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College AND University Faculties

Recent Personnel and Instructional Practices

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Foreword

MANY COLLEGES AND UNIVERSITIES are finding it increasingly difficult to maintain qualified faculties in the face of expanding enrollments and the nationwide demand for professionally trained manpower. In the opinion of many leading educators this faculty shortage is the most serious problem facing higher education today.

At a conference held by the Office of Education in Washington, D.C., May 20 and 21, 1957, on staffing the Nation's colleges and universities, the conferees urged that the Office undertake studies that would provide additional information on the problem. The study which forms the basis of this bulletin is an outgrowth of that conference. It reports the findings of a survey made to determine the extent to which certain practices relating to faculty or instructional techniques are being followed in institutions of higher education and, more especially, the extent to which they are being employed because of faculty shortages.

It is hoped that, by throwing additional light on current practices, the findings of this report will contribute to a better understanding of the present status of higher education in our country and the implications for the future. The information presented should be of interest to educators generally and others concerned with higher education.

We appreciate very much the kind assistance of college and university officials in supplying the information requested in this survey.

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CHAPTER I

The Problem: Faculty Shortage

IN RECENT YEARS much publicity has been given to expanding college enrollments and the problem of providing the necessary instructional staff and facilities to accommodate them. National committees and commissions, State committees, directors of foundations, and prominent educators have expressed their concern and outlined several possible methods of attacking the problem.

Many of those who have studied the situation carefully believe that the most serious difficulty facing higher education is the shortage of qualified teachers, at present and in the future. In its *Second Report to the President*, the President's Committee on Education Beyond the High School states:

> The most critical bottleneck to the expansion and improvement of education in the United States is the mounting shortage of excellent teachers. Unless enough of the Nation's ablest manpower is reinvested in the educational enterprise, its human resources will remain underdeveloped and specialized manpower shortages in every field will compound. Unwittingly the United States right now is pursuing precisely the opposite course. Demands for high-quality manpower have everywhere been mounting, but colleges and universities have found themselves at a growing competitive disadvantage in the professional manpower market.
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> Our Nation, like the prodigal farmer, is consuming the seed corn needed for future harvests. The ultimate result could be disaster.[1]

In a similar vein, the Educational Policies Commission of the National Education Association in its report of April 1957 declares:

> Recruitment and maintenance of outstanding faculties is the most urgent, and in many ways most difficult, problem of higher education in current years.[2]

[1] The President's Committee on Education Beyond the High School, *Second Report to the President*, Washington, U.S. Government Printing Office, July 1957, p. 5.

[2] Educational Policies Commission, *Higher Education in a Decade of Decision*, Washington, D.C., National Education Association, 1957, p. 150.

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Facts Basic to the Problem

Immediately following World War II an unprecedented enrollment increase, due primarily to large numbers of veterans studying under the education and training program, Public Law 346, 78th Congress, occurred in institutions of higher education. This increase temporarily created staffing problems since colleges and universities did not have sufficient numbers of faculty members. Many adopted makeshift measures which sufficed until the "bulge" of veteran enrollments had subsided.

Enrollments and faculties were more nearly in balance during the early years of this decade. Since that time, however, several developments have caused the recruitment and retention of sufficient numbers of suitably trained faculty members to become a problem of serious national concern.

First, the rapid increase in the birth rates during and after World War II years which helped to create a shortage first of elementary school teachers and later of secondary school teachers, is now beginning to be felt in institutions of higher education.

Second, a growing percentage of our college-age population (18–21 years) is seeking education beyond the high school. According to Office of Education data, in the early fall of 1957 the number of persons in college regardless of age represents 35.6 percent of the population in age group 18–21 years in the continental United States. This is an alltime peak. In recent years the comparable percentages have been: 34.0 percent in 1957; 33.2 percent in 1956; and 30.9 percent in 1955. In the early fall of 1939, only 14.3 percent of this age group were enrolled in college.

Third, our rapidly expanding economy and technology require more professional and technical men and women than ever before. Colleges and universities are finding it increasingly difficult to compete with other fields of work which offer better financial remuneration.

Fourth, as a result of the low birth rates of the twenties and thirties, the number of persons aged 25–44 years is expected to remain stable during the decade from 1955 to 1965, but the proportion of persons in this age group, in relation to the total population, will decrease. The projections of the population of this age group from which the new college teachers and the members of other professions and occupations are recruited are shown in table 1 along with the projections for the total population for the period 1950 to 1970. Thus, at a time of growing demand everywhere for highly educated and talented men and women, the source of supply is not increasing correspondingly.

Table 1.—Projections of total population and of population aged 25 to 44 years of the United States (including Armed Forces overseas): 1950 to 1970

Year	Total population	Population aged 25 to 44	
		Number	Percent of total
1950	151,683,000	45,495,000	30.0
1955	165,270,000	46,977,000	28.4
1957	171,229,000	47,108,000	27.5
1960	180,126,000	46,807,000	26.0
1965	195,747,000	46,815,000	23.9
1970	213,810,000	48,212,000	22.5

Source of projections: Bureau of the Census, Series P–25, No. 187. Projections assume 1955–57 fertility level continues to 1970.

Enrollment Projections

The magnitude of the staffing problems faced by colleges and universities during the coming years is indicated by the estimates of future college enrollments. The Office of Education has estimated that, whereas the total fall college enrollment in 1958 was 3,226,038, it will steadily increase to over 6 million by 1970, and will approximately double during the 12-year period.

In 1957 Ronald B. Thompson, dean of special services, The Ohio State University, has estimated the numbers of college-age youth and college enrollments by State for each year up to 1973.[3] In his forecasts, Dr. Thompson has taken into account for each State such factors as attendance as a percentage of the college-age population, mortality rates, and probable effects of migration.

In an earlier report Dr. Thompson estimated that on the basis of college attendance by 40 percent of the college-age population, the college enrollment in 1970–71 would be about 5,444,000, and for 50 percent, it would be about 6,669,000.[4]

Projections of Staff Requirements

According to estimates released in December 1956 by the Office of Education, 566,000 staff members (including administrative, resident

[3] Ronald B. Thompson, *The Problem of Rising College Enrollments*, New York, N.Y., The College Blue Book, 1957, 18 p.

[4] Ronald B. Thompson, *The Impending Tidal Wave of Students*, The American Association of Collegiate Registrars and Admissions Officers, 1956, p. 24 and 26.

instructional, and organized research staffs) will be required in 1965 as compared to 301,500 employed in 1955.[5]

These estimates were based on the records of the period 1945 to 1955 and on certain assumptions. Biennial surveys of education, conducted by the Office of Education, provided the 10-year record. Among assumptions considered in making these estimates were: (1) There will be relatively few changes in policies of student selection, admission, and retention; (2) the average number of students per staff member will remain constant; (3) observed trends will continue at the same rate of change; (4) the classification of existing institutions will remain the same; (5) the recommendations of commissions, committees, and survey groups will have some influence on the type and control of new institutions; (6) physical facilities will be provided to accommodate anticipated enrollments.

Taking into account the turnover due to deaths, retirements, and resignations as well as increased enrollments, the President's Committee on Education Beyond the High School estimated that, on the average, between 15,000 and 22,000 new college teachers must be recruited annually during the next 12 years.[6]

Faculty Supply and Demand: Recent Studies

In 1957 the Research Division of the National Education Association published its report, *Teacher Supply and Demand in Colleges and Universities, 1955–56 and 1956–57.* This report, which was a followup to an earlier study, *Teacher Supply and Demand in Degree-Granting Institutions, 1954–55,* reveals that the level of preparation of new full-time teachers entering college and university teaching has been progressively deteriorating during recent years.

Of the newly employed full-time teachers employed during the past 4 years, the percent holding the earned doctor's degree was 31.4 in 1953–54, then 28.4, then 26.7, and most recently, 23.5. At the other end of the scale—those with less than the master's degree—the 1953–54 group contained 18.2 percent. The next year it was 19.3 percent, then 20.1 percent, and in 1956–57 it was 23.1 percent. This means that, since 1953–54, holders of the doctor's degree among newly employed full-time teachers have decreased 25.2 percent, and those with less than the master's degree have increased 26.9 percent.[7]

Because of the heavy demand for highly trained graduates by all segments of our expanding economy, the National Education Association

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[5] R. E. Iffert, "Staffing Institutions of Higher Education in the Next Decade," *Higher Education*, Vol. XIII p. 4, U.S. Department of Health, Education, and Welfare, Washington, D.C., December 1956.

[6] The President's Committee on Education Beyond the High School, op. cit., p. 28.

[7] *Teacher Supply and Demand in Colleges and Universities, 1955–56 and 1957,* Research Division, National Education Association, Washington, D.C., 1957, p. 17 and 18.

report asserts that the graduate school, which is the original source of supply of college teachers, is not preparing candidates for teaching positions in sufficient numbers. The report also discussed the possibilities of increased employment of women as teachers and the greater use of part-time teachers as measures contributing to the solution of faculty shortages.

The Joint Staff Committee for the Liaison Committee of the Regents of the University of California and the State Board of Education has made a statewide study of faculty supply and demand in California for the period 1957–70.[8] The committee has estimated that the number of new full-time equivalent staff needed in California between 1957 and 1970 is 42,444. It concludes that if (1) the proportion of demand for faculty for California institutions which is supplied from out of State continues as in the past 3 years at about 44 percent of the total demand, and (2) California production of doctor's and master's degrees keeps pace with the increase in total college enrollments and the same proportion of doctor's and master's recipients enters higher education positions within California as in the 3 preceding years, there will be approximate balance of supply and demand for college teachers in California. However, the committee cautions that such overall balance may not apply to certain fields in which there are present shortages or in which future shortages may develop.

Proposals for Conserving Faculty Resources

If colleges and universities are already having difficulty in maintaining adequate faculties, and if the dire predictions that the situation will worsen in the years ahead are borne out, the question naturally arises, "What can be done about it?" One solution would be to limit the enrollment. The private colleges can easily do this if they desire, but such a solution is not so simple in public institutions which, for the most part, are obligated to open their doors to all qualified residents of their taxpaying constituencies. Furthermore, this solution to the problem is decried by those who believe that higher education opportunities should be provided to all who desire them and can profit by them.

Since limitation of enrollments does not appear to be an acceptable approach, other alternatives have been seriously considered such as practices which would augment the available supply of college teachers, help retain those already in employed service, and achieve maximum utilization of existing faculty resources. In regard to these practices, the

[8] *A Study of Faculty Demand and Supply in California Higher Education 1957–70*, prepared for the Liaison Committee of the Regents of the University of California and the California State Board of Education, Berkeley and Sacramento, University of California Press, 1960, p. 74.

President's Committee on Education Beyond the High School made several strong recommendations:

> The Committee recommends that boards of trustees, legislatures, and all others responsible for academic budgets give the absolute highest priority to raising the salaries of college and university teachers as substantially as may be necessary to reach and then to maintain levels which, together with other advantages, will provide the teaching profession with an equitable share of our best talent and abolish the faculties' hidden subsidy to education.
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> The Committee recommends that institutions strengthen the economic status and drawing power of the teaching profession by the provision of such additional inducements as moderate-cost faculty housing where not locally available, health benefits, group insurance, retirement programs, and educational opportunities for the children of faculty members.
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> The Committee recommends that the faculties of every college and graduate school join with national educational organizations in a nationwide effort to recruit high talent for college teaching, and that they place greater emphasis on bringing women into the profession. The Committee further recommends that institutions explore vigorously such supplementary teaching resources as retired professors, retired professional personnel in business and government, and retired military officers; and that clearinghouse machinery be established by national educational organizations with the support of private foundations to help institutions locate such teaching resources.
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> The Committee recommends vigorous and objective exploration and application of methods of increasing the effectiveness and productiveness of the teacher, including electronic devices such as television, instructional procedures which place on the student more responsibility for self-education, adaptation of the sizes of classes to accommodate most efficiently their varying objectives, the lessening of nonteaching duties of faculty members, and greater use of assistants for duties which take the professor's time without utilizing his highest talents. The Committee further recommends that appropriate educational organizations, foundations, and the U.S. Office of Education increase their efforts to keep individual institutions fully informed about such experiments and new developments throughout the country.[9]

The need for effective, imaginative measures with which to combat teacher shortages is also emphasized in the Rockefeller Report on Education.[10] Increased use of the talents of women and greater use of minorities and of older workers are recommended in addition to instructional techniques which would utilize the services of superior teachers more efficiently.

At a conference held in Washington on January 19–20, 1956, the Committee on College Teaching of the American Council on Education devoted considerable discussion to the topics, "Conserving for Teaching the Talent We Do Get—New and Old," and "Making the Most of a Scarce Resource."[11] The conferees discussed such matters as the need for higher salaries, possibility of raising the retirement age, reduction

[9] The President's Committee on Education Beyond the High School, op. cit., p. 35–37.

[10] Rockefeller Panel Report V of the Special Studies Project. *The Pursuit of Excellence, Education and the Future of America.* New York, N.Y., Doubleday & Co., Inc., 1958, 69 p.

[11] Charles G. Dobbins, ed., *Expanding Resources for College Teaching.* Washington, D.C., American Council on Education, 1956, 137 p.

in the number of nonteaching duties of faculty members, greater use of television and other instructional devices, and greater reliance on the student for his own learning.

The Fund for the Advancement of Education has for a number of years been making grants to colleges and universities to enable them to conduct experiments in the effective use of faculty resources with a view to improving the quality of education. Thirty-four of these projects are described in the report, *Better Utilization of College Teaching Resources*, prepared by the Fund's Committee on Utilization of College Teaching Resources.[12] These projects fall into six general categories: (1) Putting a larger responsibility on the student for his own learning; (2) revising the curriculum to eliminate nonessential courses and avoid duplication and overlapping; (3) using nonprofessional assistants to relieve the load on professionally educated faculty members; (4) using mechanical and electronic devices; (5) making variations in class sizes; and (6) making institutional arrangements that affect faculty workloads.

