Collegiate Contingencies

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We discuss contemporary trends and developments that affect colleges and universities and describe several central contingencies that have given rise to, maintain, and operate in response to these trends and developments. We identify the differential impacts of these contingencies on faculty, students, and administrators in various types of higher education institutions. These contingencies are sources of conflict between and among these three groups within the academy that, we argue, cause significant instability in contemporary academe. We discuss prominent domains of this disequilibrium and propose several general interventions to address the sources of the instability.

Key words: higher education, faculty, teaching, students, tenure, academic administrators

Higher education in the contemporary United States is characterized by a wide variety of institutions (Barzun, 1968; Greenspoon, 1991; "The Work of Faculty," 1994). The Carnegie Foundation for the Advancement of Teaching classifies institutions of higher education into 10 categories, ranging from Research Universities I to Associates of Arts Colleges (also known as community or junior colleges) and Professional Schools and Other Specialized Institutions (Glassick, Huber, & Maeroff, 1997). Universities and colleges in different Carnegie classifications typically have distinct institutional missions; consequently, the 4,009 U.S. public and private institutions ("The Nation," 1998) introduce different contingencies and metacontingencies (Glenn, 1988). This complicates a behavior analysis of higher education and requires that important distinctions be recognized explicitly (Greenspoon, 1991).

Despite the differences, much of the academy has been affected powerfully

by pervasive political, social, demographic, economic, and technological changes occurring in society. We describe several of the contingencies and metacontingencies that have given rise to, maintain, and resist or otherwise operate in response to these trends and developments, by exploring the situations faced by university faculty, students, and administrators. We realize that separating faculty, students, and administrators into distinct groups is in a real sense artificial, for there are important and often complex interconnections among them. We also recognize that these groupings and their relations with others are strongly influenced by interactions at other places and at earlier periods of time (Jervis, 1997). Nevertheless, a focus on each cohort permits us to present a coherent and manageable analysis that, we believe, illuminates the academy's systemic tensions and disequilibriums and, importantly, possible directions to restore stability and maximize the rewards attained by the members of each group.

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FACULTY CONTINGENCIES

Teaching and Research

Critics of higher education contend that the post-World War II academy

has prioritized research and devalued teaching (Glassick et al., 1997), and that this imbalance must be redressed through an emphasis on effective instruction (Boyer, 1990; Edgerton, 1993; Karabell, 1998). This situation is most evident at universities that strive for research prominence (e.g., Barzun, 1968), and may be less characteristic of other institutions of higher education, such as liberal arts or community colleges. In fact, there is variation in the expected behaviors of faculty across institutions and across faculty members within institutions (Dilts, Haber, & Bialik, 1994), which critics like Glassick et al. do not acknowledge.

Nevertheless, we believe that at many universities there is a contingency-management problem related to teaching. Most faculty are thoroughly trained to do research, but only "a very small percentage of faculty produce the majority of the research literature" (Blackburn & Lawrence, 1995, p. 80). In fact, several surveys indicate "that perhaps three quarters of all current faculty members with a PhD or other doctorate have not published more than one peer-reviewed article in a respected journal or leading magazine in their academic lives" (G. Keller, 1983, p. 9). Indeed, at many 4-year institutions faculty members are expected to do little, if any, research, particularly published research: A survey of full time faculty at public comprehensive, private comprehensive, and liberal arts institutions (Carnegie classification) indicated that they spent 11%, 9%, and 8% of their time, respectively, on research ("The Work of Faculty," 1994, p. 40). These faculty devote much of their behavior to teaching, despite receiving minimal, if any, training for it¹ (Karabell, 1998; Skinner, 1984). It appears that at most

nonresearch institutions, research behavior has *not* been reinforced. Rather, teaching and perhaps service have been the focus for the putative reinforcers that have been available. Unfortunately, the effectiveness of the teaching contingencies is compromised by the inadequate training of most faculty and, as discussed below, by unsubstantiated evaluative criteria.

On the other hand, faculty at the major research (and even second and third tier) universities do strive to publish critically acclaimed works in prestigious outlets. This prompts unwarranted critiques that professors at most colleges and universities see themselves as cutting-edge researchers, not as teachers (Karabell, 1998), and that all universities have adopted "the goals and measures appropriate for the few larger institutions with ample research funding. . . . The internal hierarchy of values . . . and the faculty reward and incentive systems are astonishingly—and distressingly—uniform" (Lynton & Elwan, 1987, p. ii). Such unsupported assertions should not mask the fact that teaching has been undervalued at the research universities (Edgerton, 1993). As Boyer (1990) observed, "on far too many campuses, teaching is not well rewarded" (p. ii).

Most students in the United States do not attend the prestigious research universities. Many of them attend public universities that were created after World War II, some of which had been transformed from former teachers' colleges. These newer universities sought academic respectability by gradually introducing traditional rules and contingencies designed to encourage research rather than teaching or service (Li-Ping Tang & Chamberlain, 1997; Lynton & Elwan, 1987). At the same time, however, these faculty carried heavy teaching loads, resulting in tension on many campuses. The changes in rules and contingencies caused "a generation gap [to] develop in many departments between faculty hired before and after new expectations for research productivity" (Glassick et al.,

¹ An anonymous reviewer of this article suggested that in years past, when only the best prepared students attended college, the modest level of faculty pedagogical competence mattered little, as the elite students were "bright self-teachers." Now, the reviewer implied, instructors must actually teach, whereby their lack of training becomes obvious.

1997, p. 51). Disparities regarding research expectations were also evidenced among departments and sometimes between faculty and administrators. Dilts et al. (1994) point out that institutions going through transitions can give faculty, particularly new members, inconsistent signals regarding remote consequences. That is, the rules are inconsistent with the contingencies that are actually in effect. In fact, this problem affects most research universities today: New faculty routinely join the academy without a clear understanding of the institution's expectations, criteria, and evaluation processes (Boice, 1992; Olson & Crawford, 1998).

