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**ABSTRACT**

Based on a survey of college and university libraries conducted in the fall of 1969, this report provides aggregated or summary data for 2,330 libraries or 95.8% of the college and university libraries in the nation. The libraries surveyed accounted for a total expenditure of about \$585 million, of which nearly \$318 million was paid for salaries and wages of 45,150 staff members. The total holdings of these libraries provided user access to 333 million items of printed, unreduced materials (books, periodicals and other serial titles) and nearly 65 million microform items (microfilms and all other reduced formats). A promising development for improving access to library resources for small institutions is the advent of "joint libraries." A joint library is defined as a combining of library resources of two or more institutions, which serves all the institutions concerned, or the library may serve one whole institution and a branch campus of another institution. The largest expenditure increase (20%) was for books and other library materials, the smallest (14%) was for salaries of the regular staff.  
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# LIBRARY STATISTICS OF COLLEGES AND UNIVERSITIES, Fall 1969; Analytic Report.

by  
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## HIGHLIGHTS

1. Operating expenditures of college and university libraries totaled \$585 million in 1968-69, representing a 15-percent increase over the previous year. Of the total expenditures, \$318 million was for salaries of regular staff and wages of hourly staff, while \$213 million was for books and other library materials.
2. Some 328.6 million physical (unreduced) volumes were held at the end of 1968-69, up 8 percent from the previous year's count. Periodical titles increased 4 percent, to 2.6 million titles. Microfilm reels rose 20 percent to a total of 6.3 million, while microtext other than microfilm reels increased 30 percent to 58.3 million units.
3. Nonbudgeted support services, or services not charged to the libraries' accounts (and not included in the above figures), totaled \$16.0 million. Of that sum, 70 percent or \$11.0 million was for hourly assistance to the libraries by students paid under the Federal College Work-Study Program.
4. From fall 1968 to fall 1969, regular (nonhourly) staff rose 4 percent, to 45,150 full-time-equivalent personnel. Of that total, 17,695 were librarians, 2,454 were professional staff other than librarians, and 25,001 were nonprofessional staff. The increases in those staff categories over the previous year were 2, 15, and 4 percent, respectively. Hours of student and other hourly assistance rose 9 percent, to 34.4 million hours. This was roughly equivalent to the service of 17,200 nonprofessional staff members working full time.
5. In relation to total positions authorized for the fall 1969 term, vacancies amounted to 4.5 percent.
6. Library expenditures per student rose 3 percent to \$91, while expenditures per institutional staff member in instruction and research rose 24 percent to \$1,212. The ratio of professional library staff to institutional staff in instruction and research rose 11 percent, to 4.2.

## FOREWORD

This report is based on a survey of college and university libraries conducted in the fall of 1969 as a part of the U. S. Office of Education's Higher Education General Information Survey. It is a companion to the report titled Library Statistics of Colleges and Universities: Data for Individual Institutions, Fall 1969 (OE-15023-69), which was published in June 1970. That report provided individual data for 2,122 libraries that submitted reports in time for inclusion in that publication.

The present report provides aggregated or summary data covering not only the 2,122 libraries for which data were given in the companion report but also 208 additional libraries that reported late. These 2,330 responding libraries constituted 95.8 percent of the college and university libraries in the Nation. To generate national totals, data were imputed for the nonresponding (4.2 percent) libraries. The data in this report are thus representative of all college and university libraries of academic institutions accredited in 1969, except for 99 new institutions which had been in operation less than one academic year.

The libraries in this survey accounted for a total expenditure of about \$585 million, of which nearly \$318 million was paid for salaries and wages of 45,150 staff members. The total holdings of these libraries provided user access to 333 million items of printed, unreduced materials (books, periodical and other serial titles) and nearly 65 million microform items (microfilm and all other reduced formats).

During the decade of the 1960's the U. S. Office of Education published, either directly or under contract, institutional library data for each year except 1965, and analytic reports for 1960, 1962, 1964, and 1968.

The U. S. Office of Education gratefully acknowledges the cooperation of many librarians, institutional administrators, agencies, and organizations that made possible the completeness of this survey.

Frank L. Schick, Chief  
Library Surveys Branch

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## I. SUMMARY AND CONCLUSIONS

### Expenditures

Operating expenditures of college and university libraries totaled approximately \$585 million in 1968-69. Of that total some \$213 million or 36 percent was spent for books and other library materials.

Expenditures for salaries of regular library staff amounted to \$273 million or 47 percent of the total, and the wages of hourly staff accounted for \$44 million or 8 percent. Binding and rebinding accounted for some \$18 million (3 percent), and other operating expenditures for \$37 million (6 percent).

The libraries benefited from an estimated \$16 million worth of non-budgeted support services, or services which, though not charged to the libraries' accounts, constituted library materials or assistance to the library. The \$16 million figure is not included in the \$585 million noted above as total operating expenditures, but if it were, the effect would be to increase operating expenditures by less than 3 percent.

By far the largest part of the nonbudgeted support services--some \$11 million or 70 percent--was for student assistance under the Federal College Work-Study Program, through which students serving in the library and elsewhere are paid by the Federal Government.

The approximate amounts and percents making up the remainder of nonbudgeted support services were: (a) \$0.5 million or 3 percent for binding service, (b) \$2.0 million or 12 percent for automation services, and (c) \$2.4 million or 15 percent for other services.

The \$0.5 million for nonbudgeted binding service was of course only for such binding as was obtained "free" so far as libraries' accounts were concerned (e. g., obtained from a correctional institution). This amount was notably small compared to the binding costs that were charged to the libraries, which, as noted earlier in this section, came to \$18 million.

While the cost of automation service charged to the libraries was not obtained separately, it is known to make up a substantial part of the previously noted \$37 million comprising "other" library operating expenditures. So the \$2.0 million for nonbudgeted automation service is also relatively small compared to service of the same kind that is included in library accounts.

To a considerable extent, gifts accounted for the \$2.4 million in the "other" category of nonbudgeted support.

### Library Staff

In terms of full-time-equivalent (FTE) units, the libraries were staffed in fall 1969 by 45,150 personnel in regular (nonhourly) positions. The assistance provided by students and other staff serving on an hourly basis totaled 34.4 million hours. Assuming that 2,000 hours is roughly equivalent to one man-year of service, the hourly total amounted to approximately 17,200 full-time-equivalent nonprofessional personnel.

The 45,150 FTE personnel comprising the libraries' regular staff can be characterized in terms of a large number of groups and subgroups. The major groups are represented by the following sets of percents, in which the total percents in each set represent all 45,150 FTE regular staff:

- 50 percent were in universities; 29 percent, in 4-year institutions with graduate students; 10 percent, in 4-year institutions without graduate students; and 11 percent, in 2-year institutions.
- 39 percent were librarians; 5 percent, professional staff other than librarians (including, for example, certain automation specialists); and 56 percent, nonprofessional staff.
- 59 percent were in publicly controlled institutions; 41 percent, in privately controlled institutions.
- 92 percent were full-time and 8 percent were part-time personnel. The 92 percent represents 41,343 full-time individual staff members. Since the service of a part-time staff member is typically about one-third that of a full-time staff member, the number of different individuals represented by the part-time FTE figure of 3,807 is about three times as large; i. e., 3,807 represents about 11,000 individuals serving on a part-time basis.
- Salaried staff totaled 98.6 percent, and contributed service staff, who serve only in privately controlled institutions, comprised 1.4 percent of the total. Of the 18,500 staff in the privately controlled institutions, contributed service staff accounted for 3.4 percent.

In FTE terms, the number of vacancies or unfilled positions reported as of fall 1969 totaled 2,135 positions (1,025 professional and 1,110 non-professional). Total positions including the vacancies were therefore

47,285 (45,150 plus 2,135). In terms of that total, the proportion of vacancies amounted to 4.5 percent.

### Library Holdings

Aside from microform holdings, 328.6 million volumes were held at the end of 1968-69. Over 2.6 million periodical titles were being received, as well as 1.75 million titles of serials other than periodicals.

Microform holdings, or printed materials in reduced form, consisted of 6.3 million reels of microfilm, and 58.3 million units of other forms of microtext.

As in previous years, the library collections (volumes, serials, and microform) of the universities were very much larger, by 20 or even 30 to 1, than the collections of other institutions. As a result, university students and faculties have access to comparatively rich library resources, while the students and faculties of small institutions are in a much less favorable position.

### Other Current Findings

All indexes of library holdings, expenditures, and staff in relation to students, institutional staff, and institutional expenditures indicate that libraries of the privately controlled institutions are in a position to do a somewhat better job for their clientele than are the libraries of publicly controlled institutions.

A promising development for improving access to library resources for small institutions is the advent of "joint libraries." A joint library is here defined as one which, by combining the library resources of two or more institutions, serves all the institutions concerned; or the library may serve one whole institution and a branch campus of another institution.

As of fall 1969 there were 14 joint libraries so defined, and they were serving a total of some 78,000 students. While this number was not much over 1 percent of the 7.6 million students enrolled in all the institutions, the 78,000 students were mostly in smaller institutions that would otherwise be in most need of greater library resources.

### Trend Data

Selected data categories for which trend information is available are shown in table A. Column 6 shows the 1-year increases since the preceding or fall 1968 survey, and column 8 shows the 9-year increases since fall 1960.

Table A. -- Selected data on students served and selected categories of data on college and university libraries, with percent increases: Aggregate United States, fall 1960, 1964, 1968, and 1969

(Data on headings of columns 2-5 identify the times of data collection and also the reference or "as of" dates for personnel shown as Library Staff. Otherwise the data are for the school year that ended before each fall date.)

Item	Fall 1960	Fall 1964	Fall 1968	Fall 1969	Percent increase		
					Fall '68 to fall '69 (1 year)	Average annual increase <sup>1/</sup>	Fall '60 to fall '69 (9 years)
1	2	3	4	5	6	7	8
Number of libraries	1,951	2,140	2,370	2,431	3	3	25
<u>Students served</u>							
	<u>Numbers, in thousands</u>						
Total students enrolled	3,597	4,800	6,964	7,572	9	9	111
For bachelor's and higher degrees	3,402	4,529	6,442	6,983	8	8	105
In undergraduate occupational programs	195	272	522	589	13	13	202
<u>Collections</u>							
	<u>In thousands of units</u>						
Number of volumes at end of year	177,000	227,000	304,700	328,600	8	7	86
Number of volumes added during year	8,400	13,600	25,200	25,800	2	13	207
Number of periodical titles	1,270	1,760	2,505	2,632	4	8	107
<u>Library staff</u>							
	<u>In full-time equivalents</u>						
Total in regular staff	18,000	25,200	43,500	45,150	4	11	151
Librarians	9,000	11,900	17,400	17,695	2	8	97
Nonprofessional staff and professional staff other than librarians	9,000	13,300	26,100	27,455	5	13	206
	<u>Hours, in thousands</u>						
Student and other assistance	12,100	16,400	31,700	34,400	9	12	184
<u>Library operating expenditures</u>							
	<u>In thousands of dollars</u>						
Total (excluding capital outlay)	\$137,200	\$246,000	\$509,800	\$584,800	15	17	326
Salaries	72,500	126,000	234,100	273,200	17	12	179
Hourly wages	11,700	19,000	39,900	44,300	11	17	300
Binding and rebinding	4,900	9,000	15,100	17,500	16	16	259
Books and other library materials	40,700	79,000	187,900	212,900	13	20	417
Other library operating expenditures	7,500	13,000	32,700	36,900	13	19	367
<u>Distribution of above expenditures</u>							
	<u>In percent</u>						
Total	100	100	100	100	--	--	--
Salaries	53	51	46	47	--	--	--
Hourly wages	8	8	8	8	--	--	--
Binding and rebinding	4	4	3	3	--	--	--
Books and other library materials	30	32	37	36	--	--	--
Other library operating expenditures	5	5	6	6	--	--	--
Library operating expenditures as percent of total institutional expenditures for educational and general purposes	3.0	3.3	3.7	4.3	--	--	--

<sup>1/</sup> See text.

Note: Detail may not add to totals because of rounding.

The average annual increases in column 7 are derived from the 9-year increases in column 8, using the compound interest formula to determine what the annual increase would have been if it were the same in each year during the 9-year period.

Although the average annual increases in column 7 are completely determined by--and are therefore in the same rank order as--the 9-year increases in column 8, the data on general trends are represented more easily with the average annual increases than with the 9-year increases. Chart 1 therefore presents the trend data in terms of the average annual increases shown in column 7 of table A.

Since the same scaling is used in both the left- and the right-hand panels of the chart, they could be superimposed and read as one. The expenditure categories are shown separately because they (unlike the others) reflect monetary inflation to a large extent.

