

## DOCUMENT RESUME

ED 094 647

HE 005 766

**AUTHOR** Leslie, Larry L.; Creasy, James  
**TITLE** The Higher Education Faculty of Pennsylvania: Selected Characteristics. Report No. 24.  
**INSTITUTION** Pennsylvania State Univ., University Park. Center for the Study of Higher Education.  
**PUB DATE** Jul 74  
**NOTE** 28p.

**EDRS PRICE** MF-\$0.75 HC-\$1.85 PLUS POSTAGE  
**DESCRIPTORS** Academic Rank (Professional); \*College Faculty; Degrees (Titles); \*Higher Education; \*Personnel Data; Research Projects; \*Statistical Data; Surveys; \*Teacher Characteristics; Teaching Experience; Teaching Load; Tenure  
**IDENTIFIERS** \*Pennsylvania

**ABSTRACT**

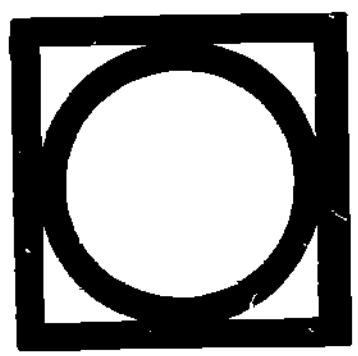
This study was designed to collect data concerning the characteristics of the higher education faculty of Pennsylvania. A population of 21,228 teaching faculty in 118 colleges and universities in Pennsylvania were surveyed by means of college catalogs, records of the Pennsylvania Human Rights Commission, and a mail questionnaire. The catalogs provided information about source of degrees, and limited data on race were obtained from the Human Rights Commission. Tenure status, age, rank, teaching load, sex, place of birth, highest degree, length of experience, and number of national professional conferences attended were obtained from the questionnaire. Highlights of the study indicated: (1) Almost two-thirds of Pennsylvania faculty had tenure in the academic year 1972-73. (2) A comparable bulging at the higher professorial ranks has not yet occurred in Pennsylvania. (3) The faculty of Pennsylvania institutions of higher education appears to be an aging faculty. Those over 40 years of age now constitute 56.8 percent of the total. (4) The average teaching load for Pennsylvania faculty is about ten hours. (5) Faculty in the Commonwealth are not particularly inbred. Less than 20 percent have returned to their alma maters as teachers. (6) Women compose only 21.1 percent of the faculty in Pennsylvania; and they are less likely than Pennsylvania men to be tenured and to be at the senior academic ranks. (Author/HJM)

ED 094647

# The Higher Education Faculty of Pennsylvania: Selected Characteristics

Larry L. Leslie and James Creasy

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HE 005 200

Center for the Study of Higher Education  
Report No. 24

The Pennsylvania State University  
University Park, Pennsylvania

July 1974



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## INTRODUCTION

Descriptive studies of college and university faculty are neither new nor uncommon, but they are quite diverse in the kinds of information they report and in the comprehensiveness of the populations they include. Large-scale surveys have most generally involved short questionnaires, while those utilizing more comprehensive data sources often have been restricted to particular faculty subpopulations. For example, the annual study of the National Academy of Sciences, National Research Council (1967), involves approximately 25,000 persons but restricts its population to new doctoral degree recipients about to begin their professional careers. The National Science Foundation (1968) limits its coverage to the traditional science disciplines although several hundred thousand professionals are involved.

The most comprehensive surveys of teaching faculties have been conducted periodically by the United States Office of Education, the American Council on Education, and the National Education Association. One such national survey of teaching faculties was that of Dunham, Wright, and Chandler (1966) for the United States Office of Education and the National Science Foundation. The study, a forty-item questionnaire mailed to approximately 14,000 four-year college and university faculty members, revealed in considerable detail the basic differences among younger and older faculty members, among faculties in different types of institutions, and among faculties of the various academic disciplines.

In addition to periodic publications, the United States Office of Education publishes annually the Higher Education General Information Survey (HEGIS). This publication presents a national profile of the numbers and characteristics of all employees in institutions of higher education (Beazley, 1970). The survey includes over 2,400 institutions of higher education and some 750,000 employees.

Annual studies of faculty instructional salaries and related economic concerns are conducted by the National Education Association and the American Association of University Professors.<sup>1</sup> These two primary sources are of particular importance because they have stimulated higher education leaders to initiate national and local strategies for addressing the economic problems of the profession. Of all salary studies, these are perhaps the most frequently quoted.

<sup>1</sup>See *Salaries in Higher Education* (Washington, D.C.: National Education Association Research Division), and "The Economic Status of the Profession," AAUP Bulletin (selected years).

Probably the single most comprehensive descriptive studies of faculty have been completed by Allan Bayer (1970; 1973). These studies, sponsored by the Carnegie Commission on Higher Education and published by the American Council on Education, present normative data for all major classifications of institutions of higher education. Bayer's most recent study was published by the American Council on Education in August 1973, in partial follow-up to his 1970 effort. Together, these studies make possible a comparison between selected characteristics of the faculty in 1968-69 (the base year of the 1970 publication) and in 1972-73 (the base year of the 1973 report).

