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# 10

# *How Might Data Be Used?*

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TWO FUNDAMENTAL PRINCIPLES of the academy are to ground arguments in data and to draw conclusions from systematic analysis. Ironically, both the literature on the use of data in organizations and actual practice in academe suggest that policy discussions and decisions only sometimes honor these core tenets. When faculty employment, work life, or productivity is under consideration, anecdotes, impressions, and dogmatic beliefs are far more likely than data to serve as a catalyst and rationale for policy deliberation and formulation.

Two fairly recent events illustrate the exception and the rule respectively. During the late 1990s, tenure was under scrutiny in Arizona and Minnesota. Members of the Arizona Board of Regents believed that tenure was the root cause of several problems at the state's three public universities. "At the outset, members of the Arizona Board of Regents were becoming increasingly concerned about problems they perceived to result from the implementation of the tenure system at the State's three public universities," remarked Frank H. Besnette, Executive Director of the Arizona Board of Regents (1997, p. 1). Those problems included constraints on programmatic flexibility, innovation, redirection of faculty priorities, and actions against unproductive faculty members.

"A problem solving approach between the Regents and faculty mem-

bers was considered the best way" to move forward in a way that would "prevent the kind of destructive cycle of accusation and counter-accusation between trustees and faculty members that has characterized much of the discussion about tenure nationally" (Besnette 1997, p. 1). A work plan was developed to design and implement a periodic audit of the operation and effectiveness of the universities' tenure systems. The tenure audit, conducted at all public universities in Arizona, provided data on tenure track faculty by race and gender, full-time and part-time faculty by age, and tenured, tenure track, and non–tenure track faculty by age. These data were then used to examine faculty workloads, the balance between teaching and service, and productivity (see Ervin 1998). With the implementation of a post-tenure review process, the Arizona institutions also now gather and distribute data about the outcomes of such reviews.

In Arizona's case, the data helped persuade the regents that tenure was not the root cause of the problems; data moved them in another direction. Once the board understood how faculty actually spent their time, and that there were safeguards in place to evaluate faculty throughout their career, the regents felt comfortable with the tenure system and its benefits.

Likewise, in Minnesota,[1] the Board of Regents became interested in the relationship of tenure to faculty productivity and institutional flexibility, particularly the institution's ability to redirect financial and human resources to meet emerging needs and priorities. Concern intensified when the state legislature withheld $6.6 million from the Academic Health Center pending reform of the tenure code. Daniel Farber recalled the events:

> No one ever said it would be easy to reform the tenure code at the University of Minnesota. But then no one ever said the process would become so messy either. By the time the process ground to a halt, four regents had left the board. . . . Tenure went from being an esoteric academic rule to front-page news, day after day. Because of the controversy, the system had come within a few dozen votes of becoming the nation's first major research university to unionize. Oh, and by the way, there also were some constructive changes in the tenure code. But the price was steep, in terms of morale, political capital, and institutional vitality. (Farber 1997, p. 6)



Most participants in the process agree that reform of the tenure code at Minnesota was hampered by lack of data. The regents were troubled because data necessary to answer basic questions were not readily available. What happens to tenured faculty in the event of program closure at other research universities? How much of the budget is tied to tenure track versus non–tenure track lines? Part-time versus full-time faculty? How many tenured faculty are likely to retire in the next five years? From which departments? Do other medical schools tie base salary to productivity? What percentage of the faculty have tenure, by department? How does this compare to other research universities?