Among the expenditures, the most marked average increase--20 percent--is seen for the funds spent on books and other library materials. In some contrast, the smallest--14 percent--appears for salaries of regular staff (including nonprofessional regular staff). As indicated above, those two categories make up the bulk of library operating expenditures.

The increase of 17 percent shown in the chart for wages of hourly staff probably would have been higher except for the substantial component of hourly assistance by students who received wages under the College Work-Study Program rather than through the libraries' accounts.

Some of the 19-percent increase in "other" library expenditures was no doubt due to increasing use of automation services.

One of the two highest increases shown in the right-hand ("other" categories) part of the chart was the 12-percent rise for hourly assistance, a category that included the College Work-Study student assistance. The other marked increase--13 percent average--was for the number of nonprofessional staff and professional staff other than librarians. In contrast to those two staff categories, the increase for the third staff category--the librarians--was only 8 percent.

Although the rise of 8 percent for periodicals was not markedly higher than the 7-percent rise for volumes, the difference may be of more consequence than those figures alone would suggest, because volume counts include duplicate titles, while periodical counts do not.



For two reasons the average annual increase of 3 percent in the number of libraries is somewhat less than the typical annual increase in the number of colleges and universities over the same period. One reason arises from the unusually large number of new institutions opening in recent years; they have not been included in the library survey because, in a given survey year, the libraries of such institutions were not in full operation and such information as they reported has been atypical. The other and perhaps more important reason has been the increase in the number of joint libraries. If they are being developed at an accelerated rate, the effect will be to widen the difference between the number of libraries and the number of institutions which they serve.

## II. DETAILED FINDINGS

### Medians and Means for Data Pertinent to Standards

While the setting of standards and the evaluation of institutions in relation to standards are outside the scope of this report, an attempt is made to present seven categories of data in a way that is convenient for study in relation to any quantitative standards that may be recommended.

The selected kinds of data concern number of volumes in collections, operating expenditures, expenditure index, amount of hourly assistance, professional library staff, total library staff, and chief librarian's salary. Since these categories of data are often used in connection with standards, they are presented in terms of frequency distributions in tables 1 through 7. With the data arranged in that form one can easily use table 1, for example, to estimate the proportion of institutions in a particular group (by control, type, and size) which currently meets any standard that one might wish to consider for the number of volumes that should be held by institutions in the given group. (See appendix C.)

Each of the seven tables in the set includes, as the last column, the median (50-percentile) value for each group of institutions. Since the means for the same kinds of data are included in tables 8 through 15, some discussion of the differences between the two measures serves to bring out several features of the survey findings, including the impact of the larger libraries on some data categories. The means and medians are shown in table B together with the numbers of the source tables.

For five of the six categories in the table, the mean value is much higher than the median. This reflects the marked skewness of the data for those categories, or the fact that the holdings, expenditures, and staff of the large institutions are massive indeed compared to those of the small institutions.

For the salaries of chief librarians, however, there is comparatively small difference between the median and mean values (line 7 of table B), reflecting the fact that the salary distribution is skewed comparatively little.

### Library Expenditure Index

The apparent reversal of the median and mean values for the library expenditure index (line 3) arises because the index is a percentage, and its mean was obtained through the conventional procedure of summing the numerators (library operating expenditures) for all 2,431 institutions

Table B. -- Median and mean values for and sources of selected categories of data on college and university libraries: Aggregate United States, 1968-69

Category	Values		Source tables	
	Median	Mean	Median	Mean
1	2	3	4	5
1. Number of volumes held at end of year	46,100	135,000	Table 1	Table 8
2. Library operating expenditures	\$81,900	\$241,000	Table 2	Table 11
3. Library expenditure index (line 2 as percent of institutional expenditure for education and general purposes)	6.1	*4.3	Table 3	Table 22
4. Hours of student and other hourly assistance	5,500	14,200	Table 4	Table 13
5. Full-time equivalent of professional library staff	5.1	8.3	Table 5	Table 14
6. Full-time equivalent of total library staff	8.0	18.6	Table 6	Table 14
7. Salary of chief librarian	\$12,300	\$15,000	Table 7	Table 16

\* Weighted percent.

and dividing by the corresponding sum of the denominators (educational and general expenditures, or "E & G" as the category is termed for brevity in what follows).

The resulting figure, 4.3 percent, is termed a "weighted percent" because it gives appropriate weight to each institution's size in determining the result; thus the large institutions affect the weighted percent much more than the small institutions do. If, instead, a mean for the index had been obtained by simply averaging all the separate percentages indicated in the top line of table 3, the mean so found would be much higher than the median and would probably be quite misleading from a general-purpose standpoint.

Whether one's interest centers on the median or weighted percent with regard to the library expenditure index, it is important to note that the 1968-69 E & G figures used as denominators were frequently lower than they should have been to be comparable with the data for previous years. This discrepancy happened because, as of 1968-69, the E & G category was redefined in accordance with recommendations of the National Association of College and University Business Officers. Of the changes made, the one of most importance in connection with library statistics was the deletion of federally sponsored organized research from the new E & G category. In anticipation of the problem, the library questionnaire asked respondents to include organized research in the E & G figure reported for library purposes, since the libraries usually provide service to all organized research of their institutions. Also, in the hope of maintaining comparability with the 1967-68 data, the E & G figures reported on the library questionnaire were edited to include all organized research when there was indication that expenditures for federally funded organized research had been omitted. The attempt to maintain comparability did not succeed, however, and as a result the E & G figures used in this report were too low--and therefore the mean library expenditure figure of 4.3 percent is too high--for comparability with the data of previous years. The tables herein nevertheless include the data obtained regarding the library expenditure indexes for 1968-69, because the figures are useful for comparing groups of institutions within that year, even though the data are not comparable with those in previous years.

#### Grouping of Data in Tables 8-22

Except for the State data in tables 23 and 24, the detailed tabulations of this report are designed to facilitate use as reference tables, so that a reader can easily locate the data for any group or subgroup of institutions that is large enough to justify separate presentation.

Just as tables 1-7 were seen to comprise a distinct group, it is convenient to regard tables 8-22 as falling into the following groups or "families" of tabulations:

Library holdings--i. e., volumes, microform, and serials--are presented in tables 8-10. Charts 2 and 3 give data on the microform holdings.

Operating expenditures are detailed in table 11, and nonbudgeted support services are shown in table 12. Text table C summarizes data on the nonbudgeted support services.

Hourly assistance, staff in regular positions, contributed service, and vacancies are covered in tables 13-15; and much of the data are summarized in text tables D, E, and F. Chart 4 displays the data on hourly assistance. Chart 5 shows numbers of staff, and chart 6 shows vacancies as percents of total positions.

Salaries for six categories of full-time staff, and the numbers of those staff members, are given in tables 16-21.

Indexes concerning library holdings, expenditures, and staff are given in table 22 and table G. Charts 7, 8, and 9 show, respectively, expenditures per student, expenditures per institutional staff in instruction and research, and library professional staff per 100 institutional staff in instruction and research.

The data in most of the above groups of tables are essentially similar to those of the preceding report in this series (for fall 1968, OE-15031-68), which included a number of charts showing in some detail the variations in the data by institutional control, type, and enrollment size. The tables and charts in that report, like the data of this one, consistently demonstrate that universities have by far the largest collections and the largest expenditures and staffs, while the 4-year institutions with graduate students rank next, followed by the other 4-year institutions and, finally, the 2-year institutions. Also, for institutions of each of the four types, those with the larger enrollments have markedly greater holdings, expenditures, and staffs than those with fewer students.

There is comparatively little variation from one type or size of institution to another with respect to holdings or expenditures per student. Understandable though this may be, it does not mean that access to library resources is about the same in larger and smaller institutions. Indeed, the comparatively small holdings of the smaller institutions must occasion a rather severe handicap, relatively speaking, for their students and

faculties in respect to library resources. For the future one can hope that more of the smaller institutions can be served by joint libraries or other arrangements to expedite access to larger holdings. (See section on Joint Libraries in appendix A.)

### Library Holdings

Reference to the survey questionnaire in appendix D shows that item 2 in part I gave the respondent the opportunity, if he wished to use it, of revising the volume count that he had reported for the previous year (1967-68). If he revised that count, the revised figure was then used (rather than the figure in item 1) in checking to see that the volumes added during the year, minus those withdrawn, equaled the volumes reported for the end of 1968-69. This change in the questionnaire appeared to be useful because it improved the consistency of respondents' entries on the fall 1969 form, so that they less often required adjusting to reduce inconsistencies regarding volumes added and withdrawn.

To some extent, however, the procedure may have reduced comparability with previous data on volumes, with the effect that the 8-percent increase in volumes at the end of the year (from 304.7 million for 1967-68 to 328.6 million for 1968-69) may be too high, while the 2-percent increase in volumes added (25.2 million to 25.8 million) may be too low (table A). There is nevertheless reason to believe that the 1968-69 figures have substantial validity.

Microform holdings show relatively marked increases over the 1967-68 holdings of that nature. For microfilm reels, the increase was 20 percent (from 5.2 million reels to 6.3 million reels). For other physical units of microtext, the increase was 30 percent (from 45.0 million to 58.3 million units). If in both the fall 1968 and fall 1969 surveys the "volume equivalents" of these holdings had been reported so that in each year they could have been added to the number of physical volumes, it is clear that the increase in the total number of physical volumes and volume equivalents to which students and faculty have had access would be perceptibly higher than the increase for physical volumes alone.

For each of the four types of institutions, chart 2 shows the holdings of microfilm reels, with percent increases from the previous year. Similar data for physical units of microtext other than microfilm reels are given in chart 3. For both types of microform the increases were relatively large for the 4-year institutions with graduate students and the 2-year institutions. Although in fall 1969 the 2-year institutions had only slight holdings of microtext other than microfilm reels, these holdings represented a near doubling (93 percent) from the previous year.

The modest rise of 4 percent shown in table A for periodical titles (from 2.5 million to 2.6 million titles) is in line with expectation. There was a relatively marked rise of 62 percent for serial titles other than periodicals (from 1.1 million to 1.8 million), probably reflecting not only some real increase but also an improvement in the reporting of this category of holdings, which was first called for on the questionnaire for the fall 1967 survey.

### Operating Expenditures

Operating expenditures, or expenditures charged to library accounts, totaled \$584.8 million in 1968-69, representing a rise of 15 percent over the 1967-68 figure. This increase could be considered in line with expectation considering both monetary inflation and the needs of the 1968-69 enrollment of 7.6 million students, who constituted a 9-percent increase over those enrolled in the previous year (table A).

The rise in the largest single category of expenditures--i. e., salaries--was 17 percent, or slightly more than the overall 15-percent increase. The rise for the next largest category, books and other library materials, was 13 percent, or somewhat less than the overall change. The increase for binding and rebinding was 16 percent. The rise for hourly wages was only 11 percent, but this comparatively small increase was an indirect reflection of the libraries' increased use of students whose wages come from funds made available by the Federal Government under the College Work-Study Program (see section on Nonbudgeted Support Services, following).

Between the publicly and the privately controlled institutions, there was a substantial difference in their rates of increase in library operating expenditures from 1967-68 to 1968-69. In that interval there was a relatively marked rise of 16 percent for the publicly controlled institutions (from \$316 million to \$366 million), as compared with an increase of 13 percent for the privately controlled group (from \$194 million to \$219 million).

While it is true enough that these expenditures for publicly controlled institutions rose relatively more in the 1-year interval, it should also be said that their library expenditures were only catching up with the comparatively rapid increases that had occurred in their enrollments. For, during the 5 years from fall 1963 to fall 1968, the average annual increase in enrollment was 12 percent for the publicly controlled institutions, as compared with only 4 percent for the privately controlled institutions--and

indeed enrollment decreased slightly in the privately controlled group from fall 1967 to fall 1968. <sup>1/</sup>

Further discussion of this subject, particularly regarding library expenditures per student and per institutional staff member in instruction and research, is included in the section on Indexes, at the end of this chapter.

### Nonbudgeted Support Services

The upper tier of table C gives the dollar values that the libraries reported for their nonbudgeted support services in 1968-69. Column 5 in that tier shows the reported value of student assistance under the College Work-Study Program, which was specifically called for on the 1968-69 questionnaire.

The middle tier of the table shows 1967-68 data that are similar except that the figures in columns 5 and 6 have been estimated on an assumption described in a following paragraph. An estimating procedure was required because the 1967-68 questionnaire did not call for separate reporting of College Work-Study assistance. While the importance of a separate category for that program was not realized when the 1967-68 form was prepared, both the 1967-68 and 1968-69 forms asked the respondents to specify the nature of entries made in the residual or "other" category.