Although this list of studies is not complete, it is indicative of some of the more important national efforts. The increasing number of agencies, coordinating bodies, learned societies, state departments of education, and colleges and universities seeking knowledge about faculties is most certainly an indication of the perceived need for additional and updated knowledge. This report seeks to provide such information for the higher education policy makers of Pennsylvania.<sup>2</sup>

It has been four decades since W. A. E. Wright (1935) composed his comprehensive profile of 564 full-time faculty in the then Pennsylvania State Teachers Colleges. Although the Bureau of Educational Statistics of the Pennsylvania Department of Education presently publishes some faculty data in its annual series of studies entitled, *Our Colleges and Universities Today*, broad and in-depth efforts have not been undertaken since Wright's 1935 investigation.

The study reported herein attempted to update and extend these earlier and more narrow efforts. It aimed to produce facts and relationships of potential value to those who must plan the future staffing and financing of Pennsylvania institutions of higher education. Specifically, it was an attempt to provide a descriptive analysis of selected personal, demographic, and professional characteristics of the teaching faculties of 118 colleges and universities in the Commonwealth of Pennsylvania.

<sup>2</sup>The full report can be found in James B. Creasy, "A Descriptive Analysis of Full-Time Teaching Faculty in Pennsylvania's Colleges and Universities" (Doctoral dissertation, The Pennsylvania State University, University Park, Pennsylvania, 1974).

## HIGHLIGHTS

Tenure. Almost two-thirds (63.9 percent) of Pennsylvania faculty had tenure in the academic year 1972-73. This rate no doubt resulted largely from the decline in the rate of enrollment growth for higher education nationally.

Rank. A comparable bulging at the higher professorial ranks has not yet occurred in Pennsylvania. The distribution of Pennsylvania faculty among the three professorial ranks is balanced about evenly in the state.

Age. The faculty of Pennsylvania institutions of higher education appears to be an aging faculty. Those over forty years of age now constitute 56.8 percent of the total. This datum, too, would appear to be related to relative enrollment stability in Pennsylvania colleges and universities.

Teaching Load. The average teaching load for Pennsylvania faculty is about ten hours, which is comparable to national loads.

Inbreeding. Faculty in the Commonwealth are not particularly inbred. Less than 20 percent have returned to their alma maters as teachers. Over three-fifths earned their highest degree outside Pennsylvania.

Institutional Differences. In all of the above, there are important differences among institutional categories. Data for separate categories of institutions occasionally tell a clearly different story than do average findings; however, far more often, patterns for the categories merely are more extreme or less extreme than the pattern demonstrated on the basis of mean or average data.

Sex Differences. Although the national figures are even more unbalanced by sex, women compose only 21.1 percent of the faculty in Pennsylvania; and they are less likely than Pennsylvania men to be tenured and to be at the senior academic ranks. The explanation for the underrepresentation of women in each of these regards appears to be only nominally related to discrimination on the part of the Commonwealth's collegiate institutions. Societal factors appear to play a far more significant role.

## DESIGN AND DESCRIPTION OF THE STUDY

Data were collected from college catalogs, from the records of the Pennsylvania Human Rights Commission, and by means of a mail questionnaire. The catalogs provided information about the source of degrees, and limited data on race were obtained from the Human Rights Commission. Tenure status, age, rank, teaching load, sex, place of birth, highest degree, length of experience, and number of national professional conferences attended were obtained from the questionnaire.

### Population and Sample

The population consisted of 21,228 teaching faculty in 118 colleges and universities in the Commonwealth of Pennsylvania in the fall of 1971 (Hummel, 1972).<sup>3</sup> The population included all professional personnel whose primary function was resident instruction and departmental research. Personnel engaged primarily in sponsored or other separately organized research were excluded. Also excluded were all faculty of theological seminaries, private junior colleges, and proprietary schools. These are not large enterprises, and their educational functions are generally of a special-purpose nature. The teaching faculty they employ comprises less than 4 percent of the total teaching faculty in all institutions of higher education in Pennsylvania.

A 10-percent random sample of faculty was drawn from each institution in the population except the Research and Doctoral-Granting Universities. In these institutions, a sample of 500, or 6.217 percent, of the 8,043 teaching faculty was surveyed. For purposes of analyses the responses of these faculty were weighted appropriately.

### Data Collection

During the second week of November 1972, the questionnaire was mailed to each of the 1,827 teaching faculty members identified in the sample. On December 7, 1972, 802 follow-up questionnaires were sent to all faculty members who had not responded or had not

<sup>3</sup>The total of 21,228 teaching faculty was derived from the data presented in Tables 2 and 7, pp. 4 and 16-18 of the Hummel publication. Grove City College, not represented in Table 7, was added (123 teaching faculty).

otherwise been accounted for. Beginning January 8, 1973, responses were elicited by telephone from a random subsample of the resulting nonrespondents. Thirty-two person-to-person telephone calls were completed; no source of bias was discovered. By February 1, 1973, a total of 1,490 questionnaires, 81.5 percent of the sample, had been received or otherwise accounted for. The usable returns, 1,271, constituted just under 70 percent of the sample.