Former regent Jean Keffeler (1997b) noted:

> Above all, a university should be a community in which inquiry and the pursuit of information are encouraged and protected, even when controversial, united by civility and high common purpose. Proponents and opponents of tenure reform ought to agree that the sorry proceedings . . . at the University of Minnesota demonstrated that we have a long way to go in meeting the true standards of intellectual and academic freedom at our university. If the goal was least change, most control, then we did well. The faculty and administration stonewalled the production of meaningful, timely information about tenure practices and faculty profiles. Precious little factual information about the Minnesota tenure situation was provided by the Regents, the administration, or the faculty. As a result, the general public was well informed about the tenure rhetoric and poorly informed about the tenure reality at the University of Minnesota. (p. 10)

By way of advice, Keffeler (1997a) said:

> Provide your administration and trustees with information, not anecdotes . . . hard data, benchmark data, best practices information. Do anything that can be done to get beyond the natural insu-

> larity and myopia of the institution you serve, including its familiar social patterns and mythology. In Minnesota, there was too little information, too late. We allowed the process to jump to an emotional debate where no one wins. (p. 6)

Keffeler also said, "The process was never grounded in scholarly inquiry or data. Our intellectual standards were amateurish and would not stand the light of day in even a mediocre business" (1997b, p. 11).

The Arizona and Minnesota cases raise a number of important questions about the role of data-driven analysis in the review and formulation of faculty employment policies. Did data really make a difference in Arizona? Would the availability of systematic data and analysis have helped or hindered the process in Minnesota? In what ways? From whose perspective? Why did the reexamination of tenure in two states produce such radically different processes? While the presence or absence of data about faculty employment policies and practices was certainly not the only issue at work, and tenure remained intact at both universities, firsthand accounts suggest that the use of data helped turn a sensitive issue in Arizona into a policy consensus, grounded in fact, that effectively defused a potentially explosive situation. Faculty and administrators were able to persuade the regents that their institutions were flexible, could and did innovate, and employed productive faculty who taught large numbers of undergraduates. The absence of critical data in Minnesota created a void where rumors, opinions, and e-mailed messages swirled, with little or no data to support the opinions. Not coincidentally, perhaps, a few embers erupted into a mighty conflagration.

## Do Data Make a Difference?

Based on the experiences of regents, legislators, faculty, and administrators in Arizona and Minnesota, as well as conversations with these constituents elsewhere, the Project on Faculty Appointments at Harvard University Graduate School of Education established an Information Resource Center to design, pilot, and distribute both a policy archive and a practice profile in order to assist parties to policy deliberations on faculty employment issues. The policy archive (discussed in Chapter 2) enables users to compare faculty employment policies of



250 colleges and universities. The practice profile provides institution-wide, longitudinal data on faculty personnel actions. A number of fundamental questions guided the development of these two data resources: Do better, more reliable data on faculty employment policies and practices change the substance and nature of policy discussions and personnel actions? If so, how? What data are used, by whom, and in what ways on campuses and within state agencies and legislatures? What problems arise when institutions attempt to collect, analyze, and disseminate such information?

While the archive can be an effective resource when institutions consider handbook revisions, it tells only one part of the story. We must also ask "What is the impact of policy on practice? How do policies affect the employment of faculty from point of entry to exit?" To better understand actual practice, the Project on Faculty Appointments worked with academic officers and institutional researchers from ten institutions to design and pilot a data template to track and report important faculty personnel actions over a five-year period. (In descending order of student enrollment, the ten are: University of Arizona, University of Cincinnati, University of Tennessee at Knoxville, University of North Carolina at Chapel Hill, Kansas State University, Oakland University, Ithaca College, Illinois Wesleyan University, Goucher College, and Bethany College.) Categorized by gender and ethnicity, the template includes data on type of appointment (e.g., full- and less than full-time; non–tenure track, tenure track, and tenured), tenure decisions, turnover, age, retirement projections, and the outcomes of post-tenure reviews. In October 1998 the ten institutions developed common definitions and a standard format.[2] Participants also identified a wide range of intended uses for the data, including plans to (1) revise faculty employment policies, (2) prepare trend analyses, (3) inform discussions of flexible hiring policies, (4) benchmark against peer institutions, and (5) clarify, confirm, or refute current beliefs and perceptions on campus about faculty employment policies and practices.

## Assessing the Utility of Data

In autumn 1999 project staff visited the ten pilot institutions to meet with faculty, administrators, staff, and in some cases trustees and legis-

lators, to discuss the collection and use of data on campus. This section highlights conclusions and common themes from the site visits.

