

DOCUMENT RESUME

ED 072 758

HE 003 849

AUTHOR Light, D. W., Jr.; And Others
TITLE The Impact of the Academic Revolution on Faculty Careers.
INSTITUTION ERIC Clearinghouse on Higher Education, Washington, D.C.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
REPORT NO AAHE-10
PUB DATE Feb 73
NOTE 79p.
AVAILABLE FROM Publications Department, American Association for Higher Education, One Dupont Circle, Suite 780, Washington, D.C. 20036 (\$2.00)

EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS *College Faculty; *Educational Change; Educational Improvement; *Higher Education; *Professors; *Teacher Welfare

ABSTRACT

In this report a three-strand model for faculty careers is developed. These strands are the disciplinary, the institutional, and the external career of faculty. An attempt is made to determine the outcome of the "academic revolution" spoken of by Jencks and Reisman in their landmark study of that title. Some of the topics covered include faculty power, influence, and prestige, recruitment and promotion, academic markets, and initial socialization of faculty toward their discipline and their teaching role. The report evaluates the diverse studies on faculty careers and synthesizes them into a general framework. Rather than review the literature, however, it selects the most valuable information from all the research to provide as complete an analysis as possible of faculty careers. (Author/HS)

ED 072758

The Impact of the Academic Revolution on Faculty Careers

D. W. Light, Jr.

L. R. Marsden

T. C. Corl

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HE003849

Prepared by the
ERIC Clearinghouse
on Higher Education
The George Washington University
1 Dupont Circle Suite 630
Washington D. C. 20036

Published by the
American Association
for Higher Education
1 Dupont Circle, Suite 780
Washington, D.C. 20036

February 1973

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This publication was prepared pursuant to a contract with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their judgment on professional and technical matters. Points of view or opinion do not, therefore, necessarily represent official Office of Education position or policy.

Foreword

In this report a three-strand model for faculty careers is developed. These strands are the disciplinary, the institutional, and the external career of faculty. An attempt is made to determine the outcome of the "academic revolution" spoken of by Jencks and Reisman in their landmark study. Some of the topics covered include faculty power, influence, and prestige, recruitment and promotion, academic markets, and the initial socialization of faculty toward their discipline and their teaching role. The principal author, D.W. Light, Jr., is a faculty member at Princeton University in the Department of Sociology; L.R. Marsden is a research director for the Population Research Group at the University of Toronto; and T.C. Corl is a graduate student in sociology at Princeton University.

This is the tenth in a new series of Clearinghouse reports published by the American Association for Higher Education (AAHE). In addition to the report series, the Clearinghouse also prepares brief reviews on topical problems in higher education that are distributed by AAHE as *Research Currents*.

Carl J. Lange, Director
ERIC Clearinghouse on Higher Education
March 1973

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Acknowledgements

This essay is a product of the seminar on education at Princeton, Sociology 531, led by Professor Light. We are indebted to those who helped develop the ideas of this paper, Solomon Arbeiter, Carla Goldman, Michael Weissman and Randall Woods. The Davis Center for Historical Studies provided valuable support by appointing the senior author a Fellow and by reviewing earlier drafts with him.

I Overview

In the past few decades, American higher education has undergone a substantial change. which Jencks and Riesman (1968) in their landmark book have called "the academic revolution". The growth of research in ambitious universities has professionalized college teaching and pushed the model of the research-scholar down the hierarchy to institutions where most faculty have never published research. The impact of this "revolution" on faculty careers needs to be examined, because it has biased our vision and injured the ability to create viable careers for the majority of professors.

Faculty not only wield great power in the expanding domain of higher education, but, through their research they also influence a society that depends on new knowledge. A study of faculty careers is therefore important; yet no comprehensive statement exists. Instead, one finds numerous encapsulated research reports, each on a limited aspect of the topic. This report evaluates these diverse studies on faculty careers and synthesizes them into a general framework. Rather than review the literature, it selects the most valuable information from all the research to provide as complete an analysis as possible of faculty careers. Nevertheless, gaps remain and suggestions for additional research are made for each area.

The first problem in this undertaking was to find a suitable model of faculty careers that could organize and connect different aspects of academic life. The sociological literature on careers did not help much, though it made clear that there are two basic ways to analyze careers: organizationally and personally. This and other ideas were incorporated into a three-strand model of faculty

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careers. Although this preliminary model is simple, it organizes most of the material and provides a framework where none existed before. Theoretically, it has considerable merit, which the senior author has developed elsewhere (Light, 1973).

Of the three strands in the model—disciplinary, institutional, and external—faculty careers are dominated by disciplinary activities. In the first career decision, students choose their field before they choose teaching as a career, and they show a clear preference for research from the start. The more distinguished the graduate school, the stronger these patterns. Since theories of socialization emphasize the impact of early choices and experiences, and since the academic world today emphasizes research, young faculty learn to devalue college teaching and to esteem advanced work. These patterns begin early. In a comparison of selected college seniors planning to become professors with other selected undergraduates, the former emphasized the intellectual and research aspects of a professor's job, while the latter emphasized good teaching and the opportunity to educate young people. On the other hand, graduate school has become so pervasive with expanding education that a recent study (Davis, 1964) found that 71 percent of all college seniors in the *bottom half* of their class planned to attend a graduate school, and that most did *not* list academic performance as an obstacle.

The primary link between the disciplinary and institutional aspects of faculty careers is the prestige of the college or university, for institutional prestige both attracts reputable faculty and depends on their professional standing. Thus, prestige is crucial, although its root, ironically, means *illusion*.

Although studies have been made on many facets of faculty careers, least is known about the beginning and end. The first impressions of new faculty and the manner in which the old guard breaks them in greatly affect their response to the institution and the undergraduate life that depends on junior faculty. Yet, good studies of this period are lacking, even though administrators would stand to gain from them. Also, little is known about faculty careers from full professorship to retirement, a period that usually spans two-thirds of a professor's working life. How is an institution affected when the typical full professor works for 20 years without any promotion or change in his responsibilities?

One activity provides striking continuity and vitality to the entire academic career—research. But only a minority of faculty actively research. What of the rest? Either they, too, have their sources of vitality about which little is known, or they are pathetic figures on the professional fringes. This

ignorance grows as the number of these faculty expands in junior and community colleges.

Faculty at most quality institutions are faced with the *disciplinary* tasks of doing their research and training future researchers, and with the *institutional* duties of teaching undergraduates and helping the administration. The proportion of time devoted to these four basic activities varies widely by institutional quality. However, at *all* levels of institutions, faculty desire to do more research and less college teaching. This conflict increases as one moves down the academic procession. Thus, at institutions most likely to be devoted to undergraduates, faculty express the greatest desire to reduce undergraduate teaching time. At every level college teaching conflicts with graduate training and research.

Criteria for hiring and promotion appear constant for all ranks at "low-level" institutions, with emphasis on teaching ability. At the high-level institutions, however, faculty rate research promise as most important for junior positions and disciplinary reputation as most important for senior positions. Teaching ability in these institutions is almost irrelevant to promotion.

Not only the criteria but also the power to decide who will be hired or promoted vary by institutional quality. In low-quality institutions, faculty see administrators as making decisions to hire or promote, while faculty in high-quality institutions do not. Conversely, senior faculty are rated as much less influential in low-quality than in high-quality institutions. Although faculty at top institutions are more professional, value preferences remain strikingly altruistic across the range of institutions. Sources of satisfaction also seem quite uniform: working with students, relations with colleagues, and freedom to do one's own work. Salary is the one source of dissatisfaction that stands out; other sources mentioned were poor students and overwork.

Careers take place in markets, and the material on academic careers indicates that the academic marketplace is a myth. Instead, there are many marketplaces with distinct features operating with considerable autonomy. Basically, each discipline or, sometimes, subdiscipline has its marketplace. Markets differ by sex, race, religion, region (especially the South), and institutional quality. The marketplace for each discipline embraces both academic appointments and positions in government and industry. About one-fourth of all faculty who changed jobs in 1964 came from outside academe. Another one-fourth of all PhDs work outside academe. Overall, those who work outside do not differ from

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professors in terms of their academic records or the education of their parents.

Finally, academic careers involve many activities outside the major appointment. Little is known about consulting, research grants and contracts, outside lecturing, visiting lectureships, and summer teaching, or about how these activities relate to other parts of academic life. It is known that the proportion of faculty who consult is uniform across institutional quality but that faculty at high-level institutions earn more from this activity. This is knowing very little.

In the next few years, reports from several new surveys of American faculty will emerge. Historical research on faculty careers is also growing apace. The usefulness of these studies will depend on the degree to which they illuminate unknown areas and are integrated with previous research.

2 A Framework for Academic Careers

A career may be viewed as a "succession of related jobs arranged in a hierarchy of prestige through which persons move in an orderly sequence" (Wilensky, 1961, pp. 521-539). In the case of a professor in America, the normal succession of jobs is instructor, assistant professor, associate professor, and professor. As rank increases, so presumably do prestige and salary, but not (contrary to most careers) duties (Wilson, 1942, Ch. 4). How well does this conceptual net capture actual academic careers? It catches only large, general features, while the complexities of status, multiple commitments, and tangential careers slip through. A better definition is needed. One might start with the two approaches used in the sociological literature: a career from an organizational perspective and a career from a personal perspective. These approaches are not mutually exclusive; a good model should use both.

A peculiar feature of academic careers is that most *male* faculty members reach top status and become a professor somewhere. Wilensky (1961) studied urban, lower middle class workers to see how many had the ideal career, implied in much sociology, of starting at the bottom and working up through regular promotions. Few workers, he found, had such ideal careers. In contrast, only 9 percent of American faculty ages 60-64 were not full professors.* This figure and informal knowledge indicated that "ideal careers" were much more

*Dunham, Wright, and Chandler, 1966. Fulton & Trow, 1973, estimate a lower figure.

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frequent among faculty. However, no firm data supported this contention. The *processes* of advancement in academic careers need study.

Another consideration in defining academic careers concerns those who leave academe and, therefore, are never sampled. Some may have turned to other careers outside because they were not progressing within the academy. The selection of academic or nonacademic jobs remains a mystery important to solve. The significance of these decisions grows as the university in some disciplines forms stronger bonds with nonacademic institutions.

A few studies have provided information on the processes by which faculty follow different career routes. Vroom and MacCrimmon's stochastic model of managerial careers (1968, pp. 26-46) associated probabilities with each job move in the career life of an individual. The authors commented on the mysterious manner in which employees moved from early jobs to top managerial positions. Effectively, a beginner is ignorant about the possibility of reaching the top of his career ladder. Depending on his information he may make career decisions advantageous or disadvantageous both to himself and to his firm.

A comparable mystery surrounds the career prestige, although not the status, of academicians. That is, most academicians achieve full-professor status, but how they became full professors with varying prestige among colleagues on a local, national, or international level is not precisely defined. By studying academic careers at each move from first to last, one could associate probabilities and parameters with the arrangement of various career parts and disperse some of the fog.

The Vroom and MacCrimmon model, based on research in one organization, "allows a formal description of the results of current career policies which can be examined for inconsistencies. . . ." It also "allows predictions to be made of the effects of continuing present policies into the future. . ." (1968, p. 26). Unlike their model, a stochastic model of academic careers should have two separate parts: a model of careers within disciplines and one within specific institutions or categories of institutions. Research could explore such questions as, Given inputs of doctorate from X graduate school at Y age with Z research interests and publications, what is the subject's most probable career route? Or, within specific institutions, the question might be, If given subject is hired by institution at rank Y in department Z, how likely will he be to stay in the institution, to be promoted to the next rank, to develop an external career, or to move into administrative work? Academic career structures may be changing too rapidly for research on contemporary academic careers to predict the future.

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However, determining that in itself would lead to a greater knowledge of the academic career. Perhaps the most adaptable are the most successful.¹

In their work on the processes of career, Becker and Strauss (1956, pp. 253-263) modified Mannheim's description of a bureaucratic career, which emphasized steady advancement to senior ranks. Complications for researchers to consider are filling posts from sources outside the organization, "freezing" people at various levels, lateral movement in the organization, and alternate routes to the top, described as "escalators" that may carry one to or away from opportunities. Becker and Strauss also noted the occurrence of recruitment at many, not just entering, levels (e.g., scholar to dean), the imperfections of the recruiting process, the relationship of formal and informal training to promotion, timing in status passage, switching points to alternate career routes, and crucial periods. They emphasized the strategic role of sponsorship and the interdependence of careers.

Rather than systematically providing a frame of reference for studying careers, Becker and Strauss emphasized the content that studies of careers should include. In our model for academic careers, we have incorporated some of their ideas, such as switching point, crisis points, and the role of sponsorship, but we recognize that much work remains to be done.

Besides subtleties of process, a framework for analyzing faculty must also consider the range of careers. Two examples illustrate major features of all faculty careers and their interrelationships:

As an ideal success story, consider the imaginary career of Wunderprofessor. He received his doctorate less than four years after his bachelor's from a Top 10 graduate school. He studied under nationally known professors, thereby gaining access to the sponsorship system. In graduate school, he published in a first- or second-rate journal and read a paper at a professional meeting. Receiving a number of good job offers, he accepted a position as assistant professor at a high prestige university. During the first year there he taught, published his thesis, and engaged in further research.

After a few years, Wunderprofessor moved to another high-prestige university, a "feeder" for the institution at which he hoped to conclude his career. He was given the rank of associate professor with a light teaching load, research money, facilities, and few administrative duties. In two years, he was granted tenure. During this period, he consulted to government and industry, published extensively, attended national and international

¹ For a description of one type of career, see Oswald Hall, "The Stages of a Medical Career," *American Journal of Sociology*, 53 (1948): 327-36.

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meetings, and received recognition from his university and department for teaching and fulfilling institutional responsibilities. He also served as editor of a leading professional journal.

