

UNIVERSITY OF DELAWARE
NEWARK, DELAWARE
19711

UNIVERSITY FACULTY SENATE
303 HULLIHEN HALL
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September 28, 1976

MEMORANDUM

TO: All Faculty Members

FROM: Byron P. Shurtleff, Vice President
University Faculty Senate

SUBJECT: Special Senate Meeting, October 11, 1976



In accordance with Section VI, paragraph 6(2) of the Constitution of the Faculty of the University of Delaware, a special meeting of the University Faculty Senate will be held on Monday, October 11, 1976 at 4:00 p.m. in room 110 Memorial Hall.

AGENDA

- I. Approval of the appointments to committees of the University Faculty Senate, as recommended by the Committee on Committees (F. Scarpitti and S. Sandler, Chairpersons). (Committee Lists are attached)
- II. Presentation and discussion of the report to the Senate through the Executive Committee from the Ad Hoc Committee on Faculty Workload and Productivity. (The report is in the hands of your Senators; distribution also includes one copy for each ten faculty members of each department.)

The provision of the Constitution of the Faculty dealing with special meetings states:

"The call of a special meeting shall state the purpose or purposes of the special meeting and no business shall be transacted other than that specified in the notice of the meeting."

BPS/b

REPORT

of the

UNIVERSITY FACULTY SENATE

Ad Hoc Committee on
Faculty Workload and Productivity

October 11, 1976

Respectfully submitted,
University Faculty Senate
ad hoc Committee on Faculty Workload
and Productivity:

E. Paul Catts
Ralph Kleinman
Betty-Bright Low
Lucia Palmer
William M. Redd
Theodore E. D. Braun, Co-chairperson
Newman A. Hall, Co-chairperson

I. INTRODUCTION: APPROACH TO STUDY

A. Background and Charge

During the summer of 1975 President Trabant suggested to the Senate Officers that a survey of faculty workload and productivity be conducted, and the Senate officers agreed to undertake the study. The purpose of the study is explained below in the charge.

This study has received support and assistance from the Offices of the President and the Provost. The establishment of the Committee and the direction of its work has been the exclusive responsibility of the Officers of the Faculty Senate.

As noted in the letter of November 17, 1975 from the President of the University Faculty Senate, the Executive Committee of the Senate established the ad hoc Committee on Faculty Workload and Productivity. The over-all intent of this Committee was to undertake a study that would be more subjective and qualitative rather than dealing with detailed statistical analysis. As stated in the letter:

"... we want to find out what the actual utilization of faculty time is, and what the shape(s) of faculty workload and productivity at the University of Delaware are (these matters are at best roughly estimated in the Academic Activities Reports filled out at the beginning of each semester); we do NOT intend to prescribe how faculty members should spend their time. Our working assumption is that the faculty makes significant contributions to the University, to the profession and to the State of Delaware and the region."

The charge to the Committee was set forth in terms of specific considerations:

1. To determine the utilization of faculty time in teaching research, consulting, service, administration and advisement.
2. To compare faculty productivity and workload with those of similar institutions, if feasible.
3. To identify the benefits of these faculty activities to the University Community.
4. To suggest the best ways to inform and educate the public (especially Delaware taxpayers) of the types of faculty activity which benefit the public.
5. To suggest bases for interdepartmental comparability of faculty workload as guidance for promotion and tenure decisions.
6. To make suggestions to the Faculty Senate as to how workload and productivity can be evaluated.

The Committee is accountable to the Faculty Senate through the Executive Committee.

The Committee appointed by the Senate Executive Committee is composed as follows:

1. Co-Chairpersons
Newman A. Hall (Academic Consultant)
Theodore Braun (Languages and Literature; President of the Senate)
2. Non-University-Affiliated Members
Betty-Bright Low (Research and Reference Librarian,
Eleutherian Mills Historical Library)
William M. Redd Jr. (Corporate Relocation Administrator,
Employee Relations Dept., DuPont Co.;
Mayor, City of Newark)
3. University Faculty Members
Lucia Palmer (Philosophy)
Ralph Kleinman (Mathematics)
Paul Catts (Entomology and Applied Ecology; Vice President
of the Senate).

The work of the Committee has proceeded according to the plan set forth in the above mentioned letter. There has been thorough deliberate and close interaction among the Committee members; this report represents a joint effort and the consolidated findings of the Committee.

B. Internal Survey

Any inquiry into faculty workload and productivity has a number of intrinsic difficulties with which the academic community is all too familiar. One has only to start with the question of definition and objectives to realize that not only will the most conscientiously prepared questionnaire be vulnerable to subjective interpretations, but one cannot possibly hope to escape the "Hawthorne" effect in any case: regardless of the approach in any survey the respondent is very likely to be influenced--even conditioned--by the act of inquiry. Consequently the response may well be accordingly colored to some significant degree.

Nevertheless, it is possible to assemble certain incontrovertable statistics. Courses taught, with sections attended by a known number of students, service as members or officers of sundry committees, assignment of responsibility for research by grant or contract, or for extension services--all of these are a matter of record. The Committee has looked into this type of information and some of its findings in this regard are noted below. All of this information, and any extension of the same approach, can at best be only evidence of workload and productivity. An absolute and direct measure still eludes determination, and may not exist.

Since such a frontal attack on the question has been extensively yet still unsatisfactorily attempted, the Committee decided that it would also carry through a survey which was purposefully and deliberately designed to be subjective and non-quantitative, in the belief that a determination of faculty attitudes and perceptions on the subject questions might usefully compliment the other sources of information. This subjective survey was

conducted, under the Committee's direction, during December and January of the 1975-1976 academic year by Dr. Newman A. Hall, co-chairman. A sample of about sixty faculty members was selected at random in rough proportion to the allocation of senators to the University Faculty Senate. Each person was interviewed informally for about one hour.

A subsequent check on indirect measures--such as proportion of the faculty holding tenure, length of service on the Delaware faculty, sex, and distribution among colleges--indicated that a very satisfactory sampling process had been followed. Subsequent to the interviews by Dr. Hall, other members of the Committee scheduled follow-up interviews in one-fifth of the cases. Dr. Hall and other members of the Committee formed consistent impressions on those attitudes of the interviewees where comparisons were made.

The interview discussions were unstructured and informal. Even though no quantitative data were gathered, definite impressions were formed as to the perceptions and attitudes regarding workload and productivity of almost all of those interviewed.

C. External Surveys

Letters were sent to ten neighboring institutions, many of which are often used in comparisons made with the University of Delaware; information has been received from the Universities of Connecticut, Maryland, Massachusetts, Virginia, Rutgers, Temple, Pennsylvania State and SUNY-Binghamton. The University of Pennsylvania and West Virginia University are conducting similar studies and will provide us with their reports when they are available.

Data so far obtained have been compared to internal data collected from the Academic Activity Reports (AAR) which University of Delaware faculty prepare each semester,¹ from the available Council on Program Evaluation (COPE) reports, and from additional information prepared by Assistant Provost Anthony Graziano and Ms. Angela Zawacki, Research Associate in Budget Planning and Analysis. We have received from these sources all of the available data we have requested. Tables I through V present a summary of the data used for comparative purposes. Discussion of these tables can be found in section II-A, below.

Our sources do not cover faculty activities in the summer and during Winter Sessions, and we may assume that a significant research effort mounted during these periods would alter to some extent the data from which we must make comparisons. However, these same data are also not included in the reports from the comparable institutions.

¹Even though the AAR's are the basis for much of our quantitative data, keep in mind that faculty members may use widely varying degrees of care and precision in preparing these reports.

II. UTILIZATION OF FACULTY TIME

A. Conventional Statistics and Comparisons¹

Table IA compares the student/faculty ratios at the University of Delaware and selected institutions in our geographic area. In order to obtain figures as comparable as possible, we requested the following data for the same term (Fall 1975): number of undergraduate student credit hours, number of graduate student credit hours, full-time equivalent (FTE) faculty, and head-count of graduate teaching assistants (GTAs). To compute FTE students, undergraduate credit hours were divided by 15, graduate credit hours by 12, and the resulting figures combined.² GTAs were divided by 3 to obtain a standard FTE count. We have accepted the FTE faculty figures as presented by the reporting institutions; but the methods for determining FTE faculty might differ somewhat from institution to institution. Figures thus obtained are shown on Table IB.

The figures for Penn State do not appear to be completely comparable to those at Delaware and the other institutions; "adjusted" figures are shown in parentheses. Penn State is on a semester-quarter basis, each professor teaching in only three quarters. For a different reason, SUNY Binghamton's data do not seem to be totally comparable to the other institutions', since most of their courses consist of 4 credit hours for 3 contact hours. The Committee feels that the appropriate figure lies somewhere between the raw and the adjusted figures.

For the six institutions with more clearly comparable data, the student/faculty ratio, computed by including GTAs with FTE faculty, is about identical with Delaware's in two cases (Massachusetts and Maryland), and substantially lower in the others (Connecticut, Temple, Virginia and West Virginia). When the GTAs are excluded from the computation, one institution (Maryland) has a higher ratio than Delaware's, reflecting a much greater use of GTAs; one's is identical (Massachusetts); the others' are substantially lower (Connecticut, Temple, Virginia and West Virginia).³

On balance, faculty teaching workload at Delaware, as measured by the derived student/faculty ratio, seems to be generally similar to or

¹The Committee is very grateful to Mr. Anthony Graziano, Assistant Provost for Budget Planning and Evaluation, and to Ms. Angela Zawacki, Research Associate, for their extremely helpful advice and assistance.

²A 15-hour undergraduate course load is not really comparable to a 12-hour graduate course load, especially if Ph.D. level graduate students include a fairly large proportion of the total. "There is a very large almost 'unquantifiable' faculty effort involved with graduate thesis supervision, especially in the hard sciences, and so credit hours only measure a portion of the effort which goes [into teaching] these students." - Comment of Mr. Graziano.