The lists from which the faculty sample was drawn were for the 1971-72 academic year. Because the questionnaires were not mailed until November 1972, there was considerable respondent loss due to faculty turnover. Many faculty who had been teaching during 1971-72 were no longer employed at the same institution in the fall of 1972. Others had assumed primary responsibilities other than resident instruction and departmental research. This slippage from one fall to the next undoubtedly resulted in a lower response rate than otherwise would have been obtained.

The publications of the Bureau of Educational Statistics, Department of Education, Harrisburg, Pennsylvania; individual college catalogs; and *Basic Information About Higher Education Institutions in the Middle States Region, 1972*, published by the Middle States Association of Colleges and Secondary Schools, served as primary sources for data verification. The number of teaching faculty employed in the fall of 1971, as reported by the Bureau of Educational Statistics, agreed closely, although not perfectly, with the number of teaching faculty reported in either the college catalogs or the Middle States publication. Part of the difference was undoubtedly due to differences in definitions and differences in methods of reporting data. It has not been possible to determine the specific magnitude of the effects of this bias upon the findings although these effects are believed to be so small as to be almost inconsequential.

### Institutional Classifications

The institutional classification of Pennsylvania's colleges and universities included in this study parallels the classification scheme advanced by the Carnegie Commission on Higher Education (1972). The Carnegie classification system was used because it is perhaps



the most widely accepted classification scheme in existence and because it does appear generally suitable to the classification of Pennsylvania colleges and universities.

However, the Carnegie system was slightly modified for this study. The modification consisted of expanding the major categories of the Carnegie classification scheme from five to eight, the additional three categories being listed as subcategories in the Carnegie scheme. A number of additional subcategories of the Carnegie system were not included since very few institutions in Pennsylvania met the criteria for these subcategories.

The eight categories of institutions for the purposes of this study are:

1. *Research and Doctoral-Granting Universities.* These are the leading universities in Pennsylvania in terms of sponsored or organized research, provided they awarded at least fifty doctorates in the 1970-71 academic year.

There are five universities in this category: Carnegie-Mellon, Penn State, and Temple Universities, and the Universities of Pennsylvania and Pittsburgh.

2. *Doctoral-Granting Universities.* These universities awarded fifteen or more doctorates in the 1970-71 academic year and did not meet the criteria established for the first category.

There are three universities in this category: Duquesne, Drexel, and Lehigh.

3. *Comprehensive Colleges and Universities, I.* This category includes state colleges and private institutions offering a liberal arts program as well as several professional programs of study such as education, engineering, business administration, medical technology, etc. All institutions in this category had at least two professional or occupational programs of study and enrolled at least 2,000 full-time undergraduate students in the fall of 1970. Many institutions in this category offer master's degrees, and some have limited doctoral programs.

There are nineteen colleges and universities in this category: Gannon, Grove City, La Salle, Point Park, Widener, and Wilkes Colleges; Bloomsburg, California, Cheyney, Clarion, Edinboro, Kutztown, Lock Haven, Shippensburg, and West Chester State Colleges; and Bucknell University and Indiana University of Pennsylvania.

4. *Comprehensive Colleges and Universities, II.* This category includes state colleges and private institutions offering a liberal arts program and at least one professional

or occupational program of study. Full-time undergraduate enrollment in fall 1970 must have been 1,500 or more.

There are eighteen institutions in this category: Albright, Carlow, Elizabethtown, Geneva, Gettysburg, Immaculata, Kings, Lycoming, Marywood, Moravian, St. Francis, Ursinus, Westminster, and York Colleges; and East Stroudsburg, Mansfield, Millersville, and Slippery Rock State Colleges.

5. *Liberal Arts Colleges, Selectivity I.* This category includes liberal arts colleges listed with a student-selectivity level of six or seven on Astin's selectivity index. (Alexander W. Astin, *Predicting Academic Performances in Colleges*, Tables 3-7, 1971.) The distinction between a liberal arts college and a comprehensive college is not sharp or clear-cut. While some of the liberal arts colleges have modest occupational programs, a strong liberal arts tradition is evidenced by the proportion of total degrees granted in the liberal arts.

There are thirteen colleges in this category: Allegheny, Beaver, Bryn Mawr, Chatham, Dickinson, Franklin and Marshall, Haverford, Lafayette, Muhlenberg, St. Joseph's, Swarthmore, Washington and Jefferson, and Wilson Colleges.

6. *Liberal Arts Colleges, Selectivity II.* This category includes all liberal arts colleges that did not meet the criteria for inclusion in the Selectivity I category. Again, the distinction between some of the larger colleges in this group and those in the comprehensive colleges is not sharp or clear-cut, but is necessarily a matter of judgment based upon institutional profiles.

