilities, such as that proposed in H.R. 12, the Surgeon General's consultant group pointed out that only with such Federal stimulus will adequate funds become available for needed construction.

The success of the Hill-Burton program furnishes abundant evidence of the catalytic effect of the availability of Federal matching funds. Several osteopathic colleges have matched Hill-Burton funds for construction of a diagnostic and treatment facility, a teaching hospital and a rehabilitation facility.

The 1962-63 enrollment for the 5 osteopathic colleges was 1,581, an increase of 20 over the 1961-62 enrollment.

A total of 1,213 individual applicants applied for admission to the osteopathic colleges in 1962, of whom 433 were enrolled; exceeding recommended freshman capacity.

While the 780 applicants who were not enrolled met minimum requirements, some withdrew for economic reasons, others were rejected on scholastic or motivation grounds, and as demonstrated in the following excerpts from statements of the respective colleges, others were rejected for lack of available space.

In his communication reported on page 273 of the House Committee on Interstate and Foreign Commerce hearings on H.R. 4999 last year, the president of the Kansas City College of Osteopathy and Surgery, Dr. J. S. Peach, said:

"We have increased the utilization of our classrooms and laboratories from the usual 3 or 4 clock hours per day for classroom and/or laboratory, to from 6 to 8 or 10 clock hours per day in classroom and laboratory utilization. We have reached the 'bursting' point as it relates to our present physical facilities and are desperately in need of additional classrooms, laboratories, equipment, and personnel to maintain standards of education and training and also to provide educational opportunities for a larger number of students.

"We are at a very important stage at this time with the Redevelopment Authority of Kansas City in connection with the acquisition of land for our expansion of our educational plant purposes in a renewal project area that is immediately adjacent to the existing campus of the college. We have undertaken this acquisition of approximately 15 acres of land in anticipation of aid from Federal or other sources that will enable us to bring into actual being the classrooms, the laboratories, clinics, and hospitals that are urgently needed by our institutions to meet the challenge of providing more doctors for the increasing population of our land."

A letter dated August 20, 1963, from the dean of the Chicago College of Osteopathy, R. A. Kistner, D.O., M.D., states:

"Our freshman class size is limited to 72 students because of the restricted space in our present basic science building. Our clinical facilities in both the inpatient and outpatient departments are ample for the training of 80 students in each of the upper classes. However, we are unable to allow for the normal scholastic attrition by increasing the number of first and second year students due to our limitation in classroom and laboratory space in the basic science departments. If we had additional basic science space which would allow us to increase our enrollment 25 percent in the first and second year, we would be able

to increase our total enrollment to approximately 325 students in the 4-year program in contrast to the present 250."

A letter dated August 20, 1963, from Merlyn McLaughlin, president of the College of Osteopathic Medicine and Surgery, at Des Moines, Iowa, states:

"While the facilities of the College of Osteopathic Medicine and Surgery are adequate for accepting 70 students per class, we have been averaging closer to 80 the past several years which in spite of stepped-up utilization has resulted in a crowded, unsatisfactory condition. Even though present facilities are inadequate, rejections have averaged from 30 to 50 qualified students per year because of lack of facilities.

"Because the buildings housing our college activities are antiquated and obsolete and there is no land available within a reasonable distance, our board of trustees has secured from the Federal Government, 86 acres of surplus land at Fort Des Moines, Iowa, for the building of a new campus. We plan to construct on that site new facilities to accommodate a class of at least 100 entering freshmen per year; a teaching hospital of 150 beds which can be expanded to 500 beds over a period of 10 years; and a teaching clinic to accommodate 100,000 patients per year as well as housing for students."

Frederick H. Barth, president, Philadelphia College of Osteopathy, in a letter dated August 23, 1963, states:

"Our present college classroom and laboratory facilities (built in 1929) were designed to accommodate a maximum of 75 students per class. It has been necessary for us to overload our facilities for years. This has been done because we realize the need for more osteopathic physicians. Short of building a new plant, this was our only alternative.