Programs of augmenting the supply of college teachers and conserving existing faculty resources have been advocated at the State as well as the national level. Ewald B. Nyquist, Deputy Commissioner of Education for the University of the State of New York, declared:

> Each institution, too, will have to reexamine for itself the many current practices which were first established when manpower conditions were different from those prevailing now, which persist today through the vast momentum of custom, and which ought now to be revised in the light of present teaching needs, the needs of the future, and technological developments.[13]

In *A Study of Faculty Demand and Supply in California Higher Education, 1957–1970*, a chapter is devoted to suggestions for meeting California's staff needs in higher education.[14] The possible methods discussed fall into three categories: (1) Increasing the supply of college teachers; (2) improvement in the preparation of college teachers; and (3) retention and better utilization of faculty.

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[12] Committee on Utilization of College Teaching Resources. *Better Utilization of College Teaching Resources*, New York, N.Y., The Fund for the Advancement of Education, 1956, 45 p.

[13] The University of the State of New York, *A Program for Staffing Our Colleges*, The State Education Department, Albany, 1958, p. 3.

[14] *A Study of Faculty Demand and Supply in California Higher Education, 1957-1970*, p. 63–70.

CHAPTER II

Institutional Use of Specified Practices

CHAPTER I describes the current status of faculty staffing in colleges and universities of the United States, the demand for additional faculty expected in the next decade, and some proposals on methods for overcoming shortages of faculty, now existing or anticipated.

Conference on Staffing Problems

Recognizing the serious problems that institutions of higher education were then facing or were likely to face in the future in providing educational opportunities to increasing numbers of college students, the Division of Higher Education of the Office of Education called a conference in Washington on May 20–21, 1957. It was attended by 9 representatives from colleges and universities, and 22 from national organizations concerned with higher education. The purpose of the conference was to consider the prospectus of a proposed study by the Office of Education of the problem of recruiting and maintaining adequate staffs in colleges and universities. The proceedings of the conference, including the speeches and the discussions, were published in a report titled, *Staffing the Nation's Colleges and Universities.*[1]

The conferees urged the Office to undertake research as outlined in the prospectus which would complement other studies already made and which would contribute additional information on the status of faculty staffing and the current practices relating to it in institutions of higher education. The study reported in this bulletin is an outgrowth of the conference.

[1] Clarence B. Lindquist, ed., *Staffing the Nation's Colleges and Universities*, U.S. Department of Health, Education, and Welfare, Washington 25, D.C., 59 p.

Design of the Questionnaire

A college or university facing serious problems might employ a number of personnel and instructional practices to cope with them. It might, however, follow any of these practices for other reasons, such as the belief that the practices conserved faculty resources, that they were worthwhile experiments, or that they were simply good administrative actions. It was considered desirable in designing the instrument for the study not only to determine what practices were being followed during the year July 1957-June 1958 but also to compare their use or nonuse with that of an earlier base period. For this purpose the period July 1954 to June 1957 was chosen, since the recent increases in enrollment were beginning to be felt about that time.[1]

Twelve personnel practices were listed in the questionnaire. These were:

(1) Employment of professors retired from other institutions, retired military officers, or persons retired from business, industry, or government.

(2) Employment on a part-time basis of persons whose principal sources of livelihood are in other occupations.

(3) Sharing instructors and instructional facilities with other institutions.

(4) Employment of new faculty members (perhaps on a temporary basis) with less training and experience than are usually required for the positions they occupy.

(5) Employment of new faculty at salaries relatively higher than (and ranks relatively the same as) those previously given for similar training and experience.

(6) Employment of new faculty members at ranks relatively higher than (and salaries relatively the same as) those previously given for similar training and experience.

(7) Employment of new faculty members at both salaries and ranks relatively higher than those previously given for similar training and experience.

(8) Accelerated promotion of faculty.

(9) Permission granted for some faculty members to continue in service beyond the established mandatory age limit.

(10) Increase of the established mandatory age limit.

(11) New fringe benefits established or existing ones increased.

(12) Salary increases granted which averaged at least 5 percent a year for the period for the faculty as a whole.

Nine instructional practices were listed in the questionnaire. These were:

(1) Accommodation of a larger number of students by increasing the size of lecture sessions.

(2) Reduction of duplicating and overlapping course offerings.

(3) A significantly larger responsibility placed on the student for his own learning.

(4) Use of nonprofessional (for example, technical and clerical) assistants other than students to help relieve faculty of nonteaching duties.

[1] The questionnaire which was sent to the colleges and universities appears in the appendix of this bulletin.

(5) Reduction in number of smaller classes.

(6) Elimination or curtailment of some existing courses or programs of study, or cancellation or postponement of proposed new ones.

(7) Reduction in the number of subcollegiate courses of instruction (for example, subfreshman English or mathematics).

(8) Courses given completely or primarily by television.

(9) Courses given completely or primarily by films.

For the period 1954–57, respondents were asked to check items showing whether these or other specified practices had or had not been followed, and if they had, whether this was done (1) primarily because of faculty shortages; (2) primarily because of other reasons, or (3) equally because of faculty shortages and other reasons. Respondents were asked to indicate whether, during the period 1957–58, and for any of the three reasons just mentioned, these practices had been followed or their previous use discontinued or whether they had been continued to the same extent as before. They were also asked to indicate whether, during that period, the practices had been continued but reduced, introduced, or their previous use expanded. An affirmative reply was requested on a practice if it was employed throughout the institution or in any part of it. Thus, no attempt was made to determine how extensively a given practice was followed in a particular institution.

Distribution of the Questionnaire

During the latter part of May 1958, the questionnaire was mailed to the presidents of the 1,940 institutions of higher education in the continental United States and its outlying parts. The presidents were asked either to fill out the schedule themselves or to assign the responsibility to a subordinate. About half of the presidents or chief administrative officers undertook this task personally. Other respondents were principally vice presidents, administrative assistants, and deans. Two followup requests, one in June and one in July were made to those institutions which had not responded.

Rate of Response

Usable returns from 1,610 colleges and universities were received by the cutoff date, August 1. Returns received after that date were too late to be included in the study. The 1,610 institutions represent a response rate of 83.0 percent of the total number of institutions; the enrollment in these institutions constitutes 94.7 percent of the total fall opening enrollment in 1957.

The highest rate of response (98.6 percent) was obtained from universities and the lowest rate (58.8 percent) from the theological and religious schools (see table 2). Many of the heads of theological and religious schools as well as those of numerous professional schools replied that, because of the specialized character of their institutions, the survey did not apply to them. For example, some seminaries reported that their faculties were assigned by a religious order, and their enrollments were limited. Some professional schools, such as art and music conservatories, reported that their faculties served on part-time and fee basis.

Table 2.—Response rate by type of institution

Type of institution	Total number in type	Number of responses	Percent of response
All institutions	1,940	1,610	83.0
Universities	141	139	98.6
Liberal arts colleges	732	670	91.5
Teachers colleges	199	174	87.4
Junior colleges	493	376	76.3
Independent technological schools	45	40	88.9
Other independent professional schools	132	88	66.7
Theological and religious schools	148	87	58.8
Semiprofessional schools and technical institutes	50	36	72.0

Analysis of Questionnaire Returns

The data received on the questionnaires were coded on cards and processed by the Office of Education tabulating machines. The tables in this chapter have been constructed from these data to show the extent of, and trends in, the use of the various practices by all institutions responding. Comparisons are made between the categories of institutions by control, by region, by type, and by size of enrollment. The number of institutions in each category is shown in parentheses at the top of the appropriate column heading. An analysis and an interpretation, emphasizing the highlights and salient inferences which can be drawn from the data, are presented in conjunction with each table.

In studying these tables, the reader should bear two facts in mind. First, some of the practices which formed the basis for this study, such as practices concerning ranks, mandatory retirement age, and subcollegiate instruction, were not applicable to all institutions. Some forms were not fully completed. The total number of responses to various practices therefore differs. The percentage for each practice in each of the tables

is based on the total number of responses by institutions which have reported on that practice.

Second, for the purpose of this study, institutions which followed a practice "due equally to faculty shortages and other reasons" are grouped with those which followed the practice "due to faculty shortages."

In the tables which follow, short forms are used for the 21 practices. Full descriptions of the practices as they appeared on the questionnaire are given in this chapter on pages 9–10.

Space was provided in the instrument for respondents to report on personnel and instructional practices not listed. Since the number of such additional practices reported was relatively small, they are discussed in chapter III with the comments and observations by the respondents.

Extent of Use of Specified Practices

The extent to which the 1,610 responding institutions followed the 21 practices for any reasons and followed them because of faculty shortages is shown in table 3.

The most frequently followed practice (84.5 percent) was that of granting salary increases averaging at least 5 percent a year during the 4-year period 1954–58. During this period of rising cost of living it was to be expected that this percentage would be high. More than half of those who had given such increases, however, stated that they had done so out of fairness and justice to their faculty rather than because of faculty shortages. It appears likely that those institutions which did not grant such increases during this period lost ground in the competitive market for faculty.

The employment of professors retired from other institutions, military officers retired from service, or persons retired from business, industry, or government (41.0 percent), and the employment on a part-time basis of persons whose principal sources of livelihood are in other occupations (65.9 percent) are practices which have always been rather widely followed in institutions of higher education. It may be noted, however, that approximately one-third of the institutions reporting on these practices have followed them during the period covered by this study because of faculty shortages.

Strongly indicative that colleges and universities are having staffing difficulties are the high percentages relating to practices for attracting new faculty members. A total of 775 institutions (51.8 percent) reported that, because of faculty shortages, they had employed new faculty members at salaries relatively higher than formerly while keeping ranks approximately the same, and 635 (42.0 percent) reported that they had

Table 3.—Institutions following specified practices in 1957–58 for any reasons and because of faculty shortages: Number and percent [1]

PRACTICE [2]	Institutions					
	Following practice		Following practice because of faculty shortages [3]		Not following practice	
	Number	Percent	Number	Percent	Number	Percent
1. Employment of retired persons	620	41.0	456	30.2	892	59.0
2. Employment of part-time persons	988	65.9	536	35.7	512	34.1
3. Interinstitutional sharing	541	37.2	245	16.9	913	62.8
4. Employment of less-qualified personnel	674	44.6	635	42.0	837	55.4
5. Employment at higher salaries	939	62.7	775	51.8	558	37.3
6. Employment at higher ranks	318	22.5	267	18.9	1,098	77.5
7. Employment at higher ranks and salaries	442	31.5	373	26.6	962	68.5
8. Accelerated promotions	348	25.4	241	17.6	1,020	74.6
9. Employment beyond retirement age	532	36.6	354	24.4	920	63.4
10. Retirement age raised	124	9.0	90	6.5	1,253	91.0
11. New or increased fringe benefits	877	60.6	330	22.8	571	39.4
12. Salary increase of at least 5 percent	1,240	84.5	591	40.3	227	15.5
13. Lecture sections enlarged	680	45.6	474	31.8	812	54.4
14. Duplicate and overlapping courses reduced	833	58.2	354	24.7	598	41.8
15. More student responsibility for learning	519	36.7	199	14.1	896	63.3
16. Nonprofessional assistants used	515	35.3	298	20.4	943	64.7
17. Number of smaller classes reduced	792	54.7	452	31.2	656	45.3
18. Programs eliminated, curtailed, postponed	695	47.5	374	25.5	769	52.5
19. Subcollegiate courses reduced in number	297	21.8	133	9.8	1,067	78.2
20. Courses completely or primarily by TV	83	5.8	20	1.4	1,351	94.2
21. Courses completely or primarily by films	38	2.7	12	.8	1,391	97.3

[1] Some practices (for example, practices concerning ranks, mandatory retirement age, subcollegiate instruction) were not applicable to all institutions. Some forms were not fully completed. The total number of responses to various practices differs. The percentages for each practice in this table and the other tables are based on the total number of responses by institutions reporting on each practice.

[2] Full descriptions of the 21 practices listed in this table and the succeeding tables are found in ch. II on p. 9–10.

[3] For the purpose of this table and succeeding tables, institutions which followed a practice "due equally to faculty shortages and other reasons" are considered to have followed the practice due to faculty shortages.

for the same reason employed new faculty members less qualified than formerly for the positions occupied.

One way of meeting the demand for college teachers is to prolong the services of the older faculty members. More than one-third (36.6 percent) of the reporting institutions stated that they had permitted faculty members to continue beyond the mandatory retirement age, and 9.0 percent of them had raised the mandatory retirement age during the period July 1954 to June 1958. In more instances than not, faculty shortages in the majority of the institutions had caused these actions.

Among the instructional practices most frequently followed were the reduction of duplicating and overlapping course offerings (58.2 percent); reduction in the number of smaller classes (54.7 percent); elimination, curtailment, or postponement of some programs of study (47.5 percent); and increase in the size of lecture sessions (45.6 percent). Although, roughly speaking, only about half of the respondents said that they followed these practices because of faculty shortages, their employment of them has the effect of reducing their total need of faculty.

More than one in five (21.8 percent) of the reporting institutions have reduced the number of subcollegiate courses of instruction. Because of the increasing demand imposed upon colleges and universities by expanding enrollments, some of them are finding it necessary or advisable to cut back on the amount of instruction at below-college level. Some institutions reported that they were requiring students with deficient training to make up the deficiencies in high school or in extension courses.

Although teaching by television has been advocated by some as the solution of the teacher-shortage problem, only 83 institutions (5.8 percent) are employing this method, and only 20 (1.4 percent) are doing so because of faculty shortages. The present costs of television instruction are high unless very large numbers of students are enrolled, and the efficacy of the method versus the traditional methods needs still further evaluation. A number of the television programs in colleges and universities are being conducted as experiments, supported by grants from private foundations.