An example of the contingency confusion is found in a survey of administrators and faculty selected from the six regional state universities in Tennessee. Li-Ping Tang and Chamberlain (1997) found that the administrators believed that both research and teaching were the mission of their university. They also tended to believe that faculty must be effective teachers and that the reward structure influences faculty members to devote their time and effort to teaching. The faculty members, in contrast, were less inclined to agree that the mission of the university included both teaching and research. They believed that they had not been rewarded for their teaching. Further, they contended that they enjoyed teaching, that research interfered with teaching, and that they should be required to do either teaching or research, but not both. This issue of how behavior should be allocated may be avoided with newly hired faculty by clarifying the institutional contingencies (the rules) during the preemployment process (cf. Tierney & Rhoads, 1994). This assumes that the stated rules are actually operating, which is doubtless not the case at some institutions.

Boyer's (1990) book activated the teaching-research tension within research universities and prompted a movement to emphasize and reward

good college teaching (Diamond & Adam, 1993). We are confident that very few, if any, American institutions would say that good teaching is not an important part of their mission. Rather, there is a great deal of verbal behavior emitted by both administrators and faculty about the great importance and value of good teaching. Perhaps more important, many institutions now have centrally funded and administered "teaching centers" through which faculty can enhance their pedagogy skills and achieve recognition for instructional excellence (usually through student or peer nomination) (Sorcinelli, 1994). However, neither rhetoric nor teaching centers have resulted in valid methods of evaluating classroom instruction (Glassick et al., 1997). Such measures will discriminate good from poor teachers and will demonstrate that the students of good teachers learned more (or became more fluent or skilled) than students of poor teachers. In the absence of such measures, the evaluation and reward of teaching are fairly capricious ("The Work of Faculty," 1994). This situation is likely to increasingly command the attention of researchers. Recently, for example, Arreola (1995) published a comprehensive, research-based handbook designed to redress the typical haphazard and subjective evaluation of faculty responsibilities, including teaching.

The standard method of evaluating teachers is the end-of-course questionnaire completed by students. In 1973, 23% of American universities used student evaluations as a factor in tenure decisions; 88% were reported to do so in 1998 ("Harper's Index," 1998). There has long been debate about the value of such student evaluations (d'Apollonia & Abrami, 1997; Greenwald & Gillmore, 1997a; Marsh & Roche, 1997; McKeachie, 1997), particularly if used as the sole indicator of teaching effectiveness. Student evaluations have been characterized by some as valid and efficient (e.g., Arreola, 1995; Cohen, 1981; Feldman, 1997; Marsh & Dunkin, 1992), and by

others as invalid and ill advised (e.g., Chacko, 1983; Greenwald & Gillmore, 1997b; Powell, 1977; Vasta & Sarmiento, 1979).

Teaching evaluations are often supplemented by other information, such as peer observations of teaching, chairpersons' evaluations, and teaching portfolios (Chism, 1999; Paulsen & Feldman, 1995; Seldin, 1997). These alternatives, however, are not clearly superior. Peer observation of teaching raises the question of the representativeness of one or a few samples of a teacher's classroom behavior. In addition, colleagues' ratings of classroom teaching "show less inter-rater reliability and a greater bias toward leniency than do student ratings" (Dilts et al., 1994, p. 58; see also Arreola, 1995). And, as Dilts et al. point out, "Peer evaluation of instruction is also limited by the credible expertise in teaching possessed by the peer called upon to evaluate" (p. 29). Furthermore, "There is no requirement that the individuals serving in peer review be neutral, and there is no assumed expertise" (p. 32). Finally, a fundamental question is whether observation of teaching can lead to conclusions regarding student learning. Chairperson evaluations, to the best of our knowledge, have not been systematically studied. The teaching portfolio, in which an instructor compiles instruction-related material including syllabi, exams, teaching philosophies, student work and learning products, and student and peer evaluations, is currently viewed as a promising strategy (Seldin, 1997), but has accumulated little supporting data.

These strategies for evaluating teaching are used primarily for their convenience and accessibility rather than for their reliability and validity (Dilts et al., 1994). They focus on what the instructor does or fails to do in the classroom. The important question of what students actually do is seldom raised, although syllabi and tests may provide some suggestive information. This omission may be a function of a reliance on lecturing as the preferred

instructional method, in which students primarily take notes and occasionally contribute questions or engage in discussions.

Whatever the method of instruction, an obvious measure of teaching effectiveness is the extent to which students learn in a given course. As a former university president put it, "The proper issue is not so much the faculty *teaching* as it is the students *learning*" (O'Brien, 1998, p. 12). This would involve measuring what students know and can do at the start of the course and comparing it to what they know and can do at the course's end, a strategy that is rarely adopted (Dilts et al., 1994). One such mechanism is the *G* statistic, "an index of amount learned relative to possible amount of learning" (McGuigan, 1974, p. 11). The usual index for amount learned is the difference between pretest and posttest performance. This measure is artificially restricted for students with high pretest scores. Because the *G* statistic is a ratio between gain to possible gain, it corrects for the "ceiling effects." Unfortunately, McGuigan's strategy has been ignored.

Thus, we conclude that the typical contingencies relevant to pedagogy provide rewards for teachers whose students rate them highly on questionnaires that focus on supposed traits that the teachers display and on what the teachers do in and out of class. Information about what the students did in a course is less frequently gathered. And the extent to which students learned in a course is rarely part of the evaluation of teaching, other than as an item or two on a course evaluation instrument.

Tenure

A very important, perhaps even primary, contingency for virtually all tenure-track faculty involves the pursuit of tenure, which many outside the academy perceive to be permanent noncontingent career employment. The high stakes involved in the chase for

tenure ("publish or perish"), exacerbated by ambiguous criteria, arouse great stress in junior faculty (Austin & Rice, 1998; Boice, 1992; Menges, 1999; Olson & Crawford, 1998; Sorcinelli, 1994). In many departments, the behaviors and behavioral products that will achieve tenure are poorly operationalized: "It is not uncommon for universities to make general statements about teaching, research, service and citizenship, but then fail to specify what types of evidence of merit in these areas are credible or valid" (Dilts et al., 1994, p. 106). Further, there is great variation across institutions in their promotion and tenure policies that may directly affect tenure contingencies (Baez & Centra, 1995): "The high number of tenured faculty and the financial cost associated with tenure have forced many institutions to toughen the standards for granting promotion and tenure, leading to more negative decisions in a tighter job market" (p. 10).