Although the respondents frequently mentioned the College Work-Study Program in connection with their entries in the residual category on the 1967-68 forms, those notations were not sufficiently clear and consistent to warrant their use for directly estimating the value of that program in that year.

However, inspection of the notations on both the 1967-68 and 1968-69 forms suggested that the amounts reported as "other" in 1968-69 (when that category excluded the College Work-Study Program) was probably typical of, and fairly applicable to, the year 1967-68 as well. The estimating was done using that assumption, as indicated in the headnote of table F. For example, the figures \$1,891 and \$2,451 shown in columns 5 and 6 of the middle tier add to \$4,342, and that was the amount actually reported in the residual or "other" category on the form for 1967-68 (when College Work-Study assistance was included in that

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<sup>1/</sup> See table 1, page 8, in Opening Fall Enrollment in Higher Education: Report on Preliminary Survey, 1969 (OE-54003-69-A).



Table C. -- Value of nonbudgeted support services in college and university libraries, by type of support service and control of institution, with percent change: Aggregate United States, 1967-68 and 1968-69

(Data in \$1,000's. Asterisks (\*) indicate figures estimated by assuming the "other" nonbudgeted support in column 6 was the same in 1967-68 as in 1968-69.)

Control of institution	Total	Binding and rebinding	Automation service	Student assistance under College Work-Study Program	Other services
1	2	3	4	5	6
<u>1968-69</u>					
Public and private	\$15,995	\$527	\$2,032	\$10,985	\$2,451
Public	10,812	216	1,514	7,460	1,622
Private	5,183	311	518	3,525	829
<u>1967-68</u>					
Public and private	6,489	711	1,436	1,891*	2,451*
Public	3,731	187	746	1,176*	1,622*
Private	2,758	524	690	715*	829*
<u>PERCENT CHANGE, 1967-68 to 1968-69</u>					
Public and private	+146	-26	+41	+481*	0*
Public	+190	+16	+103	+534*	0*
Private	+88	-41	-25	+393*	0*

category). Column 6 of the upper tier shows that the amount actually reported as "other" in 1968-69 was \$2,451; this figure was repeated in column 6 of the middle tier and was subtracted from \$4,342, thus obtaining \$1,891 as an estimate of the value of the College Work-Study assistance in 1967-68.

The estimated percent changes indicated in column 5 of the lower tier are of course only approximate and are intended simply to bring out the marked rise in the libraries' utilization of College Work-Study assistance from 1967-68 to 1968-69. The increase was apparently somewhat greater for the publicly controlled than for privately controlled institutions, but the increase was undoubtedly large for both groups.

The publicly controlled group also showed increases--in contrast to some apparent decreases for the privately controlled institutions--with respect to nonbudgeted binding and automation services. It seems noteworthy that there was an approximate doubling (103-percent increase) of automation services not charged to the libraries of publicly controlled institutions.

#### Hourly Assistance and Regular Staff

Unfortunately the survey form did not call for separate reporting of the hours of student assistants who were serving under the College Work-Study Program, as distinct from the hours served by other hourly help, and tabulations are available only for total hours of student and other hourly assistance. From 1967-68 to 1968-69 that total rose 9 percent, or from 31.7 million to 34.4 million hours. The fact that this increase was more than twice the 4-percent rise noted below for regular (non-hourly) staff is a further, if only an indirect, reflection of the College Work-Study Program's marked effect on the libraries' staffing patterns.

Although some professional or quasi-professional duties are no doubt included as part of the work of a few student assistants (e. g., graduate students), student and other hourly assistance is very largely nonprofessional work, and it is of interest to relate the 34.4 million hours to the 25,001 nonprofessional staff who were employed on a regular basis (see below). The figure 25,001 is in terms of full-time equivalents, and the 34.4 million hours may be converted to roughly comparable units by assuming that 2,000 hours is approximately equal to a year of full-time work. On that basis the hourly assistance amounted to 17,200 full-time staff and, if added to the 25,001 regular nonprofessional staff, would increase such staff by 69 percent.

Chart 4, giving the distribution of hourly staff by institutional type, shows that the 1-year increase in the universities was relatively modest (6 percent), while a comparatively marked increase (14 percent) occurred in the 4-year institutions without graduate students.

The total number of professional and nonprofessional staff employed on a regular or nonhourly basis during fall 1969 was 45,150 in terms of full-time equivalents (FTE). Table D<sup>2/</sup> provides detailed breakdowns of that total by level of staff, institutional control and type, and full-time or part-time employment. If desired, the figure for part-time staff in any category of the table can be used to estimate the approximate number of individuals serving part time in the given category by simply tripling the figure in the table, since the average service of a part-time employee is approximately one-third that of a full-time employee.

Depending on one's interest and viewpoint, the data in table D can be analyzed in terms of a wide variety of groupings and cross-classifications. Only a general or introductory analysis is attempted here, and it is mainly in terms of percent increases from the previous year in the broad categories represented in chart 5.

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2/ The data were assembled from reference tables 14-21 in the following manner:

- a. The numbers of full-time staff in columns 4, 7, 10, and 13 of table D are from reference tables 16-21.
- b. The subtotals of FTE professional and nonprofessional staff in columns 3 and 12 are from table 14.
- c. The subtotals of FTE librarians in column 6 of table D were obtained from table 15, by adding the means in columns 3-6 and multiplying the sums by the number of institutions in column 2. The subtotal for other professional staff in column 9 of table D was also obtained from table 15, as the product of columns 7 and 2. Some statistical smoothing was done to compensate for computer rounding of the means.
- d. For each cell in the part-time columns of table D, the figure was obtained as the difference between the appropriate FTE subtotal and the number of full-time staff; e. g., the figure 985 at the top of column 5 is the difference between 20,149 and 19,164.

Table D. -- Number of full-time-equivalent (FTE) staff of college and university libraries, by level of staff, employment status, and control and type of institution: Aggregate United States, fall 1969

(Data in column 2 represent the sum of the number of individuals serving full time, plus the FTE of staff serving part time. If desired, the number of individuals ("heads") serving part time may be estimated as approximately three times the (FTE) figures shown in columns 5, 8, 11, and 14.)

Control and type of institution	Total staff	Professional staff												Nonprofessional staff		
		All professional staff						Librarians			Other professional staff			Total		
		Full-time		Part-time		Total	Full-time		Part-time		Total	Full-time				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
<u>PUBLIC AND PRIVATE</u>																
<b>PUBLIC &amp; PRIVATE, total</b>	45,150	20,149	19,164	985	17,695	17,017	678	2,454	2,147	307	25,001	22,179	2,822			
Universities	22,538	9,070	8,734	336	7,932	7,700	232	1,138	1,034	104	13,468	12,412	1,056			
4-year institutions with graduate students	13,169	6,274	5,958	316	5,480	5,267	213	794	691	103	6,895	6,009	886			
4-year institutions without graduate students	4,676	2,491	2,309	182	2,143	2,035	108	348	274	74	2,185	1,749	436			
2-year institutions	4,767	2,314	2,163	151	2,140	2,015	125	174	148	26	2,453	2,009	444			
<u>PUBLIC</u>																
<b>PUBLIC, total</b>	26,653	11,843	11,417	426	10,480	10,156	324	1,363	1,261	102	14,810	13,822	988			
Universities	14,216	5,915	5,709	206	5,150	5,003	147	765	706	59	8,301	7,897	404			
4-year institutions with graduate students	7,431	3,538	3,432	106	3,118	3,049	69	420	383	37	3,893	3,627	266			
4-year institutions without graduate students	1,004	504	494	10	449	443	6	55	51	4	500	483	17			
2-year institutions	4,002	1,886	1,782	104	1,763	1,661	102	123	121	2	2,116	1,815	301			
<u>PRIVATE</u>																
<b>PRIVATE, total</b>	18,497	8,306	7,747	559	7,215	6,861	354	1,091	886	205	10,191	8,357	1,834			
Universities	8,322	3,155	3,025	130	2,782	2,697	85	373	328	45	5,167	4,515	652			
4-year institutions with graduate students	5,738	2,736	2,526	210	2,362	2,218	144	374	308	66	3,002	2,382	620			
4-year institutions without graduate students	3,672	1,987	1,815	172	1,694	1,592	102	293	223	70	1,685	1,266	419			
2-year institutions	765	428	381	47	377	354	23	51	27	24	337	194	143			

The increases cited below for particular groups might well be judged against the overall increase of 4 percent for total regular staff (from 43,500 in fall 1968 to 45,150 in fall 1969). It should be noted that the numbers of staff mentioned in each of the next three paragraphs concern simply a different breakdown of the total 45,150 FTE staff in fall 1969.

For the publicly controlled institutions, which employed a majority of all library staff members in both years, there was a 1-year increase of 6 percent, to 26,653 in fall 1969. In some contrast, the library staff of the privately controlled institutions rose only 1 percent, to 18,497. In both years, part-time personnel comprised a smaller proportion of the staff in the publicly controlled than in the privately controlled institutions. That is, of the 26,653 staff in the publicly controlled institutions in fall 1969, only 1,414, or 5 percent, were part-time staff. Of the 18,497 staff in the privately controlled group, 2,393 or 13 percent were part-time staff.

For the universities, in which approximately half of all library staff were employed in both years, the staff increased only 1 percent, to 22,538. The rise was 8 percent, to 13,169 for the library staff in 4-year institutions with graduate students, while it was 2 percent, to 4,676 in the other 4-year institutions. A relatively marked rise of 10 percent, to 4,767, occurred for the library staff of the 2-year institutions.

By level of staff, the increase was 2 percent, to 17,695, for the professional librarians, or those whose work required training and skill in the theoretical or scientific aspect of library work. The relatively small group of professional staff other than librarians showed the most marked rise--15 percent--to 2,454. For the nonprofessional staff, who have long comprised the majority of all regular library personnel, the increase was 4 percent, to 25,001.

#### Contributed Service Staff

Data on contributed service staff, who serve only in privately controlled (chiefly religious) institutions, are given in table E. These data, like those in table D, are in terms of full-time equivalents, and are in fact included in the data shown in table D; i. e., in the lower tier, columns 2-5 and 12-14, of that table.

The 630 contributed service staff whose distribution is shown in table E comprised 3.4 percent of all 18,497 library staff members in privately controlled institutions, or 1.4 percent of the 45,150 library staff in all colleges and universities. The data in table E show that the privately controlled 4-year institutions (both those with and those without

Table E. -- Number of full-time-equivalent (FTE) contributed service staff in privately controlled college and university libraries, by type of institution and employment status: Aggregate United States, fall 1969

(These data are for privately controlled institutions only, and are included with the other data for staff of privately controlled institutions in tables 14 and D.)

Employment status	All institutions	Universities	4-year institutions with graduate students	4-year institutions without graduate students	2-year institutions
1	2	3	4	5	6
<u>TOTAL STAFF</u>					
<u>Total</u>	630	13	234	288	95
Full-time	502	11	187	236	68
Part-time	128	2	47	52	27
<u>PROFESSIONAL STAFF</u>					
<u>Total</u>	488	13	182	221	72
Full-time	431	11	161	199	60
Part-time	57	2	21	22	12
<u>NONPROFESSIONAL STAFF</u>					
<u>Total</u>	142	--	51	68	23
Full-time	71	--	26	37	8
Part-time	71	--	25	31	15

graduate students) employed 522 (234 + 288) contributed service staff, or 83 percent of the total 630. Contributed service personnel were more often professional staff (488) than nonprofessional staff (142), and among the nonprofessional staff, half (or 71) were part-time employees. The figure 71 is of course in terms of full-time equivalents, so the number of individuals employed part-time as nonprofessionals was approximately 213, or three times the number of individual nonprofessional persons employed full time.

### Vacant Positions

In most instances the survey form was completed when the respondents already knew what regular personnel were under contract to serve the library during the fall 1969 term. At that time the respondents also knew of any library positions for which they had funds but which they had been unable to fill--and, in most cases, probably would not be able to fill until at least the next term.

In effect, therefore, the data obtained on vacant positions concern only those authorized library positions which were unfilled for the fall term. The data do not necessarily reflect the libraries' full needs for staff during that term, and the figures give no indication as to what may have happened to staffing patterns later in the year. Recognizing that limitation, the data in table F are nonetheless valid as far as they go, and they may well be fairly representative of staffing conditions in the fall term of any "normal" year.