³This lower figure might be appropriate and comparable to Delaware if we were able to take into account the "student mix" (i.e. Ph.D./Masters candidates ratio; Professional/Non-Professional graduate students; hard science/social science, humanities students; etc.). For a fuller discussion of this point see Appendix IV.

TABLE IA
Comparison of Student/Faculty Ratios
in Selected Institutions in this Geographic Area
Fall 1976¹

Institution	FTE Faculty + GTAs	% of U. of Del. S/F Ratio	FTE Faculty only	% of U. of Del. S/F Ratio
U. of Delaware	15.7	100	17.7	100
U. of Connecticut	12.9	82	14.0	79
U. of Maryland (College Park)	15.3	97	19.8	112
U. of Massachusetts (Amherst)	15.9	101	17.7	100
Temple University	12.2	78	13.0	73
U. of Virginia	8.3	53	9.1	51
SUNY/Binghamton ²	17.0 (12.8)	108 (81)	20.0 (15.2)	113 (86)
Penn State (Univ. Park) ²	11.8 (15.7)	75 (100)	14.0 (18.7)	79 (106)
W. Virginia University	12.1	77	14.2	80

¹Data derived from information provided by:

U. of Delaware: Ms. Angela Zawacki, Research Assoc., Office of Budget Planning and Evaluation;

U. of Connecticut: Ms. Altha McLaughlin, Assistant to the Director of Institutional Research;

U. of Maryland (College Park): Dr. Hillard R. Hoffman, Director, Data Research Center;

U. of Massachusetts (Amherst): Ms. Susan Belonis, Staff Assistant, Office of Budgeting and Institutional Studies;

Temple University: Ms. Mary Toner, Office of Administration and Planning;

U. of Virginia: Richard J. Meisinger Jr., Coordinator of Academic Programs, Council of Higher Education, Commonwealth of Virginia;

SUNY/Binghamton: Prof. Leon Goldstein, Chairman, Faculty Senate ad hoc Committee on Faculty Workload;

Penn State (Univ. Park): Ms. Evelyn F. Homan, Information Planning Specialist, Office of Information Systems;

W. Virginia University: James G. Harlow, President.

²Data for these institutions do not appear to be comparable with those for the University of Delaware. Figures in parentheses represent an attempt to render the raw data comparable. The Penn State figures were obtained by dividing the raw data by 3/4; the SUNY/Binghamton figures were obtained by multiplying the raw data by 3/4.

TABLE IB
Raw Data and FTE Equivalents on which Table IA is Based¹

Institution	Undergraduate Students	FTE Graduate Students	Total FTE Students	FTE GTAs	FTE Faculty
U. of Delaware	11,404 (171,065)	1,225 (14,696)	12,629	92 (275)	7122
U. of Connecticut	15,916 (238,734)	3,400 (40,803)	19,316	143 (429)	1,249
U. of Maryland: College Park	26,795 (401,931)	3,449 (41,387)	30,244	452 (1,355)	1,528
U. of Massachusetts: Amherst	19,044 (285,660)	3,241 (38,892)	22,285	137 (410)	1,268
Temple University	17,067 (256,003)	4,594 (55,112)	21,661	107 (322)	1,667
U. of Virginia (includes Medicine)	10,057 (150,861)	3,111 (37,326)	13,168	150 (450)	1,442
SUNY/Binghamton	7,780 (116,694)	1,518 (18,220)	9,298	83 (249)	464
Penn State: Univ. Park	19,289 (289,332)	2,725 (32,694)	22,014	454 (1,363)	2,354
W. Virginia Univ. (includes Medicine, Dentistry & Law)	13,593 (203,892)	4,453 (53,431)	18,045	217 (651) ³	1,270

¹ Sources: See Table IA. Raw data in parentheses. Figures rounded to nearest whole number. For SUNY/Binghamton and Penn State, the adjusted figures are not provided.

² Includes only the active regular program faculty; College Parallel faculty are excluded, as are the credit hours they teach. Thirty-six faculty members were on sabbatical leave.

³ Includes Graduate Research Assistants.

TABLE II
Distribution of Faculty Activities for
Selected Institutions in this Geographic Area

Activity	University of Delaware ¹		University of Maryland ²		Rutgers University ³		University Park campus of Penn. State ⁴		Temple University ⁶	
	Hrs.	%	Hrs.	%	Hrs.	%	Hrs.	%	Hrs.	%
Teaching	27.9	52.5	33.3	54.0	34.3	58.9	26.9	53.2	33.8	60.9
Committees/ Administration	5.2	9.7	7.0	11.3	9.0	15.5	5.7	11.3	N/A	N/A
Research	11.3	21.2	10.4	16.9	11.8	20.3	15.8	31.2	11.8	21.3
Scholarly/Professional/ Other	8.8	16.6	11.0	17.8	3.1	5.3	2.2	4.3 ⁵	N/A	N/A
Total	53.2	100.0	61.7	100.0	58.2	100.0	50.6	100.0	55.5	100.0

¹ Faculty Academic Activities Reports, 75A and 75B averaged.

² Faculty Activity and Outcome Survey (draft), Maryland Council for Higher Education, Spring 1974. Table I in Appendix.

³ Communication from Evelyn H. Wilson, Director of Planning and Institutional Studies, Rutgers University, results from survey made by University Senate, 1970-71.

⁴ Communication from Chalmers G. Norris, Director of Planning and Budget Officer, the Pennsylvania State University. Faculty Activity Analysis Summary, Fall 1974 and Spring 1975 averaged.

⁵ "Public Service" only. "Scholarly" activity is probably included with "Research."

⁶ Communication from Fred L. Nicolai, Associate Vice President for Administration and Planning, Temple University. Data categories do not coincide exactly with those of the University of Delaware.

TABLE III

Range of Activities of Faculty
in Selected Departments at the University of Delaware
in Percentages of Time Spent¹

	Professor	Associate Professor	Assistant Professor	All Ranks Average (University-wide)
1. Teaching/Counseling/Advising	46 (23 - 56)	55 (20 - 71)	56 (44 - 71)	52.5
2. Committee/Administration	17 (13 - 21)	10 (7 - 14)	8 (4 - 14)	9.8
3. Research, Funded & Nonfunded	19 (12 - 39)	18 (11 - 31)	21 (18 - 32)	21.2
4. Scholarly/Professional/Other	15 (5 - 37)	17.5 (7 - 38)	11 (3 - 18)	16.5

¹Source: AARs as summarized by COPE for the Departments of Art History, Business Administration, Civil Engineering, Economics, English and Psychology, and the College of Marine Studies; range in parentheses. Numbers not in parentheses represent the value for the fourth ranked of the seven departments in the sample.

TABLE IV

College/Division Range of
Teaching Credit Hours, Class Contact Hours and Student Credit Hours
Compared with the Average for the University Faculty¹

	College/Division Range	University Average
Teaching Credit Hours Average Per Week	2.3 - 8.2	6.7
Class Contact Hours Average Per Week	3.1 - 15.4	9.3
Student Credit Hours Average	35.5 - 353.2	266.7

¹Source: Appendix I

substantially greater than that at the surveyed universities.

Table II shows that the work week reported by professors at the four responding universities ranges from 51 to 62 hours during the academic term; Delaware professors report a work week of 53 hours. Faculty at all reporting institutions divide their time similarly.

Table III, based on internal data, breaks down the faculty work week into percentages of the total time spent on the four activities in question. Although Assistant and Associate Professors divide their time in approximately the same proportion for Teaching, Service and Research, there are wide variations in individual units' averages. This suggests that a single equitable standard of internal comparability is unobtainable. Similarly wide variations are reported by Professors, who in some cases devote less time to teaching and more to internal University service than Assistant and Associate Professors. Time devoted to research is comparable at all ranks, but with wide variations in individual units' averages.

Table IV, also based on internal data, shows faculty teaching workload as measured by average weekly teaching credit hours, average weekly class contact hours and average student credit hours. Means and ranges are provided. The wide range in each category and the significant differences between them and the University averages suggest that here, too, a single equitable standard of internal comparability is unobtainable.

B. Internal Survey Results

The central focus of the sample faculty survey was an inquiry into faculty perceptions and attitudes on workload and productivity. While it would have been possible to propose specific questions with a check list, it was believed that the informal interview would avoid distraction and produce information of useful reliability. Furthermore, since questionnaire findings tend to be reported in quantitative form there can be a misleading impression of precision. In the present instance, nevertheless, there were many cases where the general tenor of the discussion gave a clear impression of the attitudes of the interviewees, even though specific questions on these attitudes had not been asked. In most cases where follow-up interviews were conducted similar attitudes were perceived.

The findings will be discussed separately for workload and productivity. For the purposes of this report, "workload" encompasses the more quantitative and "productivity" the more qualitative aspects of faculty activities. While both will be considered subjectively, the second will be intrinsically more so, except that attitudes toward certain types of productivity seemed very clear. Following each interview notes were made of sufficient extent to make it possible in subsequent analysis to recall the impressions made and attitudes expressed. In this analysis attention was directed toward the following categories of activity: teaching, research, University internal service, external service, and non-University, non-professional activity. For each of these categories consideration was given to work pattern, attitude, and demand or pressure.

The value placed on teaching was dominant. Fewer than half those interviewed regarded research as a major workload activity and only a

minority of those felt this value to be greater than that of teaching. Finally, a significant minority of those interviewed regarded research unfavorably or gave it little attention.

All types of service activity together were perceived as a substantial activity by a majority of the faculty, but committee work was accepted rather passively by many of these. Much less than half of those involved regarded the pressure for such activity as excessive. A small, specialized group indicated a very sincere dedication to external University-related activity. Almost all of this group felt that this role was jeopardized by the pressure to engage in and be productive in scholarly research.