By the early 1980s, 80% or more of the faculty at many institutions were tenured (G. Keller, 1983), leading some institutions to place quotas on the number of faculty who could be tenured in a given department or college. Individuals who have been denied tenure have on occasion sought redress through the courts, but usually with little success. "Courts usually will not interfere with an institution's substantive determination that a faculty member did not meet appropriate standards. Nor will courts interfere with the institutions' discretion to establish what criteria will be used" (Baez & Centra, 1995, p. 22). Courts also give great deference to institutions' claims of financial exigency as a reason not to retain faculty. Even those who argue strongly for the retention of tenure (e.g., Finkin, 1996) accept that awarding tenure entails an expensive financial commitment by the institution.

Universities, under pressure from external forces to function more efficiently, now frequently question the appropriateness of the tenure contin-

gency for today's academic environment (Finkin, 1996; Pratt, 1997). Approximately half the states are considering revisions to current university tenure policies (Conrad & Trosch, 1998). The negative view of tenure is not new; in 1968 Barzun wrote that "There is a body of opinion for abolishing tenure as obsolete" (p. 60). The argument against tenure is that it too often results in departments having faculty members who perform minimally but who make large salaries. Even a proponent of tenure grants that it "may contribute to some deterioration in the performance of some professors and, consequently, may harm the institutions which are stuck with the retrograde members of the faculty" (Machlup, 1996, p. 15). On one account, "the evidence is overwhelming that, except in the exceptionally well-disciplined departments, the professors are far too tender-hearted and philanthropic to their colleagues [in awarding tenure] . . . and many deans are almost as weak" (G. Keller, 1983, p. 137). In Massachusetts the attack on tenure has gone public. A former trustee of Williams College says that he has data that show that faculty members with tenure do less work, see students less, and cost universities more than faculty at colleges and universities that do not have tenure. He has found an ally in the chairman of the Massachusetts Board of Higher Education, who is crusading for an end of tenure at the University of Massachusetts and the state colleges (Daley, Hart, & Zernike, 1998).

Much of the current controversy seems to stem from equating tenure with employment security. Tenure originated as a means of protecting the academic freedom of faculty members. It was intended as a bar against administrators firing faculty members whose verbal behavior was unacceptable to them or to powerful forces outside the institution. But such protection did not, and does not, mean that faculty have guaranteed lifetime employment, a

critical point of which many seem to have lost sight.

The challenge to tenure essentially asserts that faculty performance and consequences are decoupled; proposed remedies generally introduce contingencies that are more immediate and potent. For example, one alternative to tenure is term contracts, under which faculty are appointed to renewable contracts of relatively short (3 to 5 years) duration (Bess, 1998; McPherson & Winston, 1996). The proportion of full-time faculty working on contracts climbed from 19% in 1975 to 28% in 1995, while the proportion of tenure-track faculty fell from 29% to 20% ("Contracts Increasingly Replace Tenure," 1998). The primary reason for this trend is said to be financial. Non-tenure-track appointments generally cost institutions much less in salary and benefits. Administrators also have significantly more control over those faculty with contracts compared to those who have tenure. It is reasonable to assume that faculty on term contracts are more likely to avoid behaving in ways disliked by administrators than are faculty who are tenured. Contracts can be considered a means of enhancing the control exercised by administrators, "as potential weapons of management power" (Bess, 1998, p. 2).

Beyond the variables of cost and influence, the perception that some faculty are unproductive also impels the use of term contracts. However, the relationship between faculty members' rank and their research productivity is mixed; full professors do not necessarily publish less than assistant or associate professors (Tien & Blackburn, 1996). Of course, the real question in this context is whether productivity, validly measured, decreases after the attainment of tenure. We are unaware of such data.

Nevertheless, we conclude that the execution of tenure, particularly from a behavior-analytic perspective, is problematic. One major issue concerns the clear communication of concrete cri-

teria for the award of tenure: For instance, what importance should teaching excellence assume? Currently, teaching skills at institutions that value scholarship are rarely influential in the tenure decision (Diamond, 1993). If teaching competence is to be a meaningful criterion, it becomes essential to develop reliable and valid evaluation mechanisms. There is consensus that legitimate scholarship needs to be redefined to encompass innovative as well as traditional activities (Halpern et al., 1998). Whatever the mix, the criteria for tenure—behaviors and behavioral products—must be operationalized with much greater precision.

A second issue raised by tenure involves social variables: After a tenure-track person has been hired there may be great reluctance on the part of his or her colleagues and the department chairperson to deny that person tenure. Awarding tenure in dubious cases may be negatively reinforced by the avoidance of acrimony, emotional behavior, lengthy appeals, and lawsuits.

A third problem with tenure involves pragmatic issues—salaries that grow to relatively high levels, questions about productivity, and concerns about responsiveness to institutional redirection of tenured faculty. The emergence and spread of posttenure review are seen as a response to the perceived problem of unproductive faculty (Daley et al., 1998). Posttenure review is the periodic assessment of tenured faculty to ensure that they maintain an adequate level of performance. For example, at the University of North Carolina (UNC) at Charlotte, faculty in the College of Arts and Sciences will be required to prepare a "developmental plan" if their posttenure review finds that their performance has been "seriously deficient." Seriously deficient is defined "as annual performance reviews over the preceding 5 years that demonstrate substantial evidence of a persistent pattern of underperformance or disengagement such that the faculty member fails to make an acceptable contribution to the unit"

(S. R. Lyons, personal communication, August 31, 1998). Although data are not available yet on the efficacy of this procedure, behavior analysts will readily identify at least four obvious flaws in the UNC-Charlotte plan: (a) poor operationalization of the criterion "seriously deficient" performance, (b) a very delayed contingency (5 years), (c) a very lenient contingency (substantial evidence of underperformance for 5 consecutive years), and (d) a delayed and probably weak consequence (a "development plan") that is unlikely to function as either a negative reinforcer or a punisher. Despite the weakness of plans like this, many faculty will view posttenure review as aversive, both for the threat it implies and for the additional committee time it will require.