In order that the vacancies may be seen in relation to filled positions--synonymous with the numbers of FTE regular staff discussed in the preceding section--the data in columns 2, 3, and 12 of table D are repeated in columns 3, 4, and 5, respectively, of table F. In this form the vacancies can readily be studied as part of total authorized positions (column 2 of table F). All data are in terms of full-time equivalents.

The important findings are: (a) that the percent of vacancies among total positions was small, and (b) that the variations in the percent of vacancies by level of staff and institutional control and type were not marked. The overall proportion of vacancies (2,135 as a percent of 47,285) was 4.5 percent. For the publicly controlled as compared to the privately controlled institutions, the percents were 5.0 and 3.9 respectively. Among the professional positions, the vacancies amounted to 5.1 percent, and among the nonprofessional positions 4.4 percent were vacant.

Table F.--Number of full-time-equivalent (FTE) positions in college and university libraries, whether filled or vacant, by level of position and control and type of institution: Aggregate United States, fall 1969

Control and type of institution of	Total positions (including vacancies)	Staff (filled positions)			Vacancies		
		Total	Professional	Nonprofessional	Total	Professional	Nonprofessional
1	2	3	4	5	6	7	8
<b>PUBLIC &amp; PRIVATE, total</b>	47,285	45,150	20,149	25,001	2,135	1,025	1,110
Universities	23,598	22,538	9,070	13,468	1,060	447	613
4-year institutions with graduate students	13,833	13,169	6,274	6,895	664	332	332
4-year institutions without graduate students	4,923	4,676	2,491	2,185	247	164	83
2-year institutions	4,931	4,767	2,314	2,453	164	82	82
<b>PUBLIC, total</b>	28,044	26,653	11,843	14,810	1,391	666	725
Universities	14,970	14,216	5,915	8,301	754	336	418
4-year institutions with graduate students	7,881	7,431	3,538	3,893	450	225	225
4-year institutions without graduate students	1,075	1,004	504	500	71	47	24
2-year institutions	4,118	4,002	1,886	2,116	116	58	58
<b>PRIVATE, total</b>	19,241	18,497	8,306	10,191	744	359	385
Universities	8,628	8,322	3,155	5,167	306	111	195
4-year institutions with graduate students	5,952	5,738	2,736	3,002	214	107	107
4-year institutions without graduate students	3,848	3,672	1,987	1,685	176	117	59
2-year institutions	813	765	428	337	48	24	24



In chart 6 the number of vacant professional positions and the number of vacant nonprofessional positions are each shown as a percent of total positions, and for each of the four institutional types. In view of the generally low incidence of the vacancies, a much finer analysis of them would be of uncertain statistical value.

### Salaries of Full-Time Staff

Tables 16-21 give the numbers of full-time staff and their mean salaries by institutional control, type, and size, and by contract status (i. e., 11-12 month contracts, 9-10 month contracts, and contributed service). The salary data are probably somewhat less accurate than the other data of the survey. For, even though respondents were allowed to specify that their salary figures should be used only for computing averages (and not in the companion report giving data for individual institutions) some respondents refused to report salaries.

When salary data were not reported, it was necessary to utilize imputing procedures like those described in appendix A, and such procedures had to be used more often for the salary data than for any other kind of information on the form. One might guess that the payment of unusually high salaries was about as often the reason for unwillingness to report as the payment of unusually low salaries. If that were true, the biasing factors would strongly tend to offset each other, and the result would be that the averages given in tables 16-21, even though based on partially imputed data, may be fairly representative of salaries paid by the specified groups and subgroups of institutions.

The variations in the salary averages are, in any event, in accord with expectation. Chief librarians received the highest salaries, and the associate/assistant librarians and heads of major library units received the next highest salaries. Thereafter, in the order of their mean salaries, were the other librarians, the professional staff other than librarians, and the nonprofessional staff.

Salaries of staff paid on an 11-12 month basis were somewhat higher than those paid on a 9-10 month basis. Salaries of contributed service staff were closer to those of 11-12 month than of 9-10 month staff, in part, no doubt, because the section of the survey form for reporting contributed service salaries instructed that they be equated to 11-12 month rates.

Comparison with the similar salary data for fall 1968 has shown that, for all staff categories except the small group of professionals other than librarians, the 1-year increases in mean salaries were close to 7 percent.

So, for all staff except the nonlibrarian professionals, fairly good estimates of mean salaries in fall 1970 could be made by adding 7 percent to the fall 1969 figures in tables 16-19 and 21. Moreover, by adding 14.5 percent (to include the compounding effect of 7 percent on 7 percent) to the fall 1969 figures, rough estimates of fall 1971 salaries could be obtained. Although it would seem a little less safe to do so, a similar procedure could be used to estimate fall 1971 salaries for the relatively small group of professionals other than librarians by using their 11-percent increase from fall 1968 to fall 1969.

### Indexes of Holdings, Expenditures, and Staff

Table G summarizes some of the data on statistical indexes that are given in detail in table 22. Data on the library expenditure index are included in table 22 (last column) but are not included in table G for the reasons stated earlier.

In the detailed data shown in table 22, the indexes for smaller institutions tend to be of about the same magnitude as the indexes for larger institutions. This does not mean that the students and faculties of the smaller institutions are served as well by their libraries as are the students and faculties in the larger institutions. Indeed, the similarity of the indexes for larger and smaller institutions is in the nature of a statistical artifact. That is, such similarities mainly reflect the marked correlation between size of library and size of institution, so that any measure of library size (holdings, expenditures, or staff) tends to be correlated with any measure of institution size (students, faculty, or educational and general expenditures).

The data in table G, however, are comparatively unambiguous, since they concern only the publicly controlled institutions as a whole as contrasted with the privately controlled institutions as a whole. The table makes clear the relatively favorable position of the libraries in the privately controlled group, inasmuch as all seven indexes are distinctly higher for that group than for the publicly controlled institutions.

Although differences in the same direction have existed in the past, they increased somewhat in the 1960's, no doubt because during that period the enrollments in the publicly controlled group rose rapidly, while enrollments in the privately controlled institutions tapered off (see previously cited fall enrollment publication OE-54003-69-A). In any event, the last two lines of table G indicate that from 1967-68 to 1968-69 the differences between the indexes were still widening.

Table G. --Indexes concerning library holdings, expenditures, and staff, with percent increase from previous year, by control of institution: Aggregate United States, 1967-68 and 1968-69

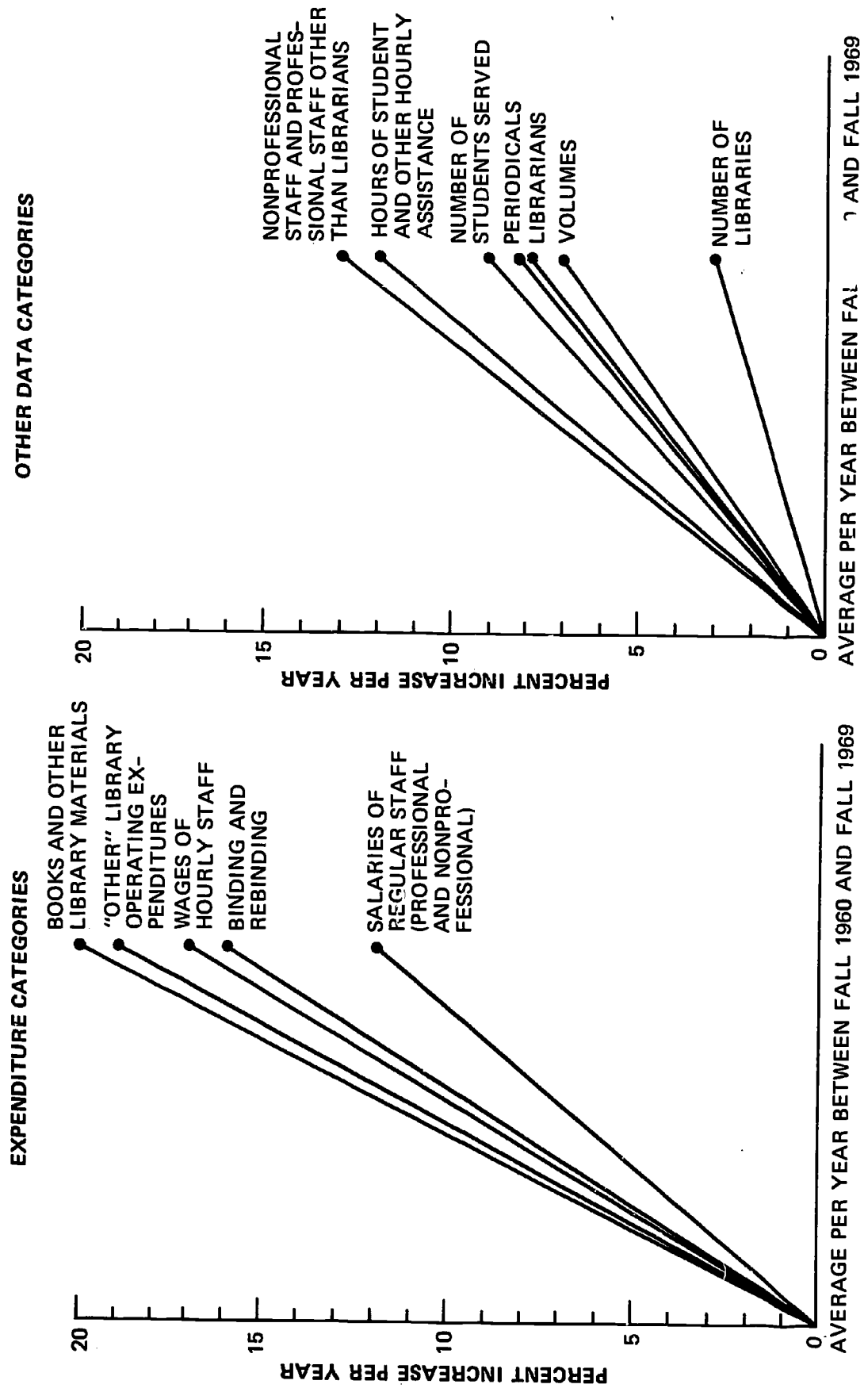
(Students and staff in ratios are in terms of full-time equivalents.)

Control of institution	Volumes per--		Periodicals and other serials per--		Library expenditures per--		Professional library staff per 100 staff in instruction and research
	Student	Staff in instruction and research	Student	Staff in instruction and research	Student	Staff in instruction and research	
1	2	3	4	5	6	7	8
<u>1968-69</u>							
Public and private	51	681	0.7	9.1	\$ 91	\$1,212	4.2
Public	37	514	.6	7.8	81	1,138	3.7
Private	87	1,013	1.0	11.6	117	1,358	5.2
<u>1967-68</u>							
Public and private	53	584	.6	6.9	\$ 88	\$ 978	3.8
Public	38	451	.5	6.1	79	945	3.4
Private	85	821	.9	8.2	108	1,035	4.5
<u>PERCENT CHANGE, 1967-68 to 1968-69</u>							
Public and private	-4	+17	+17	+32	+3	+24	+11
Public	-3	+14	+20	+28	+3	+20	+9
Private	+2	+23	+11	+41	+8	+31	+16