There are twenty-seven institutions in this category: Academy of the New Church, Allentown College of St. Francis de Sales, College Misericordia; Alliance, Alvernia, Cabrini, Cedar Crest, Chestnut Hill, Eastern Baptist, Gratz, Gwynedd-Mercy, Holy Family, Juniata, La Roche, Lebanon Valley, Mercyhurst, Our Lady of Angels, Penn Wesleyan, Rosemont, St. Fidelis, St. Vincent, Seton Hill, Thiel, Villa Maria, and Waynesburg Colleges; and Lincoln and Susquehanna Universities.

7. *Community Colleges.* This category includes all two-year colleges established and operated in accordance with the provisions of Pennsylvania's Public Law 1132, *Act No. 484*, the Community College Act of 1963.

There are fourteen colleges in this category: Bucks County, Butler County, Harrisburg Area, Lehigh County, Luzerne County, Montgomery County, Northampton County, Reading Area, Westmoreland County, and Williamsport Area Community Colleges; and the Community Colleges of Allegheny County, Beaver County, Delaware County, and Philadelphia.

8. *Professional Schools and Other Specialized Institutions.* This category includes those separately organized colleges and universities offering special curricula other than arts and sciences. Most of the professional schools in Pennsylvania are not listed separately since their enrollment and faculty profiles are included in that of the parent university.

There are nineteen colleges and universities in this category: Baptist Bible College; Curtis Institute of Music; Delaware Valley College of Science and Agriculture; Dickinson School of Law; Hahnemann Medical College; Medical College of Pennsylvania; Moore College of Art; Philadelphia Musical College; Reconstructionist Rabbinical College; Pennsylvania Colleges of Optometry and of Podiatric Medicine; Philadelphia Colleges of Art, of Bible, of Pharmacy and Science, and of Textiles and Science; Robert Morris and Spring Garden Colleges; and Dropsie and Thomas Jefferson Universities.

In most instances, the placement of Pennsylvania's institutions of higher education in a particular category was not difficult, although the classification of one college, Lafayette, was troublesome. Lafayette does grant a rather large proportion of its degrees in engineering; however, in view of the high selectivity level of this college and its very strong liberal arts tradition, Lafayette was classified as a Liberal Arts College, Selectivity I.

## SUMMARY OF FINDINGS

Many difficult questions are being asked of the higher education community as the decade of the seventies advances. This study dealt with only a modest and selected number of these issues, some of which are of a particularly contemporary nature, bearing as they do upon the present economic condition of higher education and upon the looming steady state in enrollments. Others, though often timeless as well as timely, seem to be largely indepen-

dent of present economic conditions in higher education. The former grouping includes faculty tenure, faculty mix by rank, faculty mix by age, and faculty teaching loads; the latter, faculty inbreeding and discrimination.

### The Preponderance of Tenure Among Pennsylvania Faculty

*Overall, 63.9 percent of Pennsylvania higher education faculty had tenure in 1972-73. This figure compares closely with the rate of 64.7 percent obtained nationally in 1972 by Rayer (1973).*

*By institutional category, the tenure rate ranged from 31.3 percent in professional schools and specialized institutions to 80.8 percent in Comprehensive Colleges and Universities, I.*

These findings have particular significance in light of the findings of the Keast Commission on academic tenure. In 1971, a special commission headed by William R. Keast of the University of Texas at Austin was appointed partially in anticipation of potentially high tenure rates as the expansionist sixties began to evolve into the contractionist eighties. The Commission concluded that it probably would be dangerous for most institutions if tenured faculty were to constitute more than one-half to two-thirds of the total full-time faculty during the decade ahead (Commission on Academic Tenure, 1973, p. 50).

Obviously, Pennsylvania as a whole is already nearing, if it has not already passed, the upper limits of the implicitly "safe" range. Further, with a 63.9-percent statewide average, it is obvious that many institutions have rates well into the range presumed by the Keast Commission to be dangerous. Others, of course, are in a relatively safe position.

The highest concentration of tenured teaching faculty is displayed in the Comprehensive Colleges and Universities I and II categories. A review of the institutions included in these categories indicates that all thirteen state colleges and the one state university, along with twenty-three private colleges and universities of similar mission and size, are included in these two categories. Approximately 60 percent of the teaching faculty in both categories are employed in the state-owned state colleges and universities. The incidence of tenure in these institutions has become a matter of concern; in fact, a tenure level of 90 percent of the teaching faculty may have already been reached in the state-owned institutions (where collective bargaining is clearly an important factor).

The relatively low proportions of tenured teaching faculty in the Liberal Arts Colleges, Selectivity II, and the Professional Schools and Other Specialized Institutions categories are noteworthy. In the latter category at least one institution is known not to have a tenure policy; but a more important part of the explanation for these low tenure rates would appear to be an atypical reliance upon part-time or short-term faculty.

