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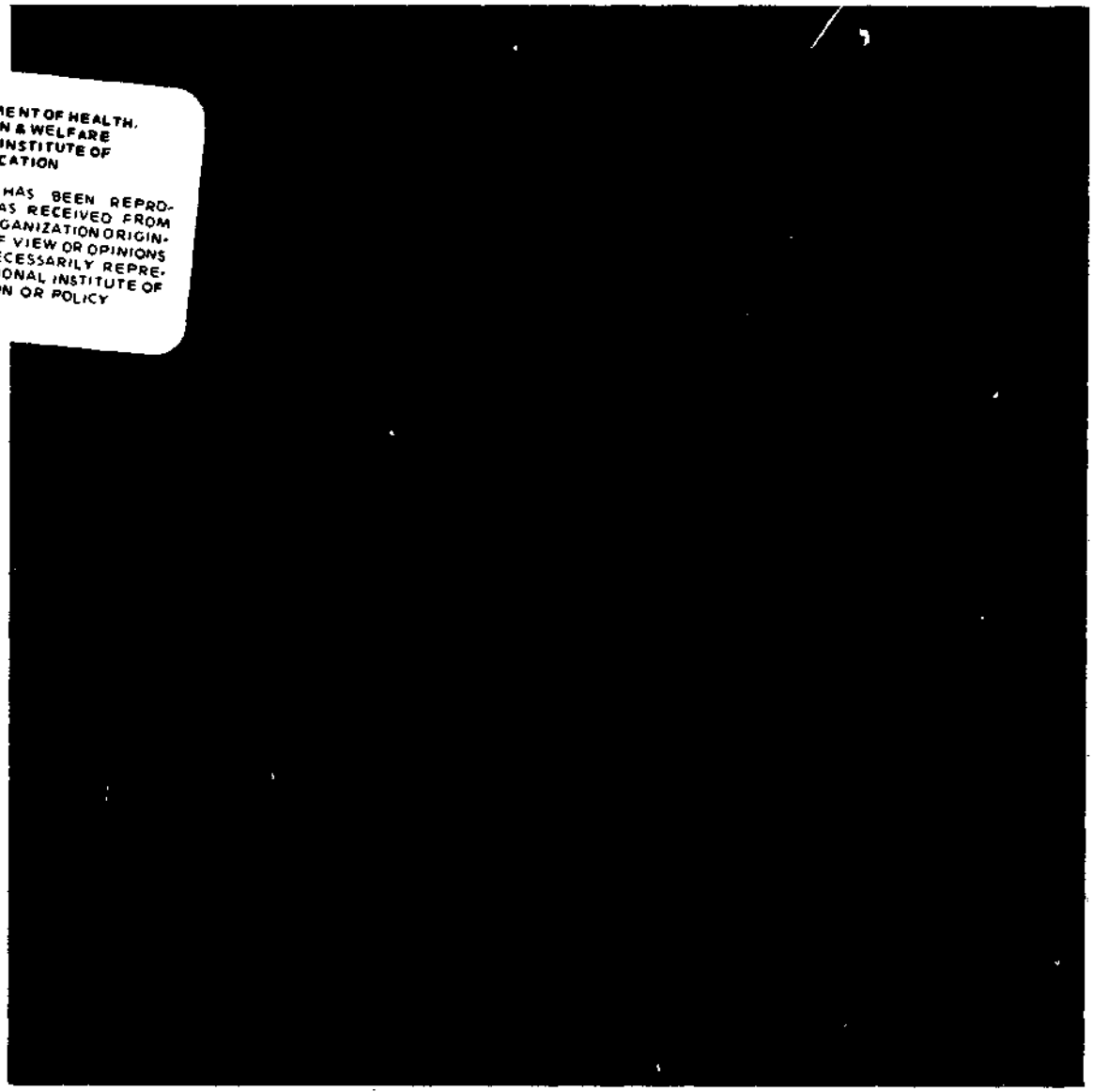
ABSTRACT