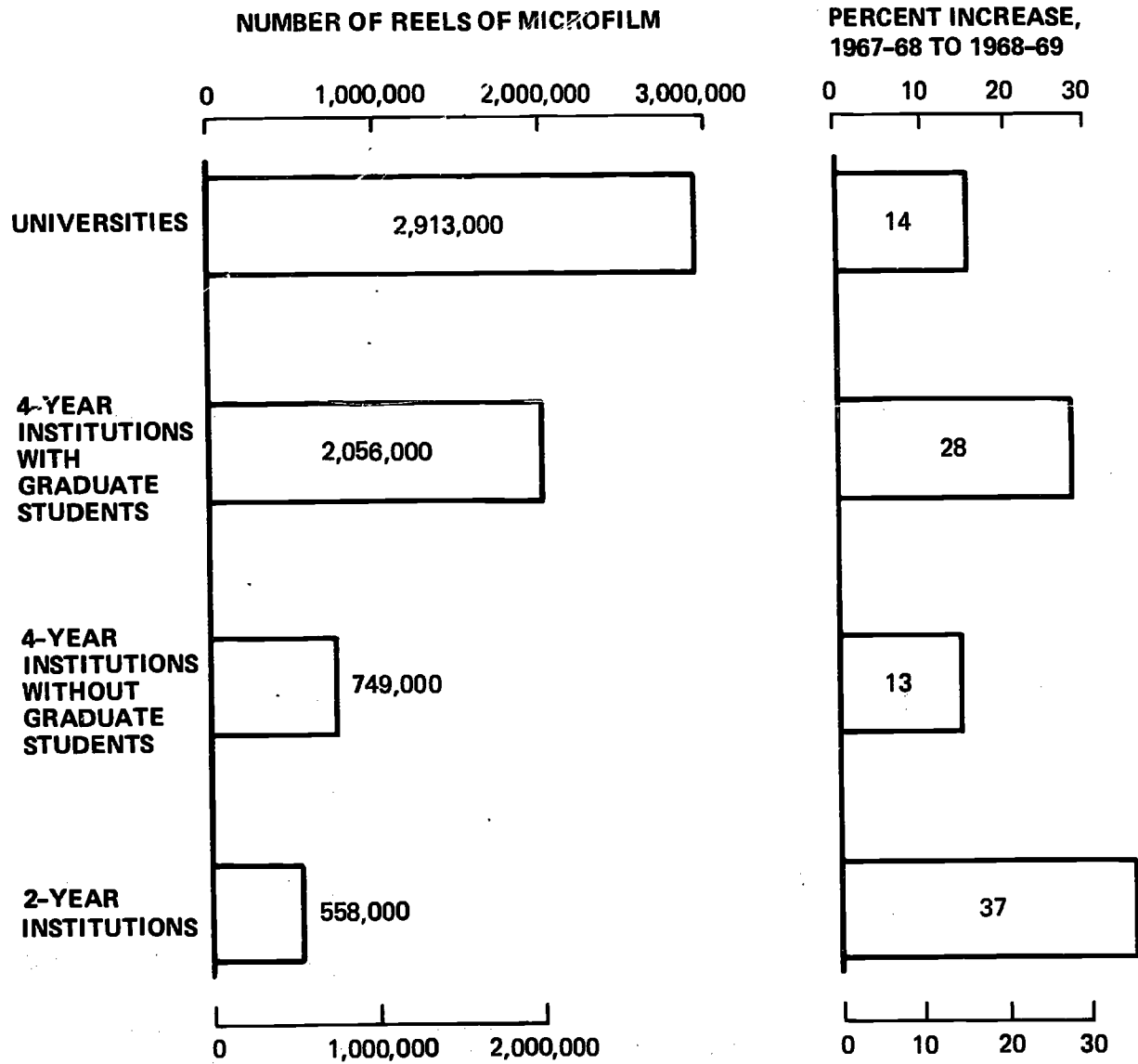
Separately for the four institutional types (but with the data regarding the publicly and privately controlled groups combined for each type), charts 7, 8, and 9 show the data on expenditures per student, expenditures per staff member in instruction and research, and professional library staff members per 100 staff in instruction and research. For the 2-year institutions, whose enrollments have shown the greatest relative growth during the past decade, two of the indexes showed little change from 1967-68 to 1968-69, while for the third index--library professional staff per 100 staff in instruction and research in chart 9--there was a fairly serious decrease of 8 percent. For the same index, the 4-year institutions with graduate students showed quite marked improvement, with an increase of 28 percent between the two years.

CHARTS

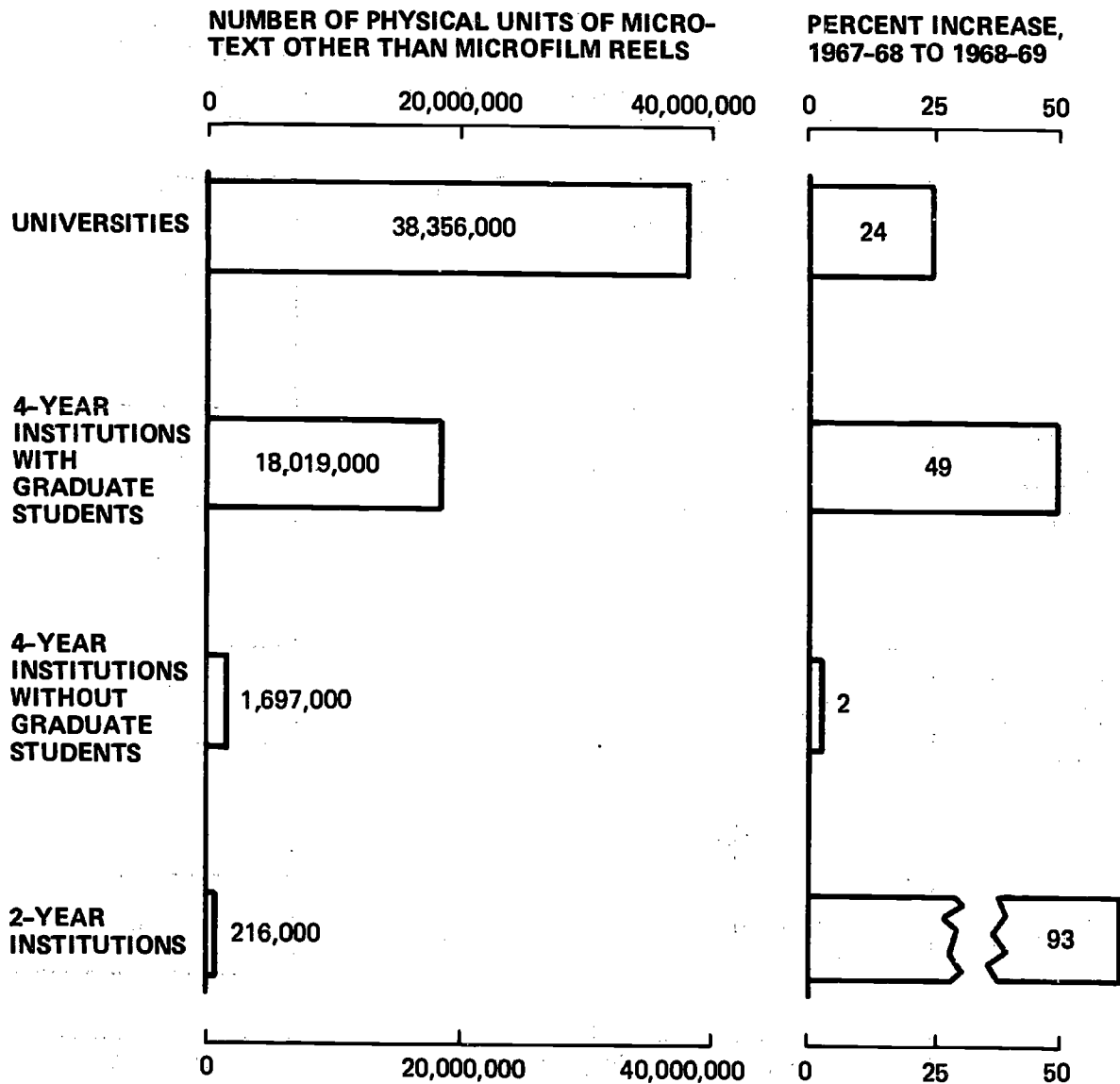
Chart 1.—Average annual percent increases in selected categories of data concerning college and university libraries: Aggregate United States, average per year between fall 1960 and fall 1969



**Chart 2.—Number of reels of microfilm held by college and university libraries, with percent increase from previous year, by type of institution: Aggregate United States, 1968-69**

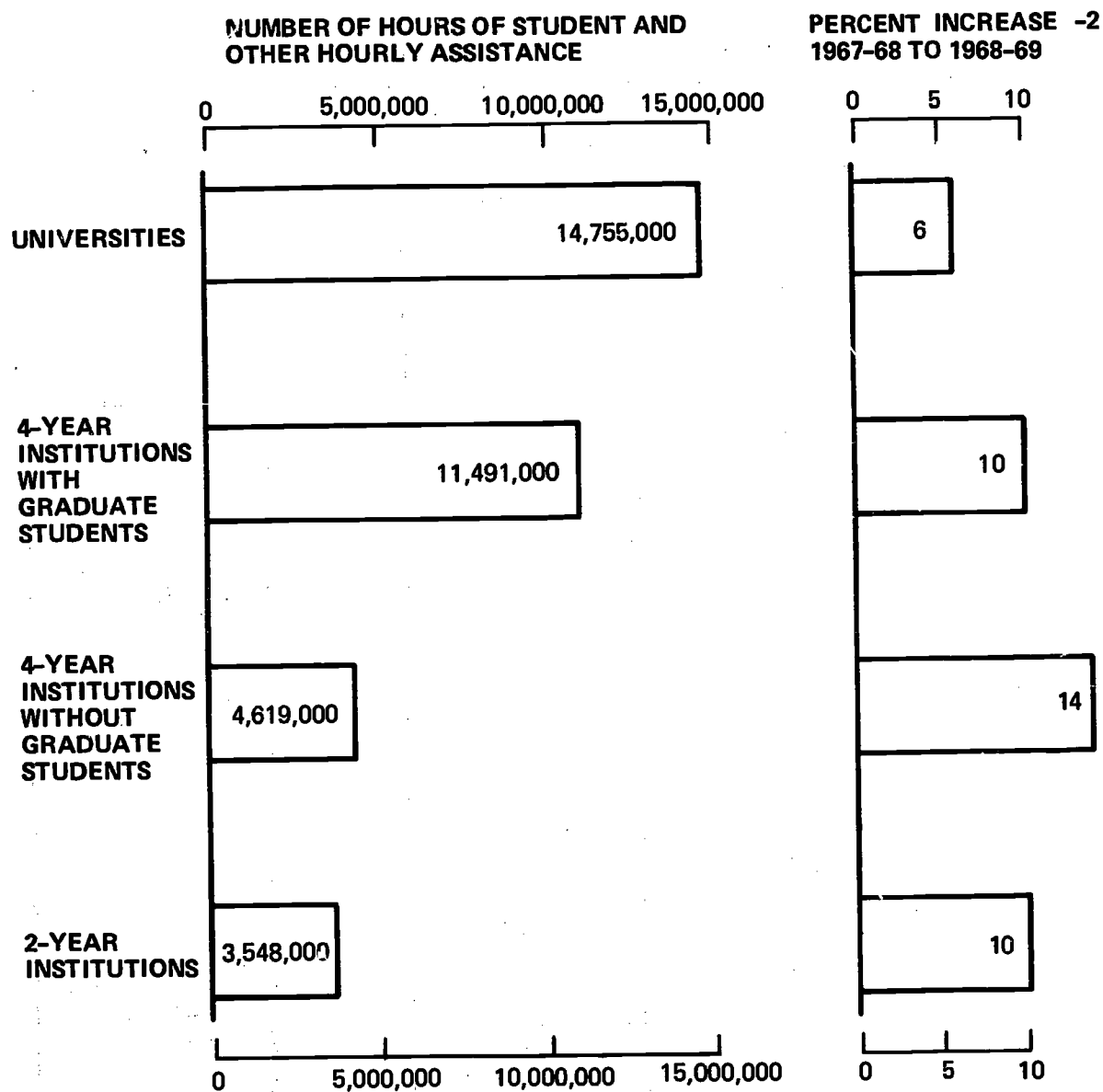


**Chart 3.—Number of physical units of microtext other than microfilm reels held by college and university libraries, with percent increase from previous year, by type of institution: Aggregate United States, 1968-69**





**Chart 4.—Number of hours of student and other hourly assistance in college and university libraries, with percent increase from previous year, by type of institution: Aggregate United States, 1968-69**



**Chart 5.—Number of full-time-equivalent (FTE) staff of college and university libraries, by control of institution, employment status, type of institution, and level of staff: Aggregate United States, fall 1969**