Trends in Use of Specified Practices

As is mentioned earlier, practices used during the period July 1957 to June 1958 were compared with those of an earlier base period, July 1954 to June 1957, in order to discover any significant trends. By this means it was hoped to determine whether staffing problems, if any, in institutions of higher education were continuing unchanged or were increasing or decreasing in intensity. Tables 4, 5, and 6 have been constructed to give

Table 4.—Institutions following specified practices in 1954–57 and continuing them to the same extent in 1957–58: Number and percent

PRACTICE	Total number of institutions continuing practice as previously		Institutions continuing practice as previously—					
			Due primarily to faculty shortages		Due equally to faculty shortages and other reasons		Due primarily to other reasons	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Employment of retired persons	293	19.4	92	6.1	107	7.1	94	6.2
2. Employment of part-time persons	473	[1]31.5	97	6.5	133	8.9	243	16.2
3. Interinstitutional sharing	236	16.2	47	3.2	52	3.6	137	9.4
4. Employment of less-qualified personnel	257	17.0	226	15.0	22	1.5	9	.6
5. Employment at higher salaries	367	24.5	214	14.3	94	6.3	59	3.9
6. Employment at higher ranks	96	6.8	60	4.2	20	1.4	16	1.1
7. Employment at higher ranks and salaries	154	11.0	91	6.5	39	2.8	24	1.7
8. Accelerated promotions	108	7.9	57	4.2	22	1.6	29	2.1
9. Employment beyond retirement age	239	16.5	104	7.2	53	3.7	82	5.6
10. Retirement age raised	39	2.8	25	1.8	4	.3	10	.7
11. New or increased fringe benefits	283	19.5	26	1.8	59	4.1	198	13.7
12. Salary increase of at least 5 percent	420	28.7	35	2.4	138	9.4	247	16.8
13. Lecture sections enlarged	232	15.5	102	6.8	67	4.5	63	4.2
14. Duplicate and overlapping courses reduced	295	20.6	49	3.4	79	5.5	167	11.7
15. More student responsibility for learning	139	9.8	19	1.3	30	2.1	90	6.4
16. Nonprofessional assistants used	185	12.7	44	3.0	44	3.0	97	6.7
17. Number of smaller classes reduced	276	19.1	72	5.0	95	6.6	109	7.5
18. Programs eliminated, curtailed, postponed	231	15.8	59	4.0	62	4.2	110	7.5
19. Subcollegiate courses reduced in number	88	6.5	13	1.0	19	1.4	56	4.1
20. Courses completely or primarily by TV	19	1.3	0	.0	6	.4	13	.9
21. Courses completely or primarily by films	9	.6	2	.1	0	.0	7	.5

[1] Due to rounding, the items may not add to the total shown. This is likewise true for other percentages in this table and those tables which follow.

Table 5.—Institutions following specified practices in 1954–57 and discontinuing or reducing their use in 1957–58: Number and percent

PRACTICE	Total of institutions discontinuing or reducing use of practice		Institutions discontinuing or reducing use of practice—					
			Due primarily to faculty shortages		Due equally to faculty shortages and other reasons		Due primarily to faculty shortages	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Employment of retired persons	111	7.3	44	2.9	31	2.1	36	2.4
2. Employment of part-time persons	102	6.8	33	2.2	30	2.0	39	2.6
3. Interinstitutional sharing	87	6.0	27	1.9	14	1.0	46	3.2
4. Employment of less-qualified personnel	137	9.1	96	6.4	25	1.7	16	1.1
5. Employment at higher salaries	48	3.2	25	1.7	17	1.1	6	.4
6. Employment at higher ranks	49	3.5	26	1.8	16	1.1	7	.5
7. Employment at higher ranks and salaries	41	2.9	22	1.6	12	.9	7	.5
8. Accelerated promotions	48	3.5	21	1.5	8	.6	19	1.4
9. Employment beyond retirement age	74	5.1	25	1.7	21	1.4	28	1.9
10. Retirement age raised	12	.9	7	.5	1	.1	4	.3
11. New or increased fringe benefits	31	2.1	2	.1	5	.3	24	1.7
12. Salary increase of at least 5 percent	43	2.9	3	.2	10	.7	30	2.0
13. Lecture sections enlarged	60	4.0	25	1.7	16	1.1	19	1.3
14. Duplicate and overlapping courses reduced	52	3.6	16	1.1	9	.6	27	1.9
15. More student responsibility for learning	15	1.1	8	.6	2	.1	5	.4
16. Nonprofessional assistants used	20	1.4	9	.6	4	.3	7	.5
17. Number of smaller classes reduced	42	2.9	16	1.1	10	.7	16	1.1
18. Programs eliminated, curtailed, postponed	55	3.8	20	1.4	12	.8	23	1.6
19. Subcollegiate courses reduced in number	29	2.1	8	.6	6	.4	15	1.1
20. Courses completely or primarily by TV	6	.4	1	.1	1	.1	4	.3
21. Courses completely or primarily by films	2	.1	2	.1	0	.0	0	.0

Table 6.—Institutions introducing specified practices in 1957–58 or increasing previous use of them: Number and percent

PRACTICE	Total of institutions introducing or increasing use of practice		Institutions introducing or increasing use of practice—					
			Due primarily to faculty shortages		Due equally to faculty shortages and other reasons		Due primarily to other reasons	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Employment of retired persons	281	18.6	108	7.1	117	7.7	56	3.7
2. Employment of part-time persons	436	29.1	99	6.6	162	10.8	175	11.7
3. Interinstitutional sharing	263	18.1	47	3.2	84	5.8	132	9.1
4. Employment of less-qualified personnel	328	21.7	234	15.5	74	4.9	20	1.3
5. Employment at higher salaries	531	35.5	221	14.8	210	14.0	100	6.7
6. Employment at higher ranks	194	13.7	112	7.9	52	3.7	30	2.1
7. Employment at higher ranks and salaries	263	18.7	139	9.9	85	6.1	39	2.8
8. Accelerated promotions	214	15.6	79	5.8	67	4.9	68	5.0
9. Employment beyond retirement age	260	17.9	91	6.3	81	5.6	88	6.1
10. Retirement age raised	80	5.8	34	2.5	25	1.8	21	1.5
11. New or increased fringe benefits	583	40.3	40	2.8	203	14.0	340	23.5
12. Salary increase of at least 5 percent	819	55.8	43	2.9	375	25.6	401	27.3
13. Lecture sections enlarged	407	27.3	101	6.8	178	11.9	128	8.6
14. Duplicate and overlapping courses reduced	503	35.2	48	3.4	161	11.3	294	20.5
15. More student responsibility for learning	367	25.9	21	1.5	121	8.6	225	15.9
16. Nonprofessional assistants used	315	21.6	57	3.9	147	10.1	111	7.6
17. Number of smaller classes reduced	482	33.3	67	4.6	200	13.8	215	14.8
18. Programs eliminated, curtailed, postponed	426	29.1	73	5.0	161	11.0	192	13.1
19. Subcollegiate courses reduced in number	188	13.8	30	2.2	64	4.7	94	6.9
20. Courses completely or primarily by TV	55	3.8	3	.2	11	.8	41	2.9
21. Courses completely or primarily by films	21	1.5	2	.1	8	.6	11	.8

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this information. In each of these tables the total number of institutions following each practice is given together with the numbers following the practice (1) due primarily to faculty shortages, (2) due equally to faculty shortages and other reasons, and (3) due primarily to other reasons.

These tables indicate that few institutions had in 1957–58 discontinued practices or reduced their previous use, whereas rather substantial numbers of them had introduced these practices for the first time or increased previous use of them. Except in two practices the numbers of institutions which in the period July 1957 to June 1958 had introduced practices or increased previous use of them are larger than the numbers of institutions which continued to the same extent practices which they followed in the period July 1954 to June 1957.

Particularly striking are the percentages of institutions which in 1957–58 introduced or increased the following practices due primarily to faculty shortages: Employment of new faculty members less qualified than those formerly employed for positions occupied (15.5 percent); employment of new faculty members at salaries relatively higher than formerly with ranks relatively the same (14.8 percent); and employment of new faculty at both ranks and salaries relatively higher than formerly (9.9 percent). It is evident from these data and the other data in table 6 that in 1957–58 the problem of recruiting and maintaining suitably qualified faculties in colleges and universities was becoming increasingly difficult. Institutions of higher education have perforce introduced or expanded use of many measures which they would not have employed under normal circumstances.

Comparison Between Public and Private Institutions

Table 7 compares the extent of use of 21 practices in institutions by type of control.

As might be expected because of their more flexible policies, private institutions more frequently than public institutions employ retired persons (45.3 percent versus 33.6 percent), and part-time personnel (69.1 versus 60.3), and engage in interinstitutional sharing (41.1 percent versus 30.6). Private institutions, mostly because of faculty shortages, likewise employ more persons beyond the retirement age than do public institutions (44.0 percent versus 24.4 percent). Private institutions also exceed public institutions in the granting of new fringe benefit (68.6 percent versus 46.8 percent).

On the other hand, public institutions, due primarily to faculty shortages, have enlarged their lecture sections considerably more than the private institutions (57.2 percent versus 38.7 percent). Undoubtedly this situation stems from the fact that many public institutions are under

Table 7.—Public and private institutions following specified practices in 1957–58 for any reasons and because of faculty shortages: Number and percent

PRACTICE	Public institutions (591) [1]				Private institutions (1,017)			
	Institutions following practice—				Institutions following practice—			
	For any reasons		Due to faculty shortage		For any reasons		Due to faculty shortage	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Employment of retired persons	187	33.6	152	27.3	433	45.3	304	31.8
2. Employment of part-time persons	333	60.3	199	36.1	655	69.1	337	35.5
3. Interinstitutional sharing	164	30.6	59	11.0	377	41.1	186	20.3
4. Employment of less-qualified personnel	300	53.8	289	51.8	374	39.2	346	36.3
5. Employment at higher salaries	313	56.5	270	48.7	626	66.4	505	53.6
6. Employment at higher ranks	123	23.3	108	20.4	195	22.0	159	17.9
7. Employment at higher ranks and salaries	154	29.3	140	26.7	288	32.8	233	26.5
8. Accelerated promotions	141	27.6	104	20.4	207	24.2	137	16.0
9. Employment beyond retirement age	133	24.4	97	17.8	399	44.0	257	28.3
10. Retirement age raised	51	9.7	40	7.6	73	8.6	50	5.9
11. New or increased fringe benefits	250	46.8	81	15.2	627	68.6	251	27.5
12. Salary increase of at least 5 percent	411	76.0	254	47.0	776	83.8	337	36.4
13. Lecture sections enlarged	319	57.2	229	41.0	361	38.7	245	26.2
14. Duplicate and overlapping courses reduced	297	56.0	143	27.0	536	59.5	211	23.4
15. More student responsibility for learning	170	32.2	86	16.3	349	39.3	113	12.7
16. Nonprofessional assistants used	197	36.1	112	20.6	318	34.8	186	20.4
17. Number of smaller classes reduced	345	64.7	195	36.6	447	48.9	257	28.1
18. Programs eliminated, curtailed, postponed	284	52.0	156	28.6	411	44.8	218	23.7
19. Subcollegiate courses reduced in number	137	26.2	70	13.4	160	19.0	63	7.5
20. Courses completely or primarily by TV	50	9.3	13	2.4	33	3.7	7	.8
21. Courses completely or primarily by films	14	2.6	6	1.1	24	2.7	6	.7

[1] In this table and succeeding tables the number in parentheses following a category of institution indicates the total number of institutions within that category covered by this study.

obligation to accept all qualified applicants from their taxpaying constituencies, whereas private institutions can be more restrictive and selective in their admissions and thus keep class sizes more in bound.

Public institutions were also appreciably higher than private institutions in the following practices: Employment of new faculty less qualified than formerly for positions occupied (53.8 percent versus 39.2 percent); reduction in the number of smaller classes (64.7 percent versus 48.9 percent); reduction in the number of subcollegiate courses (26.2 percent versus 19.0 percent); and courses given completely or primarily by television (9.3 percent versus 3.7 percent).

Comparison by Region

Table 8 gives comparative data on specified practices for the following regions and number of institutions in each region: Northeast, 396; North Central, 469; Southern, 492; and Western, 239. The States contained in each of these regions is as follows:

Northeast
Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

South
Alabama
Arkansas
Delaware
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia
District of Columbia

North Central
Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

West
Arizona
California
Colorado
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

It may be seen from this table that the institutions in the Southern region were following the 21 specified practices for any reasons to a greater extent than those in other regions, on the basis of the number of practices used to the highest percentage. This region had the highest percentage of use in 10 of the practices and had the lowest percentage in only 1 practice. On the other hand, the Northeast region had the lowest percentage of use in 12 of the practices and did not have the highest percentage in any one of them. The North Central region and the Western region were about midway between these two extremes.

The pattern of practices followed due to faculty shortages is not much different from that of practices followed for any reasons. The main difference is that, whereas the North Central region had the highest percentage in five practices followed for any reasons, it was highest in nine practices followed due to faculty shortages. The Southern region, however, with 11 was high in the number of practices followed due to faculty shortages.

It appears, therefore, that colleges and universities in the Southern region more than those in any other region are adopting various measures to cope with staffing problems, and the Northeast region seems to be in the most favorable position in this regard. These differences are very likely the results of a number of factors such as salaries, institutional resources, and availability of part-time personnel in urban centers.

Comparison by Type of Institutions

Table 9 gives a basis for comparison of the extent of use of the 21 practices by the following types of institutions: Universities, liberal arts colleges, teachers colleges, junior colleges, independent technological schools, other independent professional schools, theological and religious schools, and semiprofessional schools and technical institutes.

Universities more than the other types of institutions are employing the practices, having the highest percentages of use in 11 of the practices. The universities also exceeded other types of institutions in 13 of the practices due to faculty shortages. The larger sizes of these institutions make it more likely that the practices would be followed in at least some part or parts of them.