Finally, he accepted a post as a tenured professor at a top university of his choice, where he was given a named chair. He continued to do research and publish on many subjects, served as president of the national professional organization, was visiting professor at other universities, and gained membership in one or more academies. He was granted time off to pursue research at special institutes. Given honorary doctorates and public, as well as disciplinary, recognition, he retired as professor emeritus and continued to write.

Consider now Lesserprofessor. He attended a small college and entered a third-rate graduate school. He interrupted his studies twice to earn enough money to continue, and, after receiving a master's degree, taught at a high school. While completing the course work for the doctorate, he moved to a job at a junior college. After several years, he completed all the doctoral requirements except the thesis and became an assistant professor in a low-prestige college, where he had a heavy teaching load, no financial support, and little time for research. While he attended a regional professional meeting and occasionally read a paper, he did not publish. During the summers, he taught extra courses to supplement his salary. Other faculty—younger but with prestigious degrees and publications—were promoted ahead of him. Finally, he moved to a different but equally humble university, at the rank of associate professor, where he eventually retired with that rank.

Although neither of these portraits is typical, they both describe important aspects of a faculty career. The framework of an academic career (see Figure 1) consists of three analytically distinguished strands; the elements of each contribute in different ways at different times to the potential for success. These three strands are the "disciplinary career," the "institutional career," and the "external career." In actual careers, they are interwoven. Activities and positions analytically in one strand often have meaning and consequences in the other strands. These distinctions, however, make possible a fruitful analysis of faculty careers. Although the events and sequences described for each strand are generally and logically expected, considerable variation can be anticipated among individuals, disciplines, and institutions.

The disciplinary career is most closely identified with the individual and his chosen field. A biologist is a biologist, even though he does not teach biology or conduct research in a university. Included in this career are all events specifically connected with a discipline and its goals (not with a job). Among

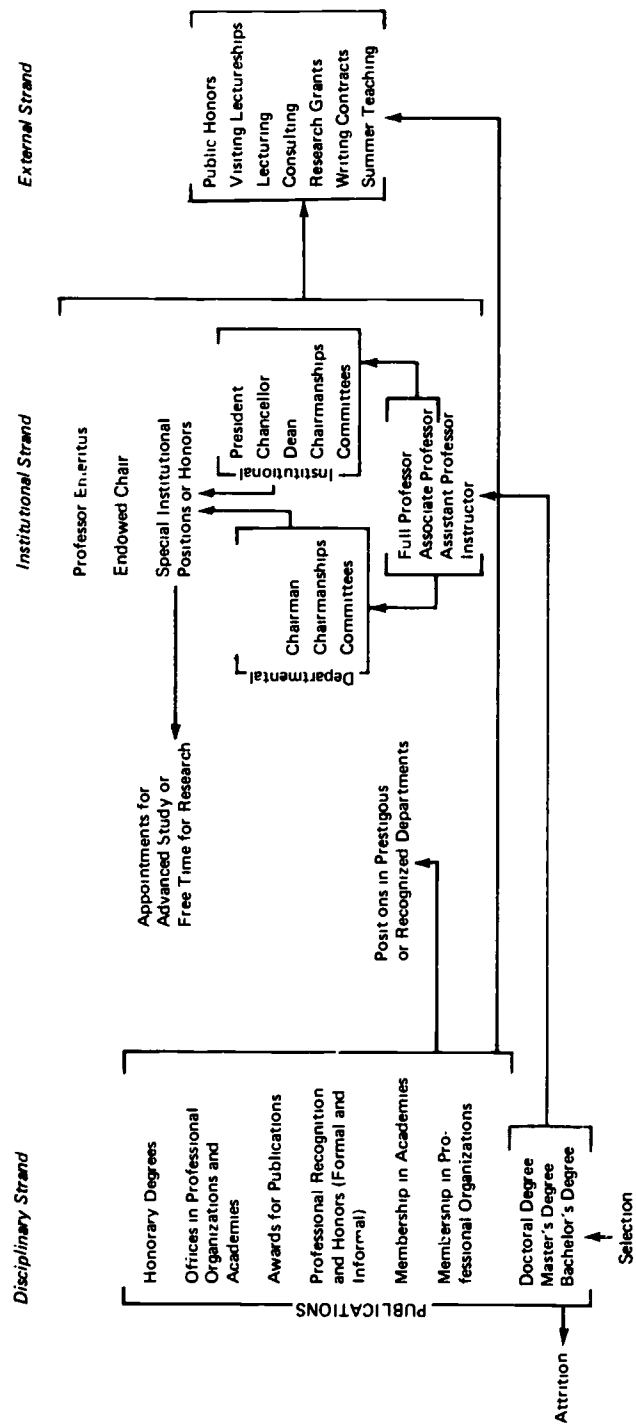


Fig. 1. Three-strand model for analysis of academic careers. Arrows indicate switching points. Arrows in advanced degree section indicate possible moves to academic or nonacademic career. Brackets indicate time range. Publications brackets indicate that publication can occur at any point from graduate school to retirement.

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them are higher degrees, memberships and offices in professional organizations, publications in professional journals, and invitations to study at places such as the Institute for Advanced Studies.

In choosing a specialization, students do not necessarily make a decision to become faculty. Yet socialization toward an academic career begins within the discipline so a person is directed toward the job of his disciplinary models: the professors. Graduate school provides opportunities to make partial commitments to professional values in teaching and research and offers group support, increasing the likelihood that graduate students will become faculty.

The sponsorship system operates in all parts of the career. Faculty, family, and friends sponsor individuals at various points in each of the career strands, but, of course, professors are the primary sponsors within the discipline. A recognized scholar can advance one of his students through references, citations, and association in research. Contributions to the field are the standard for success in the discipline, and such contributions are more easily made when one is sponsored.

Beyond the highest degree, no formal hierarchy prevails in the disciplinary strand. Recognition or promotion is based on work completed and published. Through attendance at professional meetings, familiarity with the literature, and communication with others in the discipline, novitiates must discover the moves likely to bring success.

A move into a different type of work is a switching point. Switches can occur within and between career strands. Many people do not enter graduate school in their undergraduate discipline. A person may change disciplines or leave the academic world altogether, but, given the time necessary to attain competence in a discipline, switches are more likely to occur before the highest degree is completed. Switching points are difficult to study; little is known about persons who do make these changes and their reasons. Only the decision to leave the academic career has been carefully studied, and then just among graduate students (Tucker, Gottlieb, & Pease, 1964).

Several crisis points emerge in the disciplinary career: deciding to enter a field of specialization, admission to graduate school, achieving the requisite qualifications to be considered a disciplinary member, and producing a piece of research. Publication is a recurring crisis.

Ideally, standards of critical evaluation in the discipline are uniform. They are supposed to ignore age, sex, race, religion, status, and personality. Substance is what counts and variations in "style" are acceptable. In practice, however, style does make a

difference, and nonobjective factors, especially sex and race, influence judgment. The discrepancy between ideal and actual practices in disciplinary evaluation significantly affects faculty careers.

To speak of "the discipline" is deceptive. There are many fields of specialization, each with regional, national, and international reputations. There are differing schools, styles, and approaches to the work and many subareas of intensive specialization. All may be bases for judging quality and success. The differences between a state historical society and a national professional association, experimental and theoretical physics, theory construction and data analysis, or the Ivy League and the Midwest are all consequential in the disciplinary career. The subtle effects are generally neglected by researchers on faculty. Advancement in the discipline is vague, because of professional standards at once rigorous and amorphous. Consequently, the academician feels uncertain about the importance of his contribution. No clear sequence of accomplishments means "arrival" in the discipline.

The institutional career intertwines with advancement in the discipline. While the institution provides most rewards for faculty, the bases for many are contributions to the discipline. The interplay of activities and rewards in these two strands will be detailed below.

The PhD may pursue his institutional career in business, industry, government, higher education, or some other setting, but the locus of activity for the academic profession is the four-year college or university. While faculty may be involved in various activities beyond the academic community, their primary responsibilities are a combination of teaching and research in an academic institution. Consequently, the institutional strand operates largely in colleges and universities. The comparison of professional scholars in nonacademic institutions might shed some light on the relations between different institutional career lines, but this is not the object here.

Entry to the institutional career occurs later than entry to the disciplinary career. First one must establish credentials within the disciplinary strand, as these are the criteria for entry to an institutional career. A person has entered the institutional strand when he has begun his first full-time job at a college or university. The duties of this career are defined by the hiring institution; in addition to teaching, they usually include advising students, committee work, and some research. The rewards are salary, influence, promotion, tenure, and local honors for outstanding contributions, such as prizes for teaching or service and chairs. Compared with other professions requiring equal training, the primary reward is prestige (Wilson, 1942, Ch. 2).

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The institutional career is contractual. Dereliction in duties presumably can lead to sanction, no promotion, or dismissal. The levels of adequate performance are even more obscure than in the disciplines. What is good teaching? How many committee chairmanships are necessary to become a dean? Who is dismissed or tenured and why – or why not? Little can be said about the nature and causes of switches in the institutional career. The basic fact remains that most faculty do make it through the ranks and retire as full professors.

The external career, which usually begins later in life and may be shorter than the other two, consists of all work-related activities outside the institution but within the discipline. These include consulting, temporary full-time employment with industry or government, summer teaching, writing, research, visiting professorships, and any public work that draws on disciplinary skills. By this definition, "external" means outside the professor's chief institution. The external strand does not include activities outside the institution which do not draw upon disciplinary expertise. Little systematic knowledge exists about recruitment, entry, promotion, reward, and hierarchy in this career line. The external career must be seen as residual, not simply by default but by nature. The range of activities that academicians undertake beyond their disciplines and institutions is extensive. Large government agencies, local community groups, foundations, political organizations, unions, and clubs are among the external groups that "employ" academicians. These external careers may be important as a source of data, income, and experience. Many faculty members use their special skills in the service of the community or society and, in turn, receive remuneration and recognition.

Because more than formal certification seems necessary for external work, entry into this strand is hard to pinpoint, but it rests on reputation and sponsorship. Some external work, such as consulting, is lucrative and more difficult to obtain than academic work, such as summer teaching. Outside work is further complicated by the different goals, settings, and work styles of the external institutions.

Some disciplines are more likely than others to involve significant external careers, because their knowledge has greater application in nonacademic fields. As for *timing*, external careers probably depend on the skills to be marketed. In fields such as engineering and computer science, where the latest techniques are in demand, one would expect the external career to begin early and end as skills became outmoded. In fields where general

wisdom and decision-making ability are in demand, the external career would probably begin and end later.

Positions and switching points with identifiable features probably exist in external careers, but no reliable research has been done. Rewards are generally monetary, although the work may enhance reputation and provide opportunities for research.

The contractual element raises another question about "bought time" as opposed to unrecognized "taken" time. An institution may allow faculty to enter a research contract with an outside agency if a certain percentage of a professor's salary is paid by that agency. On the other hand, a professor is presumably free to contract extra work in his spare time without informing his university. This procedure is further confused by the location of the work, as many academics can do external research in their university offices. However, their personal research and service to the academic community may be carried out beyond the institution and discipline. The career strands may be so intertwined that it is impossible to tell which work is being done for whom and to what career end.

Understanding the "fit" among the three career strands is as important as knowing the character of each. Between each pair of strands opportunities develop, determined by reputation within one strand and needs within another. Achievements and sponsorship allow faculty to undertake activities in other strands at various levels of reward. For example, publications (disciplinary) may determine advancement through academic ranks (institutional). These accomplishments, in turn, may permit access to various external contracts and rewards.

The departmental structure of higher education makes disciplinary performance necessary for institutional promotion. The advancement of knowledge translates into expertise that is marketable beyond the academy. Quite likely, more publications, higher rank, and external activity are positively interrelated. Publications, rank, and external opportunities could compose a sequence of conditions for advancement among strands; success does tend to generalize.

The disciplinary strand dominates; the others depend on disciplinary criteria of success for standards of selection and advancement. The timing of switches and the differing rates of access for various skills and prestige levels cannot be defined on the basis of present information, but one can hypothesize that faculty who advance in one strand enhance their opportunities to enter or advance in another. In many careers, those who have the good things get more. Optimal combinations are available only to a select few.

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There is conflict too. Focus on the discipline makes a person cosmopolitan, while focus on the institution tends to localize his career (Light, 1973). Some, like Caplow and McGee (1965, pp. 71-72) think little choice is left today; if a person neglects his discipline, he not only forfeits the possibility of a national audience but also jeopardizes his local career. Glaser (1963, pp. 249-259), on the other hand, sees the notion of the cosmopolitan and local scientist as a *dual* orientation of a highly motivated academic. Faculty who spend time researching and consulting may not adequately fulfill their institutional obligations, especially teaching. The different demands of each strand make faculty life difficult.

Conflict arises between the professional importance of achievement in the discipline and the predominance of teaching duties (Gustad, 1960; Babchuck & Bates, 1962, pp. 341-348; Diekhoff, 1960; Eckert & Stecklein, 1961; Klapper, 1969, pp. 38-49). The dissonance can be resolved by lowering disciplinary expectations and defining a good career as "a teacher at Eastgate College," or by neglecting students to research, write, and publish. This and other conflicts make up the moral career of the academic man, perhaps as complex and troubled as the "moral career of the mental patient" (Goffman, 1964, pp. 125 ff).

3 The Disciplinary Career

Early career decisions about graduate education, field of specialization, teaching, academic life, research, and selection of a graduate school have been well studied. But once a person has made these decisions, less is known about his actual participation and recognition in the disciplinary strand of faculty life. Some faculty rise to eminence in the field, while others are lost in backwaters. Presumably, success is based on "contributions," but actual workings are obscure. While the literature indicates those with potential, the who, how, and why of disciplinary success are not well known.