### **The Balance in Faculty Ranks**

*Overall, faculty in Pennsylvania are distributed almost evenly by professorial rank: 33.5 percent are assistant professors, 29.3 percent are associate professors, and 28.3 percent are professors. Instructors and below constitute the remaining 8.9 percent.*

*By institutional category, important deviations exist. Heavy concentrations of lower academically ranked faculty exist in Liberal Arts Colleges, Selectivity II; in Community Colleges; and in Professional Schools and Specialized Institutions.*

Although there is no widely accepted standard for faculty mix by rank comparable to the Keast standard on tenure, a 30-30-30-10 distribution in rank (in the order listed above) seems to be favored implicitly in the literature. Although such matters should be judged in terms of varying institutional missions, the general Pennsylvania distribution appears to be quite reasonable.

Another possible basis for policy analysis is the comparable national norm. By institutional type, an AAUP study showed important differences in the faculty mix by rank nationally, suggesting that the Pennsylvania data are fairly typical in this regard. The deviations from the norms by institutional typologies nationally are basically the same patterns identified in Pennsylvania. The reasons for these deviations seem generally apparent.

In the Liberal Arts Colleges, Selectivity II, faculty mix by rank suggests strongly that the control of these institutions has a great deal to do with their faculty mix. In these predominantly Catholic colleges, teaching faculty characteristically are employed at the lower ranks and progress to the higher ranks more slowly than do faculty in other kinds of institutions. Further, the atypical academic status of a large number of faculty members from religious orders compounds the problem of interpreting data regarding academic rank.

As a group, the community colleges in Pennsylvania are among the newest and fastest growing institutions of higher education, their organization having been sanctioned in

1963 by the passage of *Act 484*. As indicated in the literature, those institutions that are relatively young and those that have experienced relatively great growth can be expected to show concentrations of their teaching faculty in the lower ranks. Pennsylvania's community colleges appear to follow this pattern.

### **The Aging Faculty**

*The average age of the teaching faculty in Pennsylvania is 42.6 years. Those over forty years of age constitute a majority (56.8 percent) of the total, which is somewhat less than the comparable national percentage.*

*The lowest average faculty age is found in the Community Colleges (39.7 years), and the highest average age is found in the Comprehensive Colleges and Universities II (44.8 years).*

The Bayer studies showed that the American faculty is an aging faculty. In 1968-69, about 54 percent of the faculty were beyond forty years of age; and in 1972-73, the figure approximated 59 percent (Bayer, 1970; 1973). Part of the reason for this change, of course, was the decline in the higher education enrollment growth rate. Near-stable enrollments meant a reduced need for new and thus younger faculty. The similarity of conditions in Pennsylvania would suggest a similar aging of the Pennsylvania faculty, although no baseline data are available for the state.

An aging faculty is also a higher cost faculty. In 1940, approximately twelve to fifteen years were required to make the ascent from the lowest salaried assistant professor rank to the highest salaried full professor level. There is little reason so far to believe that this period of ascension has changed, although one might reasonably expect it to be extended during the coming periods of retrenchment.

### **Faculty Teaching Loads at the Norms**

*Overall, Pennsylvania faculty members teach an average of 9.9 hours per week. (The reported general workweek in the state-related universities only is 57.5 hours. The national norm was 55.6 hours in 1966.)*

*By institutional category, Community Colleges are the most deviant in teaching loads, with the average teaching load being 15.4 hours per week. The load in research and doctoral-granting universities averages 7.8 hours weekly.*

There do not appear to be significant departures from national workloads for Pennsylvania faculty. Nationally, faculty members tend consistently to report a fifty- to sixty-hour work week, which is in keeping with the 1973 report for Pennsylvania's state-related universities. There is also no reason to believe there to be any inconsistency between national and state norms in regard to scheduled teaching hours: nine to twelve hours has been noted as the national mode (Bayer, 1973), compared to the state mean of about ten hours. The only significant departure from national norms for Pennsylvania teaching loads is in the proportion of those who teach more than twelve hours, the percentage of such persons being significantly higher nationally than in Pennsylvania. Most, if not all, of this difference, however, probably can be explained by the relatively small Community College sector in Pennsylvania.

The differences in the number of hours of scheduled classroom instruction for the various types of institutions is not surprising. Those institutions having a research mission generally report fewer hours of scheduled classroom instruction. As one moves along the continuum from a heavy emphasis on research toward almost total emphasis upon instruction, there is a correspondingly higher mean number of hours per week in scheduled classroom instruction.

Thus, the Community Colleges, whose major emphasis is instruction, show the highest number of faculty classroom hours per week, while the Research and Doctoral-Granting Universities show the fewest number of hours in classroom teaching.