"Our basic, long-term plans have not changed in the last 2 years. We still are planning our plant, faculty, and hospital expansion in terms of predoctoral enrollment of 150 students per class and a postdoctoral enrollment of 150 full-time students (interns, residents, fellows, and Ph. D. candidates), plus an unknown number of part-time, short-course students."

The Kirksville College of Osteopathy and Surgery, with which I am associated, has plans underway for the construction of new facilities and the renovation and expansion of existing facilities necessary to improve our education program and make possible the acceptance of additional students. We now have applications on file from young men and women who meet our standards for admission but who cannot be accepted by the college because existing facilities do not permit us to accept them.

The Michigan Association of Osteopathic Physicians and Surgeons is actively planning the establishment of a new school of osteopathy and surgery in the State of Michigan in anticipation of the enactment of H.R. 12.

It is plain from the above statements that the osteopathic colleges and the osteopathic profession are aware of their responsibilities for increasing the capacity of their training facilities in accordance with the admonition contained in the findings of the Surgeon General's Consultant Group on Medical Education. It is equally clear that their objectives cannot be attained without the assistance provided for in H.R. 12.

Another important obstacle in our efforts to increase the output of osteopathic graduates is the high cost and extended duration of the required training which greatly restricts the number of quality students financially able to apply. Furthermore, the loss of students by attrition in medical and osteopathic colleges as reported on pages 167 and 277 of the hearings on H.R. 4999 last year exceeded 10 percent.

Dean Kistner of the Chicago College of Osteopathy in his above-mentioned letter of August 20 has this to say about the financial problems confronting students:

"In the last academic year, 131 of our students requested loans totaling \$113,500. We were able to provide \$83,100 worth of loans through the National Defense Student Loan Act and the AOA student loan fund. Judging from the number of applications received by my office at this date, the demand for loan money will even exceed last year's all time high.

"From my standpoint, I can only envision a compounding of this problem when you realize that the students in this and other professional schools have already spent from \$8,000 to \$12,000 in a liberal arts college satisfying the admission requirements and then must obligate themselves to \$15,000-\$16,000 for 4 additional years at this school. The opportunity to obtain relief from their financial hardship is further reduced by the obligation of a low-paying internship and the great financial burden incurred in the establishment of an office or the

lengthening of the training program through the various available residencies. The average age of our students is approximately 24.5 years, 70 percent are married, and 50 percent have children. When one realizes that the osteopathic curriculum involves more courses, more study, more hours, and a greater background because of the increasing complexity within the various medical sciences, it is almost impossible for these students to maintain a part-time job while attending this school. I feel that the yearly limitation such as established by the National Defense Education Act program must be at least doubled and extended through the postgraduate years."

It will be noted that Dr. Kistner's statement, which is fairly representative of all the colleges, relates to the financial stress confronting students notwithstanding the availability of National Defense Education Act loans and the student loan fund of the American Osteopathic Association.

Thirty-two years ago the American Osteopathic Association initiated through its annual Christmas seal program a fund-raising plan for student loans. Students in their third and fourth year, if recommended by their deans, are eligible to apply for loans up to \$750 a year, at a 3-percent interest which does not start until the completion of internship. Through May 1, 1963, the student loan fund committee of the American Osteopathic Association has granted loans totaling \$862,578 to over 1,100 students.

A plan to provide additional loans for students through a program handled by a bank and based on a reserve fund established to insure against any defaults in repayment was presented to the board of trustees of the American Osteopathic Association at its midyear meeting last January. The proposal submitted by the bank to handle such a loan program for the students attending the five osteopathic colleges entailed an interest rate to loanees which the board of trustees thought was excessively high and the plan was disapproved.

We appreciate the privilege of bringing our views to the attention of this subcommittee.

The appended charts A and B showing geographical distribution of students and where freshmen obtained undergraduate training are submitted for the record. Source: January 1963 Journal of the American Osteopathic Association.