Initial Socialization Towards Discipline and Teaching

The disciplinary career begins when a student decides to study in a particular field, especially at the graduate level (Davis, 1964, pp. 42-43). Thirty years ago, Wilson (1942, App. 3) wrote that no one knew how people chose the academic profession. Today more is known about this choice, especially about timing and ordered decisions. Research (Dunham et al., 1966, pp. 22-25; Parsons & Platt, 1968a) has shown that most faculty chose a field when they chose their major, but 50 percent did not decide on college teaching until they entered graduate school. Sciences faculty selected their field earlier and made the decision to teach later, compared with humanities and social science faculty, who selected their field later and chose teaching soon thereafter. Dunham (1966, App. 4) found that 41 percent of faculty decided on a field before they decided to teach, while 19 percent decided

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to teach before they selected a discipline. These proportions were supported by Parsons and Platt (1958a, p. v-19), who found 45 percent and 25 percent respectively. The earlier decisions on discipline tended to be related to a preference for research. In the majority of cases, the selection of a discipline occurred prior to the decision about profession and was related to a greater enjoyment of research (Parsons & Platt, 1968a, p. v-20). This pattern, strongest among faculty at distinguished universities, weakened as institutional prestige declined.

Theories of socialization, particularly adult socialization, emphasize the greater impact of early decisions (Hall & Lindsey, 1957). Since primary emphasis on the academic profession can be inferred from the earlier commitment to a disciplinary field, faculty will be more deeply invested in the discipline than in teaching. Indeed, students making a career decision before completing the BA were more likely to complete PhD requirements than those making a later decision (Tucker et al., 1964, App. 6).

Research on the sequence of career decisions has revealed that teaching as an early career goal was conspicuously absent. Dunham (1966) found that only 10 percent of the faculty in America had decided to teach in college by their sophomore year. On the other hand, Eckert and Stecklein (1961, pp. 72-76), in a small study of "very satisfied college teachers," found that these faculty had decided early to teach at the college level. While early decision allowed for greater socialization toward teaching as a career objective, its relative infrequency indicated how little support a teaching career receives in the academic world.

Advocates of the Doctor of Arts degree for students who primarily want to be teachers should recognize that few make the decision to teach early and pursue it as a goal. If teaching is really important in the academic enterprise, and if teaching degrees are to be awarded, there must be educational experiences and rewards that begin early to support teaching as a main interest.

The decision to pursue an academic career is based on belief in central academic values. Interest in learning and preference for academic positions were significant, according to data gathered in a national study of graduate students (Tucker et al., 1964). Table 1 on the relative importance of these value orientations and other influences shows the strongest influence from the subject matter of the discipline (D), followed by preferences for academic life (C), position (E), and intellectual development (F). Professionals and nonprofessionals had little noticeable influence on decisions.

Parsons and Platt (1968a) also examined the modes of influence on decisions. (For an analysis of this study, see Light,

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1973.) Separating decisions into "discipline" and "academic profession," they measured several influences for each. These influences were then analyzed on the scale of institutional differentiation (SID)¹ and by discipline (Table 2). Since the number of cases was small and the scheme was not comparable to earlier research, comparing results is difficult. While these data were gathered about the same time as those of Dunham

TABLE 1
INFLUENCE OF SIX FACTORS ON STUDENT DECISIONS
TO PURSUE DOCTORAL STUDY

Factor	Influence				
	Great	Some	None	Total	N
A. Encouragement by parents, relatives, friends	18%	41%	41%	100%	4,220
B. Encouragement by teacher, employer	19	33	48	100	4,152
C. Preference for academic life over business, professions	44	32	24	100	4,134
D. Intrinsic interest in subject matter	70	28	2	100	4,481
E. Desire to be equipped with greater skills to achieve better position	40	35	25	100	4,310
F. Desire to continue general intellectual growth without reference to specific career plans	32	46	22	100	4,278

Source: Allan Tucker, David Gottlieb, and John Pease, *Attrition of Graduate Students at the Ph.D. Level in the Traditional Arts and Sciences* (East Lansing, Mich.: Office of Research and Development and the Graduate School, Michigan State University, 1964), p. 135.

¹The scale of institutional differentiation is a weighted index of a school's size, quality, and research.

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(1966), they are representative of different generations. The subjects of Dunham and of Parsons and Platt attended graduate school about 15-20 years before those of Tucker (1964). Thus data from Dunham and from Parsons and Platt may be distorted by memory. This flaw occurs throughout the research on faculty. Despite these drawbacks, the data indicated variations and new areas for research.

While Table 1 shows the relative influence of certain factors on pursuit of doctoral study, Table 2 investigates the importance of certain factors on choice of discipline. Generally, discipline-related influences, such as professors and course work, were important. However, Table 2 also breaks down these responses by SID. At the bottom of the academic ladder, nonacademic more than academic influences shaped choice of discipline. If valid, this outcome, which may be caused by a sample of 17, suggests ignorance about how professors at lesser institutions—the most rapidly expanding sector—entered and pursued their careers.

TABLE 2
INFLUENCE OF FOUR FACTORS ON STUDENT CHOICE
OF DISCIPLINE, BY SCALE
OF INSTITUTIONAL DIFFERENTIATION (SID)

Factor	SID Level				
	High	Medium	Low	Average	N
Teacher	55%	62%	29%	54%	52
Course or reading	23	15	18	18	17
Relative in field	6	6	24	9	9
Experience, event, person outside academia	16	17	29	19	18
Total	100	100	100	100	96

Source: Talcott Parsons and Gerald M. Platt, *The American Academic Profession: A Pilot Study* (Cambridge, Mass.: Harvard University, 1968a), p. v-22.

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In an analysis of choice of discipline by field (Table 3), teachers remained the major influences. But why nonacademic experiences should be mentioned so often by natural scientists remains a mystery worth investigation. Also worth noting is the greater frequency with which humanities professors said that a teacher influenced their choice of field, and the greater frequency with which social science professors said that a course or research experience influenced their choice. These differences might account for variations by discipline in teaching styles, attitudes toward disciplinary knowledge, and types of recruitment (Riesman, Gusfield, & Gamson, 1971).

TABLE 3
INFLUENCE OF FOUR FACTORS ON STUDENT CHOICE
OF DISCIPLINE, BY DISCIPLINARY IDENTIFICATION

Factor	Disciplinary Identification				
	Natural Sciences	Social Sciences	Humanities	Average	N
Teacher	46%	48%	64%	54%	52
Course, reading, research	19	36	3	18	17
Relative in field	4	3	18	9	9
Experience, event, person outside academia	31	13	15	18	18
Total	100	100	100	99	96

Source: Parsons and Platt, 1968a, p. v-23.

Further differences by field were indicated in a study by Davis (1964) of June college graduates in spring 1961. He asked students (now associate professors) pursuing graduate study whether teaching and research would be important in their careers. Figure 2, which does not include the professions where research is unimportant to a typical career, shows an inverse relation between

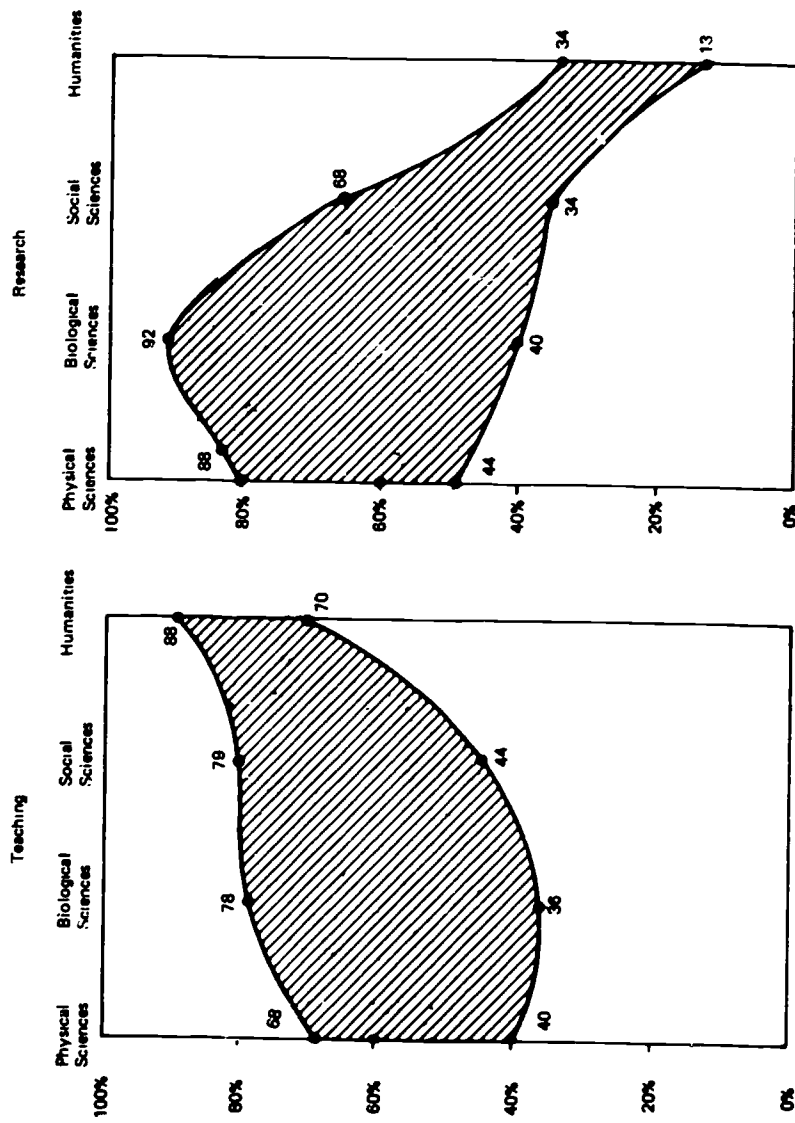


Fig. 2. Percentage of college and university seniors citing teaching and research as important academic careers, by discipline. (Adapted from *Great Aspirations* by James A. Davis. Chicago: Aldine, 1964. Pp. 225-226).

importance of teaching and importance of research. The bands for both questions are wide, representing the range of departmental responses for each discipline. These bands are based on data showing the range of mean departmental responses, not individual responses. Again these data were flawed, not by old memories, but by unmeasured expectations. Good information in these areas, then, is still lacking. Granted their methodological limitations, however, these studies show how important strains in the academic profession begin at the very start of a career. The sequence of deciding first on a field of study and last on college teaching—except for highly satisfied teachers—illuminates the continuing conflict in many disciplines between teaching and research as the primary work of the academic profession (Heiss, 1969; Mayhew 1965).

The proportion of college seniors who anticipated that their careers would be in the same fields as their graduate studies correlated with the percentage that planned to enter graduate school immediately (Davis, 1964). This correlation is important, because entering graduate school is a common expectation among college students. Consequently, students who are actually prepared to begin graduate work can be taken more at their word. This correlation further implied that one's field of *specialty* was the main link between college and an academic profession, while teaching as a goal was not strongly bonded to the steps in an academic career. A related finding implied that socialization toward academic norms took place in undergraduate years, college seniors rated professors as important as parents for advice on careers. Certain personalities were drawn to and socialized by certain disciplines (Holland, 1966).

Mary Kinnane (1964, pp. 167-172) studied value changes before graduate school. New England upperclassmen with good grades were compared with seniors just awarded Woodrow Wilson fellowships. Presumably, the latter were committed to academic careers. Table 4 implies striking value shifts in students about to enter the academic profession: they moved away from student relations toward intellectual life. These future academicians were not cynical but realistic, as illustrated in the last set of responses. Single-channel mobility based on research evidently produces its own tyranny in the academic world.

Aspects of Graduate School

Wilson (1942) reflected prevailing ideas of the 1930s when he characterized graduate students as drifters, refugees fearing a crash,

TABLE 4
COMPARISON OF SELECTED UNDERGRADUATES
AND WOODROW WILSON RECIPIENTS
BY ACADEMIC CAREER ORIENTATION

Response	Selected Undergraduates	Woodrow Wilson Recipients
<i>"What type of person is most likely to enter college teaching?"</i>		
Person who finds satisfaction in helping young people	44%	20%
Intellectually curious person who finds satisfaction in research	45	55
Person who prefers the ivory tower to the market place	11	25
A "grind" who prefers books to people	0	0
A personable type who likes the "rah-rah" of college life	0	0
<i>"What do you consider the most satisfying aspect of a college professor's work?"</i>		
Public respect for a learned man	3%	0%
Financial security	0	0
Opportunity to remain intellectually alive	47	68
Absence of the pressures of the market place	7	6
Opportunity to help educate young people	43	26
<i>"What is the principal basis on which college teachers are promoted?"</i>		
Quality of teaching	20%	3%
Length of service	33	6
Research and publication	39	86
Compatibility with students and administration	6	3
Exemplary character	2	2

Source: Mary Kinnane, "Interpretation of College Teaching," *Educational Record*, 1968, 45, 168-170.

harsh world, and pluggers who were not bright enough to enter law or medicine. Today, student quality is probably better, although the number going to graduate school has increased rapidly. Wilson (1942, p. 18) stated that, in the 1930s, 32 percent of first-year graduate students received high honors in college—compare this percentage with the 25 percent who had an A or A- average and the 24 percent who attained a B+ average in 1963 (Warkov et al., 1965, App. 12). Graduate schools then, can be seen as half full or half empty of promising students. Using a more refined analysis, Davis (1964) made the unsettling discovery that 87 percent of the top fifth of college seniors planned to attend graduate school, but so did 71 percent of the bottom half! As Davis noted, “[A] bachelor’s degree recipient is more likely to anticipate post-graduate study than a high school student is to anticipate college” (pp. 42-43). Seniors in the bottom half of the class did *not* list academic performance as an obstacle to graduate school. If they decided not to go, it was (at least in their minds) for other reasons. Nevertheless, student quality varied widely by field and sex, as shown in Table 5 which compares the drawing power of various disciplines.

