



Conflict in Academic Departments: An Analysis of Disputes over Faculty Promotion and Tenure

Author(s): James C. Hearn and Melissa S. Anderson

Source: *Research in Higher Education*, Vol. 43, No. 5 (Oct., 2002), pp. 503-529

Published by: [Springer](#)

Stable URL: <http://www.jstor.org/stable/40197270>

Accessed: 16/09/2014 18:25

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at
<http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Springer is collaborating with JSTOR to digitize, preserve and extend access to *Research in Higher Education*.

<http://www.jstor.org>

CONFLICT IN ACADEMIC DEPARTMENTS: AN ANALYSIS OF DISPUTES OVER FACULTY PROMOTION AND TENURE

James C. Hearn*† and Melissa S. Anderson*

Because the academic department is the foundational unit of U.S. universities, conflict in that setting is both theoretically and practically important. This analysis focuses on divisiveness in votes for promotion and tenure in departments at a large research university. The findings suggest that the departments most likely to experience very split voting patterns are those with larger instructional loads for faculty, low levels of internal curricular specialization, and "soft" disciplinary paradigms. The implications of these results for research and practice are discussed.

KEY WORDS: conflict; academic departments; faculty; tenure.

The academic department is the foundational unit of U.S. universities. Curricula, degree programs, grading practices, research initiatives, and faculty careers are shaped there, and it is there that the notion of shared academic governance is most developed (Clark, 1983; Peterson, 1976). The emergence of conflict in an academic department is, at minimum, a sign of tension and potential transition in the unit and, at maximum, a deterrent to short-term and even long-term accomplishment in the department. In what kinds of departments does conflict tend to arise? Addressing that question is important for both theory and practice.

CONCEPTUALIZING THE ORIGINS OF ORGANIZATIONAL CONFLICT

Research on organizational conflict suggests that differences in individual personalities, values, goals, and interests contribute to conflict, as do subunit differences in cultures, values, goals, interests, and opinions about the proper

*James C. Hearn, Vanderbilt University. Melissa S. Anderson, University of Minnesota.

†Address correspondence to: James C. Hearn, Department of Educational Leadership, Policy, and Organizations, Box 514, Peabody College, Vanderbilt University, Nashville, TN 37203. E-mail: j.hearn@vanderbilt.edu

allocation of organizational resources (Clark, 1988; Pfeffer, 1981). Clearly, conflict can arise for a variety of reasons and can take on a variety of shapes.

Seeking order out of this complexity, analysts have identified three major domains of organizational conflict: relationship-based, task-based, and process-based (Coser, 1956; Guetkow and Gyr, 1954; Jehn, 1992, 1995, 1997; Pinkley, 1990). Relationship-based conflicts focus on interpersonal tensions, task-based conflicts focus on which substantive tasks should be pursued, and process-based conflicts focus on disagreements about how selected tasks should be accomplished. Research on the effects of these various kinds of conflict suggests that conflict is not necessarily a negative force in organizations. Jehn (1995, 1997), for example, has found that task-based conflict in corporations can sometimes reduce complacency and aid productivity. Unlike task-based conflict, however, relationship- or process-based conflict rarely leads to positive outcomes and more often harms group satisfaction and performance (Jehn, 1992, 1997).

Although the three-way typology of domains of conflict is straightforward and useful, organizational conflict is deceptively complex. There is evidence that high importance of the issue at hand and low likelihood of resolvability can intensify conflict's deleterious effects on performance (Jehn, 1997; Peterson, 1983; Thomas, 1992). Thus, the effects of the three kinds of conflict may be strongly contingent on context, making analysis conceptually and methodologically challenging (Nelson, 1989).

More fundamentally, the three-way typology may conflate conflict's cause, manifestation, and effects. That is, the typology may oversimplify the notion of the base of conflicts. To suggest that a conflict is relationship based, for example, is largely to note that the conflict has become apparent through interpersonal differences. This begs the deeper question of what organizational conditions set the stage for such disagreements. For example, if an older white male vice-president in a conservative, struggling bank argues with a fast-rising young Latina vice-president over an advertising campaign proposed by a junior Latino employee, do we learn more by trying to characterize this event under the three-way typology (is it interpersonal? task based? both?) or by seeking to understand it as a possible result of underlying structural conditions? Viewed through the latter lens, the vice-presidents' argument may be a behavioral manifestation of deeper fault lines relating to the organization's demography, working conditions, and the like.

This notion of conflict reflects Merton's (1968) propositions that (a) underlying conditions of conflict in social systems may produce manifest conflict episodes or may remain latent, and (b) the behavioral manifestation of underlying conflict (e.g., an argument over an individual's proposed advertising campaign) does not necessarily redress the underlying conflict condition and may even take on a rather different focus. Viewed alone, the behavioral details of such episodes may mislead analysts about underlying structural roots of conflict. Thus, argu-

ably, taking a more "structural" approach to the study of organizational conflict can lead to greater insights for theory, research, and practice.

CONFLICT IN ACADEMIC DEPARTMENTS: A THEORETICAL PERSPECTIVE

Most research on organizational conflict has been conducted in nonacademic settings. Clearly, however, the university and the academic departments within it are not immune to conflict. Baldridge (1971) was among the first to highlight its pervasiveness and significance in contemporary higher education, but there is evidence that conflict has been a part of academic life since ancient times (Holton, 1995). Indeed, Gmelch and Carroll (1991) argue that the structural, functional, and relational features of academic departments virtually guarantee conflict in that setting. In their view, conflict is "sewn into the fabric" of departments (p. 110). Analysts have speculated on positive as well as negative effects of departmental conflict. Gmelch (1995), for example, has claimed that conflict in academic departments can have positive effects in helping to "define issues, resolve issues, increase group cohesion, establish alliances with other groups, and keep faculty alert to one another's interests" (p. 35). Such reasoning is provocative, but there is notably little empirical evidence on the effects of various kinds of conflicts in departments.

As to the *origins* of conflict in academic units, faculty remembering past disputes often emphasize interpersonal factors, such as the roles of warring individual personalities, in the emergence of departmental conflict. Interpersonal conflicts are common and painful in academe. Institutions are increasingly seeking to heal such rifts before they widen, are using conflict specialists and even psychotherapists (Wilson, 1997). Most academic departments bear the scars of past battles, and faculty naturally seek to attribute causation for such events. Individual personalities are understandably easy targets for blame over painful episodes. Yet, differences over departmental goals, programs, and practices are also common, and, as noted above, it is often difficult to distinguish interpersonal factors from other factors as causes of disputes in organizations. The analysis of the origins of academic conflict requires a more nuanced, structural approach.

Along those lines, the literature provides numerous hypotheses regarding structural factors likely to promote departmental conflict, including instructional loads and variations in specializations and priorities within academic units (Biglan, 1973b; Clark, 1963; Fox, 1992; Gumpert, 1993; Leslie, 1972). Together, structural forces can make conflict likely in the typical university department. However, as in the case of the effects of departmental conflict, there is little hard empirical evidence on the role of such factors in the origins of departmental conflict.

Faculty Advancement as a Focus of Departmental Conflict

Within the university, there are few if any governance matters so critical to present and future well being as decisions about who will advance in the ranks (Tierney and Bensimon, 1996). Disagreements around individual promotion and tenure (P & T) cases may, therefore, be the most fundamentally important kind of conflict an academic unit can experience (Holton and Phillips, 1995).

Interestingly, dissensus over P & T cases can highlight the argument introduced above; conflict that involves specific individuals in a department is not necessarily entirely, or even in good part, relationship based. Individual and interpersonal matters can be linked with conflicts around specific departmental tasks and processes, and all these factors can be rooted in fundamental structural divisions. Evaluations of colleagues for promotion and tenure involve some of the academy's most fundamental assessments of legitimacy. Those assessments focus not only on the individual candidate's record, but also on the arguments and evidence used to support positive vs. negative votes. Thus, judgments about individual faculty members may diverge along the same lines as judgments about broader matters, such as departmental goals (Leal, 1995; Smith 1989).