Another alternative to traditional tenure is to increase the employment of part-time faculty, with a corresponding decrease in full-time faculty (Nelson, 1997). The percentage of full-time faculty has decreased steadily from 70% in 1975 to 59% in 1995. During the same time period, part-time faculty have increased from 30% to 41% ("The Nation," 1998). Besides the significant financial benefit of using inexpensive part-time faculty, an additional consequence may be administration control over the typically marginalized part-timer. Part-timers are further weakened by their ready availability in many disciplines due to the large supply of PhDs (Holden, 1998; Karabell, 1998). According to Karabell, "within a few years, adjuncts [part-timers] will account for the majority of college teaching in the United States" (p. 190). Part-timers at community colleges currently comprise 64% of the faculty, and that figure is likely to grow to 75% (Karabell, 1998; see also Murray, 1998). The most recent U.S. Department of Education survey (1997) confirms that the steady, incremental increase in part-time faculty continues (Leatherman, 2000).

The ultimate in part-time faculty may be the University of Phoenix. The

for-profit accredited institution counts nearly 60,000 students at more than 87 campuses. The University has 140 full-time faculty members and more than 5,000 part-timers, or "practitioners," as they are called. Ninety percent of the faculty are fully employed outside of the university. However, administrators from traditional institutions deny the University of Phoenix "had any impact on the salaries they pay their own part-timers. It's not difficult in today's academic job market to find people eager for work" (Leatherman, 1998, p. A15).

Clearly, the increasing use of part-time faculty or those on term contracts has consequences for academe. It changes the nature of who delivers the course work to the students; in the words of one observer, "the professorate is being proletarianized" (Readings, 1996, p. 1). Further, the fewer tenured and tenure-track faculty remaining will have to increase the time they expend on department governance.

Distance Learning

The impact of Web-based and distance-learning technologies on the contingencies controlling faculty, students, and administrators is not yet fully known (Matthews, 1998; Soules & Adams, 1998). Web-based distance learning may offer significant potential for the kind of instructional design that Keller foresaw (F. S. Keller, 1968; F. S. Keller & Sherman, 1974), involving the self-pacing, frequent testing, and mastery requirements of his personalized system of instruction. No evidence currently exists, however, that distance learning involves better pedagogical practices than those that are now overwhelmingly the norm in higher education. In fact, several reports suggest caution in embracing distance learning (e.g., Blumenstyk & McCollum, 1999; Young, 2000).

Nevertheless, distance learning appears to be part of the present and future of higher education. At least one

institution currently offers all of its courses through the Internet ("L.A. Law School," 1998), though its lack of American Bar Association accreditation will mute its impact. New York University announced plans to create a for-profit subsidiary to develop and sell continuing education courses that will be licensed on line (Guernsey, 1998). The governors of Colorado and Utah have founded the Western Governors University, devoted to distance learning, which accepted its first students in 1998 (Biemiller, 1998). There are also corporations, such as IBM, that offer courses via distance learning.

Administrators and students often see benefits in distance learning, as we will discuss shortly, but faculty, particularly untenured faculty and future faculty (i.e., graduate students), may view it as a threat to their employment. With a well-developed distance learning course, one faculty member with several teaching assistants could teach a large number of students, many of whom would not have enrolled if they had to travel in order to take the course. Indeed, faculty or companies may soon develop courses that they sell or lease to institutions and for which they agree to monitor the students' progress (cf. Blumenstyk, 1999).

The desire for technologically delivered course work imposes an additional contingency upon veteran instructors with strongly ingrained pedagogical repertoires. These instructors must learn the behaviors that comprise course delivery in Web-based and "smart room" formats. However, for many veteran instructors, the high-technology environment is an aversive one.

Faculty Development

Faculty development initiatives in the academy have grown rapidly over the past two decades, and are now poised to expand beyond their almost exclusive focus on instructional improvement (see Wright, 2000). There is

now increased recognition that universities must devote significant resources to promote "enhanced" faculty development so that (a) institutional expectations, priorities, and criteria for successful performance are clearly communicated to new and continuing faculty; (b) productivity and morale of faculty are enhanced; and (c) faculty are willing and able to utilize the sophisticated technology and embrace the nontraditional programming that are essential for institutional stability in contemporary higher education (Wheeler & Schuster, 1990). Faculty development begins with faculty socialization, and that begins even before the new faculty member arrives on his or her campus (Tierney & Rhoads, 1994). Anticipatory socialization refers to the values, attitudes, and behaviors developed by the aspiring faculty member while in training at graduate school. Organizational socialization involves two phases: (a) entry socialization, which concerns recruitment, selection, and arrival on campus; and (b) role continuance, which begins when the faculty member is immersed in campus activities. As Tierney and Rhoads note, "most often, organizational socialization occurs informally and haphazardly" (p. 26). In contrast, an ideal entry socialization process would challenge the interviewee for a faculty position to seriously evaluate the fit between the institution and his or her current behavior repertoire and desired reinforcers. For this to occur, of course, the interviewing institution must clearly specify the rules under which new faculty will operate (i.e., what rule-governed behavior must the new faculty person emit to be successful in this institutional milieu?). For instance, besides the traditional if poorly operationalized criteria of acceptable levels of scholarship, teaching facility, and service, many institutions now expect tenure-track faculty to seek and perhaps actually secure external funding.

The complexity of the modern university also requires role continuance

socialization that is structured and purposeful. Comprehensive faculty development programs aimed at socializing and nurturing junior faculty (e.g., Jarvis, 1991) and maintaining the productivity of senior faculty (e.g., Bland & Berquist, 1997) are becoming more visible throughout the academy. New associate professors, part-time and adjunct faculty, and department chairs are other appropriate target groups for intensive development programs.