On the other hand, theological and religious schools, with junior colleges not far behind, followed fewer of the listed practices than the other types of institutions. Religious and theological schools and professional schools other than technological institutions were low in the percentages of use of practices because of faculty shortages. These results were more or less to be expected because highly specialized institutions like seminaries,

Table 8.—Institutions following specified practices in 1957–58 for any reasons

PRACTICE	Northeast region (396)			
	Institutions following practice—			
	For any reasons		Due to faculty shortages	
	Number	Percent	Number	Percent
1. Employment of retired persons	137	37.4	85	23.2
2. Employment of part-time persons	230	62.7	115	31.3
3. Interinstitutional sharing	136	38.5	57	16.1
4. Employment of less-qualified personnel	109	29.7	98	26.7
5. Employment at higher salaries	241	65.3	189	51.2
6. Employment at higher ranks	70	20.3	56	16.2
7. Employment at higher ranks and salaries	108	29.8	88	25.4
8. Accelerated promotions	91	27.2	63	18.9
9. Employment beyond retirement age	126	34.6	75	20.6
10. Retirement age raised	32	9.3	20	5.8
11. New or increased fringe benefits	214	60.8	71	20.2
12. Salary increase of at least 5 percent	297	83.0	118	33.0
13. Lecture sections enlarged	116	32.0	72	19.8
14. Duplicate and overlapping courses reduced	173	49.6	51	14.6
15. More student responsibility for learning	130	38.0	34	9.9
16. Nonprofessional assistants used	109	30.8	60	16.9
17. Number of smaller classes reduced	137	38.4	76	21.3
18. Programs eliminated, curtailed, postponed	132	37.1	64	18.0
19. Subcollegiate courses reduced in number	45	14.2	14	4.4
20. Courses completely or primarily by TV	14	4.0	2	.6
21. Courses completely or primarily by films	7	2.0	2	.6

Bible colleges, and professional schools of art and music with relatively large staffs of part-time faculty members are least likely to be affected by the manpower shortages faced by institutions competing for faculty with industry and government.

Junior colleges generally require a master's degree for permanent status, and their emphasis on the Ph. D. is not as great as in most universities, liberal arts colleges, teachers colleges, and technological schools. Persons at the master's level of training are more readily obtainable. In fact, a number of junior college presidents or deans reported that the procurement of qualified staff members was no particular problem as such persons were readily available from among the better high school teachers in the systems with which they were associated.

and because of faculty shortages, by region: Number and percent

North Central region (469)				Southern region (492)				Western region (239)			
Institutions following practice—				Institutions following practice—				Institutions following practice—			
For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages	
Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
168	37.8	124	27.9	207	45.1	174	37.9	101	44.1	66	28.8
286	65.1	161	36.7	287	62.9	169	37.1	175	78.1	84	37.5
172	39.8	75	17.4	133	30.9	79	18.4	94	41.8	31	13.8
226	50.7	214	48.0	236	51.5	227	49.6	95	41.9	88	38.8
302	68.6	274	62.3	277	61.0	244	53.7	112	50.7	83	37.6
94	22.9	78	19.0	110	25.3	94	21.7	43	20.0	31	14.4
134	33.3	114	28.3	146	34.0	125	29.1	58	27.1	45	21.0
98	23.9	78	19.0	101	25.1	68	16.9	54	25.8	23	11.0
164	38.3	96	22.4	175	40.2	131	30.1	64	29.9	37	17.3
29	7.0	22	5.3	42	10.2	37	9.0	20	10.0	6	3.0
277	65.2	113	26.6	262	59.4	105	23.8	116	53.7	38	17.6
363	85.2	189	44.4	381	84.9	193	43.0	191	86.0	89	40.1
234	53.3	170	38.7	214	47.2	173	38.2	113	50.4	57	25.4
254	60.3	117	27.8	270	61.9	133	30.5	128	60.7	50	23.7
171	40.7	73	17.4	151	35.1	62	14.4	62	29.5	29	13.8
159	37.1	96	22.4	153	34.5	99	22.3	90	40.9	42	19.1
260	61.0	154	36.2	265	61.3	165	38.2	124	56.6	55	25.1
212	49.3	133	30.9	233	52.2	127	28.5	115	52.5	48	21.9
96	23.4	46	11.2	103	24.6	52	12.4	50	24.3	25	12.1
31	7.4	10	2.4	18	4.1	5	1.1	10	4.7	3	1.4
9	2.2	4	1.0	15	3.4	4	.9	7	3.3	2	.9

It is significant that 26.7 percent or over one-fourth of the universities were giving courses completely or primarily by film. However, 8.4 percent or less than one-third of them were doing so because of faculty shortages.

Almost one-half, 45.3 percent, of the universities have reduced the number of subcollegiate courses of instruction, 18.8 percent of them because of faculty shortages. Liberal arts colleges, teachers colleges, and independent technological schools have likewise been taking this action to a considerable extent. Apparently colleges and universities are finding it increasingly necessary or desirable to reduce the load of subcollegiate instruction in order to conserve faculty resources for the collegiate program of instruction.

Table 9.—Institutions following specified practices in 1957–58 for any reasons

PRACTICE	Universities (139)			
	Institutions following practice—			
	For any reasons		Due to faculty shortages	
	Number	Percent	Number	Percent
1. Employment of retired persons	84	61.3	63	46.0
2. Employment of part-time persons	101	75.9	62	46.6
3. Interinstitutional sharing	45	33.8	15	11.3
4. Employment of less-qualified personnel	69	52.3	66	50.0
5. Employment at higher salaries	114	85.7	100	75.2
6. Employment at higher ranks	54	41.2	48	36.6
7. Employment at higher ranks and salaries	66	48.9	61	45.2
8. Accelerated promotions	47	36.2	39	30.0
9. Employment beyond retirement age	67	50.4	45	33.8
10. Retirement age raised	7	5.4	5	3.8
11. New or increased fringe benefits	103	79.2	33	25.4
12. Salary increase of at least 5 percent	116	89.2	58	44.6
13. Lecture sections enlarged	84	62.7	69	51.5
14. Duplicate and overlapping courses reduced	93	69.9	48	36.1
15. More student responsibility for learning	54	40.9	29	22.0
16. Nonprofessional assistants used	61	45.5	37	27.6
17. Number of smaller classes reduced	83	61.5	58	43.0
18. Programs eliminated, curtailed, postponed	69	52.3	36	27.3
19. Subcollegiate courses reduced in number	58	45.3	24	18.8
20. Courses completely or primarily by TV	35	26.7	11	8.4
21. Courses completely or primarily by films	7	5.4	3	2.3

and because of faculty shortages, by type of institution: Number and percent

Liberal arts colleges (670)				Teachers colleges (174)				Junior colleges (376)			
Institutions following practice—				Institutions following practice—				Institutions following practice—			
For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages	
Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
321	51.3	242	38.7	37	22.7	32	19.6	102	29.1	73	20.8
446	71.5	258	41.3	70	42.7	51	31.1	197	57.6	100	29.2
239	39.3	136	22.4	33	21.0	13	8.3	127	38.0	53	15.9
290	46.3	274	43.7	94	57.0	88	53.3	159	45.0	148	41.9
454	72.4	379	60.4	100	61.3	90	55.2	138	39.8	129	37.2
156	26.4	135	22.8	43	27.6	39	25.0	36	11.1	27	8.4
229	39.1	194	33.2	51	33.3	49	32.0	46	14.6	33	10.5
159	27.7	109	19.0	47	31.5	37	24.8	46	15.2	26	8.6
287	47.7	190	31.6	40	24.4	29	17.7	82	24.8	56	16.9
55	9.8	37	6.6	19	12.1	15	9.6	25	7.9	23	7.3
440	72.5	171	28.2	68	43.9	28	18.1	150	44.8	68	20.3
560	89.6	270	43.2	131	83.4	76	48.4	279	82.5	140	41.4
270	44.1	199	32.5	99	60.0	78	47.3	144	41.5	81	23.3
427	71.4	181	30.3	93	60.4	44	28.6	124	37.9	54	16.5
276	46.8	100	16.9	58	37.7	29	18.8	70	21.7	22	6.8
235	39.2	154	25.7	55	34.6	36	22.6	85	25.0	39	11.5
370	61.0	215	35.4	103	67.3	67	43.8	166	50.2	84	25.4
320	52.6	185	30.4	81	50.0	49	30.2	159	47.0	76	22.5
146	25.8	60	10.6	33	21.7	21	13.8	46	14.3	22	6.8
23	3.9	4	.7	10	6.5	2	1.3	12	3.5	3	.9
13	2.2	3	.5	6	3.8	1	.6	5	1.5	3	.9

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Table 9.—Institutions following specified practices in 1957–58 for any reasons

PRACTICE	Independent technological schools (40)			
	Institutions following practice—			
	For any reasons		Due to faculty shortages	
	Number	Percent	Number	Percent
1. Employment of retired persons	18	46.2	15	38.5
2. Employment of part-time persons	28	73.7	15	39.5
3. Interinstitutional sharing	8	22.9	3	8.6
4. Employment of less-qualified personnel	17	44.7	17	44.7
5. Employment at higher salaries	20	55.6	16	44.4
6. Employment at higher ranks	6	16.7	6	16.7
7. Employment at higher ranks and salaries	8	24.2	8	24.2
8. Accelerated promotions	13	38.2	9	26.5
9. Employment beyond retirement age	12	31.6	9	23.7
10. Retirement age raised	6	16.7	2	5.6
11. New or increased fringe benefits	24	61.5	8	20.5
12. Salary increase of at least 5 percent	35	92.1	18	47.4
13. Lecture sections enlarged	18	46.2	14	35.9
14. Duplicate and overlapping courses reduced	21	55.3	7	18.4
15. More student responsibility for learning	12	34.3	6	17.1
16. Nonprofessional assistants used	16	43.2	10	27.0
17. Number of smaller classes reduced	17	45.9	7	18.9
18. Programs eliminated, curtailed, postponed	12	32.4	5	13.5
19. Subcollegiate courses reduced in number	8	25.0	5	15.6
20. Courses completely or primarily by TV	2	5.7	0	.0
21. Courses completely or primarily by films	1	2.9	0	.0

Comparison by Size of Enrollments

Table 10 provides a basis for comparison between the uses of practices by institutions grouped by size of enrollment: over 5,000; 2,500 to 5,000; 1,000 to 2,499; 500 to 999; 250 to 499; and below 250.

A study of this table shows that the larger institutions are following the practices listed in the questionnaire to a much greater extent than the smaller institutions. In fact, institutions of over 5,000 enrollment had

and because of faculty shortages, by type of institution—Continued

Other independent professional schools (88)				Theological and religious schools (87)				Semiprofessional schools and technical institutes (36)			
Institutions following practice—				Institutions following practice—				Institutions following practice—			
For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages	
Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
29	33.3	15	17.2	20	26.0	12	15.6	9	28.1	5	15.6
68	80.0	19	22.4	51	63.0	20	24.7	27	81.8	11	33.3
38	48.1	10	12.7	35	45.5	13	16.9	6	19.4	2	6.5
19	22.4	10	11.8	19	24.1	16	20.3	7	21.9	7	21.9
49	59.8	34	41.5	26	33.8	14	18.2	18	56.3	13	40.6
11	14.9	7	9.5	9	12.2	4	5.4	3	10.0	2	6.7
20	25.6	14	17.9	12	16.4	7	9.6	8	25.8	7	22.6
14	19.2	9	12.3	12	16.2	5	6.8	10	33.3	8	26.7
25	32.9	12	15.8	15	20.0	11	14.7	4	12.1	3	9.1
7	9.6	3	4.1	1	1.3	1	1.3	4	13.3	3	10.0
37	46.8	13	16.5	32	43.8	10	13.7	12	40.0	5	16.7
53	70.7	17	22.7	45	63.4	7	9.9	21	63.6	9	27.3
23	28.0	9	11.0	30	37.0	18	22.2	12	37.5	5	15.6
37	48.7	10	13.2	24	32.9	5	6.8	14	43.8	5	15.6
21	27.6	4	5.3	20	27.8	4	5.6	8	24.2	5	15.2
20	25.0	7	8.8	25	33.3	6	8.0	18	52.9	9	26.5
17	22.4	6	7.9	23	29.9	12	15.6	13	40.6	3	9.4
25	31.3	8	10.0	24	32.0	11	14.7	5	15.6	2	6.3
5	7.4	1	1.5	4	6.2	2	3.1	2	6.5	0	.0
1	1.3	0	.0	0	.0	0	.0	0	.0	0	.0
3	3.9	0	.0	2	2.7	1	1.4	1	3.1	1	3.1

the highest percentage of use in 12 of the practices, and those in the 2,500 to 5,000 enrollment group led in 7 others. On the other hand, institutions with enrollments below 250 used the practices least in all but 2 cases, namely, interinstitutional sharing and raising of the retirement age.

A study of the percentages in table 10 shows that, generally speaking, the practices are employed progressively less with each smaller enrollment group. This same pattern exists when the enrollment groups are compared on the basis of practices followed due to faculty shortages.