A minor though not negligible group of the faculty seemed to regard a significant effort in non-University related activity as desirable. This varied from a desire by their personal initiatives to improve the University image informally to the salutary effects of a constructive hobby or avocation.

Any effort to provide a subjective assessment of academic productivity as a result of the type of survey conducted must inevitably reflect impressions of the moment and should be judged accordingly. Nevertheless, sincere enthusiasms coupled with demonstrated output and conversant knowledge of the field or activity can not be underestimated in significance--nor the opposite in disinterest and unawareness.

Productivity in teaching is not easy to ascertain, even subjectively. Enthusiasm, imagination, initiative, and responsiveness concerning teaching are characteristics which can be perceived and which were taken as subjective indicators. In addition, there is the dedication to time-consuming teaching routines which may be beneficial to many students. All of these indicators were evidenced, though far from universally. Furthermore, it appeared that in most cases where one of these indicators was exhibited to a high degree with respect to teaching, it was not perceived to be equally evident with respect to research. Only a minority of the faculty perceived a major pressure for excellence in teaching rather than processing large numbers of students.

The interviews indicated that most of the faculty believed that there was widespread acceptance of the proposition that productivity in research could be the most reliably measured of faculty activities; however, only a minority interviewed believed that research productivity could be measured any more effectively than other activity, and a sizeable proportion of those who did so believe were individuals much involved and successful in research.

Individuals enthusiastic about their research were observed as well as those perceived to engage in research for the sake of appearances or to pass a one-time hurdle. Individuals providing leadership in research did not seem to be recognized or appreciated by a majority of the faculty. There appeared to be more resentment toward apparent pressures for universal research accomplishment than pride in existing excellence.

University related service includes: 1) activity specifically considered a regular component of the individual's workload--this is typified by extension services; 2) activity considered an incidental component--such as committee service; and 3) more or less voluntary activity--such as organizing or participating in seminars, workshops, guest lectures or exhibits.

Those engaged in the first category seemed to be diligent and dedicated. Many of these individuals, however, were shifting their attention away from this work in the stated belief that it was certainly in their best interests, and apparently that of the University, to direct their attention instead to scholarly research.

As noted earlier, the second service category was accepted passively by many of the faculty. Individual interest and response to challenge appeared often. In those cases particularly where this activity was well planned and managed, and benefit to the University or public was unmistakable, participation was perceived to be active and enthusiastic.

Activity in the third category was very much dependent on individual decisions for participation. This decision depended on apparent priorities as balanced against personal enthusiasms. There was either active participation, or none.

III. BENEFITS OF FACULTY ACTIVITIES TO THE UNIVERSITY COMMUNITY AND TO THE PUBLIC

Ideally, a university is an institution of higher education dedicated to the pursuit of learning. The faculty of the university pursue this dedication by such activities as guiding students, preserving and expanding knowledge, providing an environment for nurturing ideas, and imparting their collective knowledge to the larger community, the public. A community of scholars owes its very being to a high degree of academic dedication and spirit of inquiry. Its sense of mission is perhaps a good measure of the productivity of its faculty.

The most visible public benefit of university activity is the education offered. The quality of that education represents a commentary on faculty productivity and workload just as it represents the result of investment of state tax monies. High quality is vital to justifying the public investment. At the present time increased public awareness concerning the educational process, and the generally uncertain economic climate, make such justification all the more critical.

As a rule, professional activities are placed in the broad categories of Teaching, Research and Service. Activities relating to administrative or committee service or to paid consulting are included in Service. We may assume that the primary concern of the taxpayer is that the University of Delaware provide for the young people of the State sound higher education at a price they can afford. This, of course, places a premium on the teaching phase of faculty activity. To a lesser degree, there is an interest in those service activities that are of direct benefit to the people. Research would probably be ranked third by a majority of the taxpayers, with paid consulting and administration as last. In fact, paid consulting and certain types of research could elicit negative responses from many people.

As a community of scholars, the University is Delaware's largest and most diverse assembly of highly educated citizens functioning primarily for the public good. This community represents a rich source of expertise because the specific interests, talents and activities of the faculty differ widely.

The University suffers from its public image. There is a prevalent belief that all faculty members have an eight-month work year, receive lucrative grants, and periodic sabbaticals, have tenure, and receive salaries comparable to the general community level for similar training; in other words, they enjoy utopian working conditions. Therefore any faculty request for increased privilege and/or increment will immediately raise questions. To an outsider, individual faculty activities may appear to be largely free time. But because free time and professional time are mixed, or interspersed, the accounting of time devoted to professional activities is largely a matter of individual integrity. The average quantitative measurement of a faculty workload-week at the University of Delaware is in excess of 50 hours.

Two areas of academic life warrant special mention in this regard, sabbatical leave and tenure. To the public, the idea that an individual should be granted one year off out of each seven, at half-pay, is difficult to accept. There is a need for more convincing public education as to the benefits of the academic sabbatical tradition which provides a period of unbroken time to develop or refine expertise in specific areas. The performance and productivity of a faculty member on sabbatical should be the concern of all other faculty; those few who may appear to misuse this time subject the entire concept to damaging criticism.

Tenure is also a difficult element for the layman to comprehend and accept. The original concept of providing for academic freedom and protection from legislative and administrative witchhunts is generally understood, and has attained widespread public support. The use of tenure to protect incompetents, however, is not acceptable. There is an increasing need to ensure that tenured staff is productive and not riddled with "hacks." Without a genuine commitment to a dedicated pursuit of learning by the faculty, the public will question increasingly the usefulness of tenure.

Benefits derived from the various areas of faculty activity are discussed below.

A. Teaching

Good teaching has an obviously beneficial effect on the student, the teacher and the institution. A general level of good teaching enhances the reputation of departments involved and of the University as a whole and attracts the brighter, better students. These students in turn stimulate greater efforts by good teachers to improve their teaching; one nurtures the other. Close advisement and personal interest in students as individuals stimulate pride in students for their total academic experience which is carried with them as a lasting impression as they leave the institution as alumni. An institutional reputation for good advisement, like good teaching, is a self-rewarding attribute.

Classroom contact hours constitute the portion of the workload most easily measured. Delaware faculty have an average of about 9 class contact hours per week (see Table IV).

Outsiders tend to view teaching from a public school context. The fact that 9 contact hours constitute a reasonable teaching workload requires explanation. Such things as the teaching of seminars, special problems, reading courses, and guidance of graduate students are not included in class contact workload. The effects of such elements as number of different courses taught, number of students per section, and number and type of papers to be received, must be stressed. But teaching includes much more than contact time. Class preparation involves the writing of lectures and of supplemental "handout" material, and the making of visual teaching aids. Background reading and study are necessary to update even the most basic material. The preparation, grading and analysis of examinations is necessary for the evaluation of student progress. Some individual students require, and seek, additional help from their instructor outside of class on a one-on-one basis. Time spent in course improvement, revision or development of courses, and in incorporating teaching innovations, are also teaching activities. Ideally the teaching scholar also needs time to learn in order to maintain quality expertise. The digestion, development, and refinement of new ideas, either alone or with colleagues, requires time for reflection and adds to the ultimate quality of individual teaching. Clearly, the total teaching effort of each faculty member includes much more than class contact hours, but this non-classroom time is not recognized as important to many outside of academic life. One generally used measure is that contact to non-contact time is in a 1:2 ratio. Thus 9 class contact hours per week translates into about 27 hours of total teaching activity. In fact, Tables II and IV indicate that the average University of Delaware faculty members spends 28 hours/week in teaching-related activities with a reported 9 hours of contact.

B. Administration and Committee Workload

The administrative and committee activities are of little concern to the public, and to some faculty members as well. However, if the faculty is to take seriously its authority "to formulate and administer the academic and educational policies of the University" (Bylaws of the Board of Trustees, 1975) this type of activity is unavoidable. The generating of administrative fuel by filling out data forms (e.g. Academic Activities Reports), the writing of letters of recommendation, and the reading of in-house reports are types of individual-level administrative activity in which all faculty members participate almost daily.

Collective administrative activities include faculty senate and committee work. Committee meetings provide the machinery through which necessary background information is gathered, digested and prepared for presentation to the whole University community for its deliberation and decisions. The efforts of the individual committee members benefit the whole by saving them the time which would be needed to assemble and analyze the background information for each issue. However, the time and effort expended by the individual committee member is generally perceived as being detrimental to that member. Because such activity is difficult to evaluate it is often underrated in comparison to research and public service activity.

During the past decade the close familiarity among faculty that was typical of a small college has been weakened by rapid growth and the frequent turnover of appointees. An intangible benefit of committee service is its potential for increasing communication and familiarity among faculty members from diverse professional areas within the University. This can develop, among the committee members at least, mutual respect and understanding within the faculty. In fact, intra-university service is perhaps the one area where a community spirit can be developed among all the members of the university community--students, faculty, professional staff, administrators. It is here that people meet to seek solutions to common problems, to exchange ideas, to work together for their mutual benefit. However, at the University of Delaware, there seems to be a general disdain and depreciation of committee work.

C. Public Service and Paid Consulting

In a recent (Oct. 1975, Division of Urban Affairs) report, half of the faculty members sampled felt a need for greater outreach of service to Delaware taxpayers. Most felt that the encouragement of and reward for public service activities by the faculty, and the planning and implementation of such activity by the administration, was needed. Specifically, in a summary of this study printed in University Report, vol. 2, no. 9, dated May 31, 1976, p. 4, we note that a "majority of members of the faculty believe that the faculty has an obligation to participate in university public service," and that indeed "Seven out of the ten faculty respondents agreed that each university department should encourage development of public service programs that are strongly related to teaching and research." However, "Among the faculty respondents, about two-thirds disagreed with the statement that: 'The present reward system at the University of Delaware encourages faculty participation in public service activities.'" As noted earlier (Section IIB), many individuals are directing their attention away from public service and towards scholarly research.