After deciding to attend graduate school, the student had chosen an institution, and here reputation was the key. Although selection involved many factors, those cited most often as important were reputation of the graduate school (91 percent), reputation of the department (90 percent), opportunities for research experience (64 percent), chance for a better job in the future (61 percent), financial assistance (57 percent), and reputation of a particular scholar (57 percent). While opportunity for teaching experience was mentioned 36 percent of the time, it lagged far behind those features of graduate training most clearly associated with disciplinary prestige, research, and the opportunities derived from both (Tucker et al., 1964, p. 154). Research opportunities were consistently rated higher than teaching opportunities among all graduate students (pp. 152-157). In addition, students characterized graduate faculty as knowledgeable in the field, aware of current trends, and skilled at research but insensitive to student needs and poor as teachers (pp. 177-178). These significant differences demonstrate that the teaching-research dichotomy is an essential feature of graduate education and looms large in selection and socialization into the academic profession.

A keen sense of reputation pervades the graduate school. Among all candidates for the PhD in a national sample for all fields, 83 percent thought they were in a top 20 department,

TABLE 5

GRADUATE FIELD OF 1961 COLLEGE SENIORS, BY ACADEMIC PERFORMANCE INDEX (API),^a
CONTROLLING FOR SEX

	MALE					FEMALE					
	Top Fifth on API	Top Fifth	Above Average	Bottom Half	Total		Top Fifth on API	Above Average	Bottom Half	Total	
					Percent	N					Percent
English	43.9%	39.4%	41.6%	19.0%	100.0%	416	46.3%	34.7%	19.0%	100.0%	769
Physics	42.3	41.7	27.2	31.1	100.0	662	49.1	45.6	5.3	100.0	57
Medicine	42.1	43.0	42.3	14.8	100.1	1,292	33.1	43.8	23.1	100.0	130
Philosophy	40.7	45.5	34.4	20.1	100.0	154	26.0	60.0	14.0	100.0	50
Language	40.2	39.3	37.5	23.2	100.0	224	40.6	42.2	17.2	100.0	495
Political Science	36.9	37.3	57.1	25.6	100.0	450	36.1	49.6	14.3	100.0	230
Other Physical Sciences	34.2	35.3	42.6	22.1	100.0	136	-	-	-	-	13
Mathematics	33.2	28.8	33.6	37.5	99.9	642	44.3	39.5	16.2	100.0	253
Biochemistry	32.1	25.4	52.2	22.4	100.0	67	35.8	35.8	28.3	99.9	120
Clinical Psychology	29.9	13.5	35.3	51.2	100.0	207	50.6	26.8	22.6	100.0	164
History	28.8	23.9	33.2	42.9	100.0	686	36.4	40.0	23.7	100.1	448
Other Psychology	28.1	24.6	31.4	44.0	100.0	175	34.0	42.5	23.6	100.1	106
Nursing	27.6	-	-	-	-	5	27.4	48.0	24.6	100.0	423
Other Social Sciences	27.4	24.1	39.2	36.7	100.0	166	31.9	51.3	16.8	100.0	119
Economics	27.4	24.0	34.9	41.1	100.0	384	43.8	45.0	11.2	100.0	80
Microbiology	26.9	11.7	30.0	58.3	100.0	50	40.0	25.7	34.3	100.0	70
Chemistry	25.9	23.9	34.6	41.4	100.0	685	28.9	40.0	31.1	100.0	172

TABLE 5
GRADUATE FIELD OF 1961 COLLEGE SENIORS, BY ACADEMIC PERFORMANCE INDEX (API),^a
CONTROLLING FOR SEX (Continued)

	MALE						FEMALE					
	Top Fifth on API	Above Average	Bottom Half	Total		Top Fifth on API	Above Average	Bottom Half	Total			
				Percent	N				Percent	N		
Fine Arts	25.3%	36.7%	41.6%	100.1%	510	27.4%	41.8%	30.9%	100.1%	888		
Engineering	24.6	37.1	38.2	100.0	3,001	-	-	-	-	22		
Zoology	24.4	43.5	41.7	100.0	108	-	-	-	-	48		
Law	23.5	35.2	41.2	100.0	2,320	21.3	52.7	25.5	100.0	110		
Other Biological Sciences	20.2	29.1	52.4	100.0	189	23.7	41.9	34.4	100.0	93		
Physiology	19.6	-	-	-	47	-	-	-	-	45		
Other Professions	17.8	33.1	51.6	100.0	2,065	23.2	37.2	39.6	100.0	925		
Geological Geography (Earth)	17.5	49.0	36.9	100.0	206	29.0	29.0	41.9	99.9	62		
Botany	17.0	28.6	54.5	100.0	77	-	-	-	-	23		
Social Work	16.9	32.7	58.7	100.1	150	19.0	43.4	37.5	99.9	562		
Sociology	16.6	37.0	53.6	100.1	211	25.9	34.0	40.1	100.1	162		
Other Humanities	15.5	35.7	51.8	100.0	56	16.7	59.4	23.9	100.0	138		
Biology	14.0	6.7	38.1	100.0	210	24.3	54.1	21.6	100.0	148		
Education	13.6	7.7	31.5	100.0	4,027	15.8	44.4	38.8	100.0	7,496		

^a API is based on the total score on the ACT examination.

TABLE 5
GRADUATE FIELD OF 1961 COLLEGE SENIORS, BY ACADEMIC PERFORMANCE INDEX (API),^a
CONTROLLING FOR SEX (Continued)

	MALE					FEMALE				
	Top Fifth on API	Above Average	Bottom Half	Total		Top Fifth on API	Above Average	Bottom Half	Total	
				Percent	N				Percent	N
Business	13.2%	37.1%	50.1%	99.9%	4,154	18.9%	37.8%	43.3%	100.0%	349
Other Health	6.6	30.5	63.1	100.0	407	6.9	56.0	37.1	100.0	248

^aAPI is a weighted average of institutional quality and academic grades.

N
NA, API Only
NA, Graduate Field Only
NA, Both
Excluded from Table:
Not Going to Graduate School
NA, Plans Index

Total Weighted N

39,167
559
2,087
40
12,383
2,428
56,664

Source: James A. Davis, *Great Aspirations* (Chicago: Aldine, 1964) p. 156.

while 37 percent believed they were in a top 5 program (Tucker et al., 1964, p. 154). The sample was biased in this direction because department reputation and doctorate production were criteria in selection (for participating universities, see Ch. 2). These figures were about twice the actual proportions (Berelson, 1960, Pt. 2).

A top graduate school offers the best of everything; this holds true for faculty careers also. On the whole, one does not have to choose between *either* more money *or* sharper students, *either* better research *or* better teaching. The best graduate schools have more outstanding students, more students at the thesis level, more stipends in larger amounts (Warkov et al., 1965, Ch. 4). The correlations for a slow doctorate are no stipend, low institutional quality, and full-time employment (Wilson, 1965). These facts of academic life have not changed over the decades (Wilson, 1942).

Ideally, access to the PhD and, eventually, to a faculty career is based on merit. Graduate record examination scores, recommendations, and grade point averages are the grist for the admissions mill. Although Parsons and Platt (1968a) emphasized that universalistic evaluation and democratic access were the academic ideals, some actual evidence pointed in the opposite direction. Socioeconomic differences may be accentuated rather than minimized by such standards. Indeed, socioeconomic factors did count in access to the doctorate and success in completion. Father's occupation, education and the quality of undergraduate school mediated the relationship (Tucker et al., 1964, p. 28).

Seventy-five percent of students change institutions between college and graduate school, and this switching is crucial. Chances for upward mobility are highest at this point in an academic career (Hargens, 1969, pp. 18-37; Warkov et al., 1965, Ch. 1). Training at a top graduate school is important throughout an academic career, because academic life tends to be ascriptive. For example, 83 percent of the faculty in the top 12 graduate schools held their highest degrees from these same institutions (Brown, 1967, Ch. 4). All figures indicated the expectation of a wide straight road from BA to PhD, from college and major field to professional career. In fact, however, 38 percent of all students in post-master's study never attained the PhD. A major study of attrition at the PhD level concluded that the students who left lacked sufficient motivation, ability, or commitment to their field (Tucker et al., 1964, p. 292). Attrition was higher among those who ascribed importance to "the opportunity to have teaching experience" and lowest among those who wanted opportunities for research.

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Disciplinary Career as Faculty

The shape of the disciplinary strand after graduate school is not well known, but the impact of research and publishing suggested that several different publishing styles exist from man to man and from discipline to discipline (Walton, 1970). Moreover, within any field of specialization, there were many reputations: regional, as well as national and international; individual, as well as group. There were differing "schools" or approaches to the subject and various areas of intensive specialization, all of which might be the basis for judging quality and success (Cole, S., & Cole, J.R., 1967, pp. 377-390; Jencks & Riesman, 1969; Wilson, 1942).

Those in the already moderately "professionalized" academic field are rapidly developing greater expertise. In 1963, only 50 percent of all faculty at four-year institutions had the PhD "license." Of those who did not, 38 percent were working on advanced degrees (Dunham et al., 1966). A study five years later found that 66 percent of all faculty held PhDs (Blau, 1973). The distribution of degrees varied greatly by type of institution (Table 6). Almost 75 percent of the faculty at universities held PhDs. At four-year colleges, a majority had PhDs, while two-year colleges were dominated by MAs (Bayer, 1970, p. 13).

TABLE 6

DISTRIBUTION OF DEGREES, BY TYPE OF INSTITUTION

	University	Four-year College	Two-year College
Professional or Doctorate	72%	54%	19%
MA	23	40	64
BA	5	6	17
Total	100	100	100

Source: Adapted from Alan E. Bayer, *College and University Faculty: A Statistical Description* (Washington: Office of Research, American Council on Education, 1970), p. 13.

While a doctorate distinguishes a person from many of his peers, it does not guarantee success. The reputation of the granting institution is important throughout the career; the better the institution the greater the proportion of its faculty which holds degrees from prestigious graduate schools. However, lower level institutions did not fill their ranks with faculty holding PhDs from inferior programs; rather, they recruited a large percentage of faculty without doctorates (Parsons & Platt, 1968a, p. v-17). This procedure may reflect the limited pool of doctorates from both high- and low-level institutions or, for some reason, lower level institutions may prefer faculty without this degree.

Publications affected the disciplinary career more than any other factor. In a recent survey by Fulton and Trow (1973), the proportion of faculty with professional publications in the preceding two years ranged from 79 percent at Quality I universities to 14 percent at Quality VIII junior colleges. (For a structural analysis of these institutions, see Light, 1973.) Inversely, the proportion inactive in research and publishing ranged from 9 percent for Quality I to 70 percent for Quality VIII. Of course, professors at top institutions taught less, but, even controlling for classroom hours, they were more likely to use spare time for research. Those who published were promoted faster and earned more money. These hard facts raise the question of whether faculty who do not publish really have a disciplinary career beyond graduate school.

Academic life is supposed to be based on merit. Perhaps it is, but faculty at the better institutions tended to come from higher socioeconomic backgrounds. On the other hand, one-fourth of all faculty had fathers who were laborers (Parsons & Platt, 1968a, p. v-12). Status within the system of higher education in part mirrored the stratification of society. While the academic professions may be more open than some occupations, differences in background were not irrelevant.

Fifty-eight percent of faculty claimed religious affiliation, and this factor correlated positively with size, research orientation, and institutional quality (Parsons & Platt, 1968a, p. v-26). Such scholars as Parsons and Platt, who believe the rise of science has secularized higher education, must reconsider the place of religion in American education.

To some degree, however, the rise of science has secularized society and, especially, the academic profession. Academics are generally less religious than their parents; 48 percent of the Jews, 45 percent of the Protestants, and 35 percent of the Catholics disaffiliated from practicing parents (Parsons & Platt, 1968a, p.

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v-5), evidence in itself of growth of the scientific ethos, whether or not the effect was generational. Secularization seems to emanate from the highly ranked institutions. Even the effects of "academic generation" or experience did not mitigate the tendency toward secularization (Parsons & Platt, 1968a, p. v-9). Long academic experience in a less differentiated institution was conducive to religious practice or at least to failure to disaffiliate. Parsons and Platt (1968b, pp. 497-523) argued that the decline in ascription in the profession after World War II was evidenced in the changed religious composition. Those of Protestant background decreased 30 percent, while those of Jewish background increased 218 percent. The changed religious composition of faculty might be due to an increase in the number of successful sons and daughters of Jewish immigrants.

Almost no research has been done on participation in disciplinary associations. Parsons and Platt (1968a, pp. vi-40-43) have some rough figures suggesting that offices in national disciplinary associations were held by faculty at more highly differentiated institutions, while offices in local associations were more likely to be held by faculty from the less differentiated institutions. These tendencies could be seen as a cosmopolitan-local dimension within the discipline. On the other hand, between one-third and one-half of faculty consistently shied away from association offices, perhaps because of existing obligations and work loads. The inclination to accept offices was more evident at the large, top- and middle-level, research-oriented institutions.

The influence of some elements in the disciplinary strand needs further analysis: honorary degrees, professional associations, scientific academies, editorships, and patterns of informal association among academicians. These elements may have more influence than suspected. In our investigation of autobiographical forms of Princeton faculty, we found that all faculty listed memberships in professional societies and, when appropriate, more prestigious laurels. Yet, some faculty listed neither articles nor books, although other data showed they had published. The position of association officer or journal editor may not produce new research or publications, but a respectable history in the disciplinary strand may lead to national prominence in a given field.