The survey data cover three broad categories: (1) the status of existing health research facilities at doctorate-granting institutions (including their current value, adequacy, and condition); (2) the volume of new construction in progress; and (3) the additions to health research facilities anticipated during the next 5 years (1975-80). Supplementary comments submitted by institutional representatives are included. It is noted that academic institutions are under substantial pressure to expand their existing facilities to meet current and anticipated health research needs. Such expansion is viewed by the survey respondents as necessary to (1) improve quality and opportunity for research, (2) attract and retain faculty, and (3) further develop graduate programs in the health sciences. Immediate problems noted include inflationary costs; obsolete apparatus: dependence on large amounts of leased, rented, or temporary space; need to upgrade facilities to meet new federal standards; and lack of funds for planning. Despite these and other constraints, many institutions anticipated fairly significant capital improvement programs, specifically in cancer and environmental research, biomedical engineering, and in research demanding animal care facilities, as well as in broader health science areas. (LBH)

HEALTH RESEARCH FACILITIES:

A Survey of Doctorate-Granting Institutions

Frank J. Atelsek and Irene L. Gomberg



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AMERICAN COUNCIL ON EDUCATION

Roger W. Heyns, *President*

The American Council on Education, founded in 1918, is a council of educational organizations and institutions. Its purpose is to advance education and educational methods through comprehensive voluntary and cooperative action on the part of American educational associations, organizations, and institutions.

The Higher Education Panel is a survey research program established by the Council for the purpose of securing policy-related information quickly from representative samples of colleges and universities. *Higher Education Panel Reports* are designed to expedite communication of the Panel's survey findings to policy-makers in government, in the associations, and in educational institutions across the nation.

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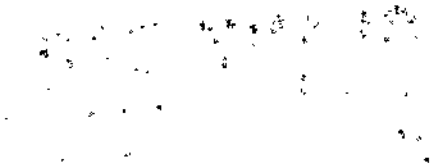
Additional copies of this report are available from the Higher Education Panel, American Council on Education, One Dupont Circle, Washington, D. C. 20036.

HEALTH RESEARCH FACILITIES:

A SURVEY OF DOCTORATE-GRANTING INSTITUTIONS

Frank J. Atelsek

Irene L. Gomberg



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Nabil Issa and Clay Henderson processed the data from the survey, and Elaine Chamberlain was responsible for preparing the manuscript for publication.

Most of all, we would like to acknowledge our debt to the members of the Higher Education Panel and our representatives at each institution surveyed. The Higher Education Panel's program derives its uniqueness and value from the participation of institutional representatives at colleges and universities across the country. Without their prompt and thorough cooperation, none of these reports would be possible.

HEALTH RESEARCH FACILITIES: A SURVEY OF DOCTORATE-GRANTING INSTITUTIONS

The effectiveness of scientific research and, in many instances, its significance depend directly upon the availability of appropriate research and development (R&D) facilities. Evidence suggests growing deficiencies in such facilities at colleges and universities. For example, a survey report issued by the Higher Education Panel in September 1974[1] noted that public institutions suffer substantial inadequacies in research space. Since health research represents the largest single concentration of R&D activity at educational institutions, a survey to assess the current status of facilities for such research was deemed timely. The survey, conducted at the request of the National Institutes of Health, was designed to elicit information and opinions about the adequacy of health research facilities and about institutional plans for expanding R&D physical facilities during the next five years. The results should be of interest to policy-makers and others concerned with assessing the nation's effort in biomedical research.

Methods Summary

The data for this report were collected as part of a continuing program of the Higher Education Panel, which was established at the American Council on Education in 1971 to conduct small-scale surveys on topics of general policy interest to the academic community and to government agencies. The Panel is based on a network of campus representatives at 643 institutions broadly representative of all colleges and universities in the United States.

[1] College and University Facilities: Expectations of Space and Maintenance Needs for Fall 1974, Higher Education Panel Reports, No. 20 (Washington: American Council on Education), September 1974.

Each of these institutions has agreed to participate in the survey program on a continuing basis and to respond promptly to brief questionnaires. For any given survey, the entire Panel or a subsample may be used.

The sample for this survey was a subset of 219 Panel institutions that grant the doctorate[2]. Of this group, 24 (including theological, technical, and other institutions not engaged in health research) were subsequently excluded. By the closing date for survey returns, usable data had been received from 155 of the remaining 195 institutions, for an overall response rate of 79 percent[3].

Institutions were classified according to three characteristics: (1) control (public vs. private), (2) relative size of the health research enterprise (Top 20 vs. Bottom 20), and (3) having a medical school vs. not having a medical school.

Data reported in the tabulations represent unweighted aggregate totals. Because respondents differed in some respects from nonrespondents (see Appendix C), generalizations beyond the respondent sample are subject to reservation and qualification. Nevertheless, the data presented in this analysis seem adequate to portray gross magnitudes and relationships.