**EACH BAR REPRESENTS ALL 45,150 FTE FILLED POSTIONS**

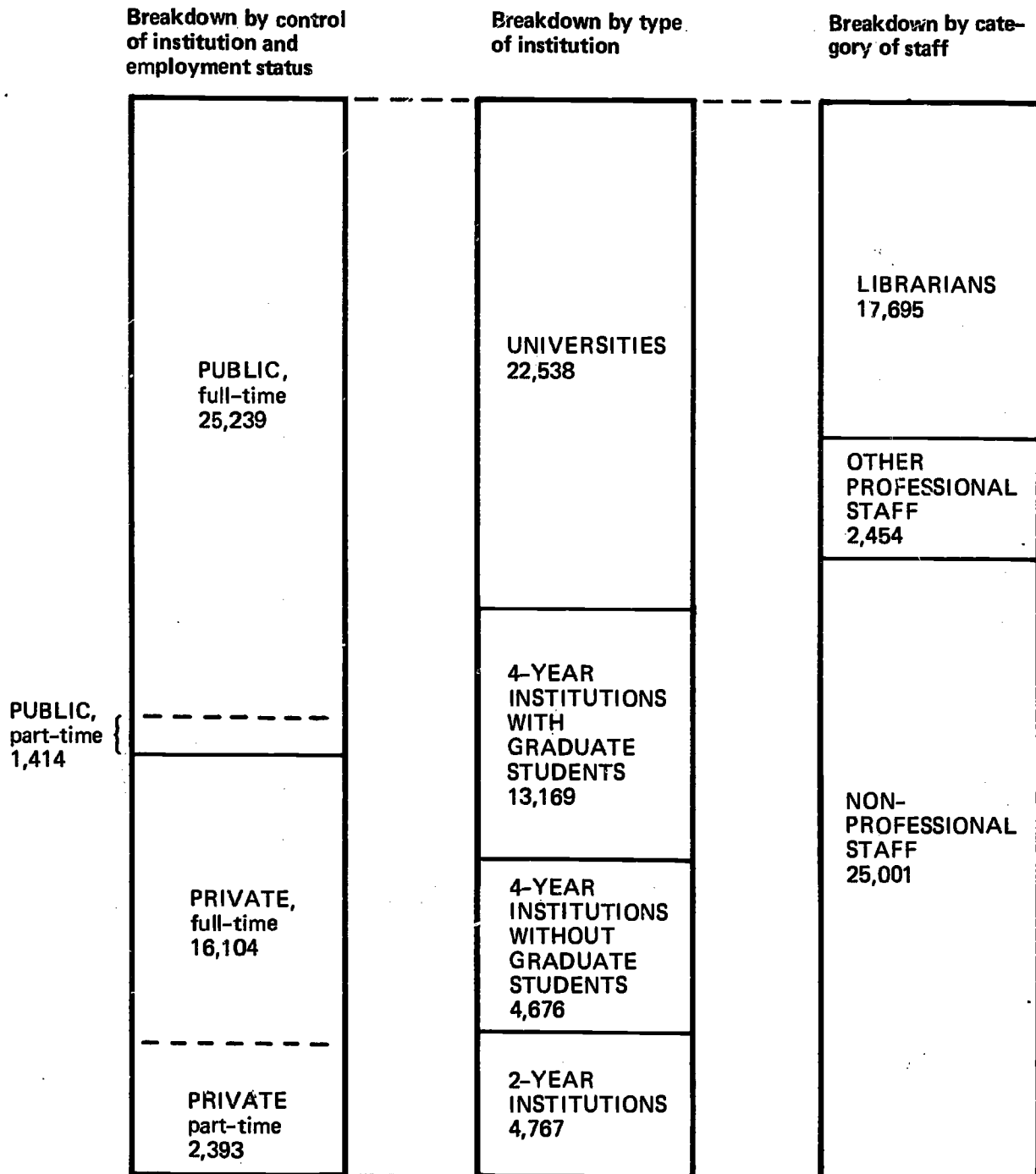
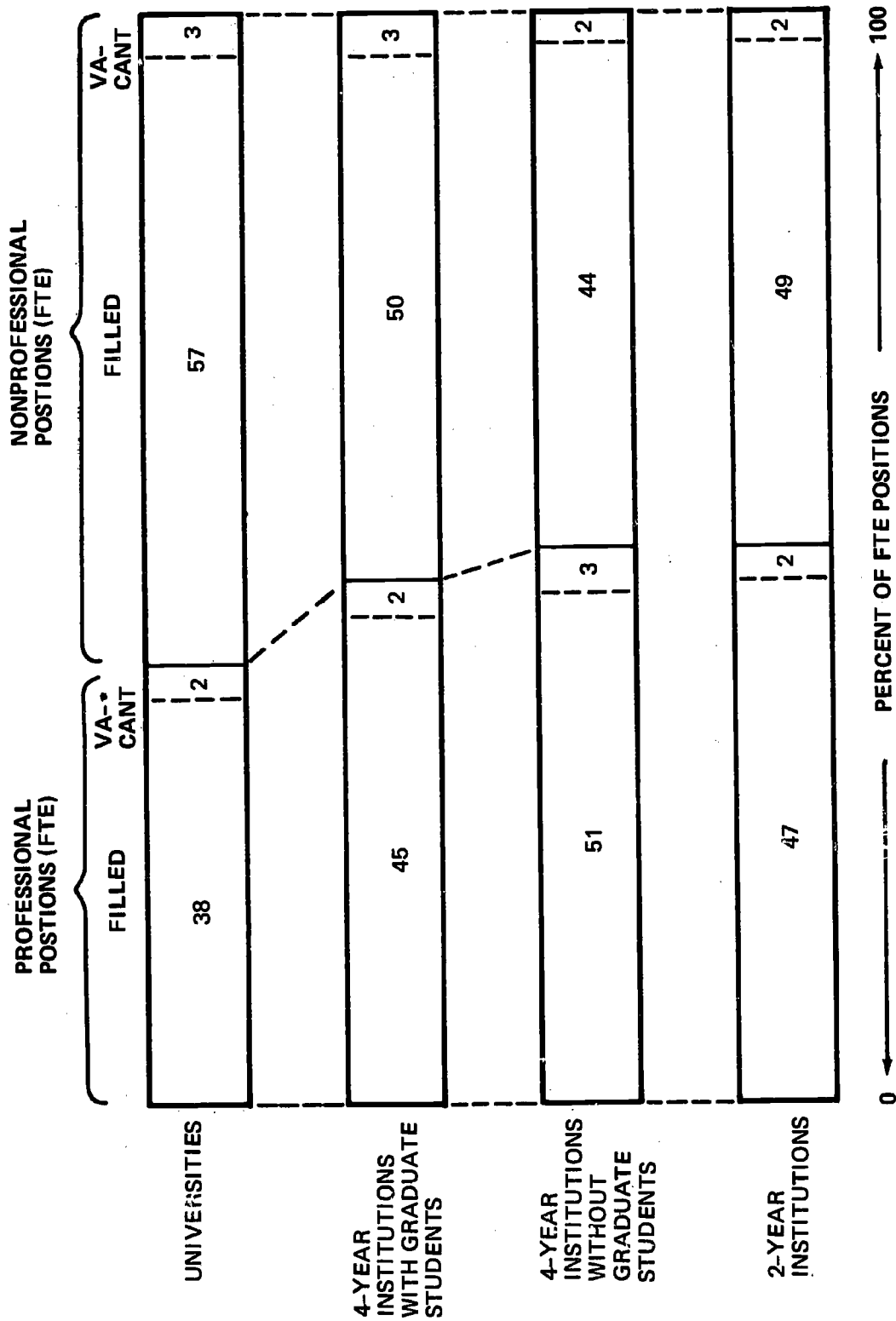
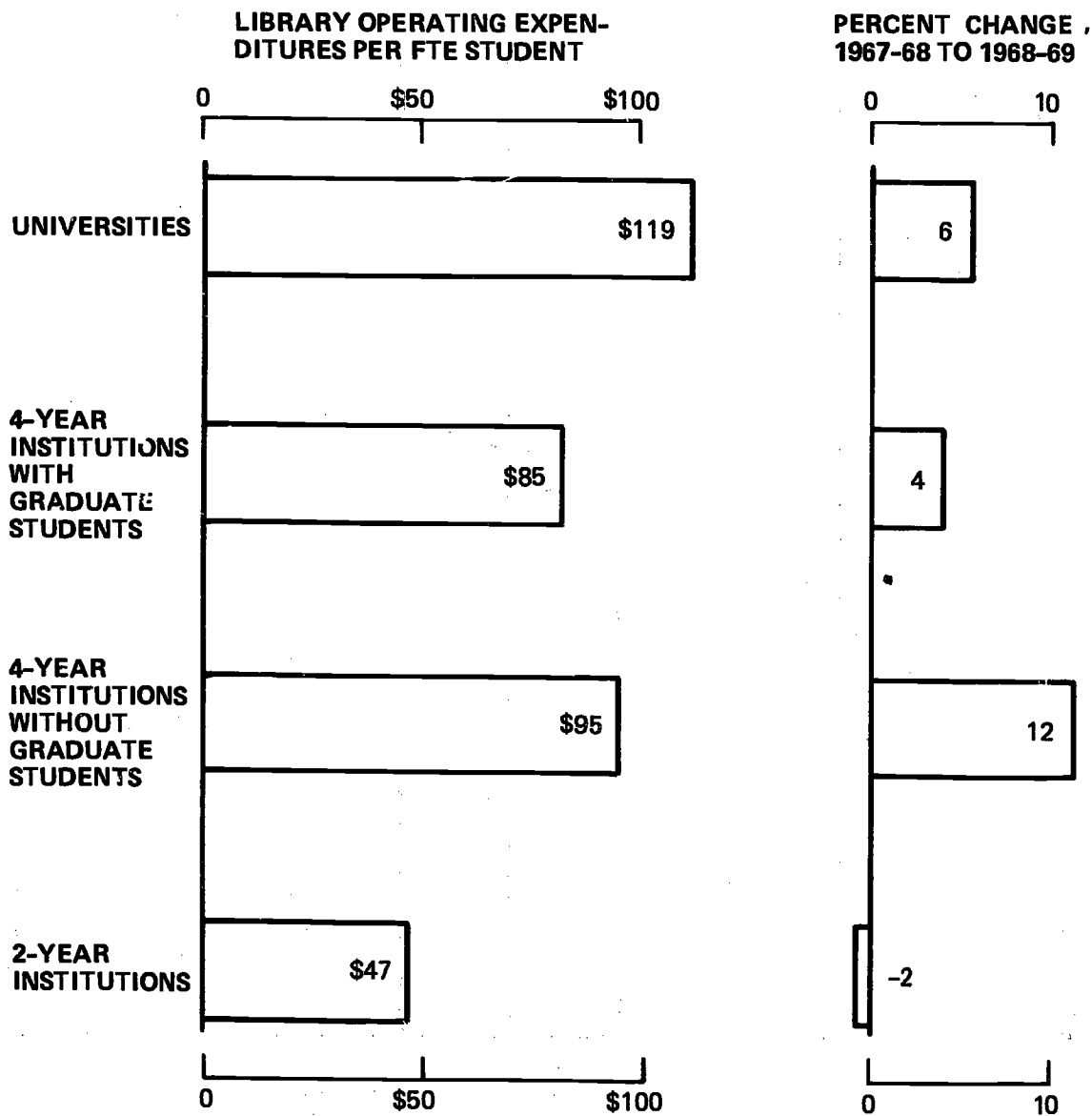


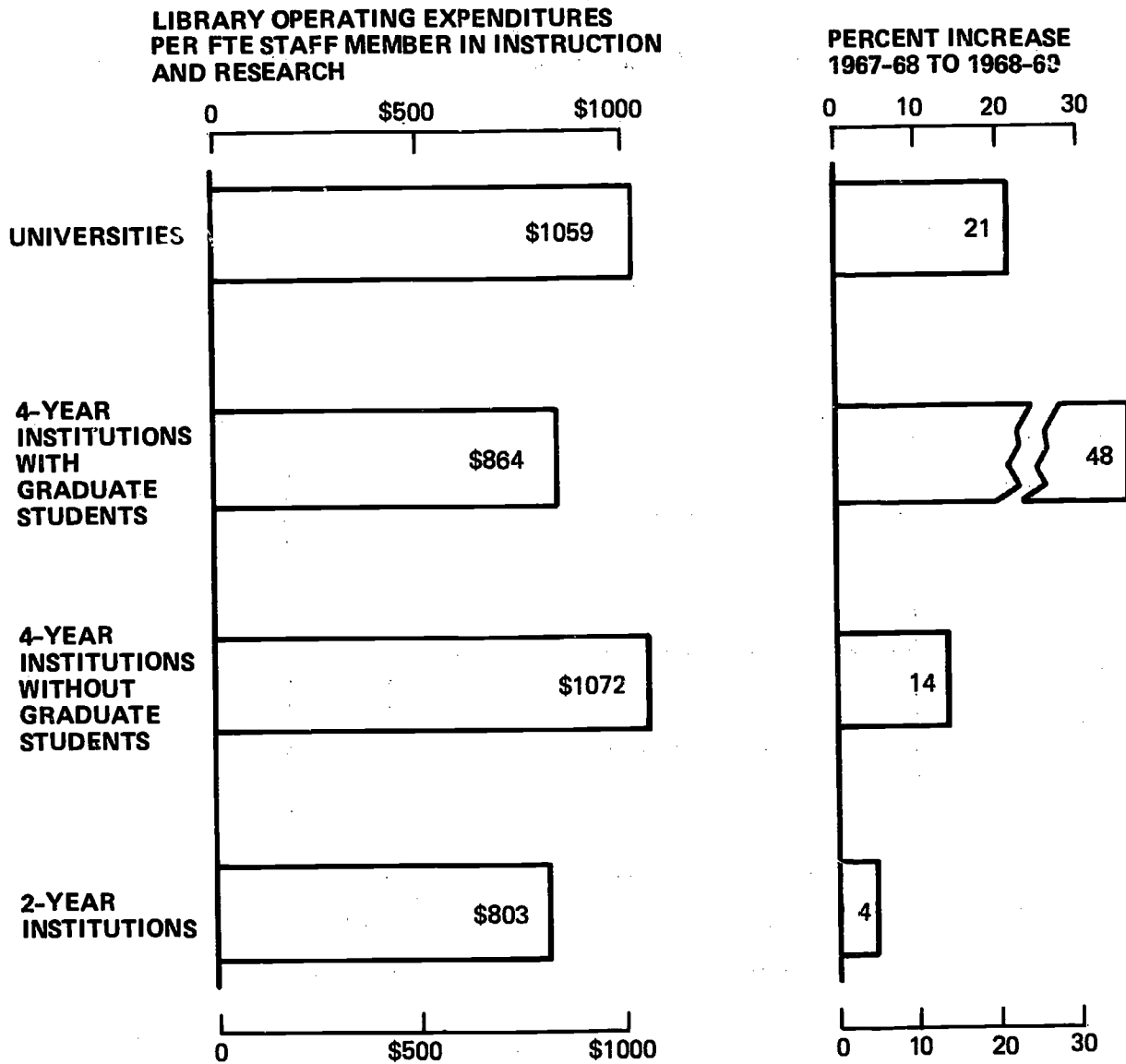
Chart 6.—Percent of full-time-equivalent (FTE) positions in public and private college and university libraries, by type of institution, level of position, and whether filled or vacant: Aggregate United States, fall 1969