Table 10.—Institutions following specified practices in 1957–58 for any reasons and because of faculty shortages, by size of enrollment: Number and percent

PRACTICE	Enrollment over 5,000 (151)				Enrollment 2,500 to 4,999 (126)				Enrollment 1,000 to 2,499 (316)			
	Institutions following practice—				Institutions following practice—				Institutions following practice—			
	For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Employment of retired persons	90	61.2	64	43.5	70	58.3	53	44.2	123	41.0	101	33.7
2. Employment of part-time persons	118	81.4	66	45.5	90	76.3	64	54.2	212	70.0	124	40.9
3. Interinstitutional sharing	49	34.3	18	12.6	39	33.6	15	12.9	90	31.1	45	15.6
4. Employment of less-qualified personnel	62	43.1	62	43.1	70	59.3	70	59.3	149	50.2	141	47.5
5. Employment at higher salaries	109	74.7	92	63.0	82	70.1	74	63.2	203	68.1	181	60.7
6. Employment at higher ranks	43	30.1	36	25.2	34	30.1	32	28.3	79	27.4	71	24.7
7. Employment at higher ranks and salaries	55	39.0	52	36.9	46	39.3	41	35.0	97	34.4	88	31.2
8. Accelerated promotions	45	31.9	35	24.8	35	32.1	28	25.7	82	29.5	64	23.0
9. Employment beyond retirement age	62	42.8	43	29.7	45	38.8	29	25.0	109	37.6	74	25.5
10. Retirement age raised	8	5.8	8	5.8	11	9.8	7	6.3	30	10.8	24	8.6
11. New or increased fringe benefits	103	72.0	31	21.7	78	66.7	29	24.8	177	61.2	76	26.3
12. Salary increase of at least 5 percent	121	86.4	53	37.9	111	94.9	65	55.6	265	90.8	143	49.0
13. Lecture sections enlarged	81	56.6	66	46.2	70	58.3	48	40.0	138	45.8	101	33.6
14. Duplicate and overlapping courses reduced	103	73.0	46	32.6	77	66.4	32	27.6	187	64.9	93	32.3
15. More student responsibility for learning	56	38.9	28	19.4	47	42.0	21	18.8	103	35.6	43	14.9
16. Nonprofessional assistants used	78	54.2	42	29.2	54	45.4	31	26.1	115	39.1	68	23.1
17. Number of smaller classes reduced	94	66.2	60	42.3	77	63.6	46	38.0	182	63.4	106	36.9
18. Programs eliminated, curtailed, postponed	74	52.5	33	23.4	66	55.5	34	28.6	145	49.0	72	24.3
19. Subcollegiate courses reduced in number	56	41.2	20	14.7	28	25.0	15	13.4	65	23.0	34	12.1
20. Courses completely or primarily by TV	38	27.1	9	6.4	12	10.3	4	3.4	22	7.7	4	1.4
21. Courses completely or primarily by films	7	4.9	3	2.1	3	2.6	2	1.7	8	2.8	2	.7

PRACTICE	Enrollment 500 to 999 (362)				Enrollment 250 to 499 (344)				Enrollment below 250 (311)			
	Institutions following practice—				Institutions following practice—				Institutions following practice—			
	For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages		For any reasons		Due to faculty shortages	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Employment of retired persons	137	40.5	97	28.7	119	37.3	83	26.0	81	28.1	51	17.7
2. Employment of part-time persons	229	68.0	120	35.6	195	61.9	94	29.8	144	51.1	68	24.1
3. Interinstitutional sharing	115	35.4	51	15.7	132	43.1	70	22.9	116	42.2	52	18.9
4. Employment of less-qualified personnel	164	47.5	153	44.3	129	40.3	123	38.4	100	34.8	86	30.0
5. Employment at higher salaries	219	65.2	187	55.7	197	61.4	148	46.1	129	46.2	93	33.3
6. Employment at higher ranks	75	24.0	60	19.2	56	18.9	46	15.5	32	12.2	22	8.4
7. Employment at higher ranks and salaries	118	37.1	97	30.5	83	28.9	66	23.0	43	16.6	29	11.2
8. Accelerated promotions	80	25.8	53	17.1	66	23.7	39	14.0	38	15.3	21	8.4
9. Employment beyond retirement age	142	42.5	92	27.5	103	33.9	70	23.0	71	27.0	46	17.5
10. Retirement age raised	33	10.5	23	7.3	21	7.4	18	6.4	20	8.0	12	4.8
11. New or increased fringe benefits	212	64.2	78	23.6	182	60.9	66	22.1	125	46.3	50	18.5
12. Salary increase of at least 5 percent	289	88.1	137	41.8	269	84.1	116	36.3	195	72.2	76	28.1
13. Lecture sections enlarged	162	48.4	118	35.2	147	46.5	95	30.1	82	29.6	46	16.6
14. Duplicate and overlapping courses reduced	201	62.4	84	26.1	166	55.7	72	24.2	100	37.5	37	13.9
15. More student responsibility for learning	126	39.7	46	14.5	109	36.7	40	13.5	78	29.9	21	8.0
16. Nonprofessional assistants used	113	34.1	70	21.1	91	30.2	58	19.3	64	23.8	29	10.8
17. Number of smaller classes reduced	181	56.4	97	30.2	164	53.6	101	33.0	94	34.7	47	17.3
18. Programs eliminated, curtailed, postponed	161	49.4	96	29.4	147	48.2	83	27.2	102	36.8	54	19.5
19. Subcollegiate courses reduced in number	70	23.0	29	9.5	53	18.7	22	7.8	25	10.1	13	5.3
20. Courses completely or primarily by TV	7	2.2	3	.9	4	1.3	0	.0	0	.0	0	.0
21. Courses completely or primarily by films	8	2.5	3	.9	9	3.0	2	0.7	3	1.1	0	.0

The differences probably result from the enrollment pressure on the larger institutions, principally State and municipal universities and colleges which do not limit the numbers of students. Rapidly expanding enrollments have placed heavy demands for larger staffs on these types of institutions, whereas the staffing problems of smaller institutions are largely those of replacements for resignations, retirements, and deaths.

Number of Institutions Following a Specified Number of Different Practices

Table 11 shows the extent to which the 21 practices listed in the questionnaire were followed by individual institutions, because of any reasons at all and because of faculty shortages.

Table 11.—Number of institutions following a specified number of different practices

Number of different practices followed in any one institution	Number of institutions following this number of different practices—		Number of different practices followed in any one institution	Number of institutions following this number of different practices—	
	Because of any reasons at all	Because of faculty shortages		Because of any reasons at all	Because of faculty shortages
0	36	248	11	108	49
1	37	171	12	91	35
2	75	170	13	58	14
3	85	133	14	37	10
4	117	167	15	30	6
5	120	134	16	28	3
6	157	121	17	8	2
7	160	119	18	2	1
8	153	94	19	2	0
9	170	69	20	1	0
10	133	64	21	2	0

As shown by the table, institutions varied widely in the use of the practices, ranging from 36 institutions employing none of them to 2 institutions employing all 21 of them. The greatest numbers of institutions following specific numbers of practices were those employing 6, 7, 8, or 9 practices.

The number of practices an institution is following because of faculty shortages is some measure of the status of faculty staffing at that institution. An institution having no staffing problems would employ none of the practices to relieve faculty shortages, whereas an institution having a serious staffing problem might well employ a considerable number of them.

Of the total of 1,610 institutions participating in the study, only 248 of them, or 15.4 percent, reported that they did not follow any of the practices because of faculty shortages, and 341, or 21.2 percent, said that they had followed only 1 or 2 of the practices for these reasons. On the other hand, 466, or almost 29 percent of the institutions, indicated that, because of faculty shortages, they were employing 7 or more of the practices. One institution employed as many as 18 practices and 2 institutions as many as 17 practices for this reason.

CHAPTER III

Comments and Observations by the Respondents

THE QUESTIONNAIRE requested each respondent to make any comments or observations he desired to on faculty staffing problems at his institution, the methods of coping with them, and the relative effectiveness of the methods. A total of 439, or 27.3 percent, of the respondents availed themselves of this opportunity. The remarks made give considerable information on what the problems are and what individual institutions are doing about them.

Methods of Analysis

In general, the comments and observations fall into broad categories: (1) Status of faculty staffing; (2) practices employed to augment staffs and retain faculty members already in service; and (3) practices designed to conserve faculty resources and improve instruction. In some instances the remarks are made in elaboration on the practices listed in the questionnaire. In other instances additional practices not listed in the questionnaire are discussed. Sometimes the respondents preferred to discuss the faculty staffing situations at their institutions in general terms.

As an aid to understanding the types of problems that colleges and universities are facing, the kind of measures they are adopting to cope with them, and the impressions and evaluations of the respondents, typical comments and observations are quoted in the following pages. Where the name of the institution or other identification appeared in the comments of the respondents, slight changes have been made in the wording so as to eliminate such reference.

Status of Faculty Staffing

As expected, there was considerable variation in faculty staffing problems in colleges and universities in 1957–58. Some had no problems; others had extremely serious ones. However, the number of respondents who had shortages was larger than the number who had none. These comments tend to corroborate the data revealed in table 11, page 30, which show that most institutions are following many of the 21 listed practices because of faculty shortage.

a. Shortages of Faculty and Kinds of Staffing Problems

In the opinion of many college presidents or other persons answering the questionnaire in their behalf, the shortage of qualified teachers is the most serious problem in higher education today. The following comment is typical of several such comments made.

President of a private Southern liberal arts college:

The securing and retaining of well-trained, effective teachers is the outstanding problem confronting all colleges today.

Most of the comments on shortage of faculty related to shortages in particular areas. This difficulty was reported by 197 institutions in science, mathematics, and engineering; 19 in humanities; 23 in social sciences; and 58 in education and professional areas. Mathematics with 51 was the most frequently cited specific field of shortage, and physics was next with 39. However, since an additional 16 respondents mentioned science, 11 physical sciences, and 16 science and mathematics, the shortage in physics is probably as acute as in mathematics. Twenty-seven mentioned engineering as a shortage area. It should be remembered that the shortage data presented here reflect only part of the actual shortages because information by field was not specifically requested and was provided voluntarily by the respondents.

The shortage of qualified college teachers in the science, mathematics, and engineering areas is due principally to our rapidly expanding technology brought about by new scientific developments and national defense requirements. Before World War II, for example, very few occupational opportunities except college teaching were available to persons highly trained in mathematics. At present industry, business, and government are all seeking mathematicians to such an extent that the employment registers maintained at the annual meetings of the mathematical societies frequently list more vacancies in industrial or government work than in college teaching.

Here are some typical comments on the lack of available candidates in science, mathematics, and engineering:

The dean of the faculty in a State college in the Rocky Mountain region:

As is perhaps the case with most other institutions of higher learning, we have had difficulty in attracting and holding people in such fields as physical sciences, economics, business administration, and mathematics. Accordingly, we have been compelled to set the beginning salary of such personnel as physics professors at least $1,500 higher than in such fields as history, art, physical education, English, etc. This began about 1954 and has worked until the present year when the differential perhaps may be increased even more.

The dean of a private liberal arts college in the Midwest:

The worst faculty staffing problem we've had is that of finding a good instructor in mathematics. We hunt widely for candidates in all fields, but whereas we may have about 150 candidates in a department of the humanities, we have had only 1 good candidate for an instructorship in mathematics in the last 8 years.

The president of a Rocky Mountain technological school:

Difficulty of finding new faculty in science, mathematics, engineering, and other professional fields continues to be a major problem for which no solution has been found. The shortage of such persons who want to enter teaching continues to be severe. Such shortage, coupled with inability to compete with industry on salaries, continues to force the hiring of faculty having preparation below that desired and at salaries and ranks higher than preparation and background would warrant. Industrial salaries continue at a rate which the colleges cannot reach or meet, thus reducing further the faculty market. Such problems have been experienced at this engineering school for years past and are becoming more pronounced each year. Every time an increase in general salary level has been achieved, industry is found to have increased its lead even more. No solution has been found.

The acute shortage of science and mathematics teachers in the high schools and junior colleges is further exemplified in the report of a junior college official in California:

There is a critical shortage of math and science instructors. This is emphasized in a survey by the California State Department of Education which indicated a need in the high schools and junior colleges in California during 1958 and 1959 for a total of 451 new math instructors, whereas only 108 math majors will graduate from all training institutions in California.

There is also a shortage of physics instructors; 373 new physics instructors are needed. Only 65 physics majors will graduate from all training institutions in California this year.

The principal stumbling block to administrative officials in their search for faculty seems to be lack of sufficient funds to compete with other institutions and industry and government. This observation, made by a large number of respondents, is illustrated by the two typical comments which follow:

Dean of a private liberal arts college in the South:

Problems are the same—teachers with the ability and training we desire are not available for the salaries we can pay. Financial strength of the tax-supported institutions cannot be met by private colleges.

The president of a church-related liberal arts college in a Great Plains State:

Our low salary scale, especially in an area such as this where public school teachers receive salaries far in excess of our average, makes obtaining competent faculty a serious problem.

President of a teachers college in the Midwest:

For the past few years our most pressing problem has been financial. Major aspects of the problem are:

1. Secondary schools (city) are paying more than we can.
2. Our State ranks well below the majority of States in salaries.
3. Other States attract teachers trained in our State.
4. In face of the above we have difficulty maintaining a staff of high quality.

When conditions of shortage in any kind of commodity exist, it is natural to expect the lion's share to go to the highest bidder. This situation in college teaching has caused the presidents of a number of institutions adversely affected to deplore this practice, which is referred to as "kidnaping" by the president of a church-related liberal arts college in the South:

The larger and better known institutions of higher learning are in a position to offer higher salaries and more attractive fringe benefits to faculty members; this situation often tends to the practice of what is being termed "kidnaping" faculty members who are teaching in the smaller institutions.

A beneficiary of this practice, a junior college dean in the Midwest, made this observation:

We are increasing our faculty at a current rate of 20 percent per year. By robbing the South we have held our own. But what happens when the Southern wells run dry?

Some of the difficulty in maintaining adequate faculties has been occasioned by peculiar problems faced by the institutions. Geographic location has been a handicap to several colleges and universities, as is indicated by the following two comments:

The president of a university in an outlying possession of the United States:

Because of the distance from recruiting centers we must rely on mail contacts and personal and reliable academic friends in building staff. Personal interviews are difficult—hence we have a slow and cumbersome system of verification which is nevertheless extremely necessary. In view of this fact, we are in serious need of more honesty and exactness in written recommendations than we find today.

The president of a church-related liberal arts college in the Midwest:

Our geographic isolation from large cities with their cultural and research facilities makes initial recruitment of faculty extremely difficult, and those from outside of our State tend to leave after a year or two for these same reasons.

Since 1954 we have emphasized encouragement of our faculty to take leave for advanced study in order to provide the upgrading which cannot take place otherwise because of distance. Even here there is a risk of placing the individual in contact with department heads of other institutions who can offer more favorable opportunities and better salaries.

Some of the junior college officials reported that they were having difficulty in locating prospective faculty members with the proper certification for teaching.

The academic dean of a private liberal arts junior college in the Midwest:

Ours is a church-related school. Staff members are primarily recruited from membership of the supporting church body, not necessarily from this State. Our principal difficulty is meeting the certification requirements established for junior colleges of the State. The certification requirements were set for secondary schools without the cooperation of the junior colleges.

The dean of a public junior college in the Southeast:

Our salary schedule is presently above that of the other units of the public schools in this area, and in adjoining States. Our specific problem appears to be that of getting persons with at least a master's degree who have a minimum of 15 graduate hours in their teaching field.

The president of a teachers college in the East reported a problem similar to that of some junior college officials:

The ranking and salary provisions affecting the staff at our State teachers college are covered by legislative acts. One of the most difficult provisions to be met in connection with employment of faculty members is a requirement of several years of public school experience and a graduate degree with a major field in the area of service. The number of years of public school experience varies for the different ranks. It is exceedingly difficult to find applicants who have had excellent public school teaching background and a degree in a subject-matter area.

Thirteen respondents reported that the shortage of Ph. D. candidates for available teaching positions was their major problem.