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[2]Most health research is done at graduate institutions. In fiscal year 1974, doctorate-granting institutions accounted for 98.4 percent of all expenditures for research in the life sciences at colleges and universities. Additionally, doctorate-granting institutions accounted for 97.4 percent of all expenditures for research and development in all fields of science. National Science Foundation, Expenditures for Scientific and Engineering Activities at Universities and Colleges, Fiscal Year 1974, Detailed Statistical Tables (Washington: U.S. Government Printing Office), 1975 (NSF 75-318).

[3]Not all institutions could respond to every applicable item on the questionnaire, probably because of the difficulty in obtaining some of the information. Thus, the number of respondents varies from 138 to 155 depending on the particular item being tabulated. The pattern of response is summarized in Appendix A.

Findings

The survey data cover three broad areas: (1) the status of existing health research facilities at doctorate-granting institutions (including their current value, adequacy, and condition); (2) the volume of new construction in progress; and (3) the additions to health research facilities anticipated during the next five years (1975-80). Supplementary comments submitted by institutional representatives are summarized in the concluding section of the report.

Status of Existing Facilities

The total value of health research facilities at respondent institutions exceeded $2 billion in 1975 (see Item 1 of Appendix A). Almost three-fourths of this amount (73 percent) was invested in buildings and laboratories, the remainder in scientific apparatus (6 percent) and other equipment and furnishings (21 percent). Overall, about 23 million square feet of space were devoted to health research in 1975 -- an average of 157,000 square feet per institution (Item 2).

These facilities were heavily concentrated at institutions with medical schools. That such institutions -- which constituted fewer than half the respondents to the survey -- accounted for more than three-fourths of the current value of health research facilities emphasizes the crucial importance of the medical schools in the university health research scene.

In assessing the adequacy of their facilities to meet current health research needs (Item 3), approximately half the survey respondents reported moderate-to-serious deficiencies. The overall pattern of response was as follows:

Institutional Assessment of Facilities

Adequate	15.6%
Some Deficiencies--Not Serious	33.8%
Moderate Deficiencies--Manageable	40.3%
Serious Deficiencies	10.4%

Proportionately more respondents from public than from private institutions rated their facilities as moderately or seriously deficient (56 percent vs. 44 percent). It is noteworthy that the largest institutions were generally negative in their ratings: Of the Top 20[4], only two institutions viewed their facilities as "adequate," three rated them as slightly deficient, 13 as moderately deficient, and two as seriously deficient.

Asked to assess the condition of existing space devoted to health research (Item 4), respondents judged that almost three-fourths (72 percent) of the space was in satisfactory condition. About one-fourth (23 percent of the available space), however, was thought to require renovation or rehabilitation; and 6 percent was thought to require replacement or elimination.

Construction in Progress

Respondents estimated the total cost for new construction or for renovation and replacement of existing facilities during 1975 at $547 million (Item 5)[5]. The 66 medical institutions having medical schools accounted for a preponderant share, amounting to $441 million. The 90 public institutions

[4] Responding institutions were classified according to the amount of research funds received from the National Institutes of Health in FY 1973 (research and development, projects and resources). For this report the Top 20 included 9 public and 11 private institutions -- all were universities. The Bottom 20 included 10 public and 10 private institutions -- 10 were universities and 10 were four-year colleges.

[5] Includes applicable construction in progress during 1975 regardless of starting or anticipated completion dates.

estimated their costs of construction to be $416 million (76 percent of the total costs), for an average of almost $5 million per institution, whereas the costs of current construction at the 64 private institutions averaged only $2 million per institution. As expected, the Top 20 institutions far surpassed the Bottom 20 in construction expenditures, averaging almost $11 million each, compared with an average of slightly more than $2 million each among the Bottom 20.

Overall, out of every $100 for construction in progress, $88 went for new construction, $8 went for renovation and $4 went for replacement of existing facilities. Proportionately more dollars were spent to renovate and replace existing facilities at private than at public institutions (22 percent vs. 9 percent of the costs for current construction). Institutions with medical schools were allocating a somewhat greater share of their construction dollars for new construction than were institutions without medical schools (89 percent vs. 83 percent).

Anticipated Additions (1975-1980)

Despite current constraints on institutional plans and budgets, more than half the respondent institutions (61 percent) anticipated major additions[6] to their health research facilities during the next five years (Item 6); at least 73 percent of the respondent institutions expected additions totaling $1 million or more. It was estimated that these anticipated new facilities would cost over $600 million, with $560 million devoted to new space and $48 million to scientific apparatus (Items 7 and 8).