Faculty development offerings range from the modest to the elaborate (Jarvis, 1991). The range of behavior competencies (overt and covert) that can be taught is enormous. For example, one of the authors is currently developing a 5-year program for new faculty in his College of Arts and Sciences. Skill acquisition in pedagogy, research, grant seeking, scholarly writing, oral presentation, interdisciplinary communication, technology, opportunism, knowledge of campus resource units and persons, and personal coping (e.g., stress management, time management, assertive behavior) will be addressed.

The more extensive programs consume more time of the target faculty, who will also quickly find themselves increasingly busy as they become immersed in university life; hence, attendance at the sessions becomes an issue. Jarvis (1991) suggests that participation in development programs be a prerequisite for internal research, equipment, and travel money. Course releases and other considerations may also be contingently related to participation. Such a contingency is sensible, if not essential, from a behavioral perspective. In addition, immediate consequences must also be programmed; candidates for such stimuli include engaging, informative, useful, and interactive presentations, praise from the department chairperson, time to socialize with other new faculty, and free lunches (a modest lunch often serves as a powerful reinforcer for faculty attendance). Behavioral principles of shaping and modeling should be incorporated, of course, as should facilita-

tive antecedent stimulus control (e.g., convenient and short sessions, advance scheduling, reminders by organizer and department chairpersons, etc.).

CONTINGENCIES INVOLVING STUDENTS

Students enter higher education with long histories of academic contingencies that may not have adequately prepared them for the demands of many of their courses (Fraley, 1998). In fact, some students are woefully unprepared for higher education. The admission of such students can be explained, at least in part, by the contingencies for administrators that favor maintaining or increasing enrollment and the associated tuition and subsidy dollars. Faculty may then behave in ways that encourage student retention, such as lenient grading and conflict avoidance.

Enrollment concerns relate to the more general phenomenon of institutional competition for students: "Higher education has entered a long period of consumer sovereignty, one which will require a great many adjustments in institutional behavior" (G. Keller, 1983, p. 17). Indeed, students are seen by many administrators as consumers or customers (Levine, 1997), and students not surprisingly often see themselves and their parents as consumers (Readings, 1996).

Students who behave as consumers purchase a product offered by higher education institutions, which frequently is a credential that will lead to specific contingent consequences that are otherwise not available. Moreover, to attract these consumers and sell their products, institutions need a variety of resources (Epper, 1997; Kelley, 1998) including technological sophistication and the personnel to offer courses at various locations and times that maximize a program's appeal to students, even those who work full time or are raising families—or both.

The institution's attempt to offer appealing programs and courses calls into question another variable around

which conflicts may arise in an environment in which students are consumers: academic quality and rigor. Unfortunately, many students have long histories with academic environments in which responses of minimal effort have been extensively reinforced. Such students can be expected to resist contingencies that require more effort, particularly if the consequences for such increased effort are long delayed or are not actually reinforcers. This may particularly be the case when one's behavior can be allocated to other, more immediately and more powerfully reinforcing activities. Thus, for faculty members, making minimal demands on their students may be negatively reinforced (Fraley, 1998). And administrators, competing for students in an open market, "respond to student and parental whims and educational standards are the casualty" (Karabell, 1998, p. 235). This is part of the consumer ethos that has come to characterize higher education (Levine, 1997; Readings, 1996).

Further, another contingency has emerged in recent years to control student behavior: rewards resulting from participation in "active learning" that produces a refined, marketable skill in addition to abstract knowledge and understanding. Students at times have their tuition subsidized by their employers, and need in return certificates and advanced degrees that substantiate a defined competency. They are now apt to insist on more than a liberal arts or professional education: They want to integrate meaningful on-the-job training within their studies, preferably with pay (Freedland, 1999). Very traditional faculty, we hypothesize, might view these types of programs as good examples of the decline in academic rigor.

These sorts of employment contingencies at work on student behavior, in effect, shift a significant degree of control over the curriculum from the full-time faculty to the student, from the "seller" to the "buyer," which is the epitome of a market system. The typi-

cal student juggles university study with many other, perhaps more important, demands (e.g., family, work), and will select only high-quality programs or courses that are delivered at attractive times and places, that are priced appropriately and include consumer-oriented service, and that are in formats that teach the intellectual and applied skills needed to secure other rewards, such as a more desired job (see Levine, 1997, for further discussion).

ACADEMIC ADMINISTRATOR CONTINGENCIES

We will discuss three interrelated consequences that appear to influence administrators' behavior: money, influence, and "good results." Administrators earn substantially more than the typical faculty member ("The Nation," 1998), and the relatively large salary may increase in importance as lifestyles evolve consistent with that level of income. Power—the ability to influence institutional goals in general and academic decisions in particular—is likely to be an important consequence for some administrators. Although shared governance continues to characterize the academy, there is widespread acknowledgment that administrators and boards of trustees have increased their power at the expense of the faculty (G. Keller, 1983; Readings, 1996). Thus, faculty have less input today on "questions such as whether a department or program would be established, expanded, retained, or eliminated; hiring and dismissal of faculty; assignment of positions and programs and departments; workloads" (Aronowitz, 1997, p. 202).² Besides enhanc-

² A clear example of this shift now characterizes one of the authors' departments: The faculty formerly selected the departmental chairperson; now the faculty are required to forward to the dean two candidates, and the dean designates which will be the chairperson. In general, the current imbalance in control of positive consequences markedly favors administrators over faculty. Faculty provide only a few positive consequences for administrators (e.g., periodic evaluations) whereas the latter determine many desired outcomes for the faculty (e.g., bonuses, reduced course loads, travel money).

ing prestige, the display of power can produce what the administrator views as a "good result," such as the recruitment, retention, and graduation of students, the implementation of technologically based curricula, or the introduction of highly visible innovative programs. Effective changes, in turn, are related to the maintenance of the administrative position and the high salary that accompanies it. Because an administrator generally serves at the pleasure of his or her superior officer, acquiescence to superiors and challenging behavior toward faculty may be functionally related to retaining the position. Thus, we are not surprised that administrators who embrace calls for increased efficiency and better response to the student consumer are willing to engage in conflicts with faculty or even sidestep faculty in pursuit of contentious goals.