### *Political Readiness Is Crucial*

When undertaking a data collection process of this sort, political readiness is a vital element. Political readiness is largely determined by the who and the why. Who wants the data? For what purpose? Is senior leadership in charge of or at least supportive of the effort? This concept was wonderfully described by a provost who said, "Data don't just get up and walk around by themselves. If they don't align with some higher will, they'll just sit there. Those data are impotent, and they only become potent when somebody in charge wants something to happen."

The role of senior leaders varied widely among the ten institutions, ranging from coach to quarterback to spectator. At institutions where the president and/or provost led the process, the demand for the template data was higher than at institutions where senior administrators were only tangentially involved. In some cases, a senior leader (e.g., chief academic officer) actually made the case for collecting the data, presented the template data to campus constituents, and linked the information to policy formulation and decision-making. Remarks by a senior academic administrator during the data presentation on one campus demonstrate how leaders can set the tone for data collection and use:

> Our university is currently grappling with how it and its schools and departments might be redefined to meet future needs and demands. In order to do this, we need to know where we are and what we are dealing with. We also need to know how we stack up against other universities by looking at comparative data. We need to address questions such as: How are we doing regarding faculty diversity? What are the trends regarding faculty retention? To what extent are faculty leaving the institution and why are they leaving? How will we cope with increased accountability? How are we using our faculty resources? Now that we have this database on faculty employment issues, we can take a hard look at real data, not just base our arguments on what we think or feel. We are now in a position to use data to make decisions that are good for faculty and good for the institution.



Likewise the provost at another institution openly expressed strong interest in the data: "The template data provide us with a snapshot of the institution and are directly linked to important issues concerning faculty employment. The data will be helpful in policy conversations with deans and department chairs, and I would like to see us collect at least some of the template data on an ongoing basis."

In a few cases, no data from the template were actually presented during the site visit; as a result, most constituents were not very knowledgeable about what data were collected or how they might be used in campus policy development or decision-making. In these instances, senior leaders were chiefly spectators. Data appeared to be relatively unimportant to them and were unlikely to be used in decision-making. At one institution, the provost noted that the president had "little use for data" to inform decisions. The attitude was "Why marshal data to make a case when the case can be better, or just as easily made, by anecdote or personal relationships?" Not surprisingly, data at this institution were in complete disarray. The institution had little or no technical expertise and no political readiness to collect information about faculty employment. In fact, in the past, decisions to implement phased and early retirement plans were made with little data about how many people were likely to participate or what these programs would cost.

At several institutions, administrators and faculty explicitly intended to link the template data to institutional governance, policy deliberations, and decision-making. For example, several deans and department chairs indicated that comparative, quantitative data on faculty appointment trends could help make a case for more resources for their department or unit. Others suggested that template data might be used to support strategic planning or might be incorporated into their institution's academic program review processes.

During one site visit, a senior academic officer articulated the ways in which the template data might directly tie to campus decision-making and policy formulation. In remarks to a group of deans, department chairs, and faculty, he stated: "We want to inform you and acquaint you with the data we have collected and would like you to share your in-

sights and observations with us. As far as we're concerned, this is public information. I think these data have good potential to help us focus on important institutional issues and to provide guidance on some initiatives we are considering. The template data are a resource for future conversations that will take place here."

In other cases there was no intention among academic administrators and/or faculty to use the data systematically to support decision-making and policy formulation. At other institutions, the template data collection and campus discussion may have opened a small window of opportunity for informed review of faculty employment policies.

Particularly on campuses with no tradition of data-driven decisions, the very act of collecting data can provoke concern and suspicion. A department chair remarked, "I'm conscious of what the administration will do with these data now. I'm doubting the results, not the what, but the why. What and who is behind this?" A senior administrator on the same campus reported, "It seems like every time we gather data there is some suspicion; folks always wonder about the agenda." Others expressed concern about the accuracy of the data and the cost-benefit ratio of the effort. Some skeptics assumed the role of "data checkers." One remarked, "I probably wouldn't use the data, but if someone else might, I want to be sure that it's accurate."