CHART A.—*Geographic distribution of osteopathic students, 1962*

[Key to symbols: CCO=Chicago College of Osteopathy. COMS=College of Osteopathic Medicine and Surgery, Des Moines, Iowa. KC=Kansas City College of Osteopathy and Surgery. KCOS=Kirkville College of Osteopathy and Surgery. PCO=Philadelphia College of Osteopathy]

State or county	CCO	COMS	KC	KCOS	PCO	Total students
Alabama	1	1	2			4
Arizona		1	2	4		7
Arkansas			2	1		3
California	4	1	10	9		24
Colorado	1	2	9	1		13
Connecticut	1	1		2	4	8
Delaware	1	1			3	5
District of Columbia		1			2	3
Florida	1	6	12	9	3	31
Georgia			3	1		4
Idaho				3		3
Illinois	31	4	4	14	1	54
Indiana	11		10	10		31
Iowa		25	4	9		38
Kansas		2	18	8		28
Kentucky	1		3	8		12
Louisiana			1	1		2
Maine			1	3		4
Maryland			3		3	6
Massachusetts	1	4		4	3	12
Michigan	121	100	35	49	2	307
Minnesota	2			1		3
Mississippi			2			2
Missouri		1	51	40		92
Montana	1			1	2	4
Nebraska			3	1		4
Nevada			1			1
New Hampshire				1		1
New Jersey	6	14	8	20	42	90
New Mexico		2	2	2		6
New York	17	31	29	45	44	166
North Carolina			2	1		3
North Dakota		1		1		2
Ohio	32	36	40	24	11	143
Oklahoma		6	35	9		50
Oregon			1	1		2
Pennsylvania	7	24	15	31	191	268
Rhode Island					9	9
South Carolina			1			1
South Dakota			2			2
Tennessee		1	2	2		5
Texas		5	54	19		78
Utah	1					1
Vermont		1				1
Virginia		1	2	1		4
Washington		3	3	7	1	14
West Virginia				4		4
Wisconsin	5	4		2		11
Wyoming			1			1
China		1	1			2
Greece				1		1
India		1				1
Iran		1	1	2		4
Israel				1		1
Japan			1	1		2
Puerto Rico				1		1
Other foreign countries	2	1	1			4
Total	247	283	377	355	319	1,581

314 MEDICAL, DENTAL, AND PUBLIC HEALTH FACILITIES

CHART B.—Where osteopathic first-year students received undergraduate training, fall 1962

[Key to symbols: CCO=Chicago College of Osteopathy. COMS=College of Osteopathic Medicine and Surgery, Des Moines, Iowa. KC=Kansas City College of Osteopathy and Surgery. KCOS=Kirkville College of Osteopathy and Surgery. PCO=Philadelphia College of Osteopathy]

State and colleges	CCO	COMS	KC	KCOS	PCO	Total
Alabama: Auburn University.....	1					1
Arizona: University of Arizona.....				2		2
California:						
Los Angeles State College.....				1		1
Pacific Union College.....			1			1
San Francisco State College.....				1		1
University of San Francisco.....			1			1
University of Southern California.....				1		1
Total.....			2	3		5
Colorado:						
Mesa County Junior College.....			1			1
University of Colorado.....	1		1			2
Total.....	1		2			3
Connecticut: University of Bridgeport.....		1				1
Delaware: University of Delaware.....				1		1
Florida:						
Florida Southern College.....				1		1
Florida State University.....			1	1		2
Orlando Junior College.....				1		1
University of Florida.....	1	1	1			3
University of Miami.....			1			1
University of Tampa.....			1			1
Total.....	1	1	4	3		9
Idaho:						
College of Idaho.....				1		1
Northwest Nazarene College.....				1		1
Total.....				2		2
Illinois:						
Bradley University.....				1		1
DePaul University.....		1				1
Greenville College.....			1			1
North Central College.....				1		1
Northwestern University.....	1	1				2
Olivet Nazarene College.....	1					1
Roosevelt University.....	3					3
Total.....	5	2	1	2		10
Indiana:						
Ball State Teachers College.....			1			1
Evansville College.....				2		2
Franklin College of Indiana.....	1					1
Huntington College.....		1				1
Indiana University.....	4			2		6
Manchester College.....	1		1			2
Oakland City College.....	1		1			1
University of Notre Dame.....				1		1
Wabash College.....			1			1
Total.....	6	1	4	5		16
Iowa:						
Drake University.....	1	4				5
Iowa State University.....		1				1
Iowa State Teachers College.....		1				1
Iowa Wesleyan College.....				1		1
State University of Iowa.....		1	1	1		3
University of Dubuque.....				2		2
Total.....	1	7	1	4		13
Kansas:						
Fort Hays Kansas State College.....			1			1
Kansas City Junior College.....			1			1
Kansas State University.....			1	2		3
Sacred Heart College.....				1		1
University of Kansas.....			3			3
Total.....			6	3		9