#### **The Degree of Inbreeding: Little Cause for Concern**

*Overall, 17.8 percent of the Pennsylvania faculty are presently employed where they were once students. The majority (61.9 percent) earned their highest degree in an institution outside the Commonwealth. Of these, 7.2 percent earned their highest degree outside the United States.*

*By institutional category, no Community College professors were teaching at their alma maters; and only 10.8 percent of Liberal Arts Colleges, Selectivity I, professors had*



*attended the institution of their present employment. Community Colleges, on the other hand, are most dependent upon Pennsylvania-born faculty (62 percent), while Research and Doctoral-Granting Universities and Liberal Arts Colleges, Selectivity I, are least dependent upon Pennsylvania-born faculty (22.6 and 28.8 percent, respectively).*

Using only the source of the baccalaureate degree as the criterion for inbreeding, it was found in 1961 that 21.2 percent of all faculty, nationally, were "inbred" (Pfnister, 1961). Thus, the 1973 figure of 17.8 percent appears to compare favorably to somewhat dated national norms, although it must be pointed out that the data for Community Colleges tend to deflate the present percentage because these institutions are often short-lived. Also, it should be pointed out that the Research and Doctoral-Granting Universities data consider only the source of the highest degree.

The only study located that provides comparable data on the dimension of birthplace of faculty members showed that in Minnesota 40 percent of female faculty and 29 percent of male faculty were born in the state (Eckert and Williams, 1972). In Pennsylvania, the comparable percentages are 46.2 and 35.9, respectively, making Pennsylvania somewhat more inbred than Minnesota on this dimension.

#### **Discrimination Against Women: Severe, but More Societal than Institutional**

*Whereas 78.9 percent of Pennsylvania faculty are men, only 21.1 percent are women.*

*Whereas 66.3 percent of the male faculty have tenure, only 55.2 percent of the women have tenure.*

*Whereas 31.6 percent of the male faculty hold the rank of professor, only 16.1 percent of the women hold that rank. Although the percentages are about equal by sex at the associate professor level, women are about three times more likely than men (16.3 percent compared to 6.9 percent) to be instructors.*

*Whereas the average teaching load is 9.6 hours for men, it is about 10.8 hours for women.*

Pennsylvania women faculty members fare slightly, though consistently, better than do women faculty nationally. Twenty percent of faculty, nationally, are women (Bayer, 1973, p. 14), slightly below the comparable proportion for Pennsylvania (21.1 percent). Pennsylvania women faculty appear more likely to hold tenure than their national counter-



parts: 54.4 percent have tenure, nationally, compared to 55.2 percent in Pennsylvania. For men the figures are reversed: 67.3 percent, nationally, compared to 66.3 percent in Pennsylvania. In terms of academic rank, only 11.0 percent of women nationally are professors, compared to 16.1 percent in the Commonwealth. For men the figures are 30.3 and 31.6 percent, respectively. Women faculty members are also less likely to be instructors (16.3 percent) in Pennsylvania than are women faculty nationally (24.3 percent).

By institutional category, women are most distinctly less likely than men to hold tenure in Liberal Arts Colleges, Selectivity I, and in Community Colleges. In Comprehensive Colleges and Universities II, they are more likely to hold tenure.

By institutional category, women are most distinctly less likely than men to hold the rank of professor in Professional Schools and Specialized Institutions, followed by Research and Doctoral-Granting Universities. In this regard, women appear to fare best in Comprehensive Colleges, I and II. Clearly, women are not on an equal footing with men. But the reasons for this are not explained easily.

Certain statistical techniques were employed in an effort to ascertain causal factors, and several insights were gained (see Table 2). In comparison to the other independent variables tested, multiple regression analyses revealed sex to be a very poor predictor of tenure status, rank, and teaching load. ( $R^2$  values were .005, .024, and .025 respectively.) The faculty member's number of years in higher education, number of years at present institution, and highest degree held were all consistently much better predictors of these dependent variables than was sex. Thus, bias against women on the part of institutions seems to explain only a small part of the inequality among faculty by sex.

This conclusion is supported by other studies (Astin and Bayer, 1972; Sandler, 1972). Sex is indeed a less important factor in determining rank, tenure, teaching loads, etc., than are numerous other variables. Yet, as evidenced above, on higher education campuses women faculty do not have a status "equal" to that of men.

The explanation would appear to be only relatively minor acts of discrimination against women on the part of institutions of higher education and relatively major discriminations against women in terms of their assigned roles in society. There seem to be objective reasons for the relatively low stature of female faculty members: Women are less likely than men to possess the doctorate; they are more likely to have shorter faculty

tenures; they are more likely to be "in-grown"; they are less likely to publish; and they are more likely to be concentrated in lower status institutions.

But the question remains why women do not qualify as well as men do in terms of these *prima facie* objective criteria. In large part the answer appears to be found in the roles assigned to women in American society. Often, women are expected to disrupt their professional careers in order to bear and raise children, or to support their husbands in getting their professional starts. As a result, women are more likely to become placebound, attending graduate schools wherever their husbands happen to be located, stopping out short of the doctorate as their husbands change jobs and move, and subsequently accepting a faculty position wherever commuting to a college will permit. To many women, who have occupied low prestige occupational roles in society historically, becoming even a college *instructor* in a nontenured position is viewed as a gratifying "second career." As long as views and conditions such as these are maintained, little progress in equality among the sexes is likely to be achieved.