The dean of a professional school in a large eastern city:

Additional faculty members with Ph. D. degrees in disciplines taught are being sought as growth and retirement of faculty occur. Suitably trained personnel are not available to the extent desired.

The president of a Negro State college in the South:

We have difficulty in finding qualified Negro Ph. D.'s, and the Southern Association requires that we have a certain number.

The president of a Rocky Mountain teacher training institution:

Salaries were quite low until past 2 years—over 10 percent increment in 1957–58 and 8 percent increment in 1958–59. Some interim appointments were made in 1957–58

with lower qualifications than desirable. Lack of personnel policy, with three presidents in 3 years. No serious shortage of people who would like to move into higher education in evidence. We have two or three applications a week. However, they are all at the M.A. or M.A.+ level; not enough Ph. D.'s.

The president of a public junior college in a North Central State:

We have noticed increasing difficulty, during the last 2 years especially, finding well-qualified instructors. Ph. D.'s in all fields, even social studies, are not available to us to the degree they were available prior to 2 years ago.

Several of the presidents of church-related colleges reported that their main problem was finding faculty members who met the requirements of the denominational affiliation and had the necessary academic attainments. The following comment is an example.

The president of a private liberal arts college in the North Central section:

Our problem in staffing has been the necessity of broadening our requirements for meeting the criterion of religious and church preference. We have found it necessary to hire staff people who would not have been hired 5 years ago for the reason stated.

However, in some instances, presidents of church-related schools indicated that church affiliation had aided recruitment and retention of faculty who had dedicated themselves to teaching in such institutions, even at lower salaries than they could obtain elsewhere. A number of respondents reported that they had been compelled to increase the number of lay teachers on their staff.

Another difficulty some institutions face in recruiting new staff is that of not knowing until summer the amount of funds that will be available.

The vice president of a large public college of education in the North Central region:

Our most serious problem stems from the fact that our legislative appropriations are not known until late in June or July, and we cannot start to hire additional faculty members until this time. As a result, our choice of qualified candidates is seriously restricted. So far as I know, there is no way of coping with this problem. It seems we just have to live with it.

The shortage of faculty, in the opinion of some respondents, has strengthened the bargaining position of job applicants and caused them to become more selective in their choices.

The director of a public junior college in the Far West:

In the past we have had little difficulty in obtaining adequate, competent instructors for our college. However, we have noted this year that applicants are more reluctant to accept at the first offer. They seem to be shopping and looking for higher salaries.

The dean of a private liberal arts college in the Midwest:

1958—We have noted that younger teacher candidates tend to be more choosy and inclined to believe that "if I hold out long enough, I can get a better offer."

Seasoned teachers approach a hiring situation more evenly and with less vacillation. As a church college, we still find our best "prospects" among candidates of our religious faith who consider it a part of their Christian service to teach here.

While staffing problems are critical in the judgment of many college officials even now, several have predicted that the situation will worsen in the years ahead. The dean of a private liberal arts college in the Rocky Mountain region has predicted that well-trained, qualified college teachers will be the scarcest commodity in the United States within 5 years.

b. Nonexistence of Faculty Staffing Problems at Some Institutions

A sizable number of institutions have not been faced with problems of faculty staffing, although this number is much smaller than the number who have. The following discussion is devoted to comments and observations of respondents who have not had staffing difficulties, together with some of the underlying reasons for these fortunate circumstances.

The president of a liberal arts college in the Northeast:

> Our college is limited to 400 women undergraduates. We have never had any trouble staffing our faculty. We require two basic qualifications of our candidates for teaching: (1) A minimum of 5 years of teaching experience (and in the subject to be assigned at our college); and (2) a doctorate (Ph. D. or Ed. D.—depending on the department, whether liberal arts or education) completed or within dissertation completion during the next 2 years.
>
> We pay not less than $5,000, with the schedule rising to $10,000 at step rates of approximately $300 per annum. We have a tenure and retirement plan. Our faculty members average 14 hours per week, with 1 full day or 2 consecutive half-days off during every 5-day week (we have no Saturday classes). We have had no faculty change—except for additions, death, or retirement for 5 years. Meanwhile, we receive more than 200 applications yearly from instructors to full professors from as many major as minor colleges.
>
> In a word, we have no staffing problem.

The vice president of a public university in the Far West:

> Generally, the present shortage of qualified teachers has not been so acute as to cause the university to find it necessary to deviate from its longstanding program of high selectivity in faculty recruitment. Although university officials are aware of the growing problems in this area, it is making every effort to maintain its standards by other means. It is felt that the presence of a distinguished library, adequate research facilities, and the opportunity to work with outstanding scholars constitute as effective a recruiting device as many of the practices which you list in your questionnaire. The university, in an effort to maintain its reputation for an outstanding faculty, is constantly improving its libraries, laboratories, and research opportunities in order to attract scholars who are more likely to respond to these incentives than to such things as accelerated promotion programs and various fringe benefits. It is felt that this must result in a faculty of a higher caliber.

A number of officials, especially in junior colleges, reported that they had no difficulty in recruiting faculty members for their colleges from

among the better high schools with which their institutions were associated.

The president of a teachers college in a city in the Midwest:

The staffing problem has not been as urgent as at some colleges since the increase in enrollment in this institution has been relatively less than in other colleges. Additional staff members can generally be secured by transferring them from other units of the large public school system to which our institution belongs.

The registrar of a junior college in a Middle Atlantic State:

One of the ways we have met faculty needs in the junior college is by recognizing outstanding ability and superior preparation of secondary school teachers who may be interested in working with older young people.

The president of a junior college in California:

At the present time we have not faced any insurmountable difficulties in staffing our college. To be sure, in the areas of mathematics, physical sciences, engineering, electronics, and nursing, we have not had an abundance of applications. Being part of a city system in which we have several schools under the same board of education, we have from time to time taken outstanding people from these faculties and brought them to the college.

Twenty respondents stated that the religious affiliation of their institutions had been the major reason why they have had no staffing problems. If a shortage should exist, it would be due principally to a shortage of members of the religious order generally.

The president of a church-related college in the Southwest:

Most of our faculty members are Brothers of Holy Cross, a religious community of the Catholic Church. We have a long-range program for the selection and training of men for teaching at our college and are not particularly troubled with a shortage of extremely well-qualified teachers.

The president of a liberal arts college for women in New England:

The college enjoys the privilege of contributed services from all its faculty members, save one who comes part time for a physical education class.

The president of a small church-owned college in the Midwest:

Since our college is a small church-owned institution, we have had a rather rapid turnover in personnel. However, since we are largely controlled by a central commission, which also assists in obtaining personnel, the problem of staff recruitment has been less irritating. We are quite satisfied.

Favorable location, including such factors as desirable climate and availability in urban centers of large numbers of persons who may be employed part time, has eliminated staffing problems at some institutions.

The development director of a junior college in a suburb of a large eastern city:

We have had no great problem to secure new faculty. Out of a total of about 25, we had to replace only 2 for next year. We have had over 100 applications from teachers, probably due in part to our ideal location, and in part, we hope, to our reputation.

The president of a State college in the Northwest:

We have not been having difficulty in filling our vacancies to date. We had trouble in 1946–47. Since then we have had little difficulty. The factors may be that our salary schedule is as good as any in the country, our college is growing by leaps and bounds, our climate and scenery are wonderful, and our location is one of the "safe spots" on the west coast from radioactive fallout, etc.

A few respondents stated that, in their opinion, the recession during the first part of 1958 had eased staffing problems. They based their judgment on the increasing number of applicants from industry. However, they expected the relief for this source to be only temporary.

Practices Employed To Augment Staffs and Retain Faculty Members

As is indicated in the preceding chapter, many colleges and universities are following practices whose effects either reduce the need for more faculty members or attract and retain faculty. A considerable number of responding officials explained, in varying degrees of detail, the kinds of practices they were employing and the effectiveness of these practices.

a. Better Salaries

A fairly large number of institutions reported that better salaries had been extremely helpful in alleviating staffing problems or that higher salaries were needed in their institutions to enable them to compete successfully in the college teacher market. Following are some typical remarks on this aspect of the problem.

The dean of the faculty in a public university in the Northwest:

We have been successful in raising the general salary scale rapidly enough to cope with most staffing problems.

The president of a private liberal arts college in the Southwest:

The fundamental weakness at our institution is inadequate salaries. The basic reason is lack of endowment. We have some prospects for more help from the denominations. However, unless something drastic occurs, we and many other colleges our size and status face a supreme crisis. We could be helped immeasurably by more grants to students processed through our own business office. Grants to students direct does not favor schools such as ours unless we process the funds. They take the grants and go to other colleges.

The director of a junior college in an isolated section of California:

From 1954 to the present, the maximum salary of this district has increased from $7,250 to $9,250. The teaching salary schedule of this district of high assessed valu-

ation is in the top 5 percent of the State of California. At the present time the range is from $4,920 for the beginning teacher with minimal training (A.B.) to $9,250. The beginning teacher with M.A. degree (requirement for college appointment) qualifies for a salary of $5,280. Consequently, we have a few staffing problems.

The president of a State junior college in a Northern Great Plains State:

Our salaries were very low. We secured an appropriation from our State legislature in 1958 which made it possible to give substantial raises during the 1958–59 college year. As a result, we lost only 3 faculty members last year (out of a total of 50); and, thus far, we have no resignations for the 1959–60 school year.

The president of a State college in the Southwest:

We have had concrete evidence during the present biennium (1957–59) that the chief problem involved in securing adequately trained faculty is salary. During 1956–57 there was considerable dissatisfaction among members of the faculty. Morale was low.

The State commission on higher education recommended to, and secured the adoption by, the State legislature of a formula based on a stated amount at the undergraduate and at the graduate level times the number of semester credit hours for the 18 State-supported institutions. The resulting total available to our institution has made possible an average faculty position salary increase of $1,107 for 1958–59 over 1956–57. This represents a 22.3-percent increase in the 2 years.

The president of a private liberal arts college in a North Central State:

Since 1954 faculty salaries have been increased each year. This has not been due to the shortage of staff. Rather, with rising costs. We have had little trouble finding staff. We do have trouble finding funds to pay them.

One private church-related college in a large city in the Midwest revised its salary scale and placed all full-time faculty on a 12-month salary with appropriate increment.

According to one president of a private liberal arts college in the Midwest, salary competition isn't all bad as far as he is concerned because this situation during the past 2 years has made it possible for him to encourage unsatisfactory teachers to move on to higher paying positions in other institutions.

b. Improved Fringe Benefits

More and more college and university officials are recognizing the importance of fringe benefits in attracting and holding faculty members. Generally speaking, in the past, colleges and universities have not kept pace with industry, business, and government in providing fringe benefits. Now, however, most institutions of higher education are endeavoring to provide attractive fringe benefits.

The president of a church-related liberal arts college in the State of New York:

Improvement was made on fringe benefits to help us meet, in part, our moral obligation to our teachers, to help us retain our superior teachers and to help attract to our staff exceptional teachers in their field.

The dean of a junior college in the South:

Fringe benefits in the nature of more adequate housing, free rental, State retirement law, have increased the holding power of the school, and facilitated employment of new ones.

The president of a State college in a Southern Great Plains State:

Faculty housing: College owns a number of apartments which it rents to faculty families at low rates.

College farm and processing plant provide meat, milk, eggs to all faculty members below retail market prices. This materially aids faculty living costs, especially where there are children.

Student laboratory assistants provided for most heavily loaded instructors. The college pays a part of certain professional dues. The college pays travel expenses to some of the professional meetings which various members of the faculty attend during the year.

The vice president of a private university in the Far West:

In the spring of 1958, we entered into a contract for a major medical health insurance plan for both faculty and nonteaching staff. Since the university will bear approximately 80 percent of the cost of this plan, it may well be regarded as a form of salary increase.

The dean of the faculty in a private liberal arts college in New England has reported that his institution now pays Blue Shield, has increased the funds for faculty travel to professional meetings, and has given a small allowance to aid in the preparation of scholarly articles and for purchase of reprints. The standard teaching load at his college has been reduced from 15 to 12 hours, with not more than three preparations.

Nine respondents stated that a sabbatical-leave policy had been recently introduced as a fringe benefit. Several institutions reported that they had provided better insurance programs and major medical plans and improved retirement. In many of these instances, the institution is underwriting a large part, if not all, of the cost of these improvements.

Assistance to faculty members to attend workshops and professional meetings, waiver of or reduction in tuition charges to children of faculty members, and college assistance with financing of faculty house purchases were cited a number of times as faculty fringe benefits which have been recently introduced on some college campuses in order to make the profession of college teaching more attractive.

c. More Aggressive Recruiting Practices

More aggressive recruiting practices by some college officials have brought results, according to several such comments received.

The president of a private liberal arts college in the Far West:

We have broadened our contacts with university placement bureaus and departmental leaders over a period of several years with the present situation foreseen and in mind. Quite helpful. We have increased travel funds budgeted to bring faculty candidates to campus for interviews. Quite helpful.

The vice president of a private university in the Rocky Mountain Region:

We are attempting to employ new staff earlier in the year before the annual crop of new teachers is exhausted.

The president of a church-related college in the Midwest:

We have improved our interviewing technique by bringing every prospective faculty member to the campus. This has enabled us to hire some who were, to that time, unenthusiastic. We are also signing new faculty members for a year in advance, thus making for a smoother transition and at the same time assuring us of their services.

The president of a private liberal arts college in the Alleghenies:

We are planning personnel needs and selection over long range—2 years or more. We have tentative commitments for new instructors in chemistry and history for the fall of 1960.

d. Increased Employment of Women as College Teachers

Eight institutions reported that increased employment of women had been helpful in solving staffing problems. Two institutions, a public university in a Southeastern State and a private liberal arts college in the Midwest, because of faculty shortages have employed women as full-time faculty members on a formerly all-male faculty.

Employment of professors' wives as a means of easing staffing shortages was reported by three institutions. Two comments on this practice follow:

The president of a Bible college in the Midwest:

We are a small college. Several of our professors' wives have been used for both instructional and noninstructional posts. The wife is not allowed tenure in this case. It has been satisfactory both in adding to our supply of instructors, helping the college budget, and adding to the professor's family income.