The institutions with medical schools accounted for a disproportionately large share of these anticipated costs (three-fourths of the costs for new

[6]Space greater than $100.000 each; apparatus greater than $50,000 each.

space and 83 percent of the costs for scientific apparatus). Similarly, though institutions in the Top 20 constituted about one-fifth of those institutions anticipating major additions, they nevertheless accounted for almost one-third of all anticipated new space costs.

The various categories of institutions differed in their estimates of the probable sources of funds for these future facility costs (Items 9 and 10). Public institutions saw state and local governments as the primary source of funds (providing over 70 percent of the needed amounts), while private institutions placed higher-than-average reliance on both private and federal sources (64 percent and 28 percent, respectively). The Top 20 institutions[7] expected that more than half of their required funding would be provided by private sources. Institutions with medical schools expected to draw more evenly on all three of these sources. Institutions without medical schools, on the other hand, placed higher-than-average reliance on state and local government sources (65 percent of the costs for space additions).

Views of Survey Respondents

According to additional comments made by institutional representatives, academic institutions are under substantial pressure to expand their existing facilities to meet current and anticipated health research needs. Such expansion is viewed as necessary to (1) improve quality and opportunity for research, (2) attract and retain faculty, and (3) further develop graduate programs in the health sciences.

Respondents emphasized in particular some of the more immediate problems facing academic institutions: inflationary costs; obsolete apparatus; dependence on large amounts of leased, rented, and temporary space; need to

[7] Includes 9 public and 11 private institutions.

upgrade facilities to meet new federal standards (e.g., renovation to effect biohazard control); lack of funds for planning.

Despite these and other constraints, many institutions anticipated fairly significant capital improvement programs, specifically in cancer and environmental research, in biomedical engineering, and in research demanding animal care facilities, as well as in broader health science areas, especially in medical schools. It was apparent, however, that the anticipated expansion was contingent, in great measure, upon public financing (state and federal). Several institutional representatives stated their conviction that, if health research facilities were to be improved, greater public commitment to this goal and less restrictive federal granting policies would be necessary.

Appendixes

Appendix A: Summary Data

Appendix B: Survey Instrument

Appendix C. Institutional Response to Survey

Appendix A: Summary Data

Summary Data on Health Research Facilities at Doctorate-Granting Institutions, 1975

(N=Number of Respondent Institutions)

Item	All Institutions	Public Institutions	Private Institutions	Top 20[1] Institutions	Bottom 20[1] Institutions	Institutions *With* Medical Schools	Institutions *Without* Medical Schools
1. Value of Health Research Facilities	(N=138)	(N 83)	(N=55)	(N=16)	(N=16)	(N=59)	(N=79)
Space[2]	72.8	71.7	74.2	73.7	68.7	73.2	71.4
Scientific Apparatus[3]	5.9	5.6	6.3	4.9	17.3	5.1	8.7
Other[4]	21.3	22.7	19.5	21.5	14.0	21.7	19.8
Total Percentage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dollars (in millions)	$2,072.1	$1,150.1	$922.1	$837.5	$29.1	$1,587.1	$485.0
2. Amount of SPace	(N=149)	(N=89)	(N=60)	(N=20)	(N=20)	(N=65)	(N=84)
Area in Square Feet (thousands)	23,406.2	13,046.1	10,360.1	8,880.7	482.0	16,936.6	6,469.6
3. Adequacy of Facilities	(N=154)	(N=90)	(N=64)	(N=20)	(N=20)	(N=67)	(N=87)
Adequate	15.6	12.2	20.3	10.0	15.0	13.4	17.2
Some Deficiencies—Not Serious	33.8	32.2	35.9	15.0	30.0	31.3	35.6
Moderate Deficiencies—Manageable	40.3	43.3	35.9	65.0	35.0	44.8	36.8
Serious Deficiencies	10.4	12.2	7.8	10.0	20.0	10.4	10.3
Total Percentage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
4. Condition of Available Space	(N=149)	(N=89)	(N=60)	(N=20)	(N=20)	(N=65)	(N=84)
Satisfactory	71.6	69.7	73.9	68.6	76.4	71.5	71.8
Should be Renovated	22.8	24.9	20.3	24.4	19.0	22.8	23.0
Should be Replaced	5.3	5.3	5.4	6.5	4.5	5.4	5.2
Can be Eliminated	0.2	0.1	0.4	0.5	0	0.3	0
Total Percentage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Area in Square Feet (thousands)	23,406.2	13,046.1	10,360.1	8,880.7	482.0	16,936.6	6,469.6
5. Construction in Progress (1975)	(N=154)	(N=90)	(N=64)	(N=20)	(N=20)	(N=66)	(N=88)
Renovation	8.3	7.1	12.2	10.7	0.9	7.8	10.5
Replacement	3.6	1.6	9.9	6.3	4.6	3.0	6.1
New Construction	88.1	91.2	77.9	83.0	94.4	89.2	83.4
Total Percentage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dollars (in millions)	$546.8	$415.6	$131.2	$212.1	$48.1	$441.4	$105.5