For example, junior faculty performing well in the classroom but less well in the research laboratory may find supporters among those who give high priority to the departmental goal of teaching and may find detractors among those more research oriented. Faculty disagreements about such a candidate's qualifications for tenure or promotion are likely to be grounded in differences in priorities and values regarding research and other professional tasks. Should a department be split in such a way that a forthcoming P & T vote is viewed as a contest between two camps around research vs. other professional priorities, the resulting competition can lead to a split vote over an individual candidate, even if achieving consensus over a vote might be in the department's interest over the long term (Janssen, Euwema, and Wolfgang, 1993).¹

Experienced from the inside, disagreement about individual professors' qualifications for advancement can threaten productivity and satisfaction. Viewed from the outside, such disagreements may send critical constituencies a signal of significant discord over basic departmental directions. The genesis of this form of intradepartmental conflict is important on a variety of levels and clearly merits research attention.

A Model of Departmental Conflict over Faculty Advancement

The research literature suggests that demographic, disciplinary, and organizational factors may contribute to conflict over promotion and tenure decisions. Figure 1 presents a simple diagram of this conceptualization. Note that the conceptualization follows the line of argument advanced above: the most productive

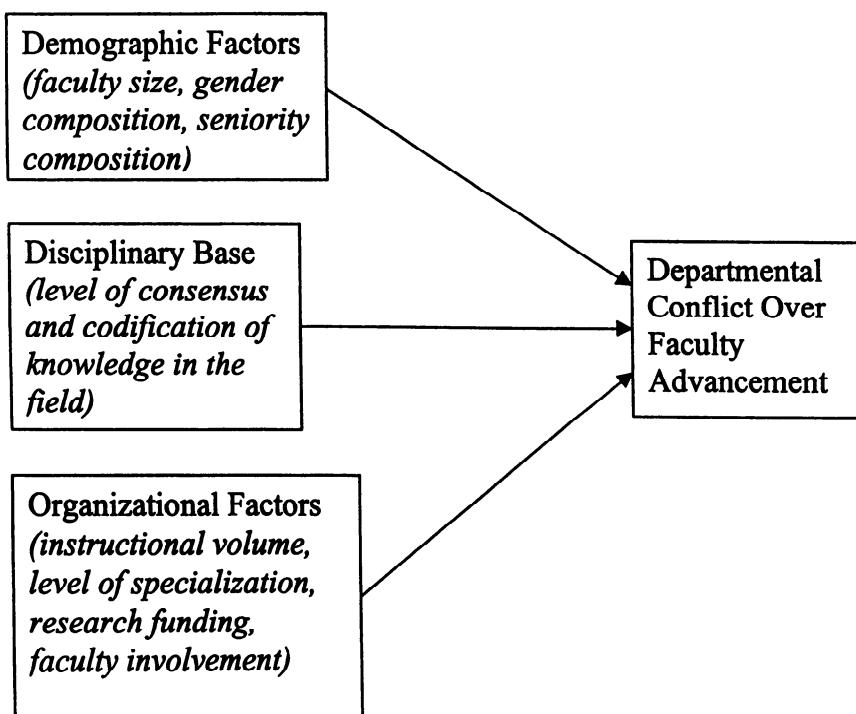


FIG. 1. A Conceptualization of factors influencing departmental conflict over faculty advancement.

approach to understanding conflict in academic departments is via underlying structural factors, rather than via manifested disputes around personalities, tasks, and processes.

Among the demographic factors of potential influence are the department faculty's size, gender composition, and seniority composition. The effect of *unit size* on conflict might conceivably be positive or negative. For example, large departments may have subgroups (perhaps representing different specializations) in which faculty can find autonomy and satisfaction (Clark, 1983). The atomization prompted by that very specialization, however, can create conflicts when an entire academic unit must act as one. Blau (1973) and Hagstrom (1965) suggest that large size can inhibit social integration in university departments, leading to potential conflicts over faculty appointments, student requirements, teaching curricula, and assignments of student advisees and research assistants. Gmelch and Carroll (1991) suggest, "As . . . size . . . increases, goals become less clear, interpersonal relationships become more formal, departments become

more specialized and the potential for conflict intensifies" (p. 110). In the end, smaller units may be more likely to keep conflict in check.

Connections between the demographic composition of an academic department and the emergence of departmental conflict pose an especially intriguing and largely unstudied area for analysts. One of the most enduring propositions in the general organizational demography literature is that, controlling for other factors likely to influence organizational functioning, conflict in groups rises in concert with increasing demographic heterogeneity (Bacharach and Tolbert, 1992; Carroll and Harrison, 1998; Haveman, 1995; Pfeffer, 1983; Stewman, 1988; Williams and O'Reilly, 1998). As Hearn and Anderson (1998) note, however, the heterogeneity/conflict proposition has been little investigated in higher education.

In corporate settings, many studies have focused on *gender composition* as a factor in organizational conflict. Research by Tolbert, Simons, Andrews, and Rhee (1995) suggests an effect of gender composition on turnover: as a unit's proportion of women increased, they found, turnover also increased, at least until the proportion of women reached the 35–40% range. Such a finding regarding gender-composition "tipping points" supports Kanter's (1977) hypothesis that the growth of a minority group from token status produces increased intergroup competition and conflict. Extending the idea to universities, we might suggest that, as larger proportions of women enter faculty positions in formerly all-male departments, conflict will be more likely.

The *seniority composition* of units also may influence the likelihood of conflict. The age, rank, and experience distributions of academic faculty became increasingly tilted to the upper range in the 1980s and 1990s, as faculty hired in the boom years of the 1950s and 1960s aged. Now, however, many of those faculty are nearing and entering retirement. These retirements arrive at a time of potentially increased demand: the number of 18-year-old youth is once again rising nationally, and growth in the number of older students continues. The pace of faculty retirements is expected to accelerate well into the early 21st century, and institutions increasingly need to hire new faculty to replace them. As a consequence, faculty age, rank, and experience distributions are beginning to tilt to the lower range, and many institutions and academic departments are gradually moving from a "top-heavy" condition to a "bottom-heavy" condition. There are and will be exceptions, of course, but striking change is unquestionably coming in the overall seniority profile of U.S. academic departments. This emerging transition is theoretically and practically important to higher education systems.

The effects of seniority distributions (distributions by rank, age, or length of service) might be of two kinds. First, the central tendency of the overall seniority distribution of a department (that is, the extent to which a department is more or less composed of senior faculty) may be influential: departments with

a large cadre of senior faculty might be less likely to experience conflicts because those faculty share longstanding working relationships and similar backgrounds (McCain, O'Reilly, and Pfeffer, 1983; Pfeffer and Moore, 1980). Second, the heterogeneity of seniority distributions might have effects: faculty distributions highly split along seniority lines may be more likely to produce internal disagreements.² For example, conflict may stem from differences in perspectives on resource distributions among different ranks or from differences in the eras in which faculty were trained, socialized, and admitted to the profession. These demographic differences may contribute to differing research perspectives as well as differing emphasis on research vs. teaching, areas identified by Biglan (1973b) and Fox (1992) as potential sources of conflict. In sum, the level of homogeneity in seniority may affect the ease with which departments are able to make key decisions.

Evidence on this form of the heterogeneity/conflict proposition is scarce in higher education, but there are relevant findings from other settings. Riley, Foner, and Waring (1988) found that corporations with vast age differences tend to experience more internal conflicts over budgeting, funding, and perceived inequalities among age strata. In a study focused on length of service rather than age, Smith et al. (1994) found that corporate top-management teams with diverse levels of experience encountered conflict in decision making, requiring more coordination and monitoring by a CEO. In their review of the literature on empirical connections between organizational demography and conflict, Williams and O'Reilly (1998) found that organizational studies generally show more negative effects of length-of-service heterogeneity than of age heterogeneity.

The *disciplinary base* of a unit may also be a factor in the origins of conflict. A department can be thought of as the intersection of an academic discipline and an institution (Alpert, 1985; Austin, 1996; Coleman, 1973). At heart, faculty are arguably as much members of their scholarly disciplines as they are employees of their particular institutions (Clark, 1983). Not surprisingly, disciplinary differences have been found to be important in understanding a host of issues related to departmental functioning (Baird, 1986; Biglan, 1973a, 1973b; Braxton and Hargens, 1996; Creswell and Roskens, 1981; Neumann and Boris, 1978; Neumann and Neumann, 1983; Smart, 1976; Smart and Elton, 1975; Smart, Feldman, and Ethington, 2000; Smart and McLaughlin, 1974).