Service should engender a great deal of public interest and support, provided it is seen as practical and of direct benefit to the taxpayers. Such activities as agricultural and home economics extension programs, marine studies, solar energy and water resources programs, and urban affairs activities which attempt to improve the lot of urban residents, should be highly publicized; the public should be kept informed of the services available through these activities.

In the report referred to above, public service perceptions and commitment in the colleges of Arts and Science and Engineering appear weak at present. In the case of the Engineering faculty, much outside service is as paid consulting. This is a more indirect form of public service, but it is a very real benefit to the University. Paid consulting is a credible manifestation of the technical and industrial community's considered worth of the University and its faculty in a highly competitive environment. The contact made by the faculty in such consulting activities also can enhance the chances of their students for finding employment, and is of very real benefit to the individuals involved.

Not all disciplines are equally capable of rendering desired public service, but a special effort should be made to expand the contributions of the College of Arts and Science. Because this College includes the broadest range of scholarly interests of all University colleges and divisions its faculty appears to be a relatively untapped resource for public service.

D. Research

President Trabant has emphasized that the University of Delaware is not in the same category as the other institutions of higher education in the state. The University is one of the most dynamic forces for the development of citizens and resources in Delaware. It is the only source in the state of graduate education, and this must be undergirded by a strong and meaningful research program. The public's attitude toward research may be ambivalent: favorable toward some research projects and hostile toward others. In all probability, the kinds of applied research or development which yield results that are of demonstrable benefit to the public will be regarded favorably. At the other end of the spectrum, significant fundamental research that would provide prestige for the University and, in so doing, increase the value of a University of Delaware degree, would also meet approval. On the other hand, the belief that many faculty spend time on third-rate research could yield negative public responses.

Active research programs stimulate the faculty to attain greater professional competency, which in turn can--and often does--carry over (if only by means of the enthusiasm expressed for the subject, but often directly in the subject matter itself), into their teaching. Faculty who are actively involved in research enhance their teaching by bringing first-hand experiences to the classroom. Thus the student views the teacher as a "doer" and not as a narrator. Active research also increases faculty interdisciplinary contact both inside and outside of the University of Delaware. This contact tends to improve the quality of research by stimulating the use of techniques and materials from similar or allied fields.

Most active research projects uncover many new avenues of potential research. This tends to develop institutional specialization and leadership in areas of research which attract other scholars to our community. The development of speciality areas of research also attracts high quality graduate students and gains outside financial support. These are visible evaluations of the quality of faculty research activities which are not generally recognized by the public.

E. Public Relations

There is a general public misunderstanding concerning the diverse activities of faculty members, and it is incumbent upon the faculty to make an honest effort to correct this misunderstanding. The luxury of an ivory tower attitude on the part of any faculty is outdated and counterproductive to the goal of justifying the University's share of state educational resources. All faculty must help in the public relations of the University community.

To portray effectively the community of scholars beyond the campus

perimeters into the larger Delaware area involves the outreach of the University through public information programs, departmental public service projects, continuing education, cultural offerings, and faculty sharing of its expertise through participation in community activities. Much is already being done, and in fact an intensification of presently existing programs would, for the most part, answer the need.

IV. WORKLOAD AND PRODUCTIVITY EVALUATION: PROBLEMS IN DETERMINING UNIVERSITY-WIDE COMPARABILITY

Different units within the University serve different functions and display wide variation in the apportionment of effort among those three "venerable" activity groups--teaching, research, and service. That this Committee found no evidence to oppose these facts of academic life is neither surprising, nor noteworthy. How these various efforts should be evaluated remains a difficult question, but the Committee concluded that individual evaluation is best made on a unit level rather than University-wide. We have already suggested (Section IIA) that a single equitable standard of internal comparability is unobtainable. The Committee did not attempt to devise a formula which would take into account all of the various kinds of activity, with appropriate weighting factors, against which individual performance could be measured. A major stumbling block in any such attempt is the fact that the weighting factors would vary from unit to unit. In the area of teaching, for instance, such elements as number of different courses taught, number of sections of the same course taught, number of students per class or section, nature of tests to be designed and graded, number and types of papers to be reviewed, amount and nature of assistance provided, number of courses taught and number of students taught for the first time, must be stressed. Similar complications exist relating to the quantity, quality and variety of research, publication, service and administrative activities in which a faculty member engages.

The most appropriate level for formulating review criteria is the department, division or undepartmentalized college. The weighting of the various components of workload in each unit is a nontrivial matter and should accurately mirror the relative importance of various activities in the unit. These decisions should be consistent with the unit's role in the college and University. Any controversy or dispute over unit goals or activities, either within the unit or between the unit and other University components--including the Senate, Deans, Provost, President and Board of Trustees--should be resolved on these grounds rather than in the framework of individual promotion evaluations. Such evaluations should then be made on the basis of performance in pursuit of agreed upon goals, the relative importance of which might be explicitly contained in the unit's workload formula. Attempts in this direction have been made in the formulation of departmental promotion criteria. The indifferent success of these criteria in providing accepted norms and sole bases on which Deans, the Provost, and the University Promotions and Tenure Committee would base decisions leads to skepticism that another attempt would be more successful. Nevertheless, if workload formulae are to be attempted they should be developed at the unit level. It should be emphasized that such formulae would represent the value

of importance that each unit places on the various activities of its members.

In a rough sense, therefore, a unit in which service was heavily weighted should value excellence in this area and this should be reflected in promotion criteria which are honored at all levels. Similarly, for units in which teaching or research is primary, that weighting should be reflected in the criteria used at all levels of review.

V. SUMMARY AND RECOMMENDATIONS

A. Summary

The Committee has examined the question of workload and productivity in keeping with the charges outlined in section IA of this report. Tables II and III indicate that the faculty at the University of Delaware uses its professional time, on the average, more for teaching than research, and more for research than for service; but there are very wide ranges of activity on the individual and on the unit level. This is consistent with activity patterns at similar institutions; the University of Delaware has a similar or higher student/faculty ratio than most other institutions contacted, and occupies an intermediate position in terms of clock hours spent in teaching, research, service and administration.

By and large, the faculty seems to place more value on teaching than research (a large part of the faculty regarded research as a minor activity in their own work load); nevertheless, research is generally regarded as a vital activity for a university faculty. However, the faculty feels (rightly or wrongly) that promotion depends mainly on publication and/or scholarly research. This dichotomy of personal values and professional pressures appears to be a contributing factor to a feeling of malaise among the faculty.

It should be noted that the faculty, as a whole, aspires to excellence in the three traditional areas of academic performance, viz., teaching, research and service; but individual faculty members and indeed individual units isolate in many instances one or two areas in which they strive for excellence. This situation makes interdepartmental comparability at best a difficult if not in fact impossible task. Therefore, since evaluation of workload and productivity can not be satisfactorily accomplished by University-wide comparability criteria, more flexible, unit-oriented criteria need to be established.

Relations with the public are, or should be, an important concern of the faculty and the administration of the University. But the various segments of the University need to communicate better with each other, too. Positive actions should be taken to make the academic community more aware of the various means by which the three areas of responsibility are being served. An effort should be made to stimulate a greater sense of academic community pride in the total accomplishment and to inspire sincere dedication among the faculty contributing to these respective areas. Such contributions should be supported by equally sincere appreciation.

The public at large seems too poorly informed regarding the goals, aims and activities of the University. There are many characteristics of the work pattern and responsibilities of the faculty that are never well

explained to the students or the public. These characteristics are too often misinterpreted by focusing on highly visible features, such as contact hours.

The service Program of the University is intended to accomodate the broadest spectrum of public needs and interests. This breadth is not sufficiently well publicized or interpreted.

It is suggested that a positive effort be made to correct these deficiencies.

B. Recommendations

1. Because of general misunderstanding concerning the diversity of faculty activities, a statement describing the complexity of workload, as described here (or similar to that of Provost Campbell to State Representative Marion I. Seibel, dated June 9, 1975, Appendix II), would help clarify faculty workload to prospective students and others giving direct financial support to the University through student fees. One appropriate outlet for such a statement is the undergraduate catalogue, so that prospective students can better appreciate the activities of a university professor in contrast to those of teachers in other levels of education.

2. The College of Arts and Science should explore ways to further develop public service activities in the arts and the humanities in order to share the expertise of its scholars with the public.

3. The adequacy of the review and accounting of the productivity and over-all benefits of sabbatical leave activity should be examined.

4. The establishment of a weekly column in the local newspapers concerning faculty research publications, faculty participation in learned societies and faculty presentations at professional meetings would help to keep the public informed about these faculty activities.

5. There should be greater recognition on the part of the University of faculty members who adeptly enhance the public image of the University through their excellence in its outreach activities.

6. An effort should be continued to gather the type of data contained in Tables I and II for additional comparable institutions without geographic restrictions.

7. In the Committee's judgment, over-all University comparability is an impossible goal. Nevertheless, we believe that it is possible to develop adequate criteria for promotion and tenure based on the unit's contribution to the college and the University. Specifically, we recommend the following procedures:

a. Over-all unit goals should be formulated which clearly state the importance which the unit places on teaching, research, service and other categories of workload. These unit profiles should be developed by the units subject to approval of the college dean or unit director, the University Coordinating Committee on Education, and the Provost. In this manner, the unit's role in the college and the University will be clarified. Any change in unit standards

or mission will require approval by faculty and administration at unit, college and University levels.

b. Promotion criteria should be made more explicit in terms of over-all unit goals. Furthermore each individual's role in the department should be clarified soon after appointment to a particular rank and periodically updated so that later, when a promotion is considered, the faculty member's contribution and performance can be effectively measured against expectations. Promotion to Associate Professor should be made on the basis of contributions to no more than two areas (e.g. teaching and service, research and service, teaching and research) consistent with the unit's role and the individual's part in that role.¹ The college and University committees on promotion and tenure will apply these unit promotion criteria and measure them against the over-all unit goals in lieu of over-all University comparability.

c. The charge of the University Promotions and Tenure Committee should be changed to be consistent with this role.