Areas for Further Research

In research on disciplinary careers, the great imbalance in favor of the predoctorate years reflects the interests of those who

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funded the research: government agencies that finance graduate training. While understandable, this is unfortunate, for the great changes in higher education today demand understanding of two other aspects of the disciplinary career.

First, more must be learned about the periods just after a person has received the doctorate and just after he has become a full professor. As the new faculty member assumes an institutional position and a full teaching schedule, how does he adjust to obligations that contrast so sharply to the intense work on a dissertation? The relationship between his institutional and his disciplinary careers is especially sensitive at this time. Moreover, most PhDs must adjust to the fact that they cannot work in an institution comparable in quality to their graduate university. After becoming a full professor, disciplinary activities wane. With notable exceptions, professors become "stale." The reputation they built in attaining full professorship fades. In these years, too, important uncharted shifts in perspective occur.

Second, more must be learned about faculty at the end of the academic procession, the sector expanding most rapidly. In terms of their chosen field, to what do they aspire? How do they arrange their lives to accommodate research? A substantial proportion of people who complete doctorates publish little or nothing. What kind of disciplinary career do they have? How does it relate to the college or university where they work?

4 The Institutional Career

A professor's career, disciplinary and otherwise, takes place at a college or university. Students, libraries, laboratories, offices, classrooms, computers, and colleagues surround the faculty. In this setting, they teach, research, and administer and are recognized, promoted, rewarded, neglected or even dismissed. The reputation of an institution affects a professional career even more than rank. Faculty prestige and influence derive in part from the institution; at the same time, faculty achievements in teaching and research sustain the reputation of the institution.

Humanists will object to the uncritical use of "prestige" and "reputation," which loom so prominently in matters of institutional career. Prestige for what? Reputation based on what? It is refreshing to learn that prestige comes from *praestigium*, meaning an illusion, a juggler's trick. The trickster here is no sociologist but the academician. Reputation stems from *reputare*, to think again. Considering how uncritically reputations pass from mouth to ear, one should rethink their true meaning.

Research on the institutional career is considerable but uneven. Much has been written about the allocation of institutional time by faculty, particularly about the balance between teaching and research. But academic values and faculty orientations toward their institutional roles are less well understood. Nevertheless, inferences can be based on time allocation, preferences about institutional settings, and promotional considerations. Two general findings on orientation emerge: First, faculty appear to be satisfied with their chosen careers. In a recent national study of job satisfaction, for example, urban university professors scored higher than those in all other occupations

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including lawyers and doctors (Shabecoff, 1972, pp. 1, 4). Second, research and publications determine whether or not one advances in the better institutions, a finding that shows the strong disciplinary influence on the institutional career.

Although two threads make up the institutional strand, faculty positions and administrative positions, this review concentrates on the former. The new faculty member assumes his position thoroughly socialized toward scholarly work but unprepared for such institutional duties as teaching. Often, he must teach courses in unfamiliar subjects. He may be asked to serve on a curriculum committee without having thought much about curriculum, except perhaps his own. Tracy (1961) has studied the initiation of new faculty and their reactions to these and more subtle matters, and found that, although new faculty strongly desire it, there is little formal or planned orientation, either before or after receiving the PhD. Since the duties and procedures of the institution change little as one advances in rank, a function of this ignorance may be to control neophytes. The socialization of faculty, *qua* faculty, deserves further inquiry. Anthropological field work and open interviews might be especially fruitful.

General Characteristics

To begin with parameters of institutional careers, the distribution of ranks in 1962 was: instructor, 16 percent; assistant professor, 29 percent; associate professor, 24 percent; professor, 27 percent; and other, 4 percent (Dunham et al., 1966, Tbl. 1). The only change by rank appeared between faculty at universities and those at colleges: The percentage of full professors was higher in the former (34 percent), and lower in the latter (23 percent). One other rank, assistant professor, reflected the change: 27 percent to 32 percent.

One should bear in mind the numbers involved in these percentages. In 1968, 1,600 four-year colleges and universities in this country employed about 300,000 full-time faculty (Simon & Grant, 1969, Tbls. 101, 108). These figures did not include, nor do we directly consider, the additional 200,000 part-time faculty that these institutions employed. These persons have not been closely studied, except as they have appeared in the literature on graduate students or on general characteristics of faculty culture. Their large number indicates their importance in any full treatment of academic careers. Compared with figures cited by Wilson (1942), the reduction of instructors represents a major change over the past few decades. For major universities, Wilson

reported 31 percent instructors, 23 percent assistant professors, 14 percent associate professors, and 32 percent full professors, indicating that the distribution of ranks varied considerably between institutions. Data are hard to compare; Dunham's data are more general than Wilson's "major universities."

The initial crunch of an academic career has changed little since Logan Wilson wrote of it. A man gains his first full-time job when he is about 30 years old, married with at least one child, and today earns about \$12,000 for the academic year. He finds the system competitive: he must strive for prestige in his discipline, his institution, and the larger market simultaneously. He finds that prestige is partly ascribed (Wilson, 1942, Ch. 9; Dunham et al., 1966, Tbl. 2).

Satisfaction is widespread among professors, but they are nervous and insecure. Brown (1967, Ch. 3) has reported that 98 percent of the faculty wanted to keep informed of opportunities elsewhere, and 38 percent expected to change jobs in the next four years. "Importing" has increased over the past few decades because of national academic markets and fierce institutional competition. This major change has put direct pressure on junior faculty and threatened the prestige and professional security of tenured faculty. A study of faculty at Princeton by the authors indicated that about one-third of the entering faculty arrived as full professors. Nationally, about one-fifth of the faculty in an average institution turned over every year, with the rate even greater for institutions of lower prestige (Brown, 1967, Ch. 3).

The time required to climb the formal academic ladder varied according to many factors. Tucker and his associates (1964) found that the average time required for a PhD after completing the MA was 6.0 years in the humanities and 4.1 years in the biological and physical sciences. Kenneth Wilson (1965) stated that predoctoral employment, part-time attendance, delayed entry into graduate school, late career decisions and plans, changing fields, financial problems, and inadequate language preparation all contributed to a longer elapsed time in doctoral programs. This length of time probably predicts the rate of movement through higher academic ranks.

The Princeton study suggested these links. We first analyzed the relation between length of time to complete the doctorate and number of years from first job to professorship. Dividing the faculty at five years or less for the doctorate, we found that an increasing proportion of faculty completed their degrees in that time. Among professors born before 1904, only one-fourth finished that quickly, but almost two-thirds of the youngest group, born after 1925, took less than six years. Among earlier

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cohorts of full professors, a longer doctorate correlated with more years to attain professorship, but among newer professors, it made little difference. Although these data are too rudimentary to warrant formal treatment, they do suggest historical trends and directions for further investigation.

As for the straight time taken to advance, the Princeton survey showed that today it takes an average of eight years to advance from assistant to full professor, whereas for faculty born before 1926, the average was about twelve years. These figures are corroborated for the nation in *Careers of PhDs* (1968).

Since the professional career has only three or four ranks, when most faculty change jobs, they are not seeking a new rank. Although moving to advance in rank occurs more often at junior levels, it is not the predominant theme even among junior movers. Income seems to be the most important factor, a finding that anticipates the dissatisfactions among faculty. These gains do not come without their price. Except for heavy publishers, a study of faculty mobility found that faculty trade one thing for another, such as prestige for money (Brown, 1965).

Overall, the institutional careers of faculty begin intensely and plane off, as do many other careers. Despite strong enforcement of tenure, insecurity lingers even after full promotion, for reputation can vanish like a mirage. Every campus has full professors whom students no longer seek and colleagues ignore.

In only eight to twelve years, faculty become professors, yet, most research focuses on correlates of promotion, leaving a score of years dimly perceived. These years until retirement need more study, as does the crisis of retirement itself. At retirement, some good scholars are awarded professor emeritus, and with it may come research or working facilities in addition to the pension and other retirement benefits. Roman and Taietz (1967, pp. 147-152), testing the theory of disengagement as a pattern of aging, studied 47 professors emeritus at Cornell in 1964. They found that those men who had been engaged in research were able to continue their interest, whereas teachers withdrew or disengaged from the academic setting. They considered that the research role attached to an individual and operated "self-employment," whereas teaching was institutionally defined. From the beginning to the end of an academic career, the disciplinary strand appears to unite all else.

Use of Time: Values and Realities

Faculty find themselves in roles with conflicting obligations based on different value orientations. The discipline demands

research, and the institution assigns duties in teaching and administration. Faculty must assess these expectations and allocate time and energy accordingly. The more highly differentiated universities emphasize research, while the less differentiated emphasize teaching (Parsons & Platt, 1968a, p. v-36). Some argue that prestigious institutions are the model for the entire system of higher education (Jencks & Riesman, 1969).

How do faculty actually spend their time? Wilson (1942, Ch. 6) provided some historical material. In citing a study at the University of Chicago in the late 1930s, he wrote that faculty spent 42 percent of their time teaching, 25 percent doing research without compensation, 13 percent in departmental services, 5.4 percent in administrative work and 4.5 percent in extramural activities. The distribution varied by discipline, instruction taking about 50 percent of a person's time in the humanities and the professional schools and less in the sciences. Wilson correctly noted that teaching duties can rise to about 70 percent of one's time in low-level colleges. The academic day varied greatly. For those who only had to teach, the academic profession was one of the finest sinecures extant. For the ambitious, it could be a most strenuous job. In all cases, it differed from most occupations in the degree to which one planned one's time and was subject to minimal appraisal from above.

PhDs who had always pursued an academic career were sampled for *Careers of PhDs* (1968, p. 57). From 1940 to 1963, the proportion of time spent on teaching decreased overall from 66 percent to 50 percent. Research remained constant at 25 percent, but administrative duties increased from 8 percent to 20 percent. The study did not break down these overall trends by discipline, type of institution, or rank. Dunham's study of teaching faculty, however, broke down these gross figures to reveal variations in teaching and research. The proportion of time for teaching diminished at universities (43 percent), especially private institutions (39 percent). By rank, teaching time declined from instructor (57 percent) to full professor (42 percent). For the latter, most "free time" went to administrative duties (Dunham et al., 1966). These percentages indicate a reduction in hours spent teaching over three decades, but a change in the total work week is not evident. Women were assigned more teaching than men and had less time for both research and administration (*Careers of PhDs*, 1968, p. 97).

In a comparison between actual use of time and faculty ideals about time (Parsons & Platt, 1969), Tables 7 and 8 show that faculty want to teach undergraduates fewer hours. The discrepancy between actual and ideal time increased as the institution

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concentrated more on teaching undergraduates. At every level, faculty wanted more time to teach graduate students. Again, the low-level institutions wanted the most change. There were similar patterns in research (everyone wanted more) and in administration (everyone wanted less). Parsons and Platt combined both kinds of teaching and thereby argued that faculty taught close to their ideal amount. As shown in Table 8, for example, faculty actually taught 46.1 percent of the time at high-level institutions and desired to teach 46.0 percent of the time. This analysis, however, obscured the basic difference between training future researchers and enlightening sophomores. It also hid the desire to increase time for the former and decrease time for the latter. To compare the combined graduate teaching and research with undergraduate teaching would be a more realistic approach.

Although Parsons and Platt (1969) believed these tables showed the compatible marriage of research and teaching among all faculty, we think the disparities between actual and ideal time indicated consistent tension between disciplinary and institutional careers. Moreover, that tension increased as institutional quality decreased. At all levels of academic life, a consistent strain toward the model and values set by the best institutions was evident.

Teaching styles also varied. At more highly differentiated institutions where the research orientation was greater, teaching style was more cognitive and less affective. Parsons and Platt (1968a, p. vi-31) explained this finding in terms of the "mechanical solidarity" of the low SID institutions and the "organic solidarity" of the highly differentiated. In fact, the solidarity produced by more affective teaching may be more organic. This classroom style increased general student-faculty interaction around campus, according to Wilson, Wood, and Gaff (1973).

Table 8 shows that faculty at the lowest level institutions wanted to double the time for research and nearly triple that for graduate teaching. This finding revealed the extent that reality eludes the ideal; it also revealed how little is known about the men behind these figures.

Institutional realities, however, may put the greatest pressure on the faculty at middle- rather than low-level institutions. While faculty at low-level institutions wanted the greatest changes toward research, their promotions probably depended on how they taught and got along with colleagues. They were, in a sense, more frustrated than their institutions. The middle-level group, however, included mediocre universities striving to improve their prestige. Here it was the *administrators* who pressed faculty to research and publish, without reductions in teaching load (see

TABLE 7

COMPARISON OF ACTUAL AND IDEAL TIME, BY HOURS, ALLOTTED TO ACADEMIC ACTIVITY,
BY SCALE OF INSTITUTIONAL DIFFERENTIATION (SID)

Academic Activity	Time (Hours)	Level of Institutional Differentiation				
		High	2	Medium	4	Low
Undergraduate Teaching	Actual	14.0	17.4	26.6	25.5	29.4
	Ideal	10.7	13.5	18.2	17.7	19.3
Graduate Teaching	Actual	10.7	10.1	6.3	4.2	2.4
	Ideal	12.3	11.7	9.5	7.3	6.0
Research	Actual	18.5	13.5	8.9	8.8	5.8
	Ideal	22.7	17.8	14.2	14.2	9.9
Administration	Actual	10.2	10.4	9.5	9.6	8.6
	Ideal	4.3	4.6	4.5	5.2	5.2
Total Time	Actual	53.4	51.4	51.3	48.1	46.2
	Ideal	50.0	47.6	46.4	44.4	40.4

TABLE 7
**COMPARISON OF ACTUAL AND IDEAL TIME, BY HOURS, ALLOTTED TO ACADEMIC ACTIVITY,
 BY SCALE OF INSTITUTIONAL DIFFERENTIATION (SID) (Continued)**

	Time (Hours)	Level of Institutional Differentiation				
		High	2	Medium	4	Low
Difference between Actual and Ideal		3.4	3.8	4.9	3.7	5.8
N	Actual	1,306	1,889	2,565	2,860	3,756
	Ideal	1,272	1,866	2,542	2,706	3,588

Source: Talcott Parsons and Gerald M. Platt, *The American Academic Profession*, a research proposal submitted to the National Science Foundation (Cambridge, Mass.: Harvard University, 1969), p. C-5.