The conflicting contingencies controlling administrator and faculty behavior are clearly exhibited when administrators attempt to respond to competitive pressures. The University of Phoenix and other for-profit institutions are viewed as market threats. However, according to Winston (1999), most public institutions are not much threatened by for-profit institutions such as the University of Phoenix because their students are so heavily subsidized. Conversely, many private institutions, with their less subsidized students, are threatened by for-profit institutions. But even high-student-subsidy institutions may be vulnerable to for-profit institutions competing with them for "those *parts* of a curriculum on which they can make a profit—certain courses and programs" (Winston, 1999, p. 17). The for-profit institutions like the University of Phoenix believe they can deliver course work more economically than the traditional university (Winston, 1999). Costs are a factor for many students: Despite increases in financial aid, students are borrowing more money and getting fewer grants (Greene, 1998). In addition, Pell grants, the major federal

funding source for low-income students, provide about half of what they did 20 years ago (Estrin, 1998). In this competitive milieu, where student enrollment is critical, administrators at traditional institutions will find an alluring contingency within this advertisement: "How to Add Students Without Adding Infrastructure" (1998). What better way to meet state governments' push to have institutions accommodate more students without increasing costs (Epper, 1997)? A similar contingency underlies the varied collaborative programs universities are now establishing with corporations, for-profit universities, and non-degree-granting institutions. Administrators seek partnerships that bring significant and positive economic and social consequences, both to the individuals responsible for the collaboration and to the university. Though administrators believe that proactive responses are necessary to meet market pressures, many faculty are inclined to resist these initiatives: The nontraditional students, structures, policies, governance, and instructional demands present them with potent noxious stimuli (cf. Gose, 1999).

The power of the faculty is constrained today in several additional ways. The use of non-tenure-track faculty is not only growing (Pratt, 1997); it is being institutionalized. Georgia State University, for instance, converted 110 part-time positions into 95 visiting non-tenure-track slots, for which instructors must reapply annually, knowing that some of the positions may be terminated if undergraduate enrollment shifts or declines (Wilson, 1999).

The erosion of faculty control is evident as well in the rise of the "professional administrator" in academia (Barzun, 1968; Greenspoon, 1991), as the proportion of administrative and other nonteaching professional staff increased from 15% in 1976 to 22% in 1993 (*Digest of Education Statistics*, 1997). Although there was an increase in the number of students over these

years, there was a larger increase in the number of professional staff. Interestingly, the proportion of nonprofessional staff declined from 42% to 35%. At the rapidly growing University of North Carolina at Charlotte, faculty increased by 95% from 1977 to 1997. Support staff increased by 45%, but administrators increased by 172% (Green, 1998). The number of support staff per faculty declined from 1.0 to 0.77, while the number of administrators per faculty increased from 0.33 to 0.45. These increases in administrators can be understood as a direct effect of the relatively recent external contingencies that affect the academy: Student outcome assessment, technologically enhanced instruction, program reviews, off-campus programs, interdisciplinary and collaborative programs, instructional evaluation and enhancement, and posttenure review all require skilled coordination and elaborate data collection and analysis (L. Martin, personal communication, January 10, 2000). Nevertheless, the consequence is a shift in power from faculty to administrators who now "determine the reigning philosophies, and . . . often import management techniques acquired from business and apply them to the classroom [and to faculty] with wildly uneven results" (Karabell, 1998, p. 210). As Readings (1996) succinctly puts it, "The central figure of the University is no longer the professor . . . but the provost to whom both the apparatchiks and the professors are answerable" (p. 8).³

By and large, faculty resistance to its weakened control over curriculum development and personnel matters has been either nonexistent or ineffectual. In some states, administrators of public institutions are prohibited by law from bargaining with faculty unions. Where

faculty union countercontrol does exist, it frequently entails two problematic contingencies that undermine, in the long run, its influence with the administration. Union contracts often eliminate outstanding performance as the behavioral criterion for salary increase. This forces administrators to seek alternative mechanisms to contain costs, improve institutional efficiency, and recognize meritorious effort. At Cleveland State University, for example, merit bonuses are awarded to 20% of the faculty for outstanding teaching, scholarship, or service, but these one-time bonuses do not go into the base salary. Further, the merit award is unilaterally decided by administrators and is nongrievable by the union. Unions also frequently introduce a second unhelpful contingency; in general, they must support and argue all faculty grievances to the administration, regardless of the merit of the complaint. Aversive consequences of this requirement include some loss of credibility with the administration, as well as expenditure of scarce human and perhaps financial resources, and occasional conflict with other faculty who perceive the grievance as improper.

Finally, we note briefly that department chairpersons, the lowest ranking university administrators, experience both faculty and administrator contingencies (Rakos, 1999). Most chairpersons will return to faculty ranks after 4 to 7 years (Tucker, 1993), and therefore need to maintain scholarly and pedagogical skills as well as collegial relationships with department faculty. On the other hand, the chairperson is expected to cooperate with upper administration directives, maintain and enhance department contributions, and manage faculty, staff, and student problems and conflicts. Chairpersons almost universally experience significant stress as a function of this dual contingency (Gmelch & Miskin, 1993; Wolverson, Gmelch, Wolverson, & Sarros, 1999). Rakos (1999) provides a comprehensive behavioral analysis of the chairperson's role.

³ A small number of high-profile faculty are not directly affected by the decline in faculty influence. Administrators treat these individuals very well, and consequently, they are unlikely to provide leadership in asserting faculty interests that are counter to those of administrators.

WHAT DOES THE BEHAVIORAL ANALYSIS SUGGEST?