Summary Data on Health Research Facilities at Doctorate-Granting Institutions, 1975
(continued)

(N=Number of Respondent Institutions)

Item	All Institutions	Public Institutions	Private Institutions	Top 20[1] Institutions	Bottom 20[1] Institutions	Institutions *With* Medical Schools	Institutions *Without* Medical Schools
6. Anticipating Major Additions Next 5 Years	(N=155)	(N=91)	(N=64)	(N=20)	(N=20)	(N=67)	(N=88)
Yes	61.3	62.6	59.4	90.0	50.0	73.1	52.3
No	38.7	37.4	40.6	10.0	50.0	26.9	47.7
Total Percentage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
7. New Construction Anticipated Next 5 Years[5]	(N=90)	(N=53)	(N=37)	(N=17)	(N=9)	(N=48)	(N=42)
Estimated Cost (millions of dollars)	$560.3	$353.7	$206.6	$179.1	$32.5	$419.5	$140.8
8. Purchase of Scientific APPatatus Anticipated Next 5 Yeats[3]	(N=87)	(N=52)	(N=35)	(N=15)	(N=9)	(N=46)	(N=41)
Estimated Cost (millions of dollats)	$48.3	$26.3	$22.0	$10.5	$5.2	$39.9	$8.3
9. Estimated Cost of Additions (1975-1980) and Funding Soutce—SPACE[5]	(N=83)	(N=49)	(N=34)	(N=16)	(N=8)	(N=44)	(N=39)
Fedetal	21.0	17.4	27.9	22.7	11.6	23.2	15.6
State and Local	49.6	71.4	8.1	22.7	82.2	43.5	65.1
Private	29.4	11.2	64.0	54.6	6.2	33.3	19.3
Total Petcentage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dollars (in millions)	$495.2	$324.4	$170.8	$143.9	$32.3	$355.2	$140.0
10. Estimated Cost of Additions (1975-1980) and Funding Soutce—SCIENTIFIC APPARATUS[3]	(N=82)	(N=48)	(N=34)	(N=15)	(N=8)	(N=44)	(N=38)
Fedetal	35.6	25.6	46.2	37.1	14.8	37.3	28.1
State and Local	41.7	72.5	9.2	22.8	78.1	39.8	50.0
Private	22.7	1.8	44.7	40.1	7.1	22.9	21.8
Total Petcentage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dollats (in millions)	$45.0	$23.1	$21.9	$10.5	$5.1	$36.9	$8.1

[1]Ranked by level of NIH R&D suppott (projects and tesources) in FY 1973.
[2]Buildings, labotatoties, etc.
[3]Items valued in excess of $50,000 each.
[4]Equipment and movable furnishings.
[5]Space costing $100,000 each.

Appendix B: Survey Instrument

AMERICAN COUNCIL ON EDUCATION
ONE DUPONT CIRCLE
WASHINGTON, D. C. 20036

HIGHER EDUCATION PANEL
(202) 833-4757

July 7, 1975

Dear Higher Education Panel Representative:

Enclosed is the twenty-eighth survey of the Higher Education Panel. This survey, requested by the National Institutes of Health, concerns health research facilities at doctorate-granting institutions.

You may recall that last summer the Higher Education Panel conducted a survey on "College and University Facilities: Space and Maintenance Needs for Fall 1974" (HEP Survey #20). That study revealed a serious deficiency in research space at some colleges and universities, but provided no additional information on the nature and dimension of that deficiency in relation to specific fields. This survey hopes to do so for the health field.

