RESEARCH VERSUS TEACHING IN SOCIAL SCIENCE DEPARTMENTS

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INTRODUCTION In higher education the debate continues whether teaching or research ought to receive primary emphasis or whether both should be equal. A survey on teacher development in sociology states that "few if any sociology departments have yet instituted total overall programs for the development of teaching expertise that compare in depth or in scope with the more comprehensive research methodology programs common in most graduate sociology departments" (Ewens 1976 4). Another investigator says "the climate of teaching is frequently one in which the teacher feels that teaching is a lonely path, unrecognized and unrewarded, and essentially in conflict with the values which dominate rewards, recognition and the substance of the colleague network" Mauksch (1977 8). The Fund for Improvement of Post-secondary Education supported a 3-year project on teaching undergraduate sociology in 1974, and a second follow-up project (1977-1979). "The purpose was to encourage academic departments deliberately to incorporate preparation for teaching in their graduate curriculum, and to devote their own resources to the development of teaching excellence within the faculty" (Mauksch 1977). Wilson (1978) says, "the teaching-research dilemma confronting sociologists can be reconciled by radically revising the teaching role so that it functions as a disciplined search for reliable knowledge rather than a transmitter of truth." Blalock (1979) contends that "issues relating to teaching have long been neglected by our own association until recently, and the 1979 Program Committee set up five major sessions titled Issues in Teaching." In 1973 the journal Teaching Sociology first appeared, and a regular column on teaching sociology appeared in 1976 in Footnotes, the monthly newspaper for sociologists.

. According to Boalt the issue of whether teaching or research ought to receive primary emphasis is actually part of a larger consideration of how academic departments develop. He presented several variables important to departmental development, and outlined interaction expected between these variables (Boalt 1969; Boalt & Lantz 1970). Boalt, Lantz & Ribbing (1972) report a study of Swedish academic departments which empirically test some of Boalt's predictions. On the hypothesized relation between teaching and research, what was predicted and partially supported was the mechanism of compensation operating between the orientations of teaching and research. Academic departments, in their constant attempt to expand, tended to stress either the teaching or the research component and to give less emphasis to the other.

. Our initial assumption is that all academic departments have limited resources. A part of these resources must be allocated for essential teaching and research requirements, and the remainder can channel support either to teaching or research activities. The decision as to how the remainder is to be allocated is determined by the departmental "leaders." This decision is controlled by their underlying concern to stimulate allotment of more resources from agencies outside the department. Such agencies include units in the university which decide on allocation of funds as well as external funding agencies. Departments following a teaching orientation point to increases in student enrolment to indicate increased interest and the need for more resources to satisfy these interests effectively - for more and better teaching. Departments following a research orientation point to the results of their work as developing new knowledge required to understand society, supply new findings for all who teach, and which should eventually benefit society.

METHOD This research is designed to answer the followng questions: 1) Do academic departments in their expansion efforts tend to stress both research and teaching equally, or is one stressed more? 2) Can a department simultaneously put equal emphasis on both activities?

. Boalt and associates have provided the broadest and most penetrating explanation of the emphasis placed on these two activities in universities. A replication of this research, adding a cross-cultural perspective, will test the generalizability of Boalt's thesis. We have duplicated as closely as possible the study of Boalt, Lantz and Ribbing (1972) which used data from Sweden's five state supported universities. That study included data on both the social science and liberal arts elements. This research focuses on the academic departments paralelling the same divisions. The four departments we used were economics, political science, psychology, and sociology.

. As in the Swedish study, we included data only on state supported public universities to construct the sample. Each of the selected social science departments offered the doctoral degree, and had granted at least one doctoral degree before 1969. We used American Universities & Colleges, 1970 The Annual Guide to Graduate Study: Book 1. as sources for developing a list of universities meeting these criteria. Only college bulletins published from 1968 to 1970 were used, reducing the number of universities to 16, and 5 were eliminated because one of the four required departments was too small for statistical analysis. In the final sample were the Universities of: California, Los Angeles UCLA, California, Santa Barbara UCSB, Southern Illinois SIU, Iowa UI, Kentucky UK, Michigan State MSU, Wayne State WSU, Minnesota UM, Rutgers RU, Oklahoma State OSU, and Washington UW. The initials will identify these schools in the text and tables.