CHART B.—Where osteopathic first-year students received undergraduate training, fall 1962—Continued

[Key to symbols: CCO=Chicago College of Osteopathy. COMS=College of Osteopathic Medicine and Surgery, Des Moines, Iowa. KC=Kansas City College of Osteopathy and Surgery. KCOS=Kirkville College of Osteopathy and Surgery. PCO=Philadelphia College of Osteopathy]

State and colleges	CCO	COMS	KC	KCOS	PCO	Total
Kentucky: University of Kentucky-----				1		1
Maine:						
Bowdoin College-----		1				1
Colby College-----				1		1
Total-----		1		1		2
Maryland: University of Maryland-----					1	1
Massachusetts:						
Boston University-----	1					1
University of Massachusetts-----		1				1
Total-----	1	1				2
Michigan:						
Adrian College-----	1			1		2
Albion College-----		1				1
Central Michigan University-----				1		1
Detroit Institute of Technology-----		3	2	1		6
Eastern Michigan University-----	1		1			2
Ferris Institute-----	2	1		1		4
Flint Junior College-----				1		1
Kalamazoo College-----				2		2
Michigan State University-----	2			2		4
Olivet College-----	1		1	1		3
University of Detroit-----	1			1		2
University of Michigan-----	3	2	2	1		8
Wayne State University-----	19	9	3	4		35
Western Michigan University-----	2	1		1		4
Total-----	32	17	9	17		75
Minnesota:						
St. John's University-----					1	1
St. Olaf College-----	1					1
University of Minnesota-----	1			1		2
Total-----	2			1	1	4
Mississippi:						
Mississippi Southern College-----			1			1
Mississippi Vocational College-----			1			1
Total-----			2			2
Missouri:						
Northeast Missouri State Teachers College-----				11		11
Park College-----			1			1
St. Joseph Junior College-----			1			1
St. Louis College of Pharmacy and Allied Sciences-----				1		1
University of Kansas City-----			4			4
University of Missouri-----			1	1		2
Total-----			7	13		20
Nebraska: Union College-----			1			1
New Hampshire: University of New Hampshire-----				1		1
New Jersey:						
College of St. Elizabeth-----				1		1
Fairleigh Dickinson College-----				4	2	6
Rider College-----					1	1
Rutgers, The State University-----	1	1		3	2	7
Seton Hall University-----			1			1
Trenton Junior College-----		1				1
Upsala College-----	1			1		2
Total-----	2	2	1	9	5	19
New Mexico: Eastern New Mexico University-----		1				1

CHART B.—Where osteopathic first-year students received undergraduate training, fall 1962—Continued