¹The ad hoc Committee on Faculty Workload of the Faculty Senate at the State University of New York at Binghamton, although differing in approach from this Committee, comes to essentially similar conclusions and proposes (although in greater detail) essentially the same procedure for designing an equitable faculty workload. See Appendix III for proposals 2 - 6 from its Report, dated June 10, 1976.

TABLE A
Trends in Teaching Credit Hours, Class Contact Hours and Student
Hours Taught by Faculty in Different Units of the University of Delaware

College/Division	Teaching Credit Hours					Class Contact Hours					Student Credit Hours				
	Average per Week					Average per Week					Average per Week				
	74A	74B	75A	75B	76A	74A	74B	75A	75B	76A	74A	74B	75A	75B	76A
Agriculture	3.8	4.4	3.8	3.5	3.2	7.4	7.5	6.4	5.4	6.6	156.2	126.9	166.3	135.6	212.1
Arts & Science	8.1	8.0	7.6	7.7	7.2	9.1	8.6	8.8	8.5	8.5	367.0	339.9	354.2	329.0	339.2
Humanities	9.6	9.6	9.3	9.2	8.8	11.1	10.8	11.1	11.0	10.7	275.1	259.3	268.9	254.5	244.3
Social Sciences	7.0	7.0	7.1	6.7	6.0	7.2	7.1	7.0	6.6	6.4	444.4	425.1	406.8	382.2	385.9
Natural Sciences	6.9	6.5	5.8	6.3	5.9	7.9	6.8	7.2	6.6	7.3	423.7	379.7	424.2	383.7	432.0
Business & Economics	8.3	(8.4)	7.7	(7.5)	8.6	8.5	(10.4)	7.6	(8.1)	8.2	299.5	(288.1)	308.2	(280.1)	320.4
Education	7.9	(8.8)	8.7	(8.8)	7.3	11.4	(12.3)	13.2	(12.1)	11.0	237.6	(285.4)	206.6	(234.1)	182.2
Engineering	6.8	6.2	6.1	5.7	5.4	8.4	8.2	7.8	7.2	6.8	155.6	141.3	156.5	120.8	177.1
Health Sciences	3.5	3.4	3.8	7.5	4.8	12.0	3.7	11.6	10.5	9.6	93.9	64.6	88.1	129.7	91.5
Home Economics	7.0	8.0	6.2	6.7	6.6	12.1	13.3	14.5	11.6	14.7	204.5	193.2	179.7	187.8	192.5
Marine Studies	2.1	2.4	2.3	3.0	2.4	2.8	3.1	2.6	8.4	3.7	31.9	58.2	40.8	77.3	34.1
Nursing	3.8	7.9	4.3	3.5	2.7	16.3	14.9	14.3	14.1	15.9	128.4	130.4	119.6	113.3	119.8
Physical Education	5.7	5.3	4.7	5.3	4.0	10.1	11.5	10.1	9.8	9.7	121.9	130.8	104.8	106.2	101.5
Urban Affairs	4.0	3.4	4.7	3.7	3.2	4.1	3.4	4.7	3.5	4.3	28.4	30.6	42.1	36.5	50.6
University Average	7.0	7.3	6.7	6.7	6.3	9.4	9.3	9.4	8.9	9.1	276.7	259.5	263.5	246.1	260.8

¹Averages calculated from Faculty Academic Activities Reports, Fall 1973 (74A) through Fall 1975 (76A).

The Department of Office Systems/Business Education (formerly Secretarial Studies) was transferred from the College of Business and Economics to the College of Education effective Fall 1975 (76A). Fall 1973 (74A) and Fall 1974 (75A) averages for both colleges have been corrected for comparability with Fall 1975 (76A). Spring 1974 (74B) and Spring 1975 (75B) have not been corrected and should not be compared with Fall averages.

TABLE B

Teaching Credit Hours, Class Contact Hours
and Student Credit Hours Taught by Faculty
in Different Units of the University of Delaware

<u>College/Division</u>	<u>Teaching Credit Hours Average per Week</u>	<u>Class Contact Hours Average per Week</u>	<u>Student Credit Hour Average</u>
Agriculture	3.6	6.8	178.0
Arts and Science:	7.6	8.8	353.2
Humanities	9.2	11.0	262.4
Social Sciences	6.7	6.9	411.4
Natural Science	6.2	7.5	426.6
Business and Economics	8.2	8.1	309.9
Education	7.9	11.9	208.8
Engineering	6.1	7.6	163.3
Health Sciences	4.1	10.9	91.0
Home Economics	6.6	13.9	191.4
Marine Studies	2.3	3.1	35.5
Nursing	3.6	15.4	122.1
Physical Education	4.8	10.0	109.2
Urban Affairs	4.0	4.3	40.1
University Average ¹	6.7	9.3	266.7 ²

¹ Averages calculated from faculty Academic Activity Reports of Fall terms--1973, 1974, and 1975.

² Student Credit Hours Averages are based on total generated for a college/division regardless of teacher's personnel class. GTAs and administrators are not included as FTE faculty in calculating these averages which in some cases inflates the faculty average SCH.

June 9, 1975

The Honorable Marion I. Seibel
House of Representatives
State of Delaware
Legislative Hall
Dover, Delaware 19901

Dear Mrs. Seibel:

I am responding to the questions in your letter of May 28, 1975 which pertain to the salaries and workload of the faculty of the University of Delaware. . . .

[Note: relevant questions are: 1) How many hours, on the average, do professors spend in classroom teaching at the U. of D.? and 2) What are some of the additional responsibilities of the faculty?]

. . . .

A report of academic activities is collected from each of our faculty members every fall and spring term. This report shows that on the average, University of Delaware faculty spend 52.4 hours per week at their professional responsibilities. This includes teaching three to four normally scheduled courses every week. However, just as public performance in theatre, athletics, medicine, law, and government requires much preparation, work and investigation before an actual "performance," faculty activities require significant efforts in preparation so that educational activities involving student contact can be worthy of the public and private support which provides the funds for the educational enterprise.

The hours a faculty members spends each week in formal group teaching is often cited as the main indication of faculty workload when, in fact, it constitutes only a portion of the total work week and the total work expected of a faculty member.

The total faculty workload consists of specific professional activities and duties in the broad areas of teaching, research, and public service. Teaching duties for example consist of such specific activities as organized formal class or group instruction, individual instruction for credit, individual instruction such as supervising undergraduate and graduate research projects, informal counseling and advising of students in academic and career matters, preparation of lectures and other course materials, paper and test grading, advising and assisting individual students, and course and curriculum development. In the sum of these activities, University of Delaware faculty expend an average of 34.8 hours, including the 9.3 class contact hours in formal class group instruction.

In addition to teaching duties, there are research commitments (an average of 4.2 hours per University of Delaware faculty member), public services to individuals, groups, organizations, and governmental agencies (an average of 5.7 hours per University of Delaware faculty member), committee and administrative assignments, and program planning and development (an average of 7.7 hours per University of Delaware faculty member).

The workload pattern of our faculty is very comparable to the results

of studies performed in other similar institutions. A 1970 study at the University of Illinois indicated that faculty spent 53 hours per week in academically related activities, including a total of 33.5 hours per week in activities directly related to teaching. A 1972 faculty workload study at the University of Utah indicated that faculty worked an average of 53.9 hours per week including 30.6 hours spent on course-related activities. The Faculty Effort and Output Study of 1968 conducted in the California college and university systems reported that faculty spent approximately 32 hours per week in activities directly related to teaching, 19 hours per week in research and professional activities, and approximately 8 hours per week in public service and administration. A 1971 study of faculty workloads completed by the Council on Higher Education in the State of Washington reported 37 hours per week in course related activities, 10 hours per week in public service, research, and curriculum development, and an additional 5 hours in other student-related hours.

The question of faculty workload is complicated by the nature of the faculty member's work. To impart knowledge, shape institutional policy, determine goals, and create quality programs is not a function that can easily be performed at stated hours of the day or while a faculty member is seated in a particular spot. So much of what a faculty member (or any professional) does is not capable of being seen and immediately appraised. The main reason a faculty member works long hours is that his/her way of life permits no clear-cut distinction between work and free time.

We fully realize that increasing faculty workload will at some point have deleterious effects upon the quality of our programs. It is not possible to be a good faculty member and provide quality instruction without working hard in several areas concurrently. Increases in student-faculty ratios are cost saving in terms of the number of faculty positions required but at some point this tactic is expensive in terms of the opportunity for students to have reasonably sized classes and reasonable contacts with the faculty. The University of Delaware revenues for 1975-76 do not provide sufficient increases to maintain an optimal student-faculty ratio and meet increases in enrollment demand without changing that ratio. The faculty will have to increase productivity, and the students must assume increased responsibility for elimination of course registration practices that lead to inefficient use of resources.

I have also enclosed a brief summary describing the University of Delaware tuition policy for 1975-76 which you should find informative.

If you have additional questions, please feel free to contact me.