A particular focus of research on disciplinary differences is the level of consensus around core issues for the field, such as ideals for theory, research, curricula, and teaching styles. Scholars in this arena (Hargens, 1975; Lodahl and Gordon, 1972; Pfeffer and Langton, 1988; Pfeffer and Moore, 1980) often use the term "paradigm development" to distinguish fields with more codified and systematically delivered knowledge bases (e.g., chemistry, engineering) from fields with relatively dispersed knowledge bases (e.g., sociology, education).

Braxton and Hargens (1996, p. 17) note that the paradigm-development concept is congruent with the "hard-soft" dimension of departmental differences stressed by Biglan (1973a, 1973b). Braxton and Hargens (1996, p. 36) argue that existing research evidence suggests that academic departments in high-consensus fields tend to be "more effective organizations" than those in low-consensus fields, superior both in achieving their goals and in acquiring human and financial resources. Significantly, they note that units in high-consensus fields tend to have more stable funding patterns, more faculty members, more research assistants, higher staff salaries, and fewer student credit hours per faculty member.

For the present analysis, it is noteworthy that there is evidence hinting that a department with an established, consensually agreed-on disciplinary base may be less likely to suffer dissension than a department with a less-developed disciplinary base. In the latter kind of unit, Lodahl and Gordon argue, "continuous struggle to reach consensus in a relatively unpredictable and uncertain environment is likely to produce high levels of conflict, both within and between individuals" (1972, pp. 70-71; also see Bresser, 1984).

One would therefore expect high-consensus fields to exhibit greater agreement concerning criteria for professional advancement and greater unanimity about individual candidates for promotion and tenure. Although promotion rates overall tend to be similar across academic fields (Braxton and Hargens, 1996), the existing research on disciplinary differences hints that the extent of disagreement around promotions may vary appreciably. Low levels of paradigmatic consensus may well prompt internal departmental disagreements over promotion and tenure questions.

A variety of organizational factors in units may also affect conflict. The level of *instructional volume* is central to faculty's working life. It is teaching responsibilities, not research or service work, that professors tend to term "loads," and dissatisfactions and disputes about those responsibilities may contribute to ongoing tensions in departments. Gumpert (1993) and others have argued, for example, that academic program cuts, and the resulting pressures on loads, can contribute to dissent. To the extent that a unit has many courses and students, relative to other departments, it may be more prone than other units to dissension around broader issues, such as the awarding of promotion and tenure. As noted earlier, conflicts in one domain may prompt and sustain conflicts in other domains.

The level of *specialization* in a department may also affect conflict. Specialties provide faculty more autonomy and form the basis of new degree programs within departments. How such developments might affect conflict levels is debatable. Weick (1976) has argued that structural complexity contributes to conflict either, through the deleterious effects of underlying professional or competitive differences across subunits or through the difficulties of coordinating autonomy-

seeking faculty in complex enterprises. Corwin's (1969) early research in corporations also suggested that specialization can be a contributing factor in conflict, accentuating interpersonal differences, helping develop vested interests and monopolistic claims over certain spheres of work, and creating identifiable targets of hostility. Work by Leslie (1972) and Clark (1963) tend to echo these perspectives.

Evidence regarding the effects of specialization is not always so negative. Some authors have argued that specialization's effects are contingent. Mitchell (1988) found that structural complexity has different effects depending on a unit's stage of organizational development: a department in the midst of regeneration is more likely to develop conflict-inspiring structural complexity than a department in an actualizing or maintenance stage. In a similar vein, Blau (1973) suggested that specialization can have both positive and negative effects on conflict: it may maintain harmony by separating conflicting faculty and ideas from each other, but it may deepen divisions over broader departmental matters. A note of methodological caution is warranted here, however. The effects of specialization may be confounded with those of size because, as discussed earlier, specialization tends to be greater in larger units.

The question of how promotion and tenure decisions might fit into this debate is a difficult one. Such decisions are sometimes localized within specialized subunits. In other words, faculty in specialized areas tend to be hired, valued, and rewarded within those specialized areas. In departments with distinct and strong specializations, votes for promotion and tenure may be endorsements of the judgments of faculty within specialties. The larger faculty as a body may defer to the specialists best able to evaluate faculty in a given area. To the extent that departments defer to the specialized subunit level for advancement decisions, departments with proportionately greater numbers of specialties may have lower levels of department-level conflict over promotion and tenure issues. Thus, as suggested earlier, specialization may temper the hypothesized connection between large departments and conflict over promotion and tenure.

The level of *external research funding* may also be a prominent contributor to conflict levels. Units with less external funding may be especially targeted for retrenchment and reorganization (Gumpert, 1993; Hearn, 1988; Louis, 1989), and they may have fewer options to pursue in responding to financial pressure. Questions of whom to promote and tenure in such circumstances may be especially important, and especially problematic.

Finally, units whose faculty have high levels of *involvement in campus governance* may have external sources of security and, therefore, may be more consensual internally. Research by Salancik and Pfeffer (1974) suggests that departments with heavy engagement in campus affairs (for example., high participation in university senates and their committees) may protect themselves from low resource allocations by central administrations. On the premise that such buffering might

also serve to forestall internal competition and conflict, the hypothesis here is that high levels of campus governance involvement might have negative effects on internal conflict.

RESEARCH DESIGN

Method

This study investigates a multivariate model of the determination of within-unit conflict in a single large research university over the period of a decade. The unit of analysis is the academic department. The dependent-variable indicator is the proportion of all departmental promotion and/or tenure votes in which the majority side received less than 75% support. That is, we focus on the proportion of votes in which more than one fourth of the faculty in a unit disagreed with the final decision. In most institutions in the United States, the great majority of P & T votes are unanimous or virtually so. A level of disagreement above one-fourth therefore merits the designation "conflict." The model focuses on which units exhibited high proportions of votes with more than one-fourth disagreement over the decade. Included as potential factors leading to this kind of conflict are indicators of the various demographic, disciplinary, and organizational factors suggested in the preceding section (Fig. 1).

From a statistical perspective, a simple descriptive or correlational analysis would not adequately capture the timing, magnitude, or critical dynamics of promotion and tenure disputes. Instead, such a question requires quantitative techniques more sensitive to the complexities of departmental functioning over time. Multiple regression is employed with eight independent variables that reflect the model presented in Fig. 1. Because the dependent variable covers cumulatively a decade of faculty voting, all independent-variable indicators in the regression model are measured in the early years of the decade of P & T votes. It would be interesting to investigate the effects of changes in the independent variables on changes in the dependent variables over time, but the sample size and rather sparse distribution of votes over departments and over time make it statistically impractical to do so in this data set.

The question of significance testing merits attention. Any sample of departments drawn from one institution, and subject to the inevitable problems of missing and unusable data, must necessarily be quite small. Such was the case here. Seemingly notable connections between independent and dependent variables might not make typical significance-testing cutoffs because of the small sample size. We therefore made an adjustment in results reporting: in addition to highlighting in the usual way relationships significant at the $p \leq .05$ level, all relationships significant at the $p \leq .20$ level are noted. This is not to suggest that

these relationships are powerful or anything more than suggestive, only that they may be noteworthy in so small and restricted a sample and that further work might reveal more robust relationships.

Data

This study is part of a larger project that examines organizational change and development in academic departments. This undertaking required access to data for one institution containing a large number of departments with varied organizational profiles. Fortunately, a large U.S. research university whose profile fit our criteria agreed to share data with us for the project. This project employed extensive unit-level data from 62 academic departments for consecutive academic years beginning in 1977.

The present analysis focused on data available for promotion and tenure cases over the 1977–1986 period. While the data are unquestionably old, we do not have more recent data on P & T cases at this institution. We argue that these data, dated though they may be, are distinctively valuable. Internal data on P & T processes are only rarely available for social-scientific analysis, and we are not aware of similar, available internal data sets from other institutions, much less more recent data sets from other institutions. What is more, the age of these data are unlikely to be a crippling deterrent to across-time, across-institution inferences. Although attention to age discrimination has increased in the last 20 years, such discrimination is not at the heart of the demographic issues we study here. Similarly, the organizational processes we are examining here are not tied to time-specific policies or practices. The timelessness of our focal problem contrasts sharply with the time boundedness of such research areas as federal research policy or state student-aid programs. Although we would prefer more recent data, we cannot ignore the potential theoretical and practical value of those data we do have.