TABLE 8
COMPARISON OF ACTUAL AND IDEAL TIME, BY PERCENTAGE, ALLOTTED TO ACADEMIC ACTIVITY,
BY SCALE OF INSTITUTIONAL DIFFERENTIATION (SID)

Academic Activity	Time (Hours)	Level of Institutional Differentiation				
		High	2	Medium	4	Low
Undergraduate Teaching	Actual	26.1%	33.9%	51.9%	52.9%	63.7%
	Ideal	21.4	28.4	39.2	39.9	47.8
Graduate Teaching	Actual	20.1	19.7	12.3	8.8	5.2
	Ideal	24.6	24.6	20.4	16.4	14.9
Research	Actual	34.7	26.2	17.3	18.3	12.5
	Ideal	45.4	37.4	30.7	32.1	24.5
Administration	Actual	19.1	20.2	18.5	20.0	18.7
	Ideal	8.6	9.6	9.7	11.6	12.8
Total	Actual	100.0	100.0	100.0	100.0	100.1
	Ideal	100.0	100.0	100.0	100.0	100.0

TABLE 8
 COMPARISON OF ACTUAL AND IDEAL TIME, BY PERCENTAGE, ALLOTTED TO ACADEMIC ACTIVITY,
 BY SCALE OF INSTITUTIONAL DIFFERENTIATION (SID) (Continued)

Academic Activity	Time (Hours)	Level of Institutional Differentiation				
		High	2	Medium	4	Low
N	Actual	1,306	1,889	2,565	2,860	3,756
	Ideal	1,272	1,866	2,542	2,706	3,588

Source: Parsons & Platt, 1969, p. C-3.

Table 7). Faculty here did more research but taught as much as faculty in low-level institutions; in short, they worked harder and were subject to more institutional pressure.

Even faculty at the best universities were not free of these strains. They wanted 70 percent of their time for research and graduate training and 21 percent for teaching undergraduates. This represented 20 percent more time for graduates and over 20 percent more for research than they had. Notice, too, that these and all other faculty wanted far fewer administrative duties, which caused great problems for those who ran universities (Arbeiter, 1973).

The tables above reflect the great tension between the disciplinary and institutional strands of an academic career. In terms of socialization and values, it seemed that most academics placed early and continuing weight on their discipline and scholarship. In fact, this was overstated, for 33 percent of the full-time faculty did not have PhDs, and a sizable proportion of those with doctorates did not produce scholarly publications. Yet, the cultural orientation of the academic profession and its training lie in this direction. When possible, institutional promotions emphasized research and publication. Often they could not, because most college faculty published little, yet publication remained the goal. The better the institution, the more published research counted, and the less teaching (beyond a minimum) mattered. Faculty spent about 20 percent of their time on research, with a maximum of 35 percent at the best universities, and still they clamored for more (see Table 8).

At the subjective level, the deadlines a professor *must* meet were those for lectures, not articles. The sharp features of his week stemmed from instruction. Vaguely, in the background, he was aware that he must get "something into print soon." Most of his working day centered on teaching; much talk with colleagues turned on that subject. And if he was a good teacher or enjoyed teaching, the umbrage that he "really" should be something else could spoil the experience. On the other hand, if he especially looked forward to his research, every hour devoted to institutional duties counted as time spent on secondary matter. Should he fulfill everyone's hopes and truly enjoy both activities, his dilemma increased. This analysis highlights the worst that can happen; but perhaps this quandary will force changes in the institutional structure. As pressures for disciplinary performance, as well as demands for more effective teaching, increase, new definitions of work and reward may alter the profession. For example, combinations of teaching, research, and service com-

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mitments may reinforce one another, depending on skills and the problems under study. Working on matters of social policy may produce a satisfying union of the three (Newman, 1971, Ch. 5).

Power, Influence, and Prestige

In academic as in all other institutions, the distribution of power and influence affects collective decisions. Faculty strongly prefer influence to formally defined positions of power, such as chairman or dean. The preference by faculty for influence over formal positions was greatest at highly differentiated institutions. The preference for formal positions over influence increased in institutions as they were ranked in descending order on the scale of institutional differentiation (Parsons & Platt, 1968a, p. vi-58).

The power structure in academe is a subject of considerable comment, but research on faculty perceptions and actual exercise of power is sorely lacking. Table 9 shows faculty responses to influencing agents. In educational policy, administrators were seen as the key group; in financial policy, administrators and trustees; in hiring policy, departmental chairmen. At the top-level institutions, the faculty saw administrators and trustees as relatively less powerful than at institutions on other levels. The variation among institutions occurred over the most important policy for faculty—hiring. The influence of senior faculty dropped precipitously by SID while the influence of administrators and trustees at low-level institutions rose. Both direct and indirect evidence indicated that faculty at the highly ranked colleges and universities were the most powerful influence in their institutions.

Much has been said about the expanding bureaucracies of higher education and the power of administrators and trustees, but faculty are a highly skilled professional group with a strong sense of autonomy and a persistent desire to perpetuate the collegial organization for their own affairs. In prestigious institutions where faculty have power, the administration is a bureaucratic appendage that handles the procedural problems.

In professional activities, faculty have implied that a scholarly contribution brings more influence and importance than reputation or salary (Table 10). The repository of those values, of course, was the highly differentiated institutions. At the low-level institutions where these values were not so strong, consideration of salary was greater. Salary was the reward or compensation for performance of institutional obligations, while reputation and

TABLE 9
INFLUENCE OF FOUR AGENTS ON ACADEMIC DECISIONS,
BY SCALE OF INSTITUTIONAL DIFFERENTIATION (SID)

Agent	Educational Policy			Financial Policy			Hiring Policy		
	High	Medium	Low	High	Medium	Low	High	Medium	Low
Trustees	24%	33%	48%	75%	95%	86%	17%	3%	30%
Administrators	77	78	80	89	90	64	44	40	83
Department Chairmen	50	38	58	12	18	14	89	85	81
Senior Faculty	41	32	37	3	6	3	81	66	13

Source: Parsons & Platt, 1968a, p. vii-11.

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especially contribution derived from accomplishments in the discipline. The relative importance of each reflected the academic's view of his work and its rewards.

TABLE 10

PREFERENCE FOR ASSOCIATIONAL AND OCCUPATIONAL FACTORS,
BY SCALE OF INSTITUTIONAL DIFFERENTIATION (SID)

Factor Choice	SID Level		
	High	Medium	Low
Salary or Reputation	18% 82	24% 76	34% 66
Salary or Contribution	8 92	16 84	20 80
Reputation or Contribution	14 86	23 77	24 76

Source: Parsons & Platt, 1968a, p. vi-59.

Consistent with this analysis, faculty at highly differentiated institutions preferred disciplinary aspects of their institutions, such as reputation and research facilities. Faculty at other institutions attached greater importance to the more institutional items, such as salary and teaching facilities (Parsons & Platt, 1968a, pp. vi-26,27). Yet reputation remained a strong concern for all.

The locus for an institutional career is the department. Table 11 presents faculty feelings toward departments. Consistent with the above analysis, medium-level institutions inspired the least loyalty. However, no group scored high on loyalty, and the proportion of faculty loyal to their departments barely exceeded

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one-half at the most. Fewer than one-half of the faculty could deny "considerable dissatisfaction among members of my department." Worse still, the strong wording of the second statement was only denied by two-thirds of the faculty at the most harmonious institutions. The academic house was not a haven.

TABLE 11
FACULTY LOYALTY TO COLLEAGUES AND DEPARTMENTS,
BY SCALE OF INSTITUTIONAL DIFFERENTIATION (SID)

Statements	SID Level		
	High	Medium	Low
1. I feel very loyal to the faculty at my college or university (agree)	61%	55%	61%
2. There are few grounds upon which I care to associate myself with most of my colleagues (disagree)	66	53	67
3. In general, my allegiance to my department is very strong (agree)	51	37	54
4. The departmental allegiance of others in my department is very strong (agree)	51	37	54
5. There is considerable dissatisfaction among the members of my department (disagree)	50	37	56

Source: Parsons & Platt, 1968a, pp. vi-53, 54.

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Sources of Satisfaction and Dissatisfaction

Given this sketch of the institutional career, what were the sources of satisfaction and dissatisfaction? The answer has never been clear. In describing academic work before World War II, Wilson (1942; Ch. 7) wrote that, on one hand, the academic man was free and that dignity (certainly not salary) was his major compensation. Yet, he described the profession as competitive, rife with envy and status deference, qualities that may lie behind the figures in Table 11. Recent literature provided only crude information on this topic and more refined research is needed.

Eckert and Stecklein (1961) combined data from the University of Minnesota, from St. Olaf's College, and from institutions of all levels in between to offer a general profile on sources of satisfaction and dissatisfaction. Ninety-two percent of the respondents said they were quite satisfied with college teaching as a career, and 83 percent said they would enter this career again, given the choice. A more recent survey (Parsons & Platt, 1968a) found that almost 90 percent of faculty agreed that "few other professions offer as many satisfactions as the academic," and 75 percent would not leave the academic profession even if they "received a good offer." Caplow and McGee, however, disagreed (1965, Tbl. 3.8). Eckert and Stecklein provided the most refined data (Table 12). Main satisfactions came from one's associates. The most satisfaction came, first, from working with students and, second, from good peer associates and administrators. Slightly fewer faculty mentioned another major area; freedom to arrange one's work and to work in one's field. Thus, satisfactions accrued from those activities that were presented as the ideals of the academic life.

Sources of dissatisfaction completed the academic image (Table 13). Money mattered. In interviews, faculty mentioned low salary more often than any other item of dissatisfaction. The only other issues mentioned with any frequency were poor students, too much work, and routine duties. Table 13 reflects how few matters annoyed academicians. Income aside, the academic career suited well those who chose it. These same respondents suggested better ways to recruit and to retain faculty; their suggestions for higher salaries and less work reflected sources of dissatisfaction (Eckert & Stecklein, 1961).

Contrary to the conventional wisdom of the academic profession (and to the forced choices shown in Table 10), status,

TABLE 12
MAJOR SATISFACTIONS OF A COLLEGE TEACHING CAREER

Faculty Satisfaction	Percentage of Faculty	
	Four-year College (N=576)	Two-year College (N=130)
Nature of work		
Association with college-age students	30.6	33.1
Helping young people grow	17.1	19.3
Observing students' growth and success	20.8	25.4
Transmitting knowledge	8.7	6.2
Working and studying in own field	18.6	21.5
Opportunities to influence young people	6.1	9.2
Sheer enjoyment of teaching	7.1	1.5
Range and variety of activities	1.6	0.8
Other	2.6	2.3
Working conditions		
Able and well-motivated student-	11.8	22.3
Fine colleagues and administrators	25.0	13.8
Intellectually stimulating associations	28.8	26.9
Opportunities for research	8.7	0.8
Opportunities to attend professional meetings	1.0	0.0
Desirable environment	7.1	1.5
Freedom and independence in work	16.7	15.4
Other	6.4	3.1
Appreciation and rewards		
Security (salary, tenure, etc.)	1.4	1.5
Prestige or general recognition	4.3	4.6
Sense of social usefulness	8.8	8.5
Appreciation expressed by students	3.0	3.8
Recognition by administrators	0.4	0.0
Personal satisfaction	4.5	7.7
Other	0.0	0.8

Note: Tables 12 and 13 are based on comments from 706 faculty members of Minnesota colleges. Each participant described the major satisfactions in his faculty service; replies were categorized to retain their original meaning as much as possible.

Source: Ruth E. Eckert and John E. Stecklein, *Job Motivations and Satisfaction of College Teachers: A Study of Faculty Members in Minnesota Colleges* (Washington: U.S. Office of Education, 1961).

TABLE 13

MAJOR DISSATISFACTIONS OF A COLLEGE TEACHING CAREER

Faculty Dissatisfaction ^a	Percentage of Faculty	
	Four-year College (N=576)	Two-year College (N=130)
Demands of work		
Too heavy class load	5.4	9.2
Too long hours	5.7	6.2
Too much preparation	3.0	6.9
Too much work outside teaching	6.6	14.6
Excessive committee work	4.9	5.4
Too much red tape and routine duties	14.4	9.2
No time for study	5.7	4.6
No opportunities for research	5.2	2.3
Other	4.7	5.4
Working conditions		
Poor or unmotivated students	12.0	14.6
Poor faculty attitudes	1.2	1.5
Narrow interests of colleagues	5.0	3.1
Poor intra-faculty relations	3.5	2.3
No policy making by faculty	4.3	3.8
Poor facilities	4.9	3.9
No opportunity to attend professional meetings	1.0	0.0
Classes too large	3.0	0.8
Other	5.2	3.8
Appreciation and rewards		
Poor salary	47.2	43.9
Low status of profession	1.9	3.1
Inadequate appraisal of work	0.9	0.8
Little student appreciation	0.4	2.3
Little recognition for good teaching	1.2	0.8
Little appreciation of contributions	1.9	1.5
Degrees overemphasized	1.7	1.5
Stress on research too great	1.0	0.0
Slow promotions	1.6	1.5
Other	1.7	3.8

^aSee note, Table 12

Source: Eckert and Stecklein, 1961.

prestige, and recognition were not mentioned as important. Professional and research opportunities also received surprisingly little attention. These patterns of satisfaction held true for faculty on the average in a wide-ranging cross sample of institutions, but the pretensions of "the academic profession" were otherwise. In his study, Brown (1967) found that these factors mattered more. Like Eckert and Stecklein, he found that working conditions were most important in determining why a faculty member chose one institution over another. However, professional matters, such as salary and institutional reputation, followed second. Of least importance were environmental factors, a finding supported in Eckert and Stecklein's data by its absence.