**TABLE 1**  
**WEIGHTED PENNSYLVANIA NORMATIVE DISTRIBUTIONS, BY INSTITUTIONAL CLASSIFICATION,**  
**FOR COLLEGE AND UNIVERSITY TEACHING FACULTY**  
**1972-73 ACADEMIC YEAR**

Item Description	Total	Institutional Classification							
		I	II	III	IV	V	VI	VII	VIII
Number of Institutions	118	5	3	19	18	13	27	14	19
<u>Sex</u>									
Number of Total Faculty	21,228	8,043	916	4,665	2,228	1,392	1,261	1,563	1,160
Males (percent)	78.9	85.4	81.2	80.0	71.7	79.8	61.1	71.7	67.2
Females (percent)	21.1	14.6	18.8	20.0	28.3	20.2	38.9	28.3	32.8
<u>Tenure</u>									
Percent Tenured, Total	63.9	56.7	58.0	80.8	73.6	64.4	45.6	69.6	31.3
Males	66.3	58.4	60.6	82.4	71.9	69.9	50.9	75.8	35.6
Females	55.2	46.9	46.2	74.6	77.8	42.9	37.1	53.8	22.7
<u>Academic Rank</u>									
Percent Instructor or Below, Total	8.9	9.3	5.7	5.1	5.6	6.8	21.2	12.0	20.9
Male	6.9	7.6	7.2	2.5	3.5	4.8	21.9	12.1	15.5
Female	16.3	18.3	0.0	15.5	11.1	14.3	20.0	11.5	31.8
Percent Assistant Professor, Total	33.5	30.7	30.5	30.1	30.2	35.5	42.2	56.5	38.8
Male	32.2	30.8	25.0	30.6	27.2	32.6	41.8	56.1	28.9
Female	38.8	30.6	53.8	28.2	37.8	47.6	42.9	57.7	59.1
Percent Associate Professor, Total	29.3	28.1	31.9	34.9	29.6	25.0	24.4	26.1	20.9
Male	29.3	26.6	32.1	34.9	32.5	26.5	21.8	25.8	28.9
Female	28.8	36.8	30.8	35.2	22.2	19.1	28.6	26.9	4.5
Percent Professor, Total	28.3	31.9	31.9	29.9	34.6	32.7	12.2	5.4	19.4
Male	31.6	35.0	35.7	32.0	36.8	36.1	14.5	6.0	26.7
Female	16.1	14.3	15.4	21.1	28.9	19.0	8.5	3.9	4.6
Mean Age, Total	42.8	42.1	43.2	44.0	44.8	41.7	43.5	39.7	40.8
Male	42.2								
Female	45.0								

Teaching Load

Weekly Mean Teaching Hours	9.9	7.8	8.6	11.0	11.6	9.9	10.4	15.4	9.0
Males	9.6								
Females	10.8								

InbreedingPercent Earning Highest Degree in

Pa., Total	38.1	30.6	37.3	44.5	40.4	26.9	36.7	56.0	50.1
Males	35.9	20.3	37.5	51.4	44.7	31.3	38.2	65.2	36.2
Females	46.2	36.7	46.2	45.1	64.4	19.0	57.1	53.8	45.4

Percent Earning Highest Degree

Outside Pa., in U.S., Total	54.7	67.2	58.0	44.2	43.4	66.4	48.9	35.8	49.3
Males	56.5	69.2	62.4	41.9	49.1	66.3	54.5	33.3	48.5
Females	47.9	55.1	38.5	53.5	28.9	66.7	40.0	42.4	50.0

Percent Earning Highest Degree

Outside U.S., Total	7.2	10.1	2.9	5.6	6.3	4.8	5.5	2.2	11.9
Males	7.6	10.5	0.1	6.7	6.2	2.4	7.3	1.5	15.3
Females	5.9	8.2	15.3	1.4	6.7	14.3	2.9	3.8	4.5

Percent Teaching at Alma Mater,

Total	17.8	19.5*	20.5	16.7	20.7	10.8	20.9	0.0	18.0
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Number of National Conferences

Attended per Year	3.0	4.2	2.6	2.2	2.3	2.3	2.1	1.7	3.2
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\*This percentage is based on the highest degree of the faculty member only. In all other categories of institutions, the percentage is based on any degree earned by the faculty at the employing institution.