Sincerely,

(L. Leon Campbell)
Provost

FROM: Report of the Ad Hoc Committee on Faculty Workload, State University of New York at Binghamton, June 10, 1975

Proposals

2. That each unit--that is, department of the Arts and Sciences faculty, or professional school, or the Library, or the Program in Physical Education--shall determine and implement its own workload policy. This proposal is based on the observation that the specific difference, among the various fields within the University make it exceedingly difficult to formulate a generally applicable workload policy that would be precise enough to be implemented. These formulations will be subject to the review procedure specified in paragraph 6.
3. That each such unit establish or specify an agency for the definition and implementation of its workload policy. The committee believes that it should not make a specific recommendation as to the character and means of selection of the agency in question, since, we believe at least some of the units have had their own various experiences in such matters, and on that basis would have their various preferences for advisory committees, executive committees, elected ad hoc committees, and such like. In view, however, of the role of a unit's dean in reviewing and approving its workload policy, as specified in paragraph 6, the committee proposes that deans not be eligible to serve on the unit agency. The committee presumes that each unit would have its own way of ratifying the work of its unit agency.
4. That each unit agency determine what the elements are, that should define its workload policy. The committee believes that the criteria specified in its questionnaire will prove adequate in virtually every case, though it may well be that in some instances criteria specific to an individual discipline and which did not occur to it will be included. The committee believes that only a body representing the specific unit is qualified to choose just what ones of the criteria in its questionnaire ought to be emphasized in the unit's own workload policy, which are to receive greater and lesser recognition, and what ought to be the pattern of trade-offs within the unit.
5. That the unit agency examine the workload of each member of the unit over the course of a given span of time--three years, perhaps, or five years--determine what the particular mix of relevant activities has been for each such member, and recommend an equitable workload for that member. The committee cannot anticipate every possible pattern of workload that might emerge. For some, little teaching, much research, and little if anything else might be equitable. For some, much teaching--indeed more teaching--and little if anything else might be equitable. For some, equity might be achieved by persuading--or pressuring--the ones in question to be more actively involved in departmental and University committees, task forces, and the like. And for some, equity might be achieved through the anticipated increased faculty involvement in student advising.
6. That workload policies as formulated by unit agencies and ratified by the unit be submitted to the administration for analysis, correction and improvement. Only in this way can it be assured that workload policies are equitable as among the different units and are feasible given the fiscal constraints of the University. The committee believes that if faculty morale is to be kept high

not only must policies be equitable, but they must be perceived to be equitable, and that this requires that the workload policies of all units, as well as budgetary information with respect to which judgments of feasibility are made, be available to all members of the faculty. The committee believes that the appropriate administrative officer to review and approve the workload policies of the units initially is the dean of the unit. They should then be forwarded for approval by the Vice President for Academic Affairs. Those units not having deans would submit their policies directly to the Vice President for Academic Affairs.

Provost Office Analysis 76-35

August 31, 1976

TO: Prof. T. E. D. Braun
FROM: Tony Graziano
SUBJECT: Workload and Productivity Report

The July 19 draft of your committee report compares student/faculty ratios for selected institutions in our geographic area. The draft appropriately discusses several troublesome features pertaining to the raw data obtained from the selected institutions, the main problem being one of drawing comparisons from data that are collected through survey instruments and definitions peculiar to each institution. Nevertheless, I would like to augment and discuss some features of the data presented in Tables IA and IB of the July 19 draft.

GRADUATE ENROLLMENT AND THE STUDENT FACULTY RATIO

It is common practice to weight student teaching load by level of student in attempting to describe differential faculty staffing requirements in institutions of higher education. For example, the states of California, Illinois, and Wisconsin have in the past applied the following weights to FTE student enrollment by level in determining staffing and other budgetary requirements for their state systems of higher education:

Level of Student	Univ. of California	Univ. of Illinois	Univ. of Wisconsin
-----	-----	-----	-----
Lower Division Undergrad.	1	1	1
Upper Division Undergrad.	1.5	1.5	1.5
Beginning Grad. Students	2.5	2.0	2.5
Advanced Doctoral Students	3.5	4.5	4.5
# of SCH per FTE Undergrad.	15	15	15
# of SCH per FTE Graduates	10	9	9

The relative magnitude of the graduate programs at the eight selected institutions presented in Table IA of your draft report may have some effect upon the differences in student/faculty

ratios. Table IB of your draft report presents the raw data collected from the institutions, and I have calculated graduate teaching load as a proportion of total teaching load to demonstrate that the seven institutions with which the University of Delaware is compared have graduate teaching loads that are relatively higher than that of the University of Delaware. The three institutions which you describe as having student/faculty ratios "substantially lower" than our own (Connecticut, Temple, and Virginia) are those which have the highest proportions of graduate teaching load, from about 2 to 2-1/2 times the proportion of graduate teaching load at the University of Delaware.

	Undergrad. SCH	Graduate SCH	Total SCH	Grad. SCH as a % of Total SCH
	-----	-----	-----	-----
U. of Delaware	171,065	14,696	185,761	7.9%
U. of Connecticut	238,734	40,803	279,537	14.6
U. of Md.: College Pk	401,931	41,387	443,318	9.3
U. of Mass: Amherst	285,660	38,892	324,552	12.0
Temple U.	256,003	55,112	311,115	17.7
U. of Virginia	150,861	37,326	188,187	19.8
SUNY/Binghamton	116,694	18,220	134,914	13.5
Penn State U: Univ. Pk	289,332	32,694	322,026	10.2

Is there any merit to the argument that the proportion of graduate teaching load has an effect upon the student/faculty ratio? We used linear regression and correlation techniques to demonstrate that the proportion of graduate students in an institution's enrollment mix may account for as much as 25% to 30% of the relationship between student mix and the student/faculty ratio. Other factors not investigated here may also influence the student/faculty ratio. Some of these might be program mix, expenditures per student, Federal grant and contract support per faculty member, tuition charges, and others.

Each year the National Center for Education Statistics collects various data from institutions of higher education. One of these surveys is the Higher Education General Information Survey (HEGIS) of Opening Fall Enrollment. Another is the HEGIS Survey of Employees in Institutions of Higher Education. The first of these surveys reports fall enrollment in terms of FTE students and the second reports the number of FTE instructional faculty for the fall term. The most recently published information for which the results of both surveys are available is fall of 1972 when 160 universities and 1,553 four-year colleges responded (94% of all U. S. universities and 97% of all U. S. four-year colleges in that year). The data may provide valuable insight for they were collected from each institution through a common survey instrument and a common set of definitions.

Figure 1 illustrates the relationship between the independent variable "Percentage Undergrads" and the unweighted dependent

variable "FTE Students/FTE Faculty" for 205 selected universities and colleges responding to the 1972 HEGIS survey. The 205 institutions were selected at random but represent public and private institutions from all fifty states, including the state university in each case where data were available. It is a selection of "better known" schools for whom HEGIS data were submitted. For a correlation coefficient of .5312, the coefficient of determination $(.5312)^2$ indicates that 28% of the variation in the student/faculty ratio is associated with variation in the percentage of undergraduates in the enrollment mix.

The 1972 HEGIS respondents included six of the eight institutions selected by your committee for comparison purposes (the University of Connecticut and Temple University supplied enrollment data but no faculty data for the 1972 HEGIS survey). The six participating institutions are identified in Figure 1 as:

D = University of Delaware
M = University of Maryland: College Park
A = University of Massachusetts: Amherst
V = University of Virginia
B = SUNY/Binghamton
P = Penn State University: University Park

Four of the institutions have student/faculty ratios which are almost precisely those that would be predicted by our hypothesis--the University of Delaware, Penn State University, University of Massachusetts at Amherst, and SUNY/Binghamton. The student/faculty ratio for the University of Virginia is within reasonable proximity to where we would expect it to be; the student/faculty ratio for the University of Maryland is much higher than we would expect. From Table IB of your Committee's July 19 draft report, we might speculate that the large number of graduate teaching assistants at Maryland contribute significantly to the factors which influence the high student/faculty ratio at Maryland. Graduate teaching assistants are, of course, not included as faculty FTE. Table IB shows that Maryland has the highest ratio of GTAs to faculty reported in your data.

THE STUDENT/FACULTY RATIO AMONG UNIVERSITY OF DELAWARE DEPTS.

Do variations in student mix explain any portion of the differences in the student/faculty ratios existent among academic departments of the University of Delaware? The 1975 ratio varies from about 4 to 45 unweighted FTE students/FTE faculty

member at the University of Delaware. Regression estimation can

be expected to be less powerful for the heterogeneous population described by our own departments than for the more homogeneous population described by a large number of four-year colleges and universities, but the results are somewhat interesting.

The fall 1975 student teaching load for each department was described as:

Lower division (L) = 0, 100, 200 level courses
 Upper division (U) = 300, 400 level courses
 Beginning grad. (G) = 500, 600 level courses
 Advanced grad. (G2) = 800, 900 level courses

Two sets of weights were assigned to each course/student level and two sets of faculty FTE were obtained from the Academic Activity Reports for fall 1975 to derive the following two-by-two matrix:

Course/Student Level Weights

	L	U	G1	G2		L	U	G1	G2
1	1	1.33	1.33		1	1.5	2.0	4.5	

Faculty FTE budgeted
from instructional funds

Correlation
Coeff. = .2333
($P=.12$)

Correlation
Coeff. = .2850
($P=.05$)

Coeff. of
determination =
.054

Coeff. of
determination =
.081

Total Faculty FTE budgeted
from all sources of funds

Correlation
Coeff. = .1270
($P=n.s.$)

Correlation
Coeff. = .0776
($P=n.s.$)

Coeff. of
determination =
.016

Coeff. of
determination =
.006

The course/student level weights of 1:1:1.33:1.33 correspond to the definition of an undergraduate FTE being equal to 12 student credit hours (SCH) and a graduate FTE being equal to 9 SCH. The weights 1:1.5:2.0:4.5 correspond to the definitions lower division undergraduates equal to 18 SCH, upper division undergraduates equal to 12 SCH, beginning graduates equal to 9 SCH, and advanced graduates equal to 4 SCH. The first of these two sets of weights is the one commonly used to report FTE students enrolled at the University of Delaware. The second set of weights was adapted from those weights used in the California, Illinois, and Wisconsin systems, and it assigns a greater value to graduate instruction than does the first set of weights.