You will note that the survey requests approximations in some cases and opinions in others. Please be assured that your best estimates are valuable and that we do not want you to spend an excessive amount of time obtaining information not readily available. We would appreciate, however, if you would make a special effort to include as part of your response all health research facilities of your institution, including all medical facilities, even if some are located off-campus.

Please understand that your responses will be held in strictest confidence. As with all our reports, the data you provide will be reported in summary fashion only and will not be identified with your institution.

We would appreciate having the completed questionnaire returned to us by July 23, 1975. We have enclosed a stamped, self-addressed envelope for your convenience.

If you have any questions or problems with the survey, please do not hesitate to telephone us (collect) at (202) 833-4757.

Thank you again for your cooperation.

Sincerely,

Frank Atelsek

Frank Atelsek
Director

Definitions and Guidelines

1) The term "Health Research" embraces all research relating to the causes, prevention, diagnosis, treatment, and control of the physical and mental diseases afflicting humanity; including development of improved methods, techniques and equipment for research, treatment and promotion of public health. As a minimum, please report (1) all research facilities used in the medical school and hospital setting, (2) facilities used for research in biological sciences, exclusive of agriculture and forestry. An illustrative list of disciplines covered by the term "health research" appears at the bottom of this page.

2) Value of Physical Facilities -- Use whichever method is most convenient in arriving at a dollar estimate of current worth -- e.g., book value, insurance value, replacement cost.

3) If facilities are shared with other disciplines, please estimate the proportion used for health research only and base your calculations on that proportion. We are aware that this will probably be an approximation, particularly in the case of hospitals that combine patient care, education and research. Please use your best judgment in approximating the percentage for research.

4) Do not include: (a) hospitals/buildings/facilities not owned by the institution, (b) federal contract research centers.

5) Illustrative list of disciplines covered by the term "Health Research":

Health Fields	Biological Sciences			Other
Medicine	Anatomy	Cell Biology	Neurosciences	Chemistry (organic)
Dentistry	Bacteriology	Genetics	Pharmacology	Psychology
Veterinary Medicine	Biochemistry	Histology	Physiology	
	Biology, General	Microbiology	Radiobiology	
	Biophysics	Molecular Biology	Toxicology	

PLEASE DO NOT DETACH

OMB No. 99-R0265. Exp. 6/76

American Council on Education
Higher Education Panel Survey Number 28

Health Research Facilities*

1. Please estimate the value* of total physical facilities presently devoted to health research at your institution:

   $_____ Space (buildings, laboratories)

   $_____ Scientific apparatus (electron microscope, heart-lung machine, etc. -- items in excess of $50,000 each)

   $_____ All other equipment, movable furnishings

   $_____ TOTAL (in thousands of dollars)

2. Please give your best estimate of the amount of space presently devoted to health research at your institution:

   _____ Sq. ft.

3. In general, are available facilities at your institution considered adequate in meeting current health research needs?

   [ ] Adequate

   [ ] Some deficiences, but not considered serious

   [ ] Moderate deficiences, but still manageable

   [ ] Seriously deficient

4. Please characterize the condition of space available for health research at your institution (in percents totaling 100):

   _____% Considered satisfactory in its present physical condition

   _____% Should be renovated or rehabilitated

   _____% Should be replaced

   _____% Can be eliminated

   100% TOTAL

5. Indicate approximate costs and types of major construction projects (costing more than $100,000 each) currently in progress (i.e., now under construction):

   $_____ Renovation (no real change in volume of facilities)

   $_____ Replacement (no substantial change in volume of facilities)

   $_____ New facility construction (substantial increase in volume of facilities)

   $_____ TOTAL (in thousands of dollars)

---

*See Definitions and Guidelines opposite.

(OVER PLEASE)

6a. Are major additions to health research facilities (space more than $100,000 each; apparatus more than $50,000 each) reasonably anticipated at your institution within the next five years (1975-1980)?

[ ] Yes

[ ] No

b. If "Yes", please estimate the approximate cost (at the time of construction or acquisition) of these facilities and the probable sources of funding (do not include items covered in question 5):

1) Space (buildings, laboratories, etc. -- costing more than $100,000 each) : $_____ (In thousands of dollars) : Federal $_____ State/local $_____ Private $_____

2) Scientific Apparatus (costing more than $50,000 each) : $_____ (In thousands of dollars) : Federal $_____ State/local $_____ Private $_____

7. Please provide any additional comments on the perceived needs and expectations of your institution in regard to health research facilities (1975-1980):

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

8. Does your institution have a medical school? [ ] Yes [ ] No

If so, do your responses to this survey include data related to your medical school?