Our analysis from the behavioral perspective clarifies that students, faculty, and administrators are influenced by potent consequences, many of which probably function as positive and negative reinforcers. Students are influenced by contingencies that closely mirror capitalistic market forces: They are increasingly referred to as "consumers," and are perceived to want a relationship with their campus that functions similarly to ones they have established "with their bank, their gas company, and their supermarket" (Levine, 1997, p. 6). In other words, the contemporary student consumer expects that the academy will provide what is desired, remove what is undesired, and make the changes rapidly and efficiently. Administrators, like students, are influenced by market contingencies, as the daily enrollment figures, and the tuition and state subsidy they represent, are posted on internal Web sites. Administrators become entrepreneurs in the unending search for new students and the programs that will prompt their enrollment in the institution. The financial consequences for administrators' decisions may be more delayed (via board of trustees or legislature decisions) than they are for students' decisions. Consequently, administrators' actions may be governed by a mix of rules and direct contingencies. Unfortunately, some of these same rules may serve as aversive stimuli for the faculty who are expected to meet the contingencies specified by the rules. For instance, faculty may be unfamiliar with the new demands (e.g., distance learning technology) or they may not be afforded the resources (money, staff, time) needed to enact changes properly. Whereas some instructors respond to market contingencies by compromising academic rigor, others will resist external pressures and assert the need to maintain the traditional values, goals, and purposes of

higher education. These faculty will emit countercontrol behaviors toward administrators, which may be expressed as passive-aggressive behavior on nonunionized campuses and as assertive or aggressive behavior on unionized campuses (cf. Rakos, 1991).

The competing contingencies challenge higher education's ability to function smoothly. Students and administrators increasingly respond to contingencies that arise out of market relations with the wider society, but the faculty—particularly those who are tenured—are influenced primarily by quite traditional contingencies far removed from dollars and cents. Notions of "academic freedom" and "the ivory tower" reflect the ideal that intellectual inquiry, in an unfettered search of the "truth," must be protected from naturally occurring functional relations with the immediate environment. Moreover, such natural contingencies are seen to be unnecessary to maintain active scholarly inquiry, for the academician is romanticized as driven by love of knowledge and the search for truth, wherever that may lead him or her. In other words, the faculty contend that "value" reinforcers, supplemented by adequate institutional support (travel funds, research materials, etc.) and a reasonable income, will sustain academic behavior.

Tenure strikingly exemplifies this conflict between contingencies. Tenured faculty are generally exempt from meaningful institutional contingent consequences for all performance deficiencies except for a few extreme circumstances of malfeasance, nonfeasance, or financial exigency. Not surprisingly, tenure is at the center of controversies about and efforts to "reform" academia. The discussions range from the seriously analytical (e.g., the special issue of the *American Behavioral Scientist*; see Tierney, 1998) to the simplistic and misleading (e.g., calculations of faculty productivity with and without tenure). Perhaps the most extreme example of the latter is the report of a former trustee of Wil-

liams College, who analyzed faculty workloads and reported that "tenure advocates are inflating faculty workload reports" and that, in actuality, tenured faculty "are 50 percent less productive and see students 60 to 75 percent less than those whose schools do not offer tenure. Extrapolating to faculty costs, a salary of \$70,000, which in the private sector is actually about \$91,000 with benefits, comes to about \$326,000 in higher education, when sabbatical, benefits, and the number of classroom hours are figured in" (Daley et al., 1998, p. B2). Although these figures are nonsensical, it is important to note two things here: First, the comparison is made in market terms, and second, the work effort of faculty is asserted to be exaggerated.

These attacks on tenure have already had significant consequences. It is estimated that perhaps 20% of independent 4-year colleges, such as Bennington College in Vermont, have eliminated tenure (Chemerinsky, 1998). Politicians like Massachusetts Governor Celucci are exploring methods to change traditional public institutions into unregulated and tenure-free institutions that can be more innovative, autonomous, and efficient (Healy, 1999). The Governor would certainly approve of Florida's newest state university, Florida Gulf Coast University (FGCU), which employs only contract faculty (Chait & Trower, 1998). The academic structure of FGCU is, at least in part, a "response to pressures from the Board of Regents and the governor's office to move the university system toward a 'business-based model'" (p. 21) of education. FGCU's "Ten-Year Development Plan" emphasizes that "an important element of the university will be the variety of alternative learning and teaching systems" (p. 20). Contrary to predictions of the traditional professoriate, the new university had little difficulty attracting a huge pool of qualified applicants for faculty positions based on "multiyear appointments" rather than tenure tracks (Chait & Trower, 1998).

A second area in which the competing contingencies clash strongly is in academia's bureaucratic governance structures. Faculty-shared governance is frequently cumbersome, rigid, and conservative, particularly in terms of curriculum reform. A recent example is provided by Rice University, where faculty blocked the introduction of a comprehensive new undergraduate curriculum, seeing it as a "postmodern plot," leading the president of the university to remark that "changing a curriculum has all of the physical and psychological problems of moving a graveyard" (Schneider, 1999, p. 14). Further, the comprehensive curriculum proposal that failed at Rice took over 2 years to fashion; when comparatively modest new programs, certificates, or degrees are proposed in response to emerging social or economic needs, the multilayer academic governance structure will likely take 12 months to 2 years for approval (prior to implementation!), which stands in marked contrast to the time frame expected by entities that operate by market contingencies. Administrators may require greater control in the 21st century due to the rapidly changing situations in business, government, and education (Weber, 1999); the old system of faculty bodies making recommendations to the administration is much too slow to enable the higher education institution to keep pace with the evolving demands placed on it.

The plodding nature of shared governance has led to the emergence of institutional structures that circumvent traditional decision making and permit relatively rapid response to market pressures, say, in the development and introduction of innovative programs. Universities with long histories and traditions elude faculty resistance by locating such programs outside of the regular academic structure; for example, many certificate and degree programs are housed in "continuing education" units that rely primarily or perhaps even exclusively on adjunct and part-time instructors (Gose, 1999). In

other instances, universities align themselves with "corporate universities" in which the curriculum is tailored to the needs of the corporate collaborator, independent of the usual faculty governance (Gose, 1999).