Departments that did not have at least five votes on promotion and tenure cases over the 1977–1986 period were eliminated from the sample, as were departments that had not maintained consistent organizational form over the same period. This reduced the number of departments in the sample to 47. Of that group, three had missing data on some independent variables for the study, leaving a sample of 44 departments for multivariate analyses with listwise deletion.

Variables and Their Indicators

The dependent variable indicator for the study is the proportion of very split votes out of all faculty votes on promotion and/or tenure cases in a department over the period 1977 to 1986. As noted earlier, very split votes are defined as

votes in which the majority side received less than 75% support, regardless of whether the decision was ultimately positive or negative. Because the indicator is meant to characterize the voting pattern of a department as a whole over time, it encompasses votes for tenure, votes for promotion, and combined votes for both promotion and tenure. Among the kinds of votes included were advancement from assistant professor with tenure to associate professor with tenure; from assistant professor without tenure to associate professor without tenure; from associate professor with tenure to full professor with tenure; from assistant professor without tenure to associate professor with tenure; and from associate professor without tenure to full professor with tenure. Also included were votes to award tenure with no rank change. Votes for both tenure and promotion were coded as one vote, even in cases where the department voted separately on the two issues for a candidate. When such votes were very split on one but not on the other (for example, 80% in favor of promotion but only 55% for tenure), the vote was still characterized as very split.

A number of independent-variable indicators were explored but rejected because of multicollinearity, missing data, or lack of effects. Most prominently, indicators of heterogeneity in departmental seniority composition were tested and found wanting in effects on divisiveness in voting. Analysis of another demographic factor, gender composition, was also more limited than planned. It was unfortunate for our purposes (and telling for those interested in equity issues in higher education) that there were very few departments on this campus with proportions of female faculty over 30% during the years in question. Tests of tipping ideas were therefore compromised by small samples of departments with adequate proportions of women faculty. Instead, we were forced to use a simpler indicator of gender composition, the percentage female of the faculty. Omitted also were a variety of indicators of salary conditions in departments: the mean level of all salaries, the mean of average salaries by rank (to untangle salary tendencies from the seniority composition of the unit), the ratio of full professors' salaries to those of assistant professors, and the deviation between the highest and lowest salaries in the department.³ Also considered but not used in the final analysis were indicators of selectivity in admissions for graduate programs, of the proportion of students and course credits at the lower undergraduate and graduate levels, of the department's status on Biglan's (1973a, 1973b) pure/applied and life/nonlife dimensions, and of the average number of courses taught per faculty member.

The independent-variable indicators ultimately used here were of three kinds: demographic, disciplinary, and organizational. The demographic factors were the number of tenure-track faculty in the department, indicating the size of the unit's core of decision-making employees, the percentage female of the tenure-track faculty, and a faculty seniority index. The seniority index captures the overall composition of the unit by rank. The indicator used here first appeared

in Pfeffer and Moore's (1980) study of the time in office of academic departments' chairs. The indicator, which they termed "FACMIX," is a weighted measure representing the average rank of tenured and tenure-track faculty in a department:

$$\text{FACMIX} = [\text{ASST} + 2(\text{ASSO}) + 3(\text{FULL})] / [\text{ASST} + \text{ASSO} + \text{FULL}]$$

where:

ASST = number of assistant professors in the unit

ASSO = number of associate professors in the unit

FULL = number of full professors in the unit

Note that this index is equivalent to the departmental mean of a variable whose value for an individual is 1 for an assistant professor, 2 for an associate professor, and 3 for a full professor. Accordingly, the possible range of the index is from 1 to 3. Units with higher scores are more tilted in composition to the upper levels of seniority.

The Biglan disciplinary status of the unit reflects whether the disciplinary base of the department is considered "hard" (paradigmatically advanced) or "soft" in the Biglan schema discussed earlier. The indicator is coded as a dummy where 1 = soft and 0 = hard. Under agreement with the university that provided these data, individual departments in the sample are not named here. Nevertheless, we followed the standard coding approach for studies of the Biglan typology. In such studies, fields typically coded as soft are those in the humanities and social sciences, such as art history, English, history, journalism, sociology, political science, psychology, philosophy, theater, dance, and languages. Among the fields typically coded as hard are those in the sciences and engineering, such as civil engineering, mathematics, chemistry, physics, computer science, botany, veterinary medicine, and aerospace engineering.

Four indicators relate to the organization of units. The instructional volume of the unit is characterized by an indicator constructed from the number of classes and the full-year-equivalent (FYD) student enrollment in the unit. Because of multicollinearity in the various indicators of instructional volume, and because the small sample precluded large numbers of independent variables in multiple regressions, the volume indicator here is a linear combination of the closely intercorrelated indicators of departments' class offerings and enrollment. The composite indicator was constructed by running a multiple-regression equation for the dependent-variable indicator for the study using these constituent indicators as independent variables. The resulting instructional volume factor is thus the best-fit combination of classes and enrollment in relation to very split P & T votes.

The specialization index for departments is the ratio of total undergraduate and graduate degree programs in the department to the number of tenure-track faculty in the department. A higher score indicates more individualized curricular (and, implicitly, research) niches for faculty. Research funding per faculty member is the total amount of external research funding for the department for the year, divided by the number of tenure-track faculty in the department. Higher scores here indicate, one can assume, greater levels of scholarly support and autonomy in departments. Finally, involvement in campus governance is indicated by the department's total number of memberships in campus-wide committees.

RESULTS

As background, it may be useful to consider first some descriptive information on the departments in the sample. Table 1 presents descriptive data on the indicators for the analysis. Overall, in the 1977-1986 period, 13% of all promotion and tenure votes in these units fell into the range defined here as "very split." Not included in the table, but relevant for understanding the 13% figure, is the average number of total P & T cases per unit over this period: 14.96. Thus, over the period, a typical department at this institution might experience about 15 P & T votes, of which two would be highly disputed.

In 1977, at the beginning of the focal decade, the average number of tenure-track faculty per department was just over 22. The average percentage female of the faculty in departments was 10.52%. The average score on the faculty seniority index was 2.38, on the scale from 1 (all assistant professors) to 3 (all full professors). This figure suggests that this university had a rather senior faculty overall, not untypical of this period. Forty-eight percent of the departments in the sample were classified into soft fields on the Biglan typology (one department was unclassifiable on the typology). On average, departments had a specialization index of .20, suggesting that a typical department of 20 faculty might have four degree programs. The average score on the index of departmental research funding per faculty member was \$18,382, suggesting a typical department of 20 might have total funding between \$350,000 and \$400,000 (in late 1970s-era dollars).

Table 1 also presents correlations among the indicators. Several independent variables carried statistically significant relationships with departmental divisiveness. The strongest correlations were .52 with instructional volume, .38 with the Biglan code for disciplinary softness, -.33 with the faculty seniority index, and -.26 with the specialization index. Of course, bivariate correlations with the dependent variable alone tell little about any possible influences on split voting. Important in the factors confounding such inferences are the relationships among the various independent variables in the model. For example, disci-

TABLE 1. Descriptive Data and Correlation Matrix for the Indicators (*n* = 44 Departments)

Variable	Mean	Standard Deviation	Correlations						
			1	2	3	4	5	6	7
1. Number of tenure-track faculty	22.14	11.62	—						
2. % Female of faculty	10.52	13.39	-.26	—					
3. Faculty seniority index	2.38	.20	.11	-.42	—				
4. Biglan disciplinary status: soft	.48	.51	-.19	.64	-.42	—			
5. Instructional volume	.13	.08	.35	.17	-.35	.16	—		
6. Specialization index	.20	.10	-.60	.19	-.25	.09	-.13	—	
7. Research funds (in 000's) per faculty member	18.38	23.35	-.03	-.33	.43	-.51	-.16	-.16	—
8. Campus governance involvement	4.34	4.72	.48	-.21	.23	-.08	-.08	-.42	.03
9. % Very split P & T votes	.13	.15	.18	.15	-.33	.38	.52	-.26	-.19
									—

Note: See text for definitions of indicators.

plinary softness is related to the percentage female in departments (.64) and to research funding per faculty member (-.51). Similarly, the number of tenure-track faculty is related to specialization (-.60), instructional volume (.35), and campus governance involvement (.48). Such relationships are notable, but are not at high enough levels to pose crippling threats of multicollinearity in the analysis.