The president of a small church-related college in an Ohio Valley State:

This college operates on such limited finances that to get good teachers we must employ unmarried teachers, or employ man and wife, or employ a teacher who has some outside income. This condition has existed at least since I came here in 1951. In spite of this condition, we have a good faculty, the great majority of whom are permanent and dedicated.

e. More Pleasant Working Conditions

As long as there has been college teaching, certain attributes of it have tended to attract certain kinds of persons.

Opportunity to work with young people, academic freedom, and the intellectual stimulation of a college environment are among the reasons why many persons like college teaching and the reasons that make them willing to forego other kinds of positions paying higher salaries.

Several presidents mentioned the importance of making the conditions in which faculty members work as pleasant as possible.

The president of a private liberal arts college in the upper Midwest:

We have tried to meet this problem by a steady increase in salaries and other benefits, but above all by making the educational program as exciting as possible for individual faculty members. So far it seems to have worked out very well.

The president of a private liberal arts college in the Southwest:

The general reputation of our college and the personal happiness of our faculty members in the group and in the community are the things we rely upon principally to keep to a low level the turnover in our faculty. Many of those things which make for happiness are very personal and individual and cannot easily be classified for a study like this one.

The president of a private liberal arts college in the central Midwest:

In overall terms, our college has not felt any appreciable pinch in securing or retaining teaching faculty. This has been due in part to a continuing effort to raise salaries each year, but much more to the noneconomic advantages which faculty members seem to find in being associated with the college.

Eleven institutions have attempted to make employment more attractive by permitting and, in some instances, encouraging faculty members to undertake outside consulting work to supplement incomes. At one institution, time-off equivalent to one full day a week was allowed for this purpose.

f. More Encouragement and Support of Graduate Training

Encountering difficulty in competing with other institutions for faculty with the desired qualifications, some colleges and universities have developed a program whereby faculty members of limited preparation as well as promising undergraduate and graduate students are encouraged to undertake further educational training. In many of these instances, the college or university pays a portion, sometimes a large portion, of the resulting expense.

The president of a theological seminary in a Middle Atlantic State:

We follow the program of selecting promising young scholars, subsidizing their graduate training, and bringing them to the faculty after 2 to 4 years of this procedure.

The president of a private liberal arts college in the South:

Keeping an adequately trained staff is one of the most serious problems we face. We simply cannot compete in the marketplace for faculty. This has been particularly true for the past 2 years. We have sought to solve this problem by—

1. Generous leave of absence for advanced study for our more competent young faculty members.
2. Helping our best graduates to attend graduate school in return for their agreement to teach 2 years at our college following completion of work.

The assistant to the president in a private college in a State in the Allegheny Mountain region:

In the summer we began a plan of making available to promising staff members a summer stipend for the purpose of upgrading degrees and rank. The only obligation incurred is that of returning to the campus on the following year. Currently, seven members of the faculty are availing themselves of this opportunity.

The president of a theological college in a large eastern city:

We began about 10 years ago to develop our own teachers by selecting suitable candidates from college graduates and giving them assistance in graduate schools, such as paying tuition, fees, etc. Sometimes we give them responsibilities about the college. When these individuals near a successful completion of their program, we put them on salary for a year or two with the understanding they will teach for us for 3 to 5 years after receiving the doctorate. We have no written agreements. We budget two salaries each year for this purpose. We have a small faculty of 70 persons. We have five or six candidates in process which gives us a reasonable security. We estimate the cost for a qualified teacher amounts in this way to about $15,000 or $20,000.

The president of a State institution in the Middle Atlantic section:

The best methods of coping with faculty personnel problems have been (1) marked increases in salary scale, (2) the faculty fellowship program. Further improvement in both will be necessary, however.

The chief problem remains that of getting the best recent graduates (in basic sciences and engineering) into the teaching profession, in face of higher salaries offered by industry. Even before July 1954 we were forced to hire men as instructors in these fields with only the B.S. degree. The Faculty Fellowship Program takes effect only after a man has taught 2 years and proved himself as a teacher, and because of the financial commitment made by the institution in this Faculty Fellowship Program, we believe this 2-year test period is necessary. Up to 8 percent of the faculty are sent on leave to complete work for the Ph. D. at full salary, with commitment to return to the faculty.

The dean of a church-related liberal arts college in the Far West:

Our main problem has been advanced training of faculty. We take care of this by granting leaves with full salary, paying tuition, and cutting no fringe benefits—to selected ones whom we regard as good investments from the viewpoints of competent teaching and reasonable continuance of service to the institution. The amortization of the implied obligation is rapid. The arrangement has been satisfactory (although expensive) to the somewhat impatient college and the teachers, who must have an incidental missionary spirit in these severe times.

The dean of a State college in the Allegheny Mountain region:

We are encouraging our graduates to continue advanced study with the understanding that they will be considered for vacancies as occur in their fields of preparation. The colleges of the State are following through on this program. We hope to exchange our graduates for those of other colleges, but if this cannot be done we will employ them ourselves. Too many alumni on the faculty? Certainly, but if qualified staff members with backgrounds in other colleges are not available, we will employ our own graduates who meet our specifications.

g. Greater Use of Older Persons

The use of a greater number of older persons is a method of coping with teacher shortages. The evidence is that an increasing number of institutions are resorting to this practice. The greater use of older persons is usually accomplished by permitting faculty members to teach beyond the mandatory retirement age; raising the mandatory retirement age; or employing persons already retired from other institutions, retired military officers, or persons retired from business and industry.

The president of a small private liberal arts college in a Great Plains State:

We used five retired people last year. However, it is my 4-year observation that retired people can only hold the line; they cannot be expected to build and expand and experiment. If our tax-supported universities would only put as much effort on the production of college teachers as they put toward large freshman classes and football teams, our problem could be solved. Someone should tell them that!

The president of a private liberal arts college in the Far West:

We have found that retired faculty from other institutions have been most helpful in a college that is extremely young.

The president of a State college in the Southwest:

We have had no serious faculty staffing problems at this institution in recent years; however, we have been keeping most of our faculty members until they reach the mandatory retirement age rather than the minimum retirement age.

The president of a public junior college in the southeastern part of the United States:

We have had some faculty staffing problems, particularly in the science field. This has been due to a shortage of qualified personnel as well as to our salary situation. Since we have a large number of retired people in our city with a high percentage of military personnel, some of whom have been retired at a relatively early age, we are taking advantage of this reservoir of talent. Next year we shall have four "retired" people on our staff.

Some institutions indicated that they would be willing to employ more retired persons if they were available. Some constructive measures have been undertaken to meet this need. One institution reported that it had established for 1958–59 a special program in mathematics for

retired armed services officers leading to the master of arts in teaching. Another significant development was the establishment in 1957 of the Retired Professors' Registry by the American Association of University Professors and the Association of American Colleges. This registry, financed by a grant from the Ford Foundation, serves as a clearinghouse to bring together retired professors and institutions desiring to employ them.

h. Greater Use of Graduate and Undergraduate Assistants

In institutions with graduate schools, graduate assistants are often used to help carry out the undergraduate teaching program. Some institutions have increased this practice in their efforts to meet staffing problems.

The dean of arts and sciences of a public university in the North Central region:

> We are attempting to use graduate assistants more extensively in instruction to encourage them to enter the teaching profession. We are also promoting teaching as a profession to advanced undergraduates and have many who are showing an interest in graduate work and and in college teaching.

The secretary of the faculty of a large State university in the Midwest:

> In recent years there has been more use of graduate student teachers due both to need for staff and to availability of graduate assistants because of higher enrollment in the graduate school.

The dean of the faculty of a State university in the Rocky Mountain region:

> We are meeting our problems through a greater use of graduate assistants doing part-time teaching. We are making lecture classes larger and breaking them up one period a week into smaller groups for discussion, recitation, and questions.

A number of institutions reported that they were increasing the use of undergraduates as laboratory and teaching assistants.

The dean of studies of a church-related college in the upper Midwest:

> During the last 2 years we have employed five apprentice teachers each year. These men were seniors in college, and they were chosen both on the basis of their academic records and on the basis of their potential as teachers. The purpose of this experiment is both to interest promising prospects in the teaching profession and to relieve the heavy teaching loads on the freshman level in the departments of English and mathematics. The departmental chairmen of both departments have constantly supervised the work of the apprentice teachers. This supervision included cooperative planning, cooperative testing, and final evaluations of the performance of the students in the experimental classes. Incidentally, several of the men chosen for this experiment are now in graduate schools with the intention of making college teaching their profession.

The president of a private university in the Southwest:

In 1956–57 three young persons were appointed as special instructors who held only the bachelor's degree but who were straight "A" students in their field of assignment. The experiment was a distinct success. Two continued with us; one decided against college teaching, although offered a continuing contract. One of the three has prepared an elementary textbook for introductory college mathematics.

i. Greater Use of Part-Time Instructors

The utilization of part-time instructors in American colleges and universities is not a new practice. In fact, it is a standard practice in some of the large urban universities which have evening classes. However, there is evidence that some institutions, because of faculty shortages, have recently found it necessary to use an increasing number of such persons.

The president of a junior college in a large city in New England:

Last year when we could not hire a needed engineering instructor even at the top pay scale, the local electric company let us have one of their engineers part time for two late afternoon classes, and we shared an instructor for a mechanical engineering subject with another local institution.

The executive vice president of a private university in the Midwest:

Our problem is in the areas of management, engineering, and mathematics—in that order. They are not solved. We have carried on by borrowing men from business and industry, usually on a part-time basis.

The director of instruction of a junior college in California:

Our major staffing problems have been in the field of chemistry, engineering, mathematics, and physics. We have resorted to the use of the best-qualified people we can get from industry on a part-time basis. This is not completely satisfactory, however; there are so many activities which cannot be expected of part-time personnel.

The president of a junior college in a Middle Atlantic State:

In the period of July 1954 to the present, it has been difficult to secure fully trained, experienced instructors in the physical sciences, engineering, and mathematics at the salary levels which this college can afford to pay. The problem has been partially solved by the part-time employment of academically qualified instructors with no previous instructional experience.

j. Heavier Teaching Loads

A few institutions have found it necessary to increase the teaching loads of their faculty members.

A dean of academic administration of a large municipal university in the Midwest:

Faculty shortage has been noted particularly in the physical sciences and in business administration. In the latter area we have been forced to give faculty members

overloads with additional compensation for the periods during which the extra teaching loads were carried.

The dean of the college in a public university in the South:

We have had much difficulty trying to employ teachers for two reasons: (1) Scarcity in certain fields such as chemical engineering, physics, mathematics; (2) lack of funds to make our salaries competitive with those paid by government and by industry; in our case, also, salaries paid by more favored institutions. By overloading the teaching schedules, employing poorly qualified personnel, and using immature students in laboratories, we have been able to go forward with our program.

Better Utilization of Faculty Resources

If colleges and universities are having difficulties in maintaining an instructional program because of shortages of faculty, lack of funds, or other reasons, they may introduce new techniques or intensify the use of ones previously adopted which may "stretch out" their existing faculty resources. The remarks of a number of respondents indicate that institutions are investigating these possible methods of solution to their staffing problems.

The president of a university in an outlying part of the United States:

Over a period of years the growth of our student body has increased so rapidly that we have had to experiment with new techniques to find means of enabling fewer faculty members to be more useful to more students. As a result we have completely revised some of our techniques including the use of room utilization, large lectures, independent studies, and bloc programs—adaptations of these. We shall begin experimenting in the use of radio and TV next fall.

The academic vice president of a private liberal arts college in the Ohio Valley region:

During the last 2 years we have been experimenting with larger lecture sections (60 to 150) and smaller discussion sections (15 to 20). We believe that these experiments have proved successful and that the quality of instruction has actually increased. In the future we plan to continue this practice whereby the nature of the course of instruction lends itself to this method.

The dean of a private college in the East:

We have discussed the problem of class size and have concluded that larger classes are all right in history and most science, but in philosophy and social sciences, dialectic method demands smaller sections.

The dean of the faculty of a large public university in the Southeast:

Recognizing the critical shortage of professionally trained faculty personnel, a number of our departments have begun experimentation to improve the effective use of faculty members in real faculty roles. Other experiments involve throwing more responsibility on the student library and laboratory assignment without supervision; use of large lectures and small discussion groups; accelerated course (in both rate and depth) for superior students, and the like. It is our hope that budgetary savings in these

experiments can be returned to the faculty for higher salaries, lower teaching schedules, time for professional research and study, etc.

The president of a Catholic women's college in the Midwest:

By rotating course offerings in the upper division, many very small classes are avoided. With the time and energy thus saved, it is possible to offer geniuses the opportunity of doing independent study in their major fields.

In September 1958, the history department will begin an experiment in handling large classes. All sections of Western Civilization (required of all freshmen—about 275) will be scheduled at the same time and students will attend the same major lecture once a week. The following two weekly classes will be handled by individual instructors with groups of about 48 each. Films and other aids will be used.

The president in a municipal university in the Midwest:

We are offering beginning chemistry for general education by lecture demonstration rather than laboratory. We have increased size of sections and classroom utilization.

The assistant registrar of a technical institute in a large eastern city:

An experimental program is currently underway with respect to the efficiency of utilizing prerecorded instructional content to lessen the teacher's load. This experimental program has begun now and will be in effect for the next 3 years.

The dean of a teachers college in the Midwest:

During both periods, but especially since 1957, we have been carrying on a great deal of experimentation with larger classes. In many cases this has been accomplished with increased use of undergraduate student assistants. Our reasons were twofold: (1) We found that, in comparison with other colleges, we had a large faculty in proportion to the size of our student body; and (2) we were aware of the impending faculty shortage. Most of the experiments have shown that larger classes can be taught as effectively as smaller classes. We also find that our students profit from their experiences as assistants when they are carefully chosen and are given additional responsibilities.

The president of a private liberal arts college in the Ohio Valley region:

A new plan for conserving teachers in the required course in freshman speech went into effect in September 1957. In one general session each week, 1 lecturer teaches all the students; each student then meets with an individual instructor (no more than 20 in a section) for 2 periods a week. As far as can be judged at this stage of experimentation, there has been no appreciable difference in the level of learning. Under this plan, 13 teaching hours have been saved, or the equivalent of a full-time teacher for 1 semester.