Closer to the ideals of "the academic profession" was the sample of ten major universities used by Caplow and McGee (1965, p. 23). Department chairmen and peers reported "personal reasons" for a faculty member *leaving* but status, prestige, and recognition as reasons for a new faculty member *coming*. They guessed that their old colleague chose his new job because of salary, work duties, and location. The character of the sample is important; different answers came from different segments of the academic profession. But more than sampling obscures our understanding of why people enter college teaching and what satisfactions they find. Signs pointing to a complex area for further research included the simple statistic that about 33 percent of all faculty in the United States did not have PhDs. Consider, also, that 42 percent of all faculty in four-year colleges once taught in an elementary or secondary school, and that another 24 percent came from nonacademic work, such as business, government, the military, and self-employment (Dunham et al., 1966, p. 27). These are people about which little is known.

Recruitment and Promotion

Turning to recruitment styles and techniques, more information is available on institutional careers. Forty percent of the faculty in Minnesota colleges began their institutional career with an unsolicited offer (Eckert & Stecklein, 1961). This high percentage contrasts sharply with the intricate manipulations in elite institutions portrayed by Caplow and McGee (1965). They summarized, "[T]he specific procedures of hiring in the American university...turn out to be almost unbelievably elaborate... [requiring] a large part of the time of twenty high-skilled men for a full year..." (p. 97). They distinguished between two usual

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types of recruitment: " 'open,' or competitive hiring, and 'closed,' or preferential hiring. In theory, academic recruitment is mostly open. In practice, it is mostly closed" (p. 93).

Caplow and McGee's description of the ideal process is followed here by reality's modifications:

In the theoretical recruiting situation, the department seeking a replacement attempts to procure the services of an ideal academic man. Regardless of the rank at which he is to be hired, he must be young. He must have shown considerable research productivity, or the promise of being able to produce research. He must be a capable teacher with a pleasing personality which will offend neither students, deans, nor colleagues. In order to secure the very best man available, the department simultaneously announces the opening in many quarters and obtains a long list of candidates named by their sponsors. When a sufficient number of high-caliber candidates have applied for the position, the department members sift and weigh the qualifications of each most carefully in order to identify the one who best meets their requirements. [At this point, the final decision goes to the dean of faculty and then the president for approval, or some such other "rubber stamp" procedure.] This is the model hiring situation. It is a stereotype of the profession, and it actually occurs in a small percentage of cases. Indeed, some elements of the model situation are present in almost every vacancy—and-replacement, but the outlines are blurred and distorted by a host of other factors.

The most common of these distorting factors is the preferential treatment of some candidates, based on an association between themselves and the hiring department [p. 93].

Academic nepotism runs through the analysis by Caplow and McGee. In substantiation, Brown (1967, Ch. 4) reported that 83 percent of the faculty in the Top 12 universities received their highest degree from one of the same 12. Candidates' writings may not be carefully read, and much of their work record may be ignored; what mattered was reputation and sponsorship.

Caplow and McGee's study has been subjected to several major criticisms: It has been accused of using the journalistic technique of treating the extreme as normal. Its sample was small and biased toward major universities. The information was all second-hand, estimates by department chairmen and one peer (how he was chosen is unclear) of why and how men came and went. Yet, the popularity of the book, 15 years after the interviews, suggests that the authors struck responsive chords for many academicians.

These features of recruitment have been around for some time. Wilson (1942, Ch. 3) described a similar structure, where departmental reputations determined the doctorate's job, and his

TABLE 14

EVALUATION OF MARKET INTERMEDIARIES

Market Intermediary	Frequency of Use		Efficiency (Use/Jobs Found)		Desirability (Jobs Found/Accepted)		Importance (Average Rank, Columns 1-3)
	Percent	Rank	Percent	Rank	Percent	Rank	
Informal							
Faculty colleague	20.0	6.0	35.0	3.0	31.0	1.0	3.3
Other professional friend	25.0	5.0	32.0	4.0	30.0	2.0	3.7
Graduate professor	40.0	2.0	30.0	5.0	21.0	5.0	4.0
Graduate department	32.0	4.0	19.0	8.5	11.0	9.5	7.1
Undergraduate professor	16.0	8.0	19.0	8.5	25.0	4.0	6.8
Graduate classmate	17.0	7.0	18.0	10.0	29.0	3.0	6.8
Publisher's representative	2.0	16.0	10.0	14.5	11.0	9.5	13.5
Formal							
Blind letter	46.0	1.0	41.0	2.0	20.0	6.0	3.0
Commercial agency	7.0	12.0	43.0	1.0	13.0	7.0	6.7
Answers to advertisement	9.0	11.0	22.0	6.0	12.0	8.0	8.3
College placement office	36.0	3.0	17.0	11.0	7.0	13.0	9.0
Church-related service	5.0	13.0	20.0	7.0	10.0	11.0	10.3
Convention placement service	14.0	9.5	14.0	12.5	6.0	14.0	12.0
Professional association	14.0	9.5	14.0	12.5	9.0	12.0	13.3

job reflected on the department's image. An investigation by the American Association of University Professors in 1929 of 117 institutions found that 26 percent of the replacements and additions came from the institution's students, 22 percent from friends in other institutions, 11 percent from university appointment bureaus, and 10 percent from personal applications, commercial agents, and chance recommendations.

In a recent study of recruitment, Brown (1965) used a national sample selected from all four-year, degree-granting institutions. Brown's findings, more general and reliable than those of earlier studies, held true for all layers of higher education.

Brown sent questionnaires directly to faculty in new positions, not to institutions or to colleagues. Fifty-eight percent judged market information good, 7.4 percent judged it excellent. Of course, those who thought they got an excellent job reported better market information.

In 1965, 16.6 percent of all professors were in their first year of a new job, an impressive rate of turnover reflecting in part a bullish market. Sixty-five percent had found jobs through informal methods, the approach always tried first. Eight percent of the best and 68 percent of the worst jobs were located this way. In particular, 23 percent found jobs from unsolicited offers, 18 percent from contacts in the graduate department, and 15 percent from a colleague or friend. In general, 13 studies of academic recruitment since 1920 indicated a correlation between high prestige and great use of informal methods. People at a disadvantage (young, old, disgruntled, those at small colleges) had to use more channels and spend more time job hunting.

These were the major patterns in academic job hunting. The faculty mentioned 16 channels of market information, and Table 14 analyzes their frequency of use and their success. Although not broken down by job quality, Table 14 reveals that, for the nation as a whole, blind letters worked well due simply to sheer volume. Using colleagues and friends (including old classmates) was still most effective. While faculty did not use commercial agencies often, agencies located jobs more efficiently than any other means. Presumably, the choices offered were not too attractive, and faculty turned down many. Overall, the informal market structure dominated job hunting, especially in finding positions that faculty actually accepted.

Those who hire faculty look for certain attributes. In Table 15, Parsons and Platt (1968a) show that criteria for hiring depended on the rank to be filled and the type of institution. In comparing assistant with full professors, criteria differed among

TABLE 14
EVALUATION OF MARKET INTERMEDIARIES (Continued)

Market Intermediary	Frequency of Use		Efficiency (Use/Jobs Found)		Desirability (Jobs Found/Accepted)		Importance (Average Rank, Columns 1-3)
	Percent	Rank	Percent	Rank	Percent	Rank	
Advertised availability	3.0	14.5	10.0	14.5	4.0	16.0	15.0
Public employment service	3.0	14.5	7.0	16.0	5.0	15.0	15.1

Source: Adapted from David G. Brown, *Academic Labor Markets* (Washington: U.S. Department of Labor, 1965), p. 265.

TABLE 15
 INFLUENCE OF FIVE FACTORS ON HIRING FACULTY, BY SCALE OF INSTITUTIONAL DIFFERENTIATION (SID)

Factor	SID Level					
	Full Professors (N=372)			Assistant Professors (n=392)		
	High	Medium	Low	High	Medium	Low
Personality	2%	3%	16%	4%	5%	21%
Teaching ability	3	17	55	7	30	61
Disciplinary reputation	43	40	26	29	24	15
Reputation as a specialist	29	29	3	8	7	3
Research promise	23	11	0	52	34	0
Total	100	100	100	100	100	100

Source: Parsons and Platt, 1968a, p. vii-34.

the better, research-oriented institutions but not among the low-level ones, reflecting the existence of a disciplinary career at the former but not at the latter. When a candidate was young, his research potential and nascent reputation were emphasized; when he matured, his reputation, particularly as a specialist, was emphasized. Teaching ability did not matter much, nor did personality. In hiring, as in socialization and time allocation, research and reputation dominated. At low-level institutions where a career was largely institutional and work centered on instruction, teaching ability and a congenial personality mattered most.

Criteria for promotion are important to study because they reflect directly the values of the academic profession. The criteria have not changed in nature for decades, but the emphasis has. A study of factors entering into promotions at the University of Minnesota between 1913 and 1931 found the order of importance to be: teaching 43 percent, productive scholarship 28 percent, student counselling 12 percent, administrative work 11 percent, and public service 6 percent (Wilson, 1942, pp. 101-102). Because measurement procedures are not given, this study is hard to evaluate, and the lack of more early data makes the historical trend difficult to assess. We can say, however, that the five Minnesota criteria are still used, but the importance of productive scholarship has spread to more and more institutions.

Academicians feel that the quality of teaching cannot be easily measured. Indeed, it is seldom even observed. Teaching is important only in so far as it is adequate. Logan Wilson astutely notes that the demand for good teaching comes from below; that for research from above (Wilson, 1942, Ch. 10). Jacques Barzun conveys the same impression today:

Some effort, it is true, is made to recognize the stay-at-homes who do the most constructive teaching and thereby ballast the balloon. Money and honor are bestowed on such men in the form of Distinguished Teacher Awards. The students feel strongly and turn out in force to applaud. The trustees are sincere in their congratulations. But the aroma of the consolation prize clings to these distinctions. Even on his own campus the "great teacher" can be explained away as a lovable man of average competence—"not enough for a great university." His counterpart, the average man of research, lovable or unlovable, is still felt to be worth more. The difference tells us what society, in its loving dependence on the new university, instinctively seeks and willingly pays for (Barzun, 1968, p. 62).

Parsons and Platt have shown in their pilot study that the relative importance of teaching and research in promotion, as in

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hiring, depends on the type of institution. Promotion criteria are important to study, because they directly reflect the values of the academic profession. The criteria have not changed in nature for decades. To reach a decision to advance a faculty member at highly differentiated institutions, respondents ranked research as a major criterion seven times more often than teaching ability. In middle-level institutions, these criteria received equal weight, and in low-level colleges, research was of no importance.

The emphasis varied among fields as well. Research was cited three times more often than teaching as a promotional factor of "first importance" in the natural sciences. In the social sciences, research was considered more important than teaching by a ratio of about 4:3. Only in the humanities was teaching more often mentioned as of primary importance in promotion, and then only by a small margin. When the issue was distilled to the simple "publish or perish" maxim, the results showed that the norm came from the top. Once again, the imperative to teach conflicted with the activities most rewarded in the profession (Parsons & Platt, 1968a, pp. vii-35,36).

Caplow and McGee (1965) wrote:

Perhaps the leading problem for the individual faculty member is the incongruity between his job assignment and the work which determines his success or failure in his own discipline. As we have seen, most faculty members are hired to teach students and to bear their share of responsibility for the normal operation of the university as an educational organization. These are the duties for which they are paid and which they must perform. Although in most occupations men are judged by how well they perform their normal duties, the academic man is judged almost exclusively by his performance of the part-time voluntary job which he creates himself. Not only does his career depend upon these supplementary efforts, but there is a tendency for his superiors to punish successful performance of the tasks for which he is hired. It is only a slight exaggeration to say that academic success is likely to come to the man who has learned to neglect his assigned duties in order to have more time and energy to pursue his private professional interests (p. 189).

While research matters, not any research will do. Efforts must be published and "failures do not count," interesting though they may be. A bonus went to quantity, spectacular results, or surprises found amidst the mundane (Wilson, 1942, Ch. 11). These subtleties still make for prestige and distinction in the academic profession.

Finally, research styles varied according to age or experience (Table 16). Younger faculty tended to do specific, empirical, disciplinary research, while faculty over 40 tended to do broad,

TABLE 16
 PERCENTAGE OF RESEARCHERS IN AGREEMENT WITH RESEARCH DICHOTOMIES, BY AGE

Researcher	Research Dichotomy					
	Specific	Broad	Empirical	Theoretical	Disciplinary	Interdisciplinary
20-39 years old	57%	37%	52%	39%	57%	42%
40 years or older	29	60	32	44	32	58

Percentages do not add to 100 because miscellaneous responses are not reported.
 Source: Parsons and Platt, 1968a, p. vi-47.

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theoretical, interdisciplinary work. These stylistic differences may be explained several ways: A scholar's career may move him toward general concerns. Or the two age groups may represent different eras, the more recent one being more scientific. More specific, empirical, disciplinary research may be necessary for advancement in the field and institution. Or, finally, older, established (and often tenured) faculty may be more at liberty to pursue broader questions.

Different Academic Markets:

Institutional career patterns have been only partially studied. American higher education is composed of institutional spheres: Catholic institutions, women's colleges, research universities, traditional black colleges, metropolitan spheres, regional clusters, and networks of state institutions. Everett C. Hughes has long urged that these spheres be studied. In terms of careers, most faculty probably move only within their own spheres. A reasonable hypothesis is that they form distinct academic markets.