More can be learned about potential causation through examination of the results of multiple-regression analyses. Table 2 presents regression results in two columns, the first for a simple model in which only demographic and disciplinary factors are included, and the second for a full model in which all independent variables are included. In the model for demographic and disciplinary factors alone, only soft disciplinary status was a significant factor, having a positive effect on very split voting. In addition, two factors showed notable relationships at the $p \leq .20$ level: the number of tenure-track faculty was positively related to a higher proportion of split votes, while the faculty seniority index was negatively related to such votes. Although they did not attain statistical significance by traditional standards, these relationships were in the direction originally hypothesized. Overall, the demographic and disciplinary factors explained 19% of the variance in very split voting rates.

The full model explained almost double that amount of variance, 37%. In the

TABLE 2. Regressions for Very Split Departmental Promotion and Tenure Votes, 1977-1986

Independent Variable	Zero-Order Correlation with Very Split P and T Votes	Regression Models		
		Model 1: Demographic and Disciplinary Factors Alone	Model 2: All Factors	
Number of tenure-track faculty	.18*	.24†	-.04	
% Female of faculty	.15†	-.17	-.23†	
Faculty seniority index	-.33**	-.25†	-.17	
Biglan disciplinary status: soft	.38**	.43*	.42*	
Instructional volume	.52***	—	.40**	
Specialization index	-.26*	—	-.34*	
Research funding per faculty member	-.19†	—	.04	
Campus governance involvement	-.12	—	-.18	
Adjusted model R^2		.19*	-.37***	

Note: See text for definitions of indicators. N for all regressions is 44. Pearson's r 's and standardized multiple regression weights are reported. Significance levels: *** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$, and † $p \leq .20$. For conservatism, adjusted R^2 is reported.

larger regression model, units with soft disciplinary paradigms once again showed higher rates of divisiveness. As expected, instructional volume was also a positive factor: larger-volume departments had higher rates of split votes. In contrast, departments with higher levels of programmatic specialization were significantly less likely to have very split voting. Thus, when size and other factors are controlled, specialization may reduce faculty divisiveness. At the $p \leq .20$ level, the percentage-female indicator showed a negative relationship with very split voting: all else equal, departments with more women were less likely to engage in disputed P & T voting. This is a striking result in that the gender-composition indicator's zero-order relationship with such voting was positive, but the relationship became negative once other factors were introduced into the regression. Despite the lack of statistical significance in the usual sense, this switch poses a warning about the misleading conclusions one might draw from models with inadequate controls for confounding factors.

The present sample is small because only one institution could be included in the study. Degrees of freedom for statistical effects were at a premium, especially in the full regression model. In that model, there were two factors with effects at only the $p \leq .30$ level. Faculty seniority level had a negative relationship (-.17) with divisive voting at the $p = .29$ level, and participation in campus governance activities had a negative relationship (-.18) at the $p = .22$ level. Both findings are in the expected direction and may be suggestive of notable relationships that might emerge in larger samples or respecified models. Alone, for example, the indicator of faculty seniority level explains 11% of the variance in very split votes ($r = -.33$ and $r^2 = .11$), a connection that seems worth further investigation.

Because of its centrality in the regression findings for departmental disputes, Biglan's typology was examined further. The typology has three two-way dimensions, and thus eight categories of departments. Fortunately, the present sample was well divided among the eight categories. There were at least four departments in each of the categories, and no category had a departmental mean number of P & T cases less than 8.8. In fact, the minimum number of total P & T cases in any one Biglan category was 44, the total for the five departments in the applied-soft-life category. Thus, no category's results are simply reflections of only one or two departments or of only a handful of P & T cases.⁴

Figure 2 presents the split voting rates for departments coded along Biglan's dimensions. The highest single area for disputed votes was the pure-soft-life area. In the four departments of that kind, 25% of the P & T votes were very split. The lowest rate of disputes was in departments in precisely the opposite set of fields, those classified as applied-hard-nonline. In those six departments, only 3% of the votes were very split.

Across the types of fields in Fig. 2, one can discern visually that Biglan's hard/soft dimension is more connected to departmental voting patterns than the

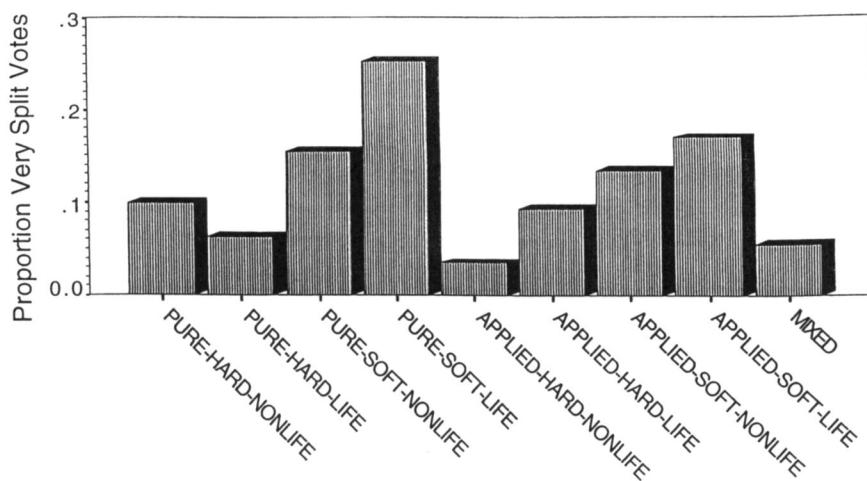


FIG. 2. Proportion very split P & T votes by departmental Biglan type.

pure/applied and the life/nonlife dimensions. Figure 3 highlights this, showing the stark contrast between scores for departments based in hard and soft fields. The average rate of very split voting was 7% in hard fields and 18% in soft fields.

Given that the Biglan typology was so tied to split voting rates, we decided to explore the connection of those rates to another familiar typology, that of John Holland (Holland, 1973; Smart, Feldman, and Ethington, 2000). Although the range was not so great as with the Biglan typology, the group differences in voting rates were striking across the Holland types (realistic, investigative, social, conventional, enterprising, and artistic). Highest in very split votes was Holland's "social" group, with a rate of 20%. Departments in this classification are typically those in the social sciences and education. Lowest were those in Holland's "realistic" group, with a rate of 6%. Among departments in this group are those in engineering and other applied, technologically driven fields. Close to those units were the predominantly scientific departments in Holland's "investigative" group, with a rate of 9%. These results provide further support for Smart's (1976) finding that the Holland typology provides useful insights into variations in departments' organizational functioning.

IMPLICATIONS

The most striking patterns in the findings may be summarized as follows. All else equal, conflicts over tenure and promotion votes were generally more likely in departments with larger instructional volume, departments whose disciplinary

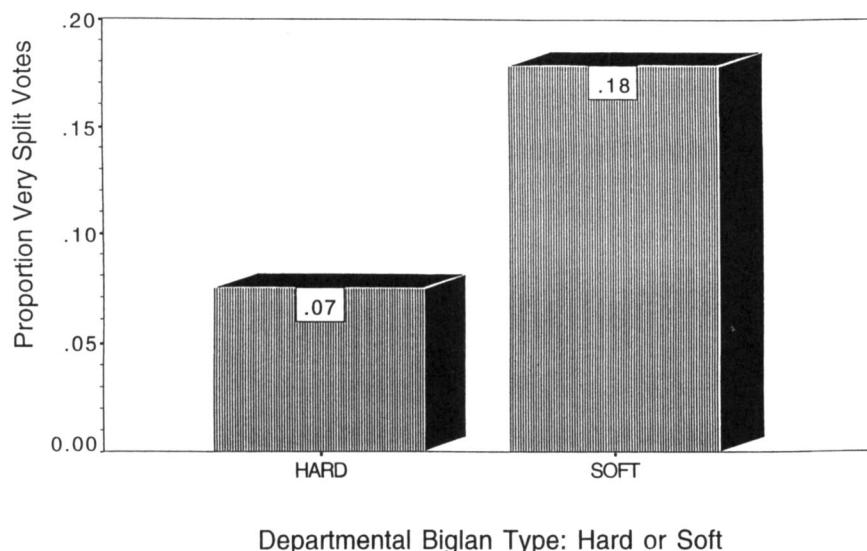


FIG. 3. Proportion very split P & T votes by departmental Biglan type (hard or soft only).

bases may be classified as soft, and departments with lower levels of programmatic specialization. There were also suggestions that, perhaps, divisiveness might be connected to lower proportions of female faculty and lower faculty seniority levels.