The dean of a church-related college in the Northeast:

Beginning in September 1957, we introduced an integrated course in the study of Western Culture in which various faculty members gave lectures in their own field of specialization. Some 20 professors participated in the course each semester. This course replaced those which had been formerly required in history, science, and literature. The program will be in operation for sophomores as well as freshmen. Our motive in setting it up was to provide a better integrated and more stimulating course for our underclassmen by making it possible for them to hear the most outstanding members of the faculty.

An incidental effect of this plan has been to reduce the number of faculty members required for teaching freshmen and sophomore classes. The work which formerly

would have been done by several instructors teaching the course in sections is now distributed among a large number of faculty members. As far as we can judge at the present time, our plan is working successfully.

The dean of instruction of a church-related junior college in the Northeast:

However, group technique (groupwork reporting to entire class) and the other devices we have mentioned, have not only extended our teacher power but increased our student power tremendously. Self-education is definitely a part of our program—and it is working. The students themselves are convinced of the power of their independent work and the importance of sharing their findings with others.

Several respondents stated that they had recently introduced honor programs for their talented students. They appeared to be pleased with the results that they were obtaining.

Need for Preparation of More College Teachers

Any program that would attract and prepare more young people for careers in college teaching was strongly advocated by several respondents.

The president of a private college in the Midwest:

A national program for attracting undergraduates into the teaching program needs to be established. A suggestion has occurred to me that such a program headed by some agency to develop techniques and see that they are followed through in all undergraduate schools would be desirable.

The president of a teachers college in a New England State:

Some stimulation should be given to the preparation of young college professors in all fields.

The president of a private liberal arts college in the Midwest:

The graduate schools from which we get most of our new instructors do not seem to stress teaching as a career; rather, they seem to inspire every student with the idea that research and publication is the sine qua non of a scholar. This is highly debatable.

The president of a teachers college in a New England State:

The question of staffing our college will become increasingly serious in the years ahead, especially in view of the fact that the enrollment and services will inevitably increase in terms of the policies already established by our State board of education, which is the governing board of the college. Forthright action must be taken on the question of substantial improvements of salaries of college teachers and in preparing larger numbers of more competent teachers by the graduate schools of the Nation.

CHAPTER IV

Summary

THE SURVEY which forms the basis of this bulletin was initiated in May 1958, when a questionnaire was mailed to the presidents of each of the 1,940 institutions of higher education. A total of 1,610 usable responses were received by the cutoff date, August 1.

The purpose of this study was to determine the extent to which 12 specified practices relating to faculty personnel and 9 to instruction were being followed in institutions of higher education. Of particular interest was the use of practices employed because of faculty shortages. In order to discover any trends, the use of the specified practices during the period July 1957 to June 1958 was compared to the use of them during the period July 1954 to June 1957.

The findings of this study confirm the generally accepted view that, while a relatively small number of colleges and universities do not have any staffing problems, most of them are finding it increasingly difficult to attract and retain the faculty members they need. Particularly hard hit are those institutions, public and private, whose limited budgets compel them to pay salaries which are low in comparison with those of other institutions and other professional occupations. These institutions have difficulty not only in recruiting new faculty members but also in retaining the ones they have. This problem is especially severe in science, engineering, and mathematics.

Most of the institutions with large endowments and high tuition reported that they were not troubled with such problems. Because of their reputations and the salaries they pay, they are able to attract and hold the kind of faculty members they want. These institutions have for the most part not been forced to resort to faculty or instructional practices that they had not followed in the past.

Professional schools, theological schools, and junior colleges have fewer staffing difficulties than the universities, liberal arts colleges, and teachers colleges. Professional schools, particularly those located in urban areas where qualified persons are usually available, employ many members on a part-time basis. In some of the theological schools the faculty members are assigned by a religious order, and any shortage of faculty members would be due to a shortage of members of the religious order generally. In many public junior colleges, some faculty members are recruited from among the better teachers in the high schools of the public school systems to which the junior colleges belong.

Colleges and universities in the Southern region are having staffing difficulties to a greater extent than those in the Northeast, North Central, or Western regions. Institutions in the Northeast region appear to be the least affected.

A shortage of qualified applicants possessing Ph. D. degrees, especially in science and mathematics, was noted by a number of reporting institutions. Several mentioned that there was no shortage of applicants at the master's level who would move into higher education if they could. The lack of Ph. D. candidates for positions was attributed by several respondents to better salaries being offered in industry and government.

To meet the problems which they are facing, colleges and universities are engaging in a number of practices. In many institutions these practices are being followed for reasons other than faculty shortage; for example, in the belief that they are good administrative practices or are worthwhile experiments.

A total of 620 institutions (41.0 percent) reported that they were employing professors retired from other institutions, retired military officers, or persons retired from business, industry, or government, 456 of them (30.2 percent) indicating that they are doing so because of faculty shortages. One small institution in the Midwest is employing as many as five of such persons. Several institutions reported that they were willing to employ retired persons but had not been successful in doing so. Institutions located in a favorable climate and having other advantages are in the best position to attract them.

In order to increase the supply of teachers, one institution reported that in 1957–58 it had arranged a special program in mathematics for retired armed services officers leading to the master of arts in teaching. A helpful approach to the greater utilization of retired professors was the establishment in 1957 of the Retired Professors' Registry by the American Association of University Professors and the Association of American Colleges under a grant from the Ford Foundation. This registry serves as a clearinghouse to bring together retired professors and institutions desiring to employ them.

A total of 532 institutions (36.6 percent) are employing faculty members

beyond the retirement age, and 124 of them (9.0 percent) had raised the mandatory retirement age during the period July 1954 to June 1958. Some institutions are encouraging their faculty members to stay on until the final retirement age rather than retire at an earlier age.

Because of faculty shortages, 536 colleges and universities (38.7 percent) are employing faculty members on a part-time basis. In the shortage area of science, engineering, and mathematics, a number of institutions are solving their staffing problems by obtaining instructors on loan from industry when full-time qualified faculty members are not available from any other source.

Many institutions of higher education are employing new faculty members less qualified than those formerly employed. Some are giving higher salary or rank or both higher salary and rank than they previously gave for similar training and experience. Some reported that they had in effect a double salary scale—one for those in shortage areas and one for those in nonshortage areas. A number of institutions are having to pay salaries which are "out of line" in order to get the people they want.

The fact that 877 institutions (60.6 percent) introduced new fringe benefits or increased old ones during the period July 1954 to June 1958 is evidence of their importance in the procurement and retention of qualified faculty members. Included are such fringe benefits as low-rent housing; food at cost or below; insurance partially or totally paid by the institution; paid major medical plan; improved retirement plan; tuition benefits for faculty children. One respondent stated that his institution was using new fringe benefits as a recruiting device.

Among the attractive benefits associated with college teaching are the opportunities of working with young people, a stimulating intellectual environment, and freedom of choice in research activity. To obtain these advantages, many persons are willing to refuse job opportunities in other occupations paying much more. Cognizant of the importance of these benefits of a college teacher, a number of college presidents are attempting to make these conditions at their institutions as favorable as possible. According to the comments received, these efforts have paid handsome dividends.

Not listed as a practice on the questionnaire but mentioned a number of times by respondents was the greater employment of women as college teachers. Because of staffing difficulties, two institutions have recently employed women as faculty members for the first time.

Eleven institutions reported that they have permitted, in some instances even encouraged, faculty members to engage in consulting work or outside employment. In some institutions teaching schedules were set up in order to facilitate such activity. Research activity, especially during the summer and supported by funds earmarked for this purpose, is being encouraged at a number of institutions.

Intense recruiting practices have proved helpful to some college officials in their search for new faculty members. Lining up prospects and even contracting for their employment a year or more in advance was reported in a few instances. Some officials are exhausting every possible source of obtaining new faculty members.

A number of institutions are meeting their staffing problems through increased use of graduate and undergraduate assistants. Several have adopted an "intern plan" in which outstanding graduates are given teaching assignments under the close supervision of senior professors. Those who are following this plan are enthusiastic about it because it has successfully relieved staffing pressure and the experience of college teaching has induced many of the interns to seek a career in college teaching.

Evidence obtained through this survey indicates that colleges and universities are employing a number of practices which enable existing faculty staffs to accommodate greater numbers of students. The tabulations of chapter II show that large percentages of the colleges are increasing class sizes, reducing overlapping course offerings, placing more responsibility on the student for his own learning, reducing the number of small classes, and giving courses completely or primarily by films and television. Some of these practices are followed at certain institutions because of faculty shortages; at others, they are being followed as experiments supported by grants from private foundations.

More than one-fifth of the reporting institutions said that they had reduced the amount of subcollegiate instruction during the past 4 years. Under the pressure of staffing difficulties, many institutions are coming around to the view that subcollegiate instruction should not be part of the collegiate program. At several colleges and universities this problem has been handled by transferring this kind of instruction to an extension activity with additional fees imposed. Three institutions, however, reported that they had found it necessary to add subcollegiate types of instruction because some of their incoming freshmen were poorly prepared.

Eighty-three institutions (5.8 percent) indicate that they are giving some courses completely or primarily by television, and 38 of them (2.7 percent) are doing so by films. Only a small number of these institutions, however, are employing these methods because of faculty shortages.

To ease staffing problems some colleges and universities are using other new instructional techniques, such as science courses with demonstrations rather than laboratory. Others are adopting curriculum revisions, such as the introduction of broad interdisciplinary courses in general education.

APPENDIX

Questionnaire Used in the Survey

S	N	R	C	T	X	A	L

Form RSH–70

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of Education
Washington 25, D.C.

Budget Bureau No. 51–5805
Approval expires 11/30/58

Recent Practices Relating to Faculty in Institutions of Higher Education

The President

This institution has NO branches ☐

This report includes branches located at—	This report excludes branches located at—
.....	.....
.....	.....
.....	.....

Information supplied by: ..... (Name) ..... (Title) ..... (Date)

MAY 23, 1958.

To the President:

In its second report issued in August 1957, the President's Committee on Education Beyond the High School said: "Our most serious educational problem today and in the foreseeable future is a critical shortage of first rate teachers." Recent studies and statements by leading educators reenforce this assertion.

Perhaps not all institutions of higher education have been faced with faculty staffing problems in recent years; many institutions, however, have experienced these problems in varying degrees and have adopted practices or policies to cope with them. These practices and policies may have been adopted to attract and retain faculty members, to improve utilization of existing faculty resources, or to accomplish other ends. The purpose of this questionnaire is to determine how widespread these practrices are. In addition to providing this useful information, it will also reveal promising areas for further investigation.

We would appreciate the return of the completed questionnaire by *June 23, 1958*. A postage-free envelope is enclosed for your convenience. The duplicate copy of the questionnaire is for your file. No identification of individual institutions will be made in the report of this study.

LLOYD E. BLAUCH,
Assistant Commissioner for Higher Education.

A. For each practice listed below, place a check in the appropriate column for each period. Check only 1 column for each period. If a certain practice is followed only in some part or parts of your institution, respond in the same manner as if the practice were institution wide

PRACTICE	Period July 1954–June 1957				Period July 1957–Present					
	Practice not followed at any time during this period	Practice followed at any time during this period			Practice not followed or previous use discontinued	Practice continued to same extent as before	Practice continued but reduced in use	Practice introduced or previous use expanded		
		Due primarily to faculty shortage	Due primarily to other reasons	Due equally to faculty shortage and other reasons				Due primarily to faculty shortage	Due primarily to other reasons	Due equally to faculty shortage and other reasons
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
PERSONNEL										
1. Employment of professors retired from other institutions, retired military officers, or personnel retired from business, industry, or government.										
2. Employment on a part-time basis of persons whose principal sources of livelihood are in other occupations.										
3. Sharing instructors and instructional facilities with other institutions.										
4. Employment of new faculty members (perhaps on a temporary basis) with less training and experience than usually required at your institution for the positions they occupy.										

5. Employment of new faculty at salaries relatively higher than (and ranks relatively the same as) those previously given for similar training and experience.
6. Employment of new faculty at ranks relatively higher than (and salaries relatively the same as) those previously given for similar training and experience.
7. Employment of new faculty at both salaries and ranks relatively higher than previously given for similar training and experience.
8. Accelerated promotion of faculty.
9. Permission granted for some faculty members to continue in service beyond the established mandatory age limit.
10. Increase of the established mandatory age limit.
11. New fringe benefits established or existing ones increased.
12. Salary increases granted which averaged at least 5 percent per annum, for the period for the faculty as a whole.

Other personnel practice. (Please specify)

13. .....
14. .....

INSTRUCTION

15. Accommodation of a larger number of students by increasing the size of lecture sessions.
16. Reduction of duplicating and overlapping course offerings.

A. For each practice listed below, place a check in the appropriate column for each period. Check only 1 column for each period. If a certain practice is followed only in some part or parts of your institution, respond in the same manner as if the practice were institution wide—Continued

PRACTICE	Period July 1954–June 1957				Period July 1957–Present					
	Practice not followed at any time during this period	Practice followed at any time during this period			Practice not followed or previous use discontinued	Practice continued to same extent as before	Practice continued but reduced in use	Practice introduced or previous use expanded		
		Due primarily to faculty shortage	Due primarily to other reasons	Due equally to faculty shortage and other reasons				Due primarily to faculty shortage	Due primarily to other reasons	Due equally to faculty shortage and other reasons
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
INSTRUCTION—Continued										
17. A significantly larger responsibility placed on the student for his own learning.										
18. Use of nonprofessional (e.g., technical and clerical) assistants other than students to help relieve faculty of nonteaching duties.										
19. Reduction in number of smaller classes.										
20. Elimination or curtailment of some existing courses or programs of study, or cancellation or postponement of proposed new ones.										

21. Reduction in the number of subcollegiate courses of instruction (e.g., subfreshman English or mathematics).										
22. Courses given completely or primarily by television.										
23. Courses given completely or primarily by films.										
Other instructional practice. (Please specify)										
24.										
25.										

B. General comments

In the following space write any comments or observations you wish to make concerning faculty staffing problems, if any, at your institution, methods of coping with them, and the relative effectiveness of these methods. Specify the time period in which the problem occurred and the improvement made.

PS-70-59