The two values of faculty FTE are derived from the sources of funds from which faculty positions were budgeted in the fall of 1975. Faculty FTE budgeted from instructional funds are those usually referred to as "hard" dollar positions. The second value of faculty FTE includes all budgeted faculty positions regardless of source of funding.

Within the grid of the two-by-two matrix are reported the correlation coefficients and the coefficients of determination for the respective regressions of student/faculty ratio upon student mix. None of the four regressions produced significant correlation between teaching load and student mix within the 46 University of Delaware departments. In fact, the best of these indicates that only 8.1% of the variation in the student/faculty ratio is associated with student mix in the faculty teaching load of the departments (see Figure 2). At first glance the graduate program of instruction apparently contributes little toward variations in faculty teaching load among University of Delaware departments. But examining the data somewhat more closely reveals the existence of perhaps two distinctly different types of departments at the University of Delaware.

Departments with a large number of graduate teaching assistants (GTAs) relative to the number of faculty members tend to cluster more closely about the regression plotted in Figure 2. The student/faculty ratio is generally lower for departments with no GTAs than it is for departments with GTAs budgeted--an average weighted student/faculty ratio of 17 in departments with no GTAs

compared to an average weighted student/faculty ratio of 25 in

departments with GTAs budgeted. (By comparison, the similarly weighted student/faculty ratio for the University of California

at Berkeley was 17.5 in 1969 with about 30% of their enrollment at the graduate level and at the University of Illinois at Urbana it was approximately 18.5 in 1972 with about 25% of their enrollment at the graduate level. These are the only years for which comparable data are available from these two institutions.)

Taking this observation one step further, the 46 departments were grouped into those awarding the PhD and those which do not. All four variations of the two-by-two matrix described above were tested against the two groups.

For the group of departments which award the PhD we obtained a minimum correlation coefficient of .50 and a maximum correlation coefficient of .67; i.e., from 25% to 45% of the variation in the weighted student/faculty ratio for PhD granting departments is

associated with student mix in the teaching load (see Figure 3

for the highest correlation which was obtained for student weights of 18/12/9/4 and faculty FTE budgeted from instructional funds). The average weighted student/faculty ratio for the PhD granting departments was 26.2 in 1975.

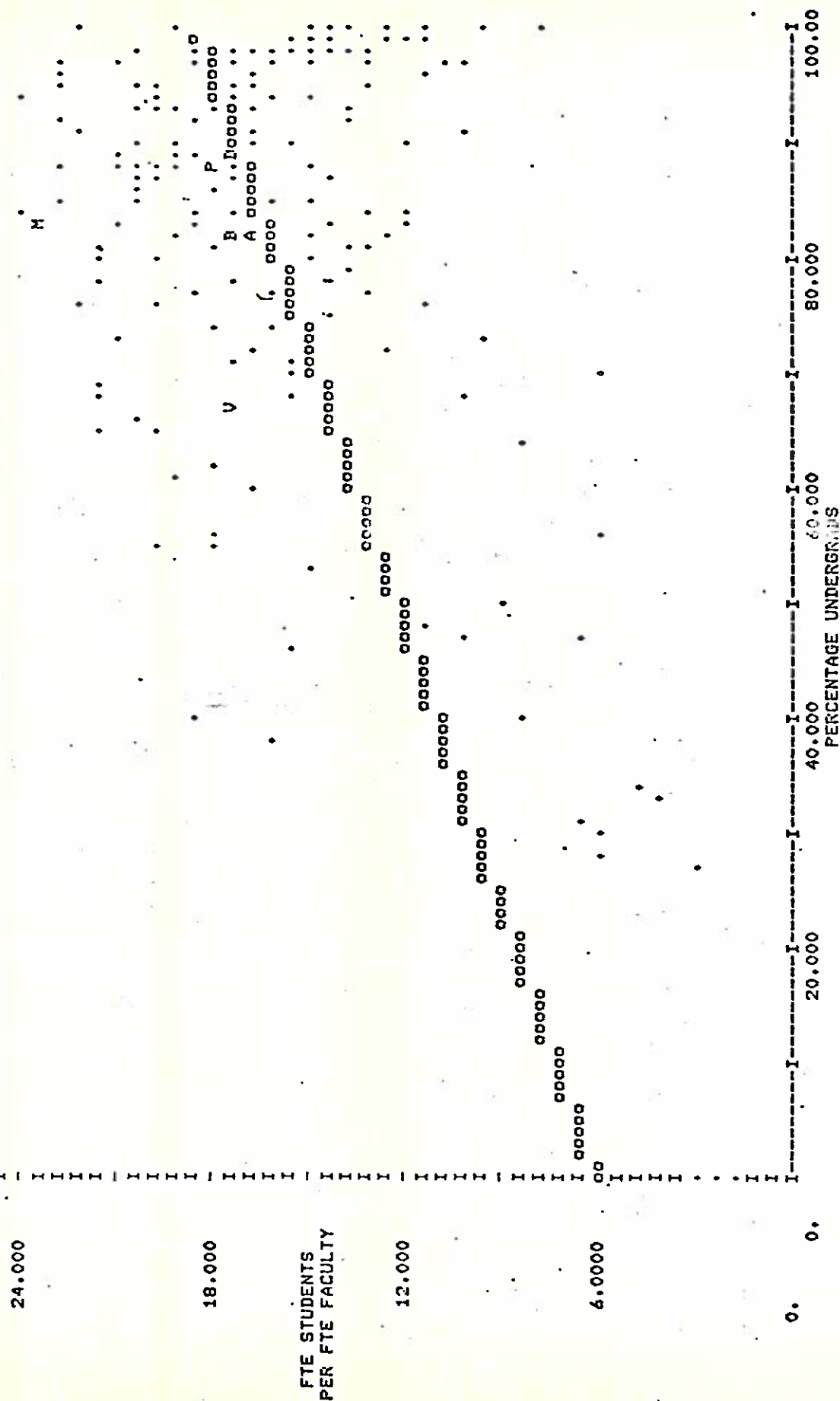
For the group of departments which do not award the PhD, we obtained negative correlation coefficients for three of the variations of the two-by-two matrix. The only variation which displayed positive correlation was the one which considers student weights of 18/12/9/4 and faculty FTE budgeted from instructional funds (See Figure 4). This correlation coefficient of .14 indicates that for these departments only about 2% of the variation in the weighted student/faculty ratio is associated with student mix in the teaching load. The average weighted student/faculty ratio for the departments which do not award the PhD was 17.9 in 1975.

In summary, I believe these data demonstrate that when the University of Delaware as a whole is compared to other institutions throughout the nation, our faculty workload is probably appropriate for our overall student mix. Internally we need to temper observations with some recognition of the fact that there are two distinctly different types of departments at the University of Delaware. The PhD granting departments have student/faculty ratios more closely associated with variation in student mix; they are the departments with higher student/faculty ratios on the average, and they are assigned GTAs to assist with their teaching load.

TG/dre
Attachments

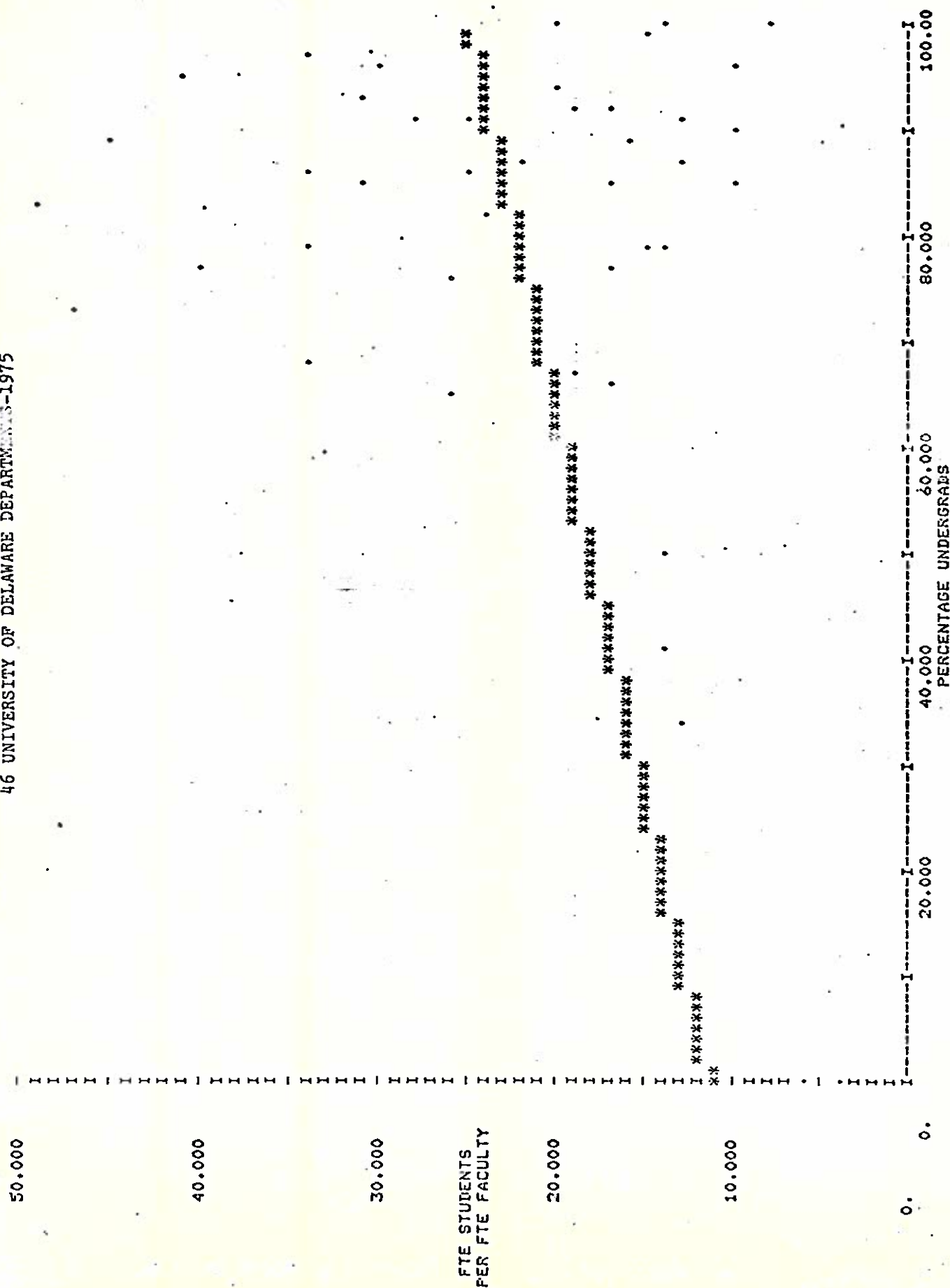
CC: Committee on Faculty Workload Productivity
President E. A. Trabant
Provost L. Leon Campbell
Ms. Barbara Martin