The absence of stronger demographic effects was surprising, but, at least until we have further evidence, we view this pattern as a result more of the limits of our data and our methods than of the limits of our propositions. We take a similar perspective on our results for departmental size and for campus-governance involvement. In both cases, there are hints of effects in expected directions; that is, negative effects of governance involvement on departmental disputes and positive effects of size on such disputes. As intriguing as these hints of effects might be, it should be stressed that these are only hints, drawn speculatively out of statistically insignificant regression coefficients from a small data set. As such, they cannot be taken seriously without further work.

Overall, however, the results generally support our initial theoretical expectations. In addition, they parallel findings of similarly designed studies in noneducational settings. Because the present analysis was exploratory, the findings are best viewed as setting the stage for further work. In particular, the findings suggest a need for more detailed examination of the ways senior faculty decide who will continue as their colleagues and rise to the highest ranks. Data limita-

tions prevented examination in this study of the interpersonal and organizational dynamics of contentious votes in departments over time, leaving some important questions unaddressed.

It is quite possible, for instance, that the demographic profile of the department interacts with the demographic characteristics of the individual who is the subject of the departmental P & T vote. Perhaps the likelihood of very split votes increases as the demographic difference between the individual candidate and the dominant coalition in the department increases. Of course, we must remember that P & T candidates facing such demographic obstacles have all managed somehow, years earlier, to surmount similar resistance at the hiring stage. The ways demographic factors influence hiring processes may well be somehow different from the ways they influence promotion and tenure processes.

Along those lines, it is intriguing to speculate as to whether the interaction between individual and organizational demographic factors may be affected by the knowledge state of the parent discipline of the department. For example, in soft-paradigm fields, more recently minted PhDs or minority candidates may be more likely than those in high-paradigm fields to pursue research agendas that stretch and challenge disciplinary boundaries, giving rise to more significant differences in evaluation of their work by senior faculty. Whatever the reality, connections between demography at the organizational and individual levels merit further attention in studies of faculty-advancement processes.

Also clearly worthy of further study is the fundamental question of how faculty and departments actually behave as problematic promotion and tenure cases unfold, proceed, and then move into the past. On the last point, what are the long-term consequences of highly split P & T votes? For example, are other conflicts likely to arise in the aftermath of such events? In which situations are conflict episodes most likely to be productive, or poisonous, for units?

Burke (1991) has noted that the causes and effects of faculty termination—whether voluntary or involuntary—in institutions are not well understood:

Research on faculty separation could address several matters useful to the higher education organization. One would be an investigation of the termination of assistant professors. How are these judgments made? Is the merit principle applied in the judgment and if so, how is "merit" defined and by whom? (p. 285)

Burke asks that we begin with a practical problem, termination of untenured faculty, and explore its roots, while the present study begins with a theoretical problem, the organizational precedents of academic conflict, and explores a particularly significant instance of it, split promotion and tenure votes. Both approaches point to a need for more in-depth analysis of interpersonal and organizational dynamics of success and failure in academic institutions.

The analysis also highlights the importance of compositional and sampling

factors in the study of departmental behaviors. Single universities tend to be the most feasible sites for studies of departments, because confounding factors across institutions can be minimized. Nevertheless, universities tend not to have sufficient numbers of academic departments that both maintain programmatic stability over time and are large enough for analysis. Even in the large institution that was the site for this study, fewer than 50 departments met our criteria. This particularly limits statistical attention to such issues as the gender distribution of departmental faculty. Only six of our sample departments had percentages of female faculty over 25. Interestingly, this percentage seemed important in preliminary bivariate analyses of voting patterns by departments' percentage female faculty: the lowest level of split voting (6.7%) was in the 16 departments with no female faculty, while the highest level (21%) was in the six departments with only a handful of female faculty (at least 1, but less than 5% of the department total). Departments with more than 5% female faculty reported split-voting rates close to the overall mean for the sample. Such findings provide hints that, outside of totally male departments, highly disproportionate gender distributions contribute to conflict. These results must remain quite tentative, however, pending investigations in departmental samples with more diverse gender composition.

The analysis also raises some intriguing methodological questions for future research. Dependent variables in count form are not easily susceptible to analysis using standard ordinary-least-squares techniques. For the present analysis, we converted each department's annual counts of disputed P & T votes into cumulative totals over a 10-year period, and then we converted those totals into proportions of all the department's P & T votes over the period (this allowed control for differences in unit size and thereby allowed the analysis to focus on comparable rates across units). This approach made the analysis more suitable for multiple regression techniques, but was not ideal. A next step for this kind of analysis is the exploration of statistical techniques tailored to this distinctive kind of dependent variable.⁵

The current findings provide much to consider, however, including some tantalizing clues regarding theoretically and practically important issues. From the perspective of theory, it is intriguing to contemplate the proposition that a field's maturity and its degree of softness in knowledge are not corresponding concepts. Much of the literature suggests that fields progress through softness to hardness and from dissensus to consensus and further suggests that this progression is laudable (Kuhn, 1970). It may be, however, that the nature of knowledge in fields embedded in human and social concerns is so distinctive that those fields can never achieve the kind of consensual maturity possible in the physical sciences. This might apply not only to English, history, and art, but also to the putatively more scientific areas of economics and psychology (see Cole, 2001; Collins, 2001 for exploration of these ideas in more detail).

Indeed, a radical might ask whether consensus and clarity in a scholarly field might denote a kind of immaturity rather than maturity. Some hard sciences are currently experiencing an era of revolutionary discoveries. As they move through this period, will their transition from normal science toward destabilization lead inevitably back to closure around a new scientific consensus, as suggested by Kuhn (1970)? Or, is there a possibility that the new scientific progress will bring laissez-faire accommodation to an ongoing state of dissensus marked by the profusion of diverse perspectives typical of soft fields? This poses an intriguing empirical question worth consideration by those interested in the development of scholarly fields and the parallel organizational manifestations of such development. Investigating the issue would require data for a larger sample and a longer period than we have here, but seems well worthwhile.

This study also provides some more practical implications. Administrators, faculty, and candidates may want to consider at the outset of P & T processes how demography, paradigm, and related structural factors may affect voting patterns. Department chairpersons, in particular, may need to consider the possibility of conflict arising in such votes from paradigmatic differences in faculty members' priorities and perspectives and from demographic differences among faculty. The evolving faculty composition of units is posing some distinctive challenges for campus leaders (Magner, 1997, 2000), and skillful leaders may be able to siphon off some demographic- and paradigm-based conflict into discussions about departmental direction and initiative, instead of allowing such conflict to infuse P & T votes in harmful ways.

Similarly, chairpersons may consider how conflict based in structural, paradigmatic, or demographic factors might become a productive, even creative, force in their departments. Building such a perspective may be especially useful when conflict is related to such hard-to-change factors as demography or differences over theoretical and research directions in the home discipline of the department. In the end, improvements in units' sense of mission and strategy may emerge from well-led discussions around these issues.

In support of that objective, institutional research directors and others familiar with the nature of academic units on a campus may be able to help unit leaders and faculty understand the potential influences of demographic and structural factors on departmental functioning. It seems reasonable to suggest that campus institutional research (IR) officials could help disseminate information on factors and situations associated with difficult unit-level P & T votes in the past, in the interest of helping units avoid such situations themselves. For their part, campus administrators could use such information to structure policies aimed at lowering the number of such incidents in the future. It may be too obvious to stress here, but successful preparation for the P & T process on the part of candidates, senior faculty, department chairpersons, and institutional administrators requires sound information and sound policies.