. The Swedish study of more than 50 variables included numbers and performance of students, researchers, and teaching faculty membership. Many of these variables were excluded from this study because the data was not accessible. The 31 variables in this study are ordered in three groups: 1) student variables; 2) faculty variables; and 3) sex role variables, as listed in Figure 1. The statistical unit is the university department. Information on the variables came from statistical reports issued over a 4-year period the United States Office of Education, and the universities.

FIGURE 1: RATIO VARIABLE LIST FOR SOCIAL SCIENCE DEPARTMENTS (GS = Graduate Students; Junior faculty = lecturer, instructor, & assistant professor)

GRADUATE STUDENT VARIABLES
1 % increase in GS
2 % increase in full-time GS
3 1st year GS / all GS
4 Intermediate GS / all GS
5 Terminal year GS / all GS
6 % increase in 1st year GS
7 % increase of intermediate GS
8 % increase in terminal year GS
9 BA degree grads / all GS
10 Masters grads / all GS
11 PhD graduates / all GS
12 % increase in BA's granted
13 % increase in MA's granted
14 % increase in PhD's granted
15 PhD grads / terminal year GS

FACULTY VARIABLES
16 Faculty / all BA graduates
17 Faculty / all GS
18 Full professors / all GS
19 Full & assoc profs / all GS
20 Full & assoc profs / all faculty
21 Full & assoc profs / BA grads
22 Assistant profs / all GS
23 Junior faculty / all GS
24 Junior faculty / all faculty
25 Junior faculty / BA graduates

SEX ROLE VARIABLES
26 Women GS / all GS
27 % increase in women GS
28 % women of BA graduates
29 % women of all MA graduates
30 % women MA & PhD graduates / all women GS
31 % women faculty in total faculty

. The variables manifest department behavior and reflect the goals the department tries to attain. We hypothesize that when a department tries to promote one component, such as teaching, several associated variables are also emphasized. Variables not related to the favored one are not advanced, and often, a quite different type of investment is needed before these unrelated components can develop. Therefore, we expect that clusters of variables will emerge for each university which will represent the interaction between the various components of the departments. Variables associated together will tend to cluster in positively correlated groups, and these variables will be negatively correlated with non-cluster variables. At least two different clusters should emerge, which appear to delimit the two distinct orientations in university departments, toward teaching, or toward research.

. Since one indication of the importance of a variable is the size of its negative correlation with variables outside its cluster, a variable's weight can be found by averaging the correlations with the variables of the other cluster, and changing its sign. By this process, weights were computed for each variable in each university matrix. Variables with highest positive weights are elements of the department which are more important in the interaction between its different orientations. Negative weights suggest that these variables have little effect on the interaction pattern, or that these variables are inefficient measures of certain departmental components. By combining the variables' weights from the universities in the sample, the overall importance of each variable is indicated.

. For each university, correlations between the 31 variables were calculated using the Spearman Rho coefficient, based on the relation between the rank of values for the 4 departments. The matrix included 465 correlations for the 5 universities which offered complete data for all 31 variables. Four universities lacked data for one to three variables; one university lacked data on 5 variables, and one lacked data on 7 variables, which reduced the matrixes accordingly. Clusters of positively correlated variables emerged in two distinct patterns for each university, and a second matrix was generated to display these two clusters. (Copies available on request.) To control for variation in size of the departments, all variables were defined to measure the relative allocation of resources in each department, and the value for each variable is a ratio or percent.

TABLE 1: POSITIVE CORRELATIONS FOR TEACHING, RESEARCH, NEGATIVE BETWEEN CLUSTERS (Percent)

School	Teaching	Research	Between
UCLA	62%	85%	71%
UCSB	74	100	82
SIU	96	87	81
UI	74	88	69
UK	80	92	82
MSU	81	67	70
WSU	85	89	87
UM	76	70	69
RU	77	54	66
OSU	90	85	81
UW	89	89	70

FINDINGS In each university, most of the predicted variables were positively correlated to the others in the cluster, and negatively correlated to variables in the other cluster. Table 1 indicates the percent of correlations in the predicted direction. The remaining correlations in each cluster were either near zero or negative. For the teaching cluster, the highest figure was 96% for SIU, and the lowest was 62% for UCLA. For all clusters, at least three fifths of the correlations were positive and for most schools four-fifths of the correlations within clusters were positive. For the research cluster, UCSB had 100% positive correlations, and RU had 54% positive correlations. Though

the range of variation was greater for the research cluster, each had a clear majority of positive correlations, and most had 87% or more positive correlations. For every group, between clusters, at least two-thirds of the correlations were negative, in the predicted direction. These data tend to support the hypothesis of two distinct clusters for each university. The same variables tended to cluster together in each university, with one group of variables associated with teaching, and a second group associated with a research orientation. The two groups identify each variable by number in Table 2, which also indicates the grouping pattern and weights for the sampled universities. The pattern is mixed in