On another campus, which had undergone recent scrutiny and policy oversight by trustees, the provost admitted, "If we were to have said [to the faculty] that these data were for the Board of Regents we would have encountered foot-dragging, but because this was a research project . . . people were excited about it." Said another provost,

> On our campus, there is an inherent fear of being overmanaged . . . a fear of the "corporatization" of higher education. There's a sense that "you," the administration, want to boil "us," the faculty, down to numbers and then make decisions based on them, and to a certain extent they're right! Data can be scary because they threaten faculty members' autonomy . . . a huge reason why people enter academe in the first place. To me, these data prove that we're interested in our faculty, in what they do. My job is to convince the faculty that I'm not going to use the data in ways that will restrict them or make them feel like they're clock-punchers.



At several institutions, little trust was expressed about the collection and use of the template data. At one site, doubts were repeatedly expressed about whether the central administration *could* actually collect accurate data on faculty employment issues and decisions. At another, there were concerns about how the data might be used, leading one faculty member to note, "We don't normally collect these data because too many people figure that it could only be harmful, never helpful, to do so." Without trust, intention, and leadership—the three elements of political readiness—the probability that data will matter drops precipitously.

### *Technical and Operational Readiness Is Vital*

Technical readiness—an institution's technological capacity to collect the data—is another vital ingredient. What sorts of software are available for data collection and analysis? Are there staff members with the requisite expertise? Operational readiness is another essential factor. This reflects the quality and accuracy of existing data on faculty employment, both current and historical.

Technical and operational readiness differed greatly among the pilot institutions. The information systems and databases from which data were generated were questionable at several sites. In addition, the staff varied in size, competence, and available time. At some institutions "the data just weren't there"; at others, data on faculty were collected and maintained in multiple systems, in different formats, and in several locations (e.g., central administrative offices, school/college deans' offices, specific departments). One academic administrator noted: "We don't have a good institution-wide academic database; the deans and department chairs maintain faculty appointment data locally, but we don't do as good a job as we could centrally. Frankly, the information we need is not in one location."

In one extreme case, the provost's office lacked ready access to accurate data on a broad range of faculty employment issues. Instead, one administrator allowed, "data were all over the place." Some information was stored on a mainframe employee database, other data were maintained on personal computers by deans and department chairs, and still other records, on paper, were filed in the provost's office. As a

result, officers could not determine the actual number of tenured and tenure track faculty appointed in the various colleges and departments in the most recent academic year. The provost speculated that the dearth of data might reflect a subconscious concern about what the data might indicate as well as a level of institutional indifference to data as a prerequisite to decision-making.

At another institution, the data collection challenges were more operational, but just as significant. In this case, the problem was that changes in the institution's human resource data systems resulted in different data files and formats across the five years covered by the template. Thus, some of the variation in the data was as much a result of data systems as actual changes in faculty appointment policies and practices.

This example points to an important data collection issue: many faculty data systems focus primarily on operational and administrative details (e.g., payroll, benefits, and employment status) rather than on data and analysis for policy development and decision-making. Consequently, gathering policy-relevant data on key faculty employment and work life issues presents substantial challenges for many institutions. These difficulties explain in part why key data on faculty appointments are not readily available to decision-makers. Of course, having technology, staff, and readily available data does not insure that the data will be used; that depends on political readiness, as previously discussed.

### *Definitions Are Problematic*

Faculty employment issues are inherently complex, not only for professors and administrators, but especially for constituents with less frequent and direct campus contact (e.g., trustees, legislators). As a result, definitions matter, lest terminology further cloud an already complicated policy arena. Without a common vocabulary, meaningful comparisons across departments, schools, and institutions are unattainable. Accurate data based on clear categories and precise definitions are crucial to generate and analyze useful faculty employment data.