On this point, some examples may be useful. If departments with high proportions of junior faculty have higher levels of disagreements over P & T votes, then academic leaders need to consider ameliorative approaches. After all, many institutions and units will be moving toward less senior composition over the next few years. Similarly, if units are buffered from conflict by the development of specialties that adopt a “live and let live” attitude toward each other, then leaders at the unit level need to encourage the development of cross-specialty communication and rigorous internal peer review, while leaders above the unit level (for example, graduate school deans) need to consider implications for their overall control at the institution. Finally, if evidence suggests that large, high-enrollment departments are more prone to P & T conflicts, then unit heads should reconsider policies surrounding workload issues, and deans and other campus administrators may need to investigate questions of optimal unit sizes on campus.

It is important to remember that any split vote reflects a problem that has emerged over a number of years, ultimately to cause pain for individual faculty, the department, and the institution. Perhaps some of that pain could be avoided by more intensive socialization and counseling of junior faculty, by more thoughtful policy and practice on campus, by more thorough documentation and dissemination of requirements for tenure and promotion, and by more encompassing and open discussions among senior faculty of what is to be valued and rewarded in the department. Ideally, further research can help departments and institutions avoid harmful and unnecessary conflict. Conflict is not necessarily dysfunctional in organizations, but that realization should not blunt the push to understand and cope with this fundamental and often disruptive organizational force.

ACKNOWLEDGMENTS

This research was funded in part by a research grant to the first author from the Spencer Foundation. That support is gratefully acknowledged. The authors gratefully acknowledge the helpful comments of John Smart, Adrianna Kezar, and anonymous reviewers for this journal, as well as the research assistance of Janet M. Holdsworth.

ENDNOTES

1. Ulbrich (1989) provides an intriguing discussion of how such conflicts shape the P & T process, noting that sometimes groups of faculty operate as cartels, with dominance of peer review being critical to their success. Ulbrich even suggests that tenure or promotion might sometimes operate as the cartel's bribe: the candidate accepts the bribe in exchange for joining and serving the cartel.

2. Note that measures for the second proposition, regarding heterogeneity, must be operationally different from measures regarding the first proposition, regarding overall rank distributions. The second focuses more on variations from the mean, while the first focuses on the central tendency in the unit.
3. Pfeffer and Langton (1988, 1993) found salary factors to be influential in faculty work, and we hypothesized those factors might conceivably contribute to conflict in several ways. Relatively depressed overall salary levels, as well as inequality in salary distributions in a unit, might create the seeds of conflict. Research evidence suggests that salary in and of itself is not a strong motivator of faculty, but salary and raises relative to one's peers can notably affect a faculty member's attitudes and performance (McKeachie, 1979). If information about salary patterns is known, and if relative standing is indeed important, heterogeneous salary distributions may bring dissatisfaction and conflict among affected faculty (Hearn, 1999). In the present empirical analysis, however, any effects of salary considerations were muted by high multicollinearity with indicators of faculty seniority and the hardness of the field on Biglan's typology.
4. For this analysis, unlike the multivariate analyses, we were able to use our full sample of departments because we were not constrained by missing data on any other independent variables. One of the 47 available department cases was not included, however, because it was unclassifiable on the Biglan dimensions. The remaining 46 departments break down as follows among the Biglan categories: using as a code P = pure, A = applied, H = hard, S = soft, N = nonlife, and L = life, the sample n 's and total number of P & T cases by category were as follows: PHN = 5, 122; PHL = 6, 71; PSN = 9, 121; PSL = 4, 68; AHN = 6, 94; AHL = 7, 119; ASN = 4, 46 and ASL = 5, 44.
5. Among the most promising options are Poisson regression and binomial regression, techniques not usually accessible through standard statistical programs, but nonetheless of potentially greater utility.

REFERENCES

- Alpert, D. (1985). Performance and paralysis: The organizational context of the American Research University. *J. Higher Educ.* **56**(3): 241–281.
- Austin, A. E. (1996). Institutional and departmental cultures and the relationship between teaching and research. *New Directions Institutional Res.* **90**: 57–66.
- Bacharach, S., and Tolbert, P. (1992). Introduction to demography volume. In Tolbert, P., and Bacharach, S. B. (eds.), *Research in the Sociology of Organizations* (Vol. 10), JAI Press, Greenwich, CT, pp. ix–xiii.
- Baird, L. (1986). What characterizes a productive research department? *Res. Higher Educ.* **25**(3): 211–225.
- Baldridge, J. V. (1971). *Power and Conflict in the University*, John Wiley, New York.
- Biglan, A. (1973a). The characteristics of subject matter in different academic areas. *J. Appl. Psychol.* **57**(3): 195–203.
- Biglan, A. (1973b). Relationships between subject matter characteristics and the structure and output of university departments. *J. Appl. Psychol.* **57**(3): 204–213.
- Blau, P. M. (1973). *The Organization of Academic Work*, John Wiley, New York.
- Braxton, J. M., and Hargens, L. L. (1996). Variation among academic disciplines: Analytical frameworks and research. In: Smart, J. C. (ed.), *Higher Education: Handbook of Theory and Research* (Vol. XI), Agathon, New York, pp. 1–46.
- Bresser, R. K. (1984). The context of university departments: Differences between fields of higher and lower levels of paradigm development. *Res. Higher Educ.* **20**(1): 3–15.
- Burke, D. L. (1991). Faculty mobility in an organizational context. In: Smart, J. C. (ed.), *Higher Education: Handbook of Theory and Research* (Vol. VII), Agathon Press, New York.

- Carroll, G. R., and Harrison, J. R. (1998). Organizational demography and culture: Insights from a formal model and simulation. *Adm. Sci. Q.* **43**: 637–667.
- Clark, B. R. (1963). Faculty organization and authority. In: Lunsford, T. F. (ed.), *The Study of Academic Administration*, Western Interstate Commission on Higher Education, Boulder, CO. Reprinted in Peterson, M. W., Chaffee, E. E., and White, T. H., *ASHE Reader in organization and governance in higher education*, Fourth Edition, Simon and Schuster Custom Publishing, 1991, pp. 449–458.
- Clark, B. R. (1983). *The Higher Education System*, University of California Press, Berkeley.
- Clark, J. (1988). Presidential address on the importance of our understanding organizational conflict. *Sociol. Q.* **29**(2): 149–161.
- Cole, S. (2001). Why sociology doesn't make progress like the natural sciences. In: Cole, S. (ed.), *What's Wrong with Sociology?* Transaction Publishers, New Brunswick, NJ.
- Coleman, J. S. (1973). The university and society's new demands upon it. In: Kaysen, C. (ed.), *Content and Context: Essays on College Education*, McGraw-Hill, New York, pp. 359–398.
- Collins, R. (2001). Why the social sciences won't become high-consensus, rapid-discovery science. In: Cole, S. (ed.), *What's Wrong with Sociology?* Transaction Publishers, New Brunswick, NJ.
- Corwin, R. G. (1969). Patterns of organizational conflict. *Adm. Sci. Q.* **14**: 507–520.
- Coser, K. (1956). *The Functions of Social Conflict*, Free Press, Glencoe, IL.
- Creswell, J. W., and Roskens, R. W. (1981). The Biglan studies of differences among academic areas. *Rev. Higher Educ.* **4**(3): 1–16.
- Fox, M. F. (1992). Research, teaching, and publication productivity: Mutuality versus competition in academia. *Sociol. Educ.* **65**(4): 293–305.
- Gmelch, W. H. (1995). Department chairs under siege: Resolving the web of conflict. *New Directions Higher Educ.* **92**: 35–42.
- Gmelch, W. H., and Carroll, J. B. (1991). The three R's of conflict management for department chairs and faculty. *Innovative Higher Educ.* **16**(2): 107–123.
- Guetkow, H., and Gyr, J. (1954). An analysis of conflict in decision-making groups. *Hum. Relat.* **7**: 367–381.
- Gumpert, P. J. (1993). The contested terrain of academic program reduction. *J. Higher Educ.* **64**(3): 283–311.
- Hagstrom, W. O. (1965). *The Scientific Community*, Basic Books, New York.
- Hargens, L. L. (1975). *Patterns of Scientific Research*, American Sociological Association Rose Monograph Series, Washington, DC.
- Haveman, H. A. (1995). The demographic metabolism of organizations: Industry dynamics, turnover, and tenure distributions. *Adm. Sci. Q.* **40**(4): 586–618.
- Hearn, J. C. (1988). Strategy and resources: Economic issues in strategic planning and management in higher education. In: Smart, J. C. (ed.), *Higher Education: Handbook of Theory and Research* (Vol. IV), Agathon, New York, pp. 212–281.
- Hearn, J. C. (1999). Pay and performance in the university: An examination of faculty salaries. *Rev. Higher Educ.* **22**(4): 391–410.
- Hearn, J. C., and Anderson, M. S. (1998). Faculty demography: Exploring the effects of seniority distributions in universities. In: Smart, J. C. (ed.), *Higher Education: Handbook of Theory and Research* (Vol. XIII), Agathon, New York, pp. 235–273.
- Holland, J. (1973). *Making Vocational Choices: A Theory of Careers*, Prentice-Hall, Englewood Cliffs, NJ.
- Holton, S. A. (1995). It's nothing new! A history of conflict in higher education. *New Directions Higher Educ.* **92**: 11–18.