**KEY:** I - Research and Doctoral-Granting Universities

II - Doctoral-Granting Universities

III - Comprehensive Colleges and Universities I

IV - Comprehensive Colleges and Universities II

V - Liberal Arts Colleges, Selectivity I

VI - Liberal Arts Colleges, Selectivity II

VII - Community Colleges

VIII - Professional Schools and Specialized Institutions

**TABLE 1A**

Item Description	Mean Age in Years	Under 30	30-39	40-49	50-59	Over 60
<b>Percent in Each Age Classification.</b>						
<b>Total</b>	42.8	7.0	36.2	30.8	17.7	8.3
<b>Males</b>	42.2	6.8	38.2	32.2	16.0	6.8
<b>Females</b>	45.0	7.5	28.8	25.7	24.2	13.8

**TABLE 1B**

Item Description	Less Than 6 Hours	6-8 Hours	9-11 Hours	12 Hours	Over 12 Hours
<b>Percent of Faculty in Each Teaching Load Category.</b>					
<b>Total</b>	10.0	24.0	21.4	28.9	15.7

**TABLE 1C**

Item Description	Total	State Colleges and Universities	Research and Doctoral-Granting Universities
<b>Percent of Black Faculty.</b>			
<b>Total</b>	3.0	3.0	3.2
<b>Males</b>	2.4	2.0	2.6
<b>Females</b>	0.6	1.0	0.6

**TABLE 2**  
**STATUS OF WOMEN: SUMMARY. MULTIPLE REGRESSION ANALYSES.**  
**SELECTED VARIABLES FOR FACULTY IN PENNSYLVANIA COLLEGES AND UNIVERSITIES**  
**FALL 1972**

Dependent Variable	Independent Variables	Multiple R (Cumulative)	R Square (Cumulative)	R Square Change	Simple R
Tenure Status	Sex of Respondent	0.07550	0.00570	0.00570	0.07550
	Doctorate or not	0.11590	0.01343	0.00773	0.10176
	Years in Higher Education	0.51858	0.26893	0.25550	0.51391
	Collapsed Institutional Categories	0.52523	0.27587	0.00694	0.07868
Tenure Status	Sex of Respondent	0.07550	0.00570	0.00570	0.07550
	Doctorate or not	0.11590	0.01343	0.00773	0.10176
	Years at Present Institution	0.50456	0.25458	0.24115	0.49593
	Collapsed Institutional Categories	0.51094	0.26106	0.00649	0.07968
Present Rank	Sex of Respondent	0.15683	0.02460	0.02460	0.15683
	Doctorate or not	0.46971	0.22063	0.19603	0.46574
	Years in Higher Education	0.69148	0.47815	0.25752	0.56696
	Collapsed Institutional Categories	0.69299	0.48023	0.00209	0.03029
Present Rank	Sex of Respondent	0.15683	0.02460	0.02460	0.15683
	Doctorate or not	0.46971	0.22063	0.19603	0.46574
	Years at Present Institution	0.63808	0.40715	0.18652	0.45230
	Collapsed Institutional Categories	0.63976	0.40930	0.00215	0.03029
Teaching Hours	Sex of Respondent	0.16046	0.02575	0.02575	0.16046
	Doctorate or not	0.34099	0.11627	0.09053	0.32775
	Years in Higher Education	0.34152	0.11664	0.00036	0.06357
	Collapsed Institutional Categories	0.34152	0.11664	0.00036	0.06357
Teaching Hours	Sex of Respondent	0.16046	0.02575	0.02575	0.16046
	Doctorate or not	0.34099	0.11627	0.09053	0.32775
	Years at Present Institution	0.34169	0.11675	0.00048	0.03761
	Collapsed Institutional Categories	0.45144	0.20380	0.08705	0.36089

**TABLE 3**  
**STATUS OF WOMEN: PERCENTAGE OF TEACHING FACULTY**  
**IN SELECTED PROFILES BY SEX FOR COLLEGES AND UNIVERSITIES IN PENNSYLVANIA,**  
**FALL 1972**

Profile	Men	Women
<b>Total Faculty</b>	<b>78.9%</b>	<b>21.1%</b>
<b>With Tenure</b>	<b>66.3%</b>	<b>55.2%</b>
By degree level		
Doctorate	68.5%	63.6%
First Professional	36.1	40.0
Masters	65.3	53.0
Bachelors or below	51.2	23.2
By years of experience (years)		
In higher education	14.638	14.571
At present institution	10.803	10.610
<b>Academic Degree Level</b>		
Doctorate	63.8%	38.0%
First professional	2.1	1.6
Masters	30.4	54.9
Bachelors or below	3.7	5.5
<b>Academic Ranks</b>		
Professor	31.6%	16.1%
Associate Professor	29.3	28.8
Assistant Professor	32.2	38.8
Instructor or below	6.9	16.3
<b>Years of Experience at Present Institution</b>		
<b>by Academic Rank (Years)</b>		
Professor	12.662	12.998
Associate Professor	8.873	9.189
Assistant Professor	4.931	6.253
Instructor	3.324	3.047
<b>Age by Years</b>		
Under 30	6.8%	7.5%
30-39	38.2	28.8
40-49	32.2	25.7
50-59	16.0	24.2
Over 59	6.8	13.8
<b>Birthplace</b>		
In Pennsylvania	35.9%	46.2%
U.S. but not Pennsylvania	56.5	47.9
Outside United States	7.6	5.9
<b>Mean Hours Scheduled Classroom Instruction</b>		
<b>Per week (hours)</b>	<b>9.619</b>	<b>10.765</b>

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