[ ] Yes [ ] No

THANK YOU FOR YOUR ASSISTANCE.
Please return this form by July 23, 1975

TO: HIGHER EDUCATION PANEL
AMERICAN COUNCIL ON EDUCATION
ONE DUPONT CIRCLE
WASHINGTON, D.C. 20036

PLEASE RETAIN A COPY OF THIS SURVEY FOR YOUR RECORDS.

Person Completing Form_____

Office_____

Phone_____

Appendix C: Institutional Response to Survey

Survey questionnaires were sent to the 207 of the 219 Ph.D.-granting institutions in the Panel thought to have health research facilities. Twelve of the 207 institutions indicated that no health research was conducted on their campuses. Of the remaining 195 institutions, 155 (79 percent) provided usable information before the closing date for questionnaire returns.

Table C-1 compares the universe of Ph.D.-granting institutions (N=288) with those institutions that are Panel members (N=219). Of the institutions in the population: (1) one-third are public universities; public and private colleges and private universities make up the rest of the population in about equal numbers; (2) three out of ten are located in the East, and another three out of ten in the South; (3) nearly two-fifths have medical schools; (4) more than one-fourth had no R&D support fom NIH in FY 1973, and approximately one-sixth received over $5 million.

The institutions in the Higher Education Panel are in many respects quite similar to those in the population, except that: (1) they are more likely to be universities, particularly under public control (two-fifths); (2) they are less likely to have received no R&D funding from NIH in FY 1973 (one-sixth).

Table C-2 compares the respondents and nonrespondents according to selected institutional characteristics. Higher-than-average response rates were recorded for (1) institutions located in the South (85 percent); (2) institutions that received at least $5 million in NIH R&D support (95 percent for those that received between $5-10 million, and 90 percent for those that received $10 million or more); and (3) institutions with medical schools (84 percent). Response rates were below average for (1) colleges and universities in the East (73 percent); and (2) institutions that received between $500,000 and $1 million (63 percent) and under $100,000 (72 percent) in NIH R&D support.

Table C-1

Comparison of the Higher Education Panel Institutions and the Ph.D.-Granting Population

(In Percentages)

Characteristics	All Ph.D.-Granting Institutions (N=288)	HEP Ph.D.-Granting Institutions (N=219)
Control and Type		
Public Four-Year College	22.2	17.3
Private Four-Year College	24.0	18.2
Public University	32.6	40.0
Private University	21.2	24.5
Census Region		
East	30.6	31.8
North Central	19.8	22.3
South	31.6	27.7
West	18.1	18.2
Level of NIH R&D Support (Projects & Resources) in FY 1973		
$10 million or more	8.0	8.6
$ 5 - 9.9 million	8.3	9.1
$ 1 - 4.9 million	21.9	23.2
$.5 - .9 million	6.6	7.7
$.1 - .49 million	15.6	19.1
Under $100,000	12.8	15.9
None	26.7	16.4
Medical School		
With	38.2	38.6
Without	61.8	61.4

Table C-2

Comparison of Respondents and Nonrespondents to Survey No. 28
Health Research Facilities

(In Percentages)

Characteristics	Respondents (N=155)	Nonrespondents (N=40)	Response Rate[a]
Type			
Four-Year College	29.7	27.5	80.7
University	70.3	72.5	79.0
Control			
Public	58.7	65.0	77.8
Private	41.3	35.0	82.1
Census Region			
East	27.9	40.0	72.9
North Central	22.1	22.5	79.1
South	32.5	22.5	84.7
West	17.5	15.0	81.8
Level of NIH R&D Support (Projects and Resources) FY73			
$10 million or more	11.0	5.0	89.5*
$ 5-9.9 million	11.6	2.5	94.7*
$ 1-4.9 million	23.9	27.5	77.1*
$ .5- .9 million	7.7	17.5	63.2*
$ .1-.49 million	21.3	17.5	82.5
Under $100,000	14.8	22.5	71.9
None	9.7	7.5	83.3
Medical School			
With	43.2	32.5	83.8
Without	56.8	67.5	76.5

[a]Asterisks in this column designate those response rates that exceed or fall short of the overall response rate by more than 10 percent.

NOTE: Of the 219 Ph.D.-granting institutions in the Panel, 24 had no health research facilities. Therefore total respondents (N=155) and nonrespondents (N=40) equal 195.