THE IMPLICATIONS

Our analysis suggests that there is a serious instability in the academy that is a function of contingency systems that isolate faculty goals from those of students and administrators, which are fairly consistent with each other. Our belief is that the market contingencies that foster the current systemic disequilibrium will become far more potent in the foreseeable future, and that action to address the instability is essential. This does not imply that academia must become "the education business," much like there is an "automotive business" or a "software industry." Reform in academia, however, must occur in a timely manner to preserve the foundation of the system. In essence, a new metacontingency (Glenn, 1988; Lamal, 1991) needs to be introduced—one that encourages behaviors of students, administrators, and faculty that contribute to a common desired outcome. In the spirit of change, we offer several areas in which we believe the conflicting contingency systems of academe can be addressed through creative and flexible problem solving.

1. Tenure, as noted earlier, has emerged as a central contention due to its apparent inconsistency with market variables. Nevertheless, we believe that tenure is an important safeguard that ensures independent inquiry and that alternatives, such as First Amendment protection, long-term contracts, and grievance procedures, are inadequate (cf. Chemerinsky, 1998). Further, tenure actually embodies a distinct market benefit from the institutional perspective, in that faculty usually trade some salary dollars that are potentially available in nonacademic settings for job security (Leslie, 1998). Tenure, there-

fore, benefits both administrators and faculty. Yet it can be modified to function even more effectively. Administrators and faculty (or their unions) should negotiate a range of performance-based contingencies for tenured faculty that rely primarily on incentives (potential positive reinforcers). Structured properly, such contingencies can simultaneously meet administrative needs for flexibility *and* faculty desires to reassert influence and increase self-determination. For example, faculty would have earned a course release, and thereby can *inform* administrators of the intent to use it at a specific self-selected time (perhaps with some constraints to ensure that departmental functioning is not harmed). The many possible consequences include (but are by no means limited to) (a) contingent bonuses for scholarship, teaching (see University of Florida's "Teaching Incentive Program," Leslie, 1998), and service; (b) increased or decreased teaching loads; (c) course releases, sabbaticals, or other teaching-load adjustments; (d) travel and equipment monies; (e) the opportunity to offer a seminar in a narrow specialty area; and (f) individually determined (as opposed to across-the-board) salary raises.

2. Administrators and faculty should develop meaningful and nonthreatening posttenure review procedures. The focus of such a program should adhere to the behavioral principles that emphasize positive feedback over criticism, gradual change and shaping over unrealistic demands for immediate change, and contingent short-latency positive reinforcement for desired behavior change over reliance on value-laden "shoulds" or negative reinforcement. A recent example that embodies some but not all of these principles is the compromise that emerged out of the University of Minnesota's highly publicized battle over tenure reform; in the end, the faculty accepted a posttenure review system that included positive reinforcers (performance pay) and negative reinforcers (streamlined dis-

ciplinary procedures, potential pay reductions up to 25%) (Engstrand, 1998).

3. Administrators need to develop comprehensive faculty development plans and fund them adequately (Jarvis, 1991; Wheeler & Schuster, 1990). Faculty competencies in the future will need to change even more rapidly as technology and social needs continue to evolve dramatically. Universities must ensure that faculty (a) have easy access to a wide range of efficient training programs, and (b) are liberally and contingently reinforced for selecting and utilizing training opportunities. These faculty development programs must encompass faculty at all stages of their careers ("hire to retire"). For instance, "postreinforcement pauses" in faculty productivity can be anticipated and even empirically established (e.g., the time period subsequent to the award of tenure is a promising candidate for such an analysis), with programs tailored to predictable plateaus.

4. Institutions must improve the faculty socialization process. For example, during recruitment of new faculty, the rules that specify contingencies between faculty behavior and possible reinforcers should be introduced and discussed. Then, through faculty orientation and development programs and chairperson and administrator development programs, the participants in the institution's life must continuously be exposed to prevailing rules, trained in necessary skills, and sensitized to cultural and cross-cultural variables that influence successful performance (Tierney & Rhoads, 1994), particularly by minority and women faculty (Alexander-Snow & Johnson, 1999; Trautvetter, 1999; Turner, Myers, & Creswell, 1998).

5. Faculty governance is at the heart of the academy and faculty control of the curriculum is at the heart of faculty governance. There needs to be creative reframing and reorganization of faculty control to allow efficient responses to the market sector; the challenge will be to find a way to modify the governance structure so that such a response to

market contingencies is possible, while a core curriculum that defines an educated person in the 21st century is still retained. If this does not occur, administrators will continue to marginalize faculty governance.

CONCLUSION

We have described contingencies that involve faculty, administrators, and students in contemporary American higher education. We have not attempted to provide a complete behavioral account. For example, we have not considered contingencies imposed by laws, regulations, and policies of state and federal authorities, except for tenure. Nevertheless, we identify and discuss conflicting contingencies that affect large proportions of faculty, administrators, and students in many American institutions of higher education. We predict that these contingencies will continue to be sources of conflict that result in institutional disequilibrium. If the system is left to evolve naturally, we fear that faculty will be the group experiencing the greatest negative consequences. Altbach (1997) issues a clear warning after reviewing the data from recent Carnegie Foundation surveys: "Most [academics] seem unaware of the problems facing American higher education" (p. 330), probably because

the average full-time American professor remains largely insulated from the broad changes taking place in higher education. Not only that, the professoriate seems to have little understanding of these trends . . . [and] do[es] not see these trends as very alarming and do[es] not recognize them as part of a permanent change in the landscape of American higher education. They have not yet experienced the new realities for themselves. . . . Faculty members do not yet realize that if institutions are going to survive and the traditional prerogatives of the professoriate maintained, the profession will need to take an active role in ensuring institutional well-being. (pp. 332–333).

However, with collaborative and systemic planning, we believe that faculty, as well as students and administrators, can continue to derive great rewards

from and contribute meaningfully to a rapidly changing academy.

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