- Holton, S. A., and Phillips, G. (1995). Can't live with them, can't live without them: Faculty and administrators in conflict. *New Directions Higher Educ.* **92:** 43–50.
- Janssen, O., Euwema, M., and Wolfgang, S. (1993). How interdependence motivates conflict behavior: Integration of the interdependence theory and the conflict grid theory. Paper presented at the Sixth Conference of the International Association for Conflict Management, Bokrijk, Belgium, June, 1993.
- John, K. A. (1992). The transformation of conflict: A longitudinal study of intragroup conflict. Paper presented at the 1992 International Association for Conflict Management Conference, Minneapolis, MN.
- John, K. A. (1995). A multimethod examination of the benefits and detriments of intra-group conflict. *Adm. Sci. Q.* **40:** 256–282.
- John, K. A. (1997). A qualitative analysis of conflict types and dimensions in organizational groups. *Adm. Sci. Q.* **42:** 530–557.
- Kanter, R. M. (1977). *Men and Women of the Corporation*, Basic Books, New York.
- Kuhn, T. S. (1970). *The Structure of Scientific Revolutions* (2nd Ed., enlarged), University of Chicago Press, Chicago.
- Leal, R. R. (1995). From collegiality to confrontation: Faculty-to-faculty conflicts. *New Directions Higher Educ.* **92:** 19–25.
- Leslie, D. W. (1972). Conflict management in the academy: An exploration of the issues. *J. Higher Educ.* **43**(9): 702–719.
- Lodahl, J. B., and Gordon, G. (1972). The structure of scientific fields and the functioning of university graduate departments. *Am. Sociol. Rev.* **37:** 57–72.
- Louis, K. S. (1989). Surviving institutional change: Reflections on curriculum reform in universities. *New Directions Higher Educ.* **66:** 9–25.
- Magner, D. K. (1997, August 8). An aging faculty poses a challenge for colleges. *Chronicle of Higher Education* A10–A11.
- Magner, D. K. (2000, March 17). The imminent surge in retirements: Colleges face a generational shift as professors hired for the baby boom enter their 60's. *Chronicle of Higher Education* A18–A20.
- McCain, B., O'Reilly, C., and Pfeffer, J. (1983). The effects of departmental demography on turnover: The case of the university. *Acad. Manage. J.* **26:** 626–641.
- McKeachie, W. J. (1979). Perspectives from psychology: Financial incentives are ineffective for faculty. In: Lewis, D. R., and Becker, W. E. (eds.), *Academic Rewards in Higher Education*, Ballinger, Cambridge, MA, pp. 3–20.
- Merton, R. K. (1968). *Social Theory and Social Structure*, Free Press, New York.
- Mitchell, M. B. (1988). The process of department leadership. *Rev. Higher Educ.* **2**(2): 161–176.
- Nelson, R. E. (1989). The strength of strong ties: Social networks and intergroup conflict in organizations. *Acad. Manage. J.* **32**(2): 377–401.
- Neumann, Y., and Boris, S. B. (1978). Paradigm development and leadership style of university department chairpersons. *Res. Higher Educ.* **9:** 291–302.
- Neumann, Y., and Neumann, L. (1983). Characteristics of academic areas and students' evaluation of instruction. *Res. Higher Educ.* **19:** 323–334.
- Peterson, D. R. (1983). Conflict. In: Kelley, H., and Associates (eds.), *Close Relationships*, W. H. Freeman, New York, pp. 360–396.
- Peterson, M. W. (1976). The academic department: Perspectives from theory and research. *New Directions Institutional Res.* **10:** 21–38.
- Pfeffer, J. (1981). *Power in Organizations*, Pitman, Marshfield, MA.
- Pfeffer, J. (1983). Organizational demography. In: Cummings, L., and Staw, B. (eds.), *Research in Organizational Behavior* (Vol. 5), JAI Press, Greenwich, CT.

- Pfeffer, J., and Langton, N. (1988). Wage inequality and the organization of work: The case of academic departments. *Adm. Sci. Q.* **33**: 588–606.
- Pfeffer, J., and Langton, N. (1993). The effect of wage dispersion on satisfaction, productivity, and working collaboratively: Evidence from college and university faculty. *Adm. Sci. Q.* **38**: 382–407.
- Pfeffer, J., and Moore, W. (1980). Average tenure of academic department heads: The effects of paradigm, size, and departmental demography. *Adm. Sci. Q.* **25**: 387–406.
- Pinkley, R. L. (1990). Dimensions of conflict frame: Disputant interpretations of conflict. *J. Appl. Psychol.* **75**: 117–126.
- Riley, M., Foner, A., and Waring, J. (1988). Sociology of age. In: Smelser, N. (ed.), *Handbook of Sociology*, Sage Publications, Thousand Oaks, CA, pp. 243–281.
- Salancik, G. R., and Pfeffer, J. (1974). The bases and uses of power in organizational decision making: The case of a university. *Adm. Sci. Q.* **19**: 453–473.
- Smart, J. C. (1976). Duties performed by department chairmen in Holland's model environments. *J. Educ. Psychol.* **68**(2): 194–204.
- Smart, J. C., and Elton, C. F. (1975). Goal orientations of academic departments: A test of Biglan's model. *J. Appl. Psychol.* **60**(5): 580–588.
- Smart, J. C., Feldman, K., and Ethington, C. (2000). *Academic Disciplines: Holland's Theory and the Study of College Students and Faculty*, Vanderbilt University Press, Nashville.
- Smart, J. C., and McLaughlin, G. W. (1974). Variations in goal priorities of academic departments: A test of Holland's theory. *Res. Higher Educ.* **2**: 377–390.
- Smith, K. (1989). The movement of conflict in organizations: The joint dynamics of splitting and triangulation. *Adm. Sci. Q.* **34**: 1–20.
- Smith, K., Smith, K., Olian, J., Sims, H., O'Bannon, D., and Sully, J. (1994). Top management team demography and process: The role of social integration and communication. *Adm. Sci. Q.* **39**: 412–438.
- Stewman, S. (1988). Organizational demography. In: Scott, W., and Blake, J. (eds.), *Annual Review of Sociology 14*, Annual Reviews, Inc., Palo Alto, CA, pp. 173–202.
- Thomas, K. W. (1992). Conflict and negotiation processes in organizations. In: Dunnette, M., and Hough, L. (eds.), *Handbook of Industrial and Organizational Psychology*, Consulting Psychologists Press, Palo Alto, CA.
- Tierney, W. G., and Bensimon, E. M. (1996). *Promotion and Tenure: Community and Socialization in Academe*, State University of New York Press, Albany.
- Tolbert, P., Simons, T., Andrews, A., and Rhee, J. (1995). The effects of gender composition in academic departments on faculty turnover. *Ind. Labor Relat. Rev.* **48**(3): 562–579.
- Ulbrich, H. H. (1989, January/February). Departmental takeover and the peculiar property rights of academics. *Academe* **75**: 33–35.
- Weick, K. (1976). Educational organizations as loosely-coupled systems. *Adm. Sci. Q.* **21**(1): 1–19.
- Williams, K. Y., and O'Reilly, C. A., III. (1998). Demography and diversity in organizations: A review of 40 years of research. In: Sutton, R. I. and Staw, B. M. (eds.), *Research in Organizational Behavior* (Vol. 20), JAI Press, Greenwich, CT, pp. 77–140.
- Wilson, R. (1997, August 1). Universities turn to psychologists to help dysfunctional departments. *Chronicle of Higher Education* A10–A11.

Received February 20, 2001.