Other Reports of the Higher Education Panel
American Council on Education

Blandford, B. and Dutton, D. **Survey of First-Year Graduate and Postdoctoral Enrollment in Science and Engineering.** Higher Education Panel Report, No. 1, August, 1971.

Blandford, B. and Dutton, D. **Research Support for Science Faculty.** Higher Education Panel Report, No. 2, November, 1971.

Astin, A., Blandford, B., and Mahn, T. **Freshman Class Vacancies in Fall 1971 and Recent Trends in Enrollment of Minority Freshmen.** Higher Education Panel Report, No. 3, February, 1972.

Changes in Graduate Programs in Science and Engineering 1970-72 and 1972-74. Science Resources Studies Highlights. Washington: National Science Foundation, July, 1972.

Blandford, B. and Sell, C. **Enrollment of Junior-Year Students (1970 and 1971).** Higher Education Panel Report, No. 5, April, 1972.

Trexler, J. and Blandford, B. **What College Presidents Are Reading.** Higher Education Panel Report, No. 6, March, 1972.

Trexler, J. and Kent, L. **Commercial Theme-Writing Services.** Higher Education Panel Report, No. 7, June, 1972.

Furniss, W. T. **Faculty Tenure and Contract Systems: Current Practice.** ACE Special Report, July, 1972.

Bayer, A. E. and Astin, A. W. **War Protest on U. S. Campuses During April 1972.** Higher Education Panel Report, No. 9, May, 1972.

Blandford, B. A. and Trexler, J. C. **Expected First-Year Graduate Enrollment in Science and Engineering, Fall 1972.** Higher Education Panel Report, No. 10, August, 1972.

Blandford, B. A. **Student Participation on Institutional Governing Boards.** Higher Education Panel Report, No. 11, October, 1972.

Dutton, J. E. and Blandford, B. A. **Enrollment of Junior-Year Students (1971 and 1972).** Higher Education Panel Report, No. 12, April, 1973.

Dutton, J. E. **Courses and Enrollment in Ethnic/Racial Studies.** Higher Education Panel Report, No. 14, August, 1973.

Dutton, J. E. and Jenkins, M. D. **The Urban Involvement of Colleges and Universities.** Higher Education Panel Report, No. 15, August, 1973.

Dutton, J. E. and El-Khawas, E. H. **Production of Doctorates in Selected Fields, 1972-1975.** Higher Education and Panel Report, No. 16, April, 1974.

Dutton, J. E. **First-Year Enrollment for Masters or Higher Degrees, Fall 1973.** Higher Education Panel Report, No. 17, April, 1974.

El-Khawas, E. H. and Kinzer, J. L. **The Impact of Office of Education Student Assistance Programs, Fall 1973.** Higher Education Panel Report, No. 18, April, 1974.

El-Khawas, E. H. and Kinzer, J. L. **Enrollment of Minority Graduate Students at Ph.D. Granting Institutions.** Higher Education Panel Report, No. 19, August, 1974.

El-Khawas, E. H. **College and University Facilities: Expectations of Space and Maintenance Needs for Fall 1974.** Higher Education Panel Report, No. 20, September, 1974.

Kinzer, J. L. and El-Khawas, E. H. **Compensation Practices for Graduate Research Assistants: A Survey of Selected Doctoral Institutions.** Higher Education Panel Report, No. 21, October, 1974.

El-Khawas, E. H. and Furniss, W. T. **Faculty Tenure and Contract Systems: 1972 and 1974.** Higher Education Panel Report, No. 22, December, 1974.

El-Khawas, E. H. and Kinzer, J. L. **A Survey of Continuing Education Opportunities Available to Nonacademic Scientists, Engineers and Mathematicians.** Higher Education Panel Report, No. 23, April, 1975.

Atelsek, Frank J. and Gomberg, Irene L. **Nonfederal Funding of Biomedical Research and Development: A Survey of Doctoral Institutions.** Higher Education Panel Report, No. 25, July 1975.

Atelsek, Frank J. and Gomberg, Irene L. **Student Assistance: Participants and Programs, 1974-75.** Higher Education Panel Report, No. 27, July 1975.

Atelsek, Frank J. and Gomberg, Irene L. **Faculty Research: Level of Activity and Choice of Area.** Higher Education Panel Report, No. 29, January, 1976.

Single copies of the above reports may be obtained from the Higher Education Panel, American Council on Education, One Dupont Circle, Washington, D. C. 20036.