TABLE 2: CLUSTER AGREEMENT & WEIGHTS FOR TEACHING & RESEARCH VARIABLES
(+ agree, - disagree; 2 decimals, no points; negative weights underlined)

Variables: Teaching	*UCLA	UCSB	SIU	UI	UK	MSU	WSU	UM	RU	OSU	WU	% Predicted	Mean Weight
1	+ 28	+ 74	-	-	+ 16	+ 24	+ 76	+ 30	+ 09	-	-	64	31
2	+ 18	+ 74	+ 25	+ 20	+ 55	-	+ 64	+ 56	+ 07	-	-	73	33
3	-	+ 82	-	+ 26	-	+ 26	-	-	-	+ 67	+ 50	45	39
4	+ 18	-	+ 75	-	+	-	+ 53	+ 30	+ 00	-	-	55	35
6	-	+ 74	-	+ 09	-	+ 10	+ 64	+ 26	+ 07	+ 67	+ 59	73	39
7	+ 28	-	+ 55	-	+ 55	-	+ 65	+ 30	-	-	-	45	46
9	-	+ 38	+ 60	+ 50	-	+ 60	+ 40	-	+ 09	+ 67	+ 59	73	53
10	-	+ 82	+ 20	-	-	+ 24	+ 53	-	-	+ 44	-	45	44
12	+ 20	-	+ 25	-	+ 69	-	-	-	+ 02	+ 35	-	45	30
13	-	+ 82	+ 55	-	+ 68	-	+ 40	-	+ 07	+ 13	-	55	44
24	-	+ 54	-	-	+ 57	+ 46	+	-	-	+ 67	-	45	56
26	-	+ 14	+ 60	+ 49	+ 13	-	+ 64	-	+ 13	+ 44	-	64	36
27	-	+ 38	+ 25	-	+ 13	+ 10	+ 76	+ 01	+ 02	-	-	64	23
28	-	+ 14	+ 75	+ 50	-	-	+ 64	-	+ 07	+ 13	+ 12	64	33
29	-		+ 75	+ 61	+ 55	-	+ 55	+ 01		+ 44	+ 26	78	45
30	+ 63		+ 05	+ 50	-	+ 49	+ 64	-	+ 07	+ 13	+ 12	80	32
31	-				-	+ 10	+ 64	-	+ 12	-		43	28
Exceptions	11	3	4	8	7	8	2	10	4	6	10	56	

Research	UCLA	UCSB	SIU	UI	UK	MSU	WSU	UM	RU	OSU	WU	%	Weight
5	+ 43	+ 56	+ 00	-	+ 20	+ 57	-	+ 56	-		+ 23	70	36
8	+ 46			-	-	+ 51		+ 38	-		+ 68	57	50
11	+ 43		+ 05	-	+ 37	+ 59	-	+ 22	+ 34		+ 00	78	27
14	+ 23		+ 65		+ 37	-		-	+ 13		+ 38	71	26
15	+ 06		+ 28	-	+ 61	-		+ 16	+ 13		-	63	18
16	+ 03	+ 31	+ 69	- 59	+ 21	+ 29	+ 71	+ 38	-	+ 75	+ 68	91	46
17	+ 06	+ 31	-	+ 06	+ 61	-	+ 09	+ 58	-	-	+ 38	64	29
18	+ 43	+ 64	+ 15	-	+ 37	+ 17	+ 71	+ 56	-	+ 75	+ 00	82	42
19	+ 51	+ 56	+ 15	+ 32	+ 61	-	+ 40	+ 44	-	+ 55	+ 20	82	41
20	-	+ 49	+ 28	+ 46	+ 61	+ 40	+ 66	-	+ 00	+ 77	-	73	45
21	+ 40	+ 56	+ 69	+ 32	+ 21	+ 57	+ 71	-	-	+ 75	+ 68	82	54
22	+ 51	-	+ 52	+ 06	+ 60	-	+ 40	+ 58	-	-	+ 38	64	43
23	+ 43	-	+ 52	+ 06	+ 60	-	+ 40	+ 58	-	-	+ 38	64	42
25	+ 40	-	+ 69	+ 06	-	+ 01	+ 71	+ 58	-	-	+ 68	64	44
Exceptions	1	3	1	5	2	6	3	2	10	4	2	72	