Since different markets exist for each discipline, "the academic marketplace" is a myth (Light, 1973). As Brown (1965, Ch. 3-4) pointed out, a market implies substitutability, but a psychologist cannot teach physics. Markets even exist by subspecialty. Thus, the terms should be "the academic marketplaces" and "the academic professions." From the career perspective, the literature does not provide the necessary data. A useful career and market study would explore each decision (and nondecision) of a professor with close attention to his options and contacts. What values, family pressures, and human ties went into his institutional career? Although Brown (1965, Ch. 7) did not make this kind of study, his report on academic markets is the best available. He found that markets vary by institution. Some colleges seek teachers, some publishers, and some only those with doctorates. Some select only "stars" with proper configurations of all these factors. Most important are "house markets" for hiring and promoting from within institutions. Brown called giving priority to one's own faculty "balkanization." The opposite of balkanization is "raiding," a practice not unknown in academic life. Prestigious, wealthy, or aspiring institutions often are able to recruit from the tenured ranks of other institutions (Walton, 1970).

The market is separated by sex. Because of widespread discrimination, women fare poorly in nearly all aspects of their academic careers (Newman et al., 1971, Ch. 11). Their starting

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salaries are lower than those of men with similar qualifications within disciplines and institutions and at each rank (Endicott, 1970; Hall, 1969; *Salaries*, 1966; Simon, Clark & Galaway, 1967, pp. 221-235). A few years ago, women constituted 18 percent of all faculty, but 32 percent of instructors, 20 percent of assistant professors, 15 percent of associate professors and 9 percent of full professors (Simon et al., 1967). Women are victims of low expectations, and their aspirations declined as they went through school (Graham, 1970, pp. 1285-1286; Keniston, E., & Keniston, K., 1969, pp. 355-375). Women took two to five years longer to become full professors in the biological sciences and up to ten years longer in the social sciences (*Careers of PhDs*, 1968). That women are "poor investments" in terms of education is doubtful. Among women earning PhDs in 1957-58, 90 percent were still employed in 1964, and 79 percent had worked uninterrupted during that period (Astin, 1969). Married women, on the average, published more than men or unmarried women when employed full time (Simon et al., 1967). Though conditions may be improving, women earned a smaller proportion of MAs and PhDs in the 1960s than in the decades from 1920 to 1940 (*Trends*, 1969). Also, women's salaries compared with men's salaries dropped 5.7 percent between 1955 and 1968 (*Fact Sheet*, 1970). Although little comparable information on actual career line differences between women and men exists, clearly, women face many more obstacles in the pursuit of an academic career.

Academic markets were also divided by religion. Catholic and Protestant colleges overhired the Catholic and Protestant teachers, compared with the teachers' respective proportions in the general population; at Catholic Colleges, the ratio was 4.5:1. Moreover, these colleges overhired graduate students who once went to denominational colleges, and they stole faculty from their own institutional circle. Similarly, Catholic and Protestant persons preferred denominational colleges as employers (Brown, 1967, Ch. 4).

There were racial and ethnic markets as well. Certainly, higher education has practiced discrimination against blacks and other minorities, despite the self-conscious liberalism of academic institutions. These groups are clearly under-represented, and the scramble to equalize employment has only recently begun. Patterns of discrimination against blacks may correspond roughly to those against women, but the nature of these markets is presently unspecified. The history of predominantly black colleges, their present situations, and the changes in access to higher education make the study of these markets, especially in terms of selection in all phases of the academic career, a research priority (see

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Bowles & De Costa, 1971; Egerton, 1971; Jencks & Riesman, 1968; Newman, 1971).

Regional markets have changed. Brown (1967, p. 35) found evidence that these markets were becoming national. Almost 50 percent of the faculty taking new jobs moved over 500 miles, and 26 percent moved over 1,000 miles; only 14 percent stayed where they were. But old ties still played a part. Over 50 percent took jobs in the region where they went to high school or college or took their doctorate, and 40-60 percent rated their present region as ideal for teaching. The "typical" full professor had moved three times to achieve that highest rank. Brown stated that if good facilities to train academic manpower existed in each region, everyone would be happier.

Markets exist for different ranges of quality; but in academic markets, unlike many economic markets, one gets more of everything by going to the best places. The pay is higher, the work load lighter, the research facilities better, and the opportunities for advancement and reputation greater. The best image for quality markets is one of overlapping circles. Mobility is quite possible, although, as noted earlier, 83 percent of the faculty in the Top 12 graduate universities received their highest degree from those 12 institutions. Among faculty moving to other jobs, only 30 percent stayed in the same quintile of quality; 40 percent descended and 32 percent ascended. In the top quintile, 73 percent descended and 14 percent ascended to the top 10 percent of institutions (Brown, 1967, Ch. 4). Mobility patterns are strongly shaped by the expansion or contraction of a field.

Although faculty moved between large and small institutions, more faculty moved to the large colleges and universities. It is not clear, however, that different sized institutions formed distinct markets. Faculty in small colleges were out of touch, of course, and employed more formal channels of job hunting.

Faculty also moved in and out of the academy. Some national data sketch the patterns of this flow. In 1964, Brown (1965, p. 180) established that 8,650 new faculty came from nonacademic jobs, more than 25 percent of all newly hired faculty for that year. Primary and secondary school teachers contributed 2,800, 1,800 came from business, 950 were in government, another 250 were in the military. Three hundred were administrators in higher education. "Others" numbered 2,400, including housewives and postdoctoral fellows.

A detailed study of academic and nonacademic careers, commissioned by the National Academy of Sciences during the period 1935-1963, showed that the proportion of PhDs that pursued careers exclusively inside or outside academe grew

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slightly. In other words, fewer people switch today. Overall, 50 percent remained in academic careers and 25 percent remained exclusively in nonacademic careers. By discipline, the proportion of doctorates exclusively in academic employment was 33 percent for the physical scientists, 50 percent for the biological scientists, about 55 percent for the social scientists, and about 65 percent for the humanities (*Careers of PhDs*, 1968, pp. 12-13).

Data on the six doctoral cohorts between 1935 and 1960 permit examination of recent historical patterns in PhD employment. Many earning PhDs in 1935 and 1940 left academe to pursue war-related activities during 1940-1945, and fewer returned after the war to academic jobs.

For the 1935 graduates (cohort 1), following the end of World War II, there was an exodus from both military and civilian service of the government into academic employment in 1950, and thereafter there was little gross change in the employer categories. (Cohort 2) was somewhat different, in that the business-and-industry segment of the economy absorbed a much larger proportion of this group than any other cohort, and this proportion grew consistently from 1940 through 1955, when it became stabilized. The 1945 graduates (cohort 3) were unusual in their subsequent experience, perhaps due to the fact that the great expansion of higher education following World War II came just in time to involve this group maximally in academic activities. An unusually high proportion went to work immediately in colleges and universities and this proportion has remained higher than for either earlier or later cohorts at similar stages in their careers. The 1950 graduates (cohort 4) experienced an increasing degree of employment in business and industry through the first 15 years of their post doctoral careers, as did graduates of 10 years earlier. The careers of 1955 and 1960 cohorts are too brief to show a great deal in the way of patterns through the period available for study here (*Careers of PhDs*, 1968, pp. 3-5).

The proportion of PhDs switching between academic and nonacademic employment has been declining steadily. Overall, 13 percent switched to academic careers, while 14 percent switched to nonacademic careers.

Do those pursuing nonacademic careers differ from those in academe? An extensive analysis of predoctoral variables, such as: "age at high school graduation, BA and PhD, honors as an undergraduate and as a graduate student, education of father and mother, and high school class size," showed no significant relationships to category of employment (p. 16). But the differing work conditions may account for career choices. Nonacademic employment has consistently paid more and offered larger annual increments (pp. 33-38). Those leaving academic life could expect

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to spend more time on research and administration and less in teaching. Conversely, those entering an academic occupation would find themselves teaching three to four times as much with significantly less time for research and administration (pp. 54-57). Thus, the desire to teach or not to teach would seem an important influence on career choice.

The difference in professional activity between the switchers and those in the group they leave support this inference. Professors about to switch taught less than those who stayed; researchers about to take academic posts taught more than their colleagues. Then, after a person switched, his use of time reflected old habits. Thus, a new professor from a nonacademic job taught less than faculty who had always held their jobs, and vice versa. In sum, people about to switch used their time in a manner similar to those they would soon join, but, after the switch, they retained the activity profile of their old job. The total work week showed the same patterns. Academicians worked 50 hours; nonacademicians worked 45 hours. Switchers carried their old week with them, but slowly adjusted it to the average in their new environment (pp. 54-59).

Historically, these patterns have diminished. The number of PhDs who change *fields* has also decreased. These PhDs may be divided into two groups; those who remained in either academic or nonacademic jobs (nonswitchers) and those who changed employment in either direction (switchers). The switchers changed fields three and one-half times more often than the nonswitchers. In 1940, 7.5 percent of the switchers and 2 percent of the nonswitchers changed specialities. For the period 1950 to 1963, these averages flattened out to 3.5 percent and 1 percent respectively. When people who switched employment also changed field, they were much more likely to make the change in field before switching (pp. 54-63).

The complex of barriers and loops that is the academic market contrasts with the assumptions of the perfect market with its (1) unrestricted entry and exit; (2) complete movement; (3) costless, instantaneous maximization; (4) decisions based on profit maximization; and (5) decisions made independently by demanders and suppliers. The data suggest that real academic markets are far from perfect.

Summary and Further Research

The data on institutional careers, as the following examples indicate, merely outline the sociological reality. They show how

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academicians *claim* to allocate their time, but the choices that produce that weekly profile and the manner in which that time is used remain unknown. Faculty show consistent preference for research, but, given the amount of college teaching, these data only *indicate* the complex structure of an academic career. Professors told Parsons and Platt that, overwhelmingly, they would rather make a contribution than gain a reputation or a salary increase — another signpost to a complex reality. On the other hand, far more professors were dissatisfied with salary than anything else (Table 12) and took jobs that increased income. Blau (1973) found that offering good salary correlated more highly with attracting faculty with doctorates than any other institutional attribute.

Unfortunately, few investigators have built on the findings, hypotheses, or measures of previous studies. To do so would help to advance the knowledge. In addition, variables have been measured crudely. Some investigators have actually contented themselves with combining the entire spectrum of higher education into one category. More refined studies have combined all universities (San Jose State and Stanford) and all four-year colleges (Radcliffe and Emerson). Simply by dividing approximately 2,000 institutions into half a dozen groups, Parsons and Platt made a significant contribution.

The most neglected area of research about academic careers remains the *experience* of going through one. The conflicting demands, rewards, and dissatisfactions converge in each academic career. The ideals and practices in academic life diverge, and this duality shapes important career experiences. The university is an association of equals, yet hierarchy is everywhere. Universalistic ideals are adulterated by particularistic practices. Career experiences should be carefully studied. One seeks here not only human interest stories but also the knowledge of how human factors affect intellectual activities. Little scientific attention has been given to the impact of university structure on faculty experience.

5 The External Career

Major questions about the role of the faculty and the functions of the university in society revolve around the external activities of professors. That the discipline and the institution occupy most of the academic career may be inferred from available information, but the facts are probably more complex. Because they seek more income, faculty constantly vie for outside projects.

Although little is known about it, the external career is important. Dunham (1966, p. 36) has stated, "of all faculty, 70 percent engaged in professional activities not connected with their institutional position." Earnings from summer employment, royalties, fees, and other professional activities of faculty on nine-month contracts produced a median of \$1,500 and a mean of \$2,200 in 1961-1962 (p. 40). Since the average professor earned \$8,300 that year, the median represents over 18 percent additional income for the nation as a whole.

Consulting is an important external activity. When Dunham conducted his study, consulting consumed an average of 2 percent of faculty time, varying by discipline and by institutional prestige. Small as the time was, Parsons and Platt (1969, C-2) found that 38 percent of the faculty at prestigious institutions consulted. This proportion decreased to 18 percent at low-level institutions. Fulton and Trow's figures were higher: a constant 67 percent at top- and middle level institutions (1973, Tbl. 13). Why these figures differed so sharply is unclear. Fulton and Trow also broke down consulting by faculty activity in research and publishing. The average figure of 64 percent ranged from 54 percent for those who

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were inactive to 74 percent for those who were most active at top-to middle-level institutions.

The volume of external activity depends on the state of the market and academic skills. That fact, however, says little about success in the external career. Success in the disciplinary or institutional strand should create the potential for increased external activities. Information is so scant that any research would help, particularly a study of consulting. By restricting the sample to those who consult, the switching between strands and activities, which contributes to opportunities and advancement in the external career, could be pursued in depth. Answers are needed. Who does what, for whom, why, and for what return? The answers will not always be pleasant, as students found who studied Stanford faculty and their connections with military projects (Glantz, 1972).

Despite market fluctuations, academicians probably do more consulting for compensation today than ever before. The lack of knowledge about this activity might be attributed to the rise of the consultant as a recent phenomenon. Also, faculty might prefer that consulting activities remain their own affair and, therefore, discourage investigation. Yet, enough people are concerned about faculty fulfilling institutional obligations to warrant some examination of outside activities.

Consulting is only one part of the external career. There are other external activities about which even less is known, such as volunteered time, skills, and services based on disciplinary abilities. Clearly the external career is a residual rag-bag both in concept and in research. Yet those aspects of the external career by which faculty link their universities to the military-industrial complex have been one of the most profound effects of the academic revolution. It has altered the position of faculty in society at large and therefore blurred the very distinction between internal, academic work and external activities. Does it reflect professional self-interest that studies of faculty have not examined the research-consulting tangle that has become so prominent in academic careers since World War II? Until psychologically and politically more sensitive research is done, the impact of the academic revolution on faculty can not be fully known.

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