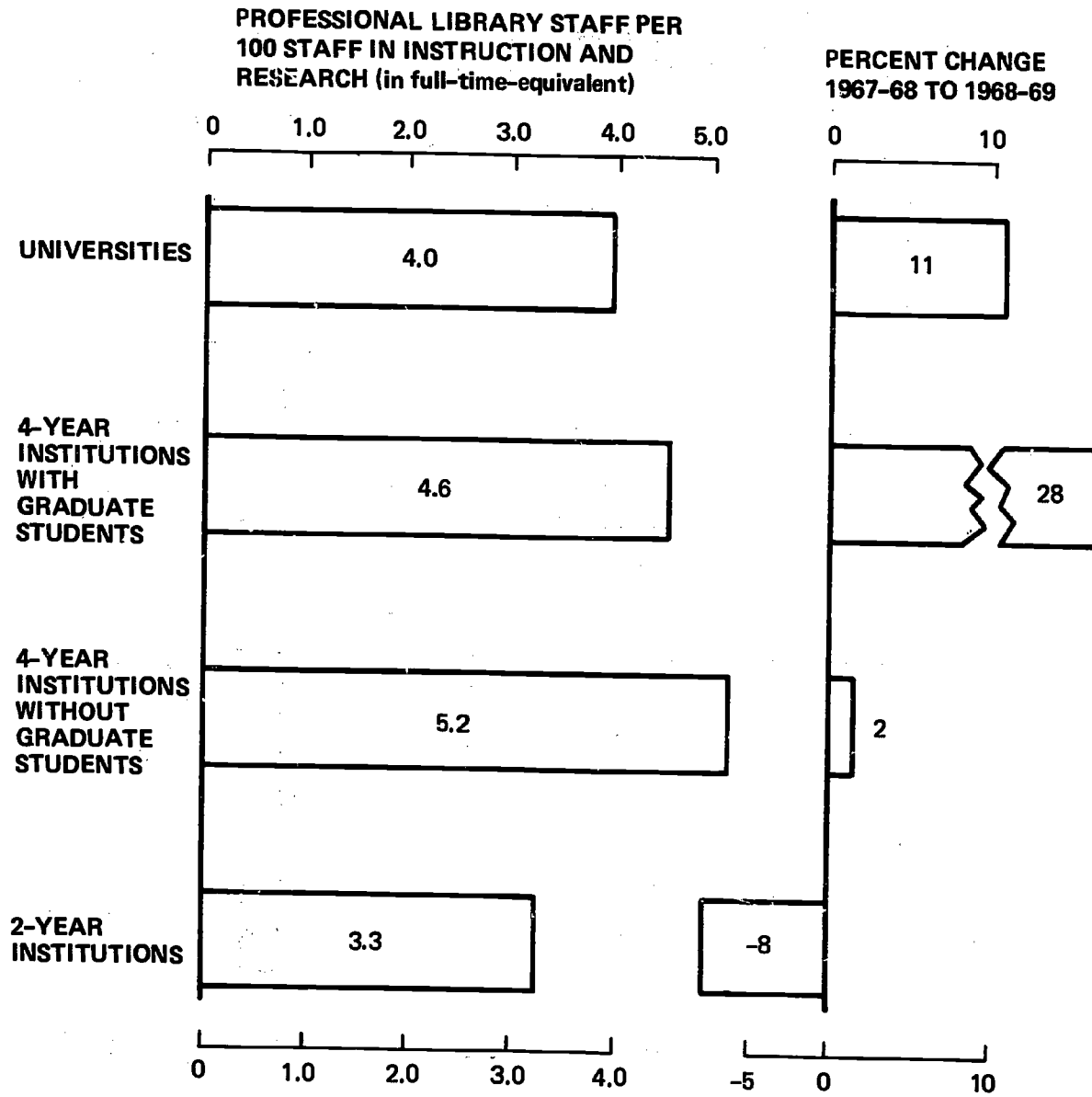
**Chart 7.—College and university library operating expenditures per full-time-equivalent (FTE) student, with percent change from previous year, by type of institution: Aggregate United States, 1968-69**



**Chart 8.—College and university library operating expenditures per full-time-equivalent (FTE) staff member in instruction and research, with percent increase from previous year, by type of institution: Aggregate United States, 1968-69**



**Chart 9.—College and university professional library staff per 100 staff in instruction and research, with percent change from previous year, by type of institution: Aggregate United States, fall 1969**



## Appendix A

### COVERAGE AND RESPONSE RATES

#### Types of Institutions Covered

As defined in U. S. Office of Education reports, colleges and universities are institutions that offer programs of at least 2 years of college-level studies in residence and are either (a) accredited by nationally recognized accrediting agencies, including State and local education authorities, or (b) institutions whose credits are accepted by at least three institutions that are so accredited. The institutions meeting these criteria are listed in the Office of Education's annual publication, Education Directory, Higher Education.

Institutions are grouped in the following categories:

1. Universities are institutions that (a) give considerable stress to graduate instruction, (b) confer advanced degrees as well as bachelor's degrees in a variety of liberal arts fields, and (c) have at least two professional schools that are not exclusively technological.
2. Four-year institutions with graduate students are institutions that, though not classifiable as universities, have students in graduate or other postbaccalaureate programs (including first-professional students).
3. Four-year institutions without graduate students are other institutions with 4-year programs.
4. Two-year institutions are institutions with programs of at least 2 but less than 4 years of college-level work. These include some trade-technical and business schools as well as community or junior colleges.

The classifications for universities and 2-year institutions are the same as those used in other reports of the Office of Education. For purposes of this report, the standard classification "4-year institutions other than universities" was subdivided into the second and third categories described above. This permitted separate tabulations of data concerning the 4-year institutions with graduate students, which require relatively specialized library services.

Publicly controlled institutions are those administered by local and State governments, as well as a few in which the Federal Government has full administrative control. The privately controlled group includes the religious or theological institutions, the independent nonprofit institutions, and a few proprietary schools.

For purposes of reporting library statistics, each institution was asked to consolidate the data for all of its library units, including libraries in component schools, colleges, branches, extension centers, and organized research installations. Data were consolidated by the Office of Education when respondents returned separate reports for component libraries of their institutions.

Therefore, with the exception of two groups of institutions, there is a separate report on the library operations of each institution listed in the Education Directory. One class of exceptions arises in connection with those joint libraries which serve two or more whole institutions, and reconciliation for those exceptions is discussed later (see Joint Libraries). Another class of exceptions consists of the institutions which were new in the survey year and which are discussed below.

#### New Institutions

For two reasons the statistical information available from the libraries of new institutions is seriously out of line with other data of the survey.

One reason is that in order to develop their library collections, the new institutions had to spend a good deal more for books and other library materials than did established institutions of comparable type and size.

In addition, the respondents of new institutions, following the instruction to report as holdings only such materials as had been prepared for use, had fewer items to report as holdings than were actually purchased in the given year. That is, the staffs of the new libraries scarcely had time to complete the tasks of cataloging and making the new material ready for use, and so the collections they reported were disproportionately small.

Thus, inclusion of the data for new institutions in this report would both (a) exaggerate operating expenditures for books and other materials, and also (b) reduce the average size of collections. It has seemed advisable, therefore, to avoid the distortion by excluding the 99 new institutions from the tabulations. In consequence, it should be understood that



the data of this report represent the libraries that were in full or nearly full operation rather than all libraries in the college and university universe.

The 99 institutions that were new in fall 1969 were either 2-year institutions or 4-year institutions without graduate students. Their distribution by control and enrollment size is given in table A-1, which shows that most of the 72 new institutions in the publicly controlled group were 2-year schools, while most of the 27 new institutions in the privately controlled group had fewer than 1,000 students. 1/

### Nonrespondents and Imputing Procedure

Excluding the new institutions, the survey universe consisted of 2,431 libraries as will be explained. Of the 2,431 libraries, 101 did not respond at all or replied too late to be included in routine operations. In order to make the tabulations representative of all institutions except the new ones, data for the 101 nonresponding institutions were estimated by the procedures described in the next paragraph, and were included in all tabulations of this report.

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1/ Of the 99 new institutions, 44 did not return the questionnaire, while 14 returned it without providing substantial information, and 41 reported usable data. Since the 58 institutions that did not provide usable data were probably even newer (i. e., further from full operation) than the 41 that reported data, the latter group should not be taken to represent all 99 institutions. With that proviso, the following summary of the figures given by the reporting group may be of interest:

- a. The 41 institutions held 418,000 volumes at end of year.
- b. They acquired 388,000 volumes during the year.
- c. They expended \$1,088,000 for salaries and hourly wages.
- d. They expended \$1,525,000 for books and other library materials.
- e. Their regular (nonhourly) staff, including regular nonprofessional staff, consisted of 258 full-time-equivalent personnel.

Table A-1-- Number of new institutions, by type, control, and enrollment size of institution: Aggregate United States, fall 1969

Control and enrollment size of institution	Total new institutions	4-year institutions	2-year institutions
1	2	3	4
Public and private, total	99	21	78
1,000 students or more	31	2	29
Fewer than 1,000 students	68	19	49
Public, total	72	4	68
1,000 students or more	29	1	28
Fewer than 1,000 students	43	3	40
Private, total	27	17	10
1,000 students or more	2	1	1
Fewer than 1,000 students	25	16	9

For each nonrespondent, use was made of the data reported by a "matching" institution; i. e., a responding institution which, in respect to control, type, size, region, and other characteristics, was similar to the nonresponding institution. For a few of the large nonresponding institutions, the accuracy of this operation was enhanced by using ratio estimates. With this procedure a suitable matching institution was selected, but it was used in a different way. Factors were derived representing the ratio of change in the figures that the matching institution reported in fall 1968 and fall 1969, and these factors were applied to adjust the fall 1968 data reported by the institution that did not respond in fall 1969. Thus, the nonresponding institution's own figures for the previous year were used but were adjusted to fall 1969 by using factors derived from the matching institution.

Table A-2 shows that the overall response rate was 95.8 percent and that the nonresponding institutions were markedly concentrated (73 out of 101) in the privately controlled group having fewer than 1,000 students.

Since the response rate was 98.4 percent for the larger institutions and was 93.1 percent for the smaller ones, it is clear that if the smaller institutions, particularly among the private group, had responded as well as the larger ones, the survey's overall response rate would have been over 98 percent.

### Joint Libraries

While "institutions" and "libraries" are nearly synonymous in this report, and while it is thus convenient to refer to institutions in connection with the tabulations, it is important to note how the number of institutions is affected by the number of joint libraries, and how the total figure of 2,431 was derived.

In fall 1969 the total number of higher educational institutions meeting the criteria stated earlier was 2,551. Excluding the 99 new institutions reduced the number to 2,452, and this is the number of individual institutions whose library services are covered, in one way or another, in this report.