*Schools: California, Los Angeles, UCLA; California Santa Barbara, UCSB; Southern Illinois, SIU; Iowa, UI, Kentucky, UK; Michigan State, MSU; Wayne State, WSU; Minnesota, UM; Rutgers, RU; Oklahoma State, OSU; Washington, UW.

both teaching (upper table) and research (lower table). But most variables relate positively to their cluster. The column next to the rightmost shows that each variable was largely as predicted for the sample of universities.

. The research cluster fits the predicted pattern better. About three-fourths of the variables for all universities were part of the predicted cluster. The weights of variables by university and the average weights are also shown in Table 2. By combining the variable weights for the sampled universities, the overall importance of individual variables can be shown. The mean weight presented here is the individual variable weight averaged across all universities. All mean weights were positive, and they had roughly the same range: .23 to .56 for teaching, and .18 to .54 for research. Variables most consistently appearing in the predicted cluster also have the highest weights, which implies that those variables with the highest scores are the most important indicators of the departments' interaction pattern.

. Departments oriented to teaching attract more, show largest increase in, and retain more students, particularly beginning and intermediate students. Related is the tendency to give a larger proportion of bachelors' and masters' degrees, and to grant them to a higher proportion of women. Finally, the faculty tends to have a higher proportion of assistant professors, instructors and lecturers. Overall, the data indicate that teaching departments have expanded more rapidly, with the faculty never increasing rapidly enough to meet student enrolments. The Swedish research indicates that eventually the student attraction for the teaching departments declines and the departments must make major adjustments.

. Research oriented departments are better able to retain students to their terminal year of study possibly because they are more selective at the beginning. A much smaller ratio of faculty to students exists for both undergraduate and graduate students, and this is true even if the faculty is differentiated by ranks. Such a faculty has a higher proportion of associate and full professors. The research oriented departments are more stable, develop less rapidly, and are less dependent on fashionable innovations.

CONCLUSIONS We can conclude that there is a compensation pattern operating in the departments which we have considered. This tends to support a contention of Boalt (1969 77) that some departments and universities tend to expand either their production of students or their production of research, but few can expand both substantially at the same time. This is true in both the Swedish and the United States sample.

. Four conclusions can be drawn. First, it is unlikely that both a teaching orientation and a research orientation can be maintained in the same department. Yet this is exactly what individual faculty members are required to do in many colleges and universities. Perhaps a more realistic approach would be for particular institutions and departments to acknowledge and work toward one specific orientation. This may partly explain the success of two-year and community colleges which openly adopt a teaching orientation. While it has been suggested as an attractive laternative that faculty within departments might be split into teaching and research segments, the compensation pattern raises serious questions about the practicality of this approach. The complex relation between teaching and research may mean that current suggestions for reconciling them in the field of sociology may be simplistic and unrealistic (Ewens 1976; Mauksch 1977; Wilson 1978).

. Second, universities should recognize the current trend toward increasing emphasis on research productivity in hiring and tenuring of faculty. If universities are actually in a period of declining

enrolment and funding, the research finding that teaching oriented departments attract more students, especially beginning and intermediate students, is of some importance. Greater emphasis on teaching could increase student enrolment and maintain that enrolment at the levels of potentially greatest absolute numbers of students.

. Third, the current research, consistent with the Swedish research, underscores the importance of consistent program review by teaching oriented departments. While such departments do tend to attract and graduate more students, there is a pattern of expansion which could interfere with the learning process, and ultimately, with the attractiveness of the program. Students may experience a lower degree of learning due to the popularity of the particular area, and the inability of the teaching departments to sustain an adequate teacher-student ratio.

. Fourth, teaching departments may wish to give greater attention to experience among the faculty. Findings from this research indicate that teaching oriented departments are lacking the experience provided by associate and full professors. While this probably is a result of a university stratification system based on the teaching-research dichotomy, universities selecting a teaching orientation might well seek to correct the imbalance.

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