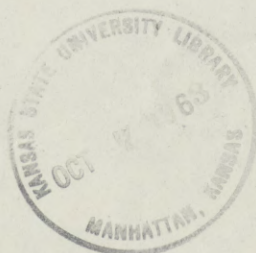
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State and colleges	CCO	COMS	KC	KCOS	PCO	Total
New York:						
Brooklyn College.....	2	3	2	2	3	12
City College, The.....					1	1
Colgate University.....					1	1
Columbia University.....		2	2		1	5
Ithaca College.....			1			1
LeMoyne College.....				1		1
Long Island University.....		5	1		1	7
Manhattan College.....			1			1
New York University.....			2		1	3
St. Francis College.....			1			1
State University of New York.....				1		1
Syracuse University.....			1			1
Total.....	2	10	11	4	8	35
North Carolina: University of North Carolina.....			1			1
Ohio:						
Ashland College.....			1	1		2
College of Steubenville.....			1	1		2
Kent State University.....		1		1		2
Kenyon College.....				2		2
Marietta College.....		3				3
Mount Union College.....		1				1
Ohio Northern University.....	1	2				3
Ohio State University.....	1	5	4	1	3	14
Ohio University.....	1					1
Otterbein College.....				1		1
University of Cincinnati.....	1					1
University of Dayton.....			1		2	3
University of Toledo.....		2	1			3
Western Reserve University.....		1	2			3
Youngstown University.....		1	2		1	4
Total.....	4	16	12	7	6	45
Oklahoma:						
Bethany-Nazarene College.....		2	1			3
Central State College.....			1			1
Northeastern State College.....			5			5
Northwestern State College.....		1				1
Oklahoma Baptist University.....		1	1			2
Oklahoma City University.....		1		1		2
Oklahoma State University of Agriculture and Applied Science.....			2	2		4
Southeastern State College.....			1			1
Southwestern State College.....			1			1
University of Oklahoma.....			1			1
University of Tulsa.....			1			1
Total.....		5	14	3		22
Pennsylvania:						
Albright College.....				1	2	3
Allegheny College.....					1	1
Drexel Institute of Technology.....					1	1
Duquesne University.....	1			1		2
Franklin and Marshall College.....		2			1	3
Gannon College.....			1		1	2
Geneva College.....				1		1
LaSalle College.....					7	7
Muhlenberg College.....				1		1
Pennsylvania Military College.....			1			1
Pennsylvania State University.....					1	1
Philadelphia College of Pharmacy and Science.....		1			17	18
St. Joseph's College.....			1		7	8
Temple University.....		4		1	20	25
University of Pennsylvania.....		1			6	7
University of Pittsburgh.....	1	1	2		1	5
University of Scranton.....					1	1
Ursinus College.....					1	1
Villanova University.....					1	1
Washington and Jefferson College.....					1	1
York Junior College.....					1	1
Total.....	2	9	5	5	70	91

CHART B.—Where osteopathic first-year students received undergraduate training, fall 1962—Continued

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State and colleges	CCO	COMS	KC	KCOS	PCO	Total
Rhode Island: Brown University.....	1					1
South Carolina:						
Allen University.....			1			1
The Citadel.....	1					1
Total.....	1		1			2
South Dakota: State University of South Dakota.....			1			1
Tennessee:						
Belmont College.....				1		1
Carson-Newman College.....			1			1
East Tennessee State College.....				1		1
George Peabody College for Teachers.....			1			1
University of Tennessee.....					1	1
Total.....			2	2	1	5
Texas:						
Abilene Christian College.....			1	1		2
Agricultural and Mechanical College of Texas.....				3		3
Arlington State College.....			1			1
Baylor University.....				1		1
East Texas State College.....			1			1
Hardin-Simmons University.....				1		1
Howard Payne College.....				1		1
North Texas State University.....			1			1
Southwestern University.....				1		1
Stephen F. Austin State College.....			1			1
Texas Wesleyan College.....			1			1
Trinity University.....			1			1
University of Houston.....			1			1
University of Texas.....			6			5
West Texas State College.....			1			1
Total.....			14	8		22
Washington:						
Central Washington College of Education.....				1		1
University of Puget Sound.....				1	1	2
University of Washington.....				1	1	2
Total.....				2	2	4
Wisconsin:						
Lakeland College.....				1		1
St. Norbert College.....					1	1
Wisconsin State College.....		1				1
Total.....		1		1	1	3
Grand total.....	62	75	101	100	95	433



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