Of the 14 joint libraries listed in table A-3, three do not affect the count of institutions because they serve only one whole institution (while the other institution whose branch is served is already included in the count). Together, the other 11 joint libraries served 32 institutions, as follows:

Seven joint libraries each served two institutions (total 14).

Two joint libraries each served three institutions (total 6).

Two joint libraries each served six institutions (total 12).

Therefore, as distinct from the institutions they served, the number of libraries tabulated for this report was 2,431, or 2,452 minus 32 institutions served by joint libraries, plus the 11 joint libraries themselves.

The joint libraries that were in full operation as of fall 1968 are detailed in table A-3, together with the distribution of the 78,000 students whom they served. Geographically the libraries were fairly well distributed; three large States (Illinois, Michigan, and New York) each had two such libraries and eight other States each had one of them.

It is seen that 28 of the 38 institutions or branches served by the joint libraries had less than 1,500 students. Typically, of course, it is institutions or branches of such small size whose students and faculties stand to gain the most from the resources of joint libraries.

Table A-2--Number of responding and nonresponding institutions in the college and university library survey, and percent responding, by control and enrollment size of institution: Aggregate United States, fall 1969

Control and enrollment size of institution	Number of institutions			Percent responding
	Total	Responding	Non-responding	
1	2	3	4	5
Public and private, total	2,431	2,330	101	95.8
1,000 students or more	1,265	1,245	20	98.4
Fewer than 1,000 students	1,166	1,086	81	93.1
Public, total	993	979	14	98.6
1,000 students or more	753	747	6	99.2
Fewer than 1,000 students	240	232	8	96.7
Private, total	1,438	1,352	87	94.0
1,000 students or more	512	498	14	97.3
Fewer than 1,000 students	926	854	73	92.1

Table A-3--Joint libraries serving two or more higher educational institutions, or one such institution and part of another, by control, type, and enrollment of institution: Aggregate United States, fall 1969

(In column 3, "PUB" and "PRI" refer to whether institutional control is public or private; U, FG, FN, and T show respectively whether the institution is a university, a 4-year institution with graduate students, a 4-year institution with no graduate students, or a 2-year institution. Asterisk (\*) indicates that the library serves one institution and part of another.)

Name and location of joint library and names of institutions served	Control and type of institution	Enrollment
1	2	3
<b>ATLANTA UNIVERSITY JOINT LIBRARY, Atlanta, Ga. 30314</b>	--	<u>5,524</u>
Serves: Atlanta University	PRI-FG	1,056
Clark College	PRI-FN	1,003
Interdenominational Theological Center	PRI-FG	113
Morehouse College	PRI-FN	1,035
Morris Brown College	PRI-FN	1,372
Spelman College	PRI-FN	945
<b>CALVIN COLLEGE JOINT LIBRARY, Grand Rapids, Mich. 49505</b>	--	<u>3,670</u>
Serves: Calvin College	PRI-FN	3,575
Calvin Theological Seminary	PRI-FG	95
<b>*CHARLES S. MOTT JOINT LIBRARY, Flint, Mich. 48503</b>	--	<u>8,291</u>
Serves: Flint Community Junior College	PUB-T	7,091
Flint College Branch, Univ. of Michigan	PUB-FN	1,200
<b>*CHICAGO STATE COLL. JOINT LIBRARY, Chicago, Ill. 60621</b>	--	<u>10,750</u>
Serves: Chicago State College	PUB-FG	5,911
Wilson Branch, Chicago City College	PUB-T	4,839
<b>COLGATE ROCHESTER DIV. SCH. JOINT LIB., Rochester, N. Y. 14620</b>	--	<u>181</u>
Serves: Colgate Rochester Divinity School	PRI-FG	148
Bexley Hall	PRI-FG	33
<b>COLLEGE AND SEMINARY JOINT LIBRARY, Naperville, Ill. 60540</b>	--	<u>1,157</u>
Serves: Evangelical Theological Seminary	PRI-FG	120
North Central College	PRI-FN	1,037
<b>COLORADO STATE COL. JOINT LIBRARY, Greeley, Colo. 80631</b>	--	<u>11,861</u>
Serves: Colorado State College	PUB-FG	10,234
Aims College	PUB-T	1,627
<b>HAMILTON COLLEGE JOINT LIBRARY, Clinton, N. Y. 13323</b>	--	<u>1,025</u>
Serves: Hamilton College	PRI-FN	853
Kirkland College	PRI-FN	172
<b>HONNOLD JOINT LIBRARY, Claremont, Calif. 91711</b>	--	<u>4,471</u>
Serves: Claremont Men's College	PRI-FN	795
Claremont Graduate School	PRI-FG	830
Harvey Mudd College	PRI-FN	345
Pitzer College	PRI-FN	662
Pomona College	PRI-FG	1,313
Scripps College	PRI-FN	526
<b>JOINT UNIVERSITY LIBRARY, Nashville, Tenn. 37203</b>	--	<u>7,788</u>
Serves: George Peabody Col. for Teachers	PRI-FG	1,806
Vanderbilt University	PRI-U	5,776
Scarritt College	PRI-FG	206
<b>PORTLAND STATE COL. JOINT LIBRARY, Portland, Me. 97201</b>	--	<u>18,517</u>
Serves: Portland State College	PUB-FG	10,206
Division of Continuing Education	PUB-FG	8,311
<b>TEXAS MEDICAL CENTER JOINT LIB., Houston, Tex. 77025</b>	--	<u>513</u>
Serves: Baylor College of Medicine	PUB-FG	496
Grad. Sch. of Biomedical Sci., U. Texas System	PUB-FG	76
School of Public Health, Univ. Texas System	PUB-FG	20
<b>UNION THEOL. SEMINARY JOINT LIBRARY, Richmond, Va. 23227</b>	--	<u>392</u>
Serves: Union Theological Seminary	PRI-FG	268
Presbyterian Sch. Christian Educ.	PRI-FG	124
<b>*WEST VIRGINIA STATE COL. JOINT LIBRARY, Institute, W. Va. 25112</b>	--	<u>3,994</u>
Serves: West Virginia State College	PUB-FN	3,074
Kanawha Valley Grad. Ctr., West Va. Univ.	PUB-FG	920

## Appendix B

### DEFINITIONS AND PLAN OF TABULATIONS

#### Enrollment Data

Enrollment data represent all resident and extension students enrolled in the fall 1968 term for work normally creditable toward a degree, diploma, certificate, or other formal award. Undergraduate students in occupational programs of less than 4 years' duration are included. The enrollment data are utilized in two forms. 1/

a. The total enrollment ("head count") of all students, regardless of full-time or part-time attendance status, is used in connection with overall trends and for grouping institutions by size; i. e., in the text tables and in column 1 of tables 1-22. For these purposes the use of full-time-equivalent enrollment (see paragraph b below) would not achieve an important gain in accuracy. Moreover, unlike full-time-equivalent enrollment, total enrollment (including undergraduate occupational students) has had the same meaning throughout the years of this survey series.

b. As used in this report, full-time-equivalent enrollment ("FTE students") is the sum of the following enrollment categories:

1. The total number of graduate or other postbaccalaureate students, regardless of their full-time or part-time attendance status.
2. The number of full-time undergraduates including full-time undergraduate occupational students.

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1/ The detailed 1968 enrollment figures are reported in Opening Fall Enrollment in Higher Education, 1968: Institutional Data (OE-54003-68, Part B). While in theory it might have been preferable to employ fall 1969 data in this report, their use would have occasioned only slight differences in the findings, yet would have caused delays due to difficulties of phasing the library returns with returns of the separate enrollment survey. Also, although the students enrolled in fall 1969 had the benefit of the holdings at the end of 1968-69, it was the students enrolled in fall 1968 who had the benefit of the bulk of the 1968-69 expenditures, i. e., the 1968-69 expenditures for salaried staff, hourly assistance, and "other" library expenditures, as well as the greater part of the 1968-69 nonbudgeted support service.

3. One-third of the number of part-time undergraduates including the part-time occupational students.

The sum of those categories is used in table 22 as the denominator for the ratios of volumes, serials, and expenditures per FTE student. Also, the total FTE enrollment for each State is given in the last column of table 24, so that similar ratios may be obtained if desired for any State.

The definitions of FTE students used in preceding years have necessarily varied because of changes in categories used in collecting data in the survey series on enrollment. There has been no change, however, in the two features of the definition of FTE that are believed to be of particular interest to librarians, namely: (a) the limited weight given to part-time undergraduate students (and to extension students when they are separately identified) and (b) the full weight given to part-time graduate or postbaccalaureate students.

#### Institutional and Library Staff

The institutional personnel most frequently served by the library are the senior and junior professional staff members engaged in resident instruction, departmental research, and organized (separately budgeted) research.

To be able to relate that category of institutional personnel to professional library staff on a comparable basis, data on both were obtained in terms of full-time equivalents, defined as the sum of the number of full-time staff and the full-time equivalent of the part-time staff. Both the institutional and library staff data were obtained as of fall 1969. <sup>2/</sup>

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<sup>2/</sup> Traditionally, in this survey series the data on library staff have been collected as of the fall during which the survey was conducted (i. e., fall 1969 in this survey). Users of the data have so desired, and the reporting of library staff on this basis has presented no problem for respondents. However, since users have also desired data on institutional staff as of the same fall as the library staff, such data on institutional staff have also been requested on the library questionnaire. This has presented a considerable problem for a few respondents, and their data on institutional staff have sometimes required adjusting in the light of previous-year data from the Office of Education's separate survey of institutional staff. Such adjusting was done in the data of this survey, and although the resulting data on institutional staff are adequate for most statistical purposes, they are somewhat less accurate than the data on library staff.



In both the institutional and library staff categories, professional staff was defined to include all staff in positions normally requiring at least a bachelor's degree or its equivalent.

Institutional professional staff was defined to include such junior professional staff members as teaching assistants.

Library professional staff included a small number of professional staff (e. g. , certain data-processing staff) who were not librarians.<sup>3/</sup> While these persons were in positions requiring at least bachelor's degrees, their work did not require "training and skill in the theoretical or scientific aspect of library work, as distinct from its mechanical or clerical aspect"--as was specified in the questionnaire for the definition of librarians.

For additional definitions of data covered in the survey the reader is referred to the questionnaire and the instructions to respondents in appendix D.

#### How To Use the Reference Tables (appendix C)

Tables 1-22 are designed in a consistent fashion to make it easy for the reader to find a horizontal line of data which, in the same relative position in each table, represents the figures for "peer institutions"--i. e. , any group or subgroup of institutions that may be of interest and is large enough to warrant separate tabulation.

The first column of each table lists the various groupings, by institutional control, type, and enrollment size, for which separate data are given. In each table, for example, data for universities with 10,000 or more students appear as the first category under universities as a whole.

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<sup>3/</sup> Prior to fall 1967 this category ("professional staff other than librarians") was not obtained separately, and it is probable that they were grouped with "nonprofessional staff" by most respondents in the surveys prior to fall 1967.

Data for the 2-year institutions with 500-999 students are in the next-to-last category. <sup>4/</sup>

Thus, tables 1-22 serve purposes similar to those served by the companion report, which gave fall 1969 data for selected individual institutions and which was issued earlier (publication OE-15023-69; see inside back cover). For purposes of making peer-group comparisons, however, the use of tables 1-22 in this report is decidedly preferable because these tables represent all the institutions in a specified control, type, and size group, and not simply selected institutions that submitted timely reports.

In most tables the first column is repeated to show, in the table's upper and lower tiers, the publicly and privately controlled institutions. In other tables the data for the publicly and privately controlled institutions appear under table headings. The headings (including "undercut" headings in the bodies of some tables) also show the kinds of data in the tables, e. g., volumes, expenditures, etc.

Table 23 provides data regarding holdings, filled and vacant positions, and enrollments in the individual States, U. S. service schools, and outlying areas, as well as totals for the aggregate United States. For the same geographic areas and the country as a whole, table 24 gives library operating expenditures (including their breakdown) and the estimated value of nonbudgeted support.

#### Statistical Measures Used

For each of the more important items covered in the survey, the tables provide both an average figure and an indication as to the

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<sup>4/</sup> In tables 1-22 separate lines of data are omitted for certain small groups of institutions. One group consists of three publicly controlled and 11 privately controlled universities that have fewer than 5,000 students. The other group consists of three publicly controlled institutions without graduate students that have 5,000 or more students. (No privately controlled institution fell in that type and size class.) However, the data for the small universities are included in the totals shown for universities, and the data for the three publicly controlled 4-year institutions without graduate students are included in the total line for institutions of that type. In general, it should be noted that computer rounding sometimes occasions minor disparities in tabulations; e. g., percents may not add to 100 and other detail may not add to totals.