COLLEGIATE COMPARISON OF FTE STUDENTS PER FTE FACULTY MEMBER
205 COLLEGE UNIVERSITIES-1972



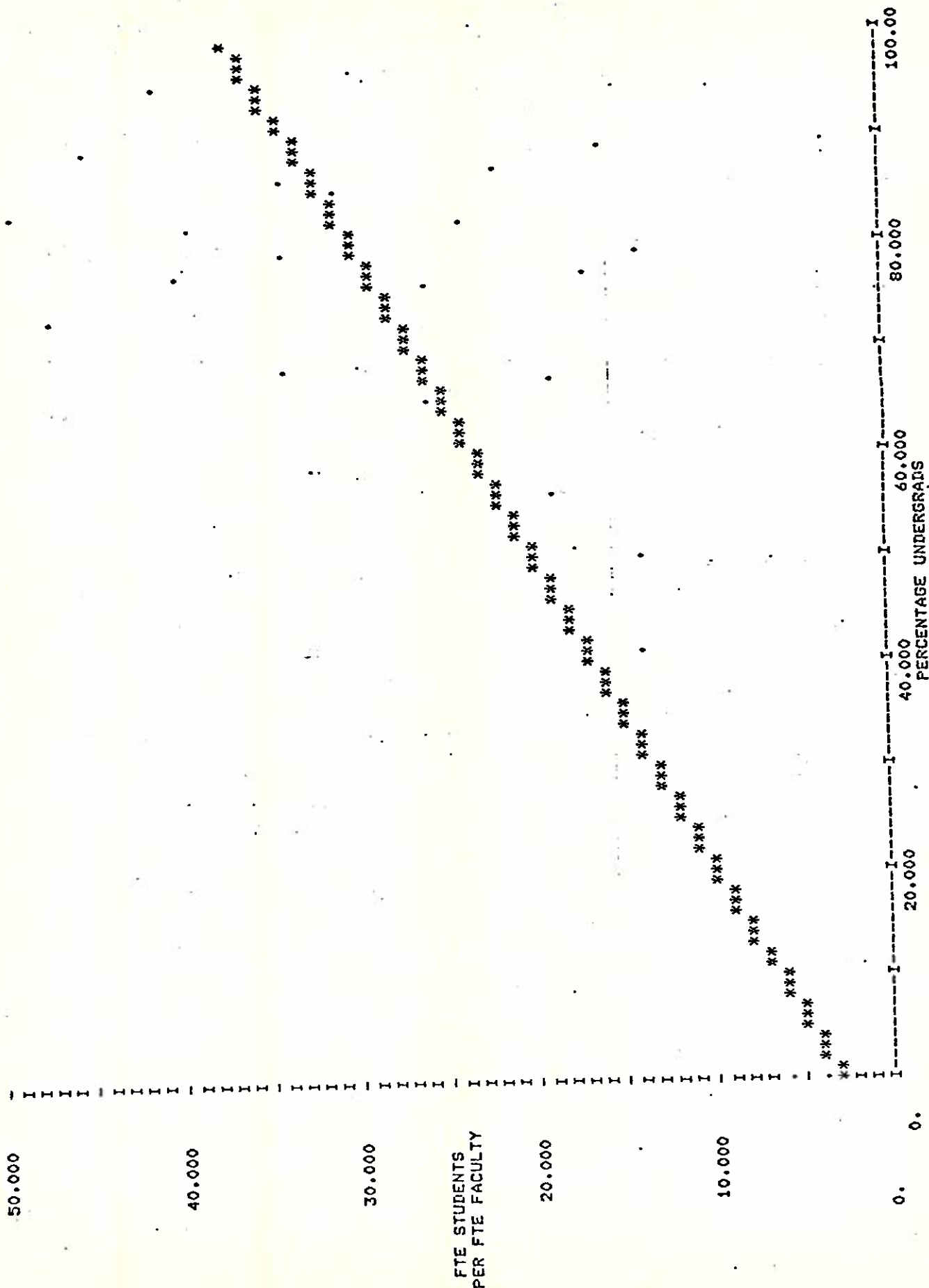
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DEPARTMENTAL COMPARISON OF FTE STUDENTS PER FTE FACULTY MEMBER
46 UNIVERSITY OF DELAWARE DEPARTMENTS-1975



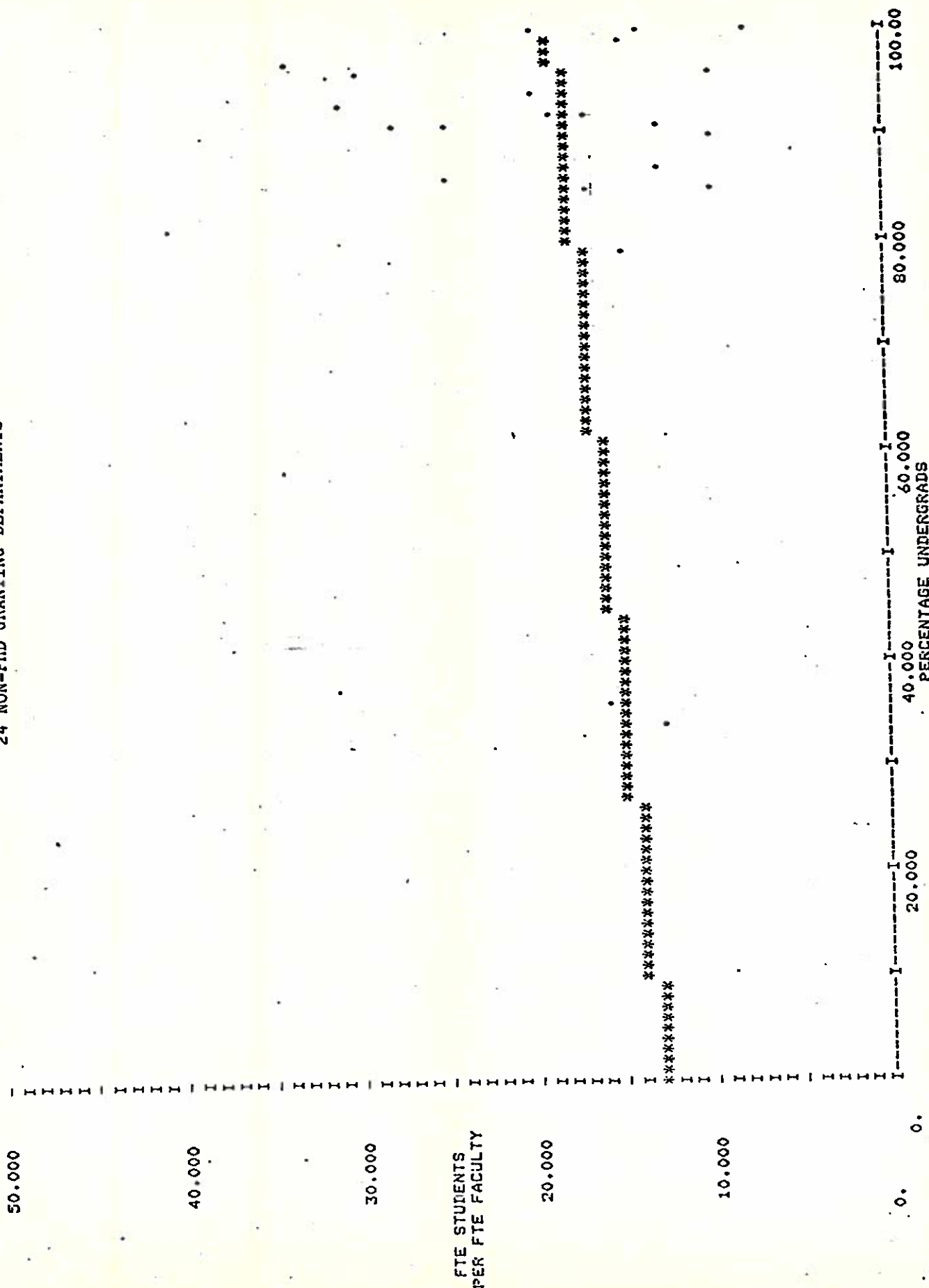
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DEPARTMENTAL COMPARISON OF FTE STUDENTS PER FTE FACULTY MEMBER
22 PHD GRANTING DEPARTMENTS



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DEPARTMENTAL COMPARISON OF FTE STUDENTS PER FTE FACULTY MEMBER
24 NON-PHD GRANTING DEPARTMENTS



CORRELATION COEFFICIENT IS: 0.1363 (p=n.s.)
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