Agreeing on definitions presents an early and sometimes insurmountable challenge to data collection efforts. The very definition of what constitutes data is sometimes unclear. As C. O. McCorkle (1997) put it, "Management information takes many forms, including both



quantitative data and subjective judgments of informed persons" (p. 3). Data on faculty employment issues can include anecdotes, descriptive statistical information, subjective judgments, comparative or interinstitutional statistics, benchmark analyses, descriptions of normative and nonstandard policies and practices, surveys, focus group information, financial and budget reports, and evaluation studies. Furthermore, some data are "official" or formal, and other data are "unofficial" or informal, yet both may matter, although not always with the same constituents.

The use of national or peer-group data on faculty employment can be limited because important terms and definitions were not sufficiently discussed and refined by decision-makers and data providers. One academic vice president noted, "What looks relatively simple gets quickly convoluted when you're not using similar definitions." "This is crucial," agreed a research university president. "Most discussions of faculty issues get bogged down by definitional problems, so that if you don't agree to terms you've got an unsolvable problem." He continued:

> There is a need to normalize the data, for example, research dollars per faculty member. Almost everything involves counting faculty, but the government, IPEDS, they all have different definitions, so every institution is counting differently. This is a big issue. While the lack of common definitions does not hamper our ability to make decisions relevant to ourselves, it does hamper our ability to see ourselves in a broader context. For example, the number of part-time faculty . . . is that a problem in and of itself? No, probably not, but what we need to know is does a certain number put us outside of the norm?

The inability to achieve common definitions for important terms strengthens the ability to resist change. As one faculty member observed: "One sure way to maintain the status quo is to say that something is indefinable; then it cannot be measured. It's possible that the academy likes having things that cannot be measured. I've seen this happen in many conversations of faculty productivity, work load, and quality. How do you measure them? Well, first you have to define them . . . and no one wants to do that!"

For meaningful comparisons, faculty data invariably involve count-

ing (e.g., full-time and part-time faculty; tenured, tenure track faculty, and non–tenure track faculty; research dollars; salaries), and without common definitions the tallies have little value. The same problem would arise with the Consumer Price Index, the Dow Jones Industrial Average, or reports on corporate earnings. If everyone were to account differently, comparisons and conclusions would be impossible to draw.

### *Data on Faculty Employment Generates a Desire for More*

Consistent with the literature on data as catalyst for further data collection (Feldman and March 1981; Weiss 1991b, 1999), as these data were produced faculty, administrators, and sometimes board members on many campuses requested additional data and finer-grained analysis. Most users wanted to "get behind" the numbers, to find out what they really mean. In all cases, the dissemination of quantitative data produced a desire for qualitative data to explain the findings and trends. For example, once differences between the number and percentage of women and minorities compared with white males who persist to tenure was known, additional questions emerged: Why is the persistence rate different? Why do women and minorities drop out on their way to tenure? Were they considered tenurable when they left, or were they likely to have been denied tenure? Are they leaving for better offers elsewhere? Did they leave academe altogether? Was there a chilly climate on campus? The template data at one institution, for example, suggested that women faculty resigned prior to the tenure decision at a significantly higher rate than men. After seeing the data, a faculty member declared, "If these numbers are right, then I think we're in a crisis." Other faculty members at the meeting recommended that the data on resignations be disaggregated by college and department to better understand what was happening. A professor suggested that follow-up interviews be conducted to determine why women were resigning prior to the tenure decision. In order to effect change on campus through policy changes, faculty and administrators needed a lot more than just raw numbers. However, the numbers themselves offered clues about what additional information was needed.

At another institution, the data showed that minority faculty were leaving at a higher rate than white faculty prior to the tenure decision. Said the provost, "It wasn't the data that made a difference in my thinking, but the data led me to meet with the African-American tenure track faculty. They made comments about the majority culture that measures success based on individual competitiveness. The minority culture measures success based on community ethics, collaboration, and furtherance of community. We needed the qualitative piece to put with the data."



In some cases, data that could be viewed as unfavorable produced demands for more data to clarify, justify, or refute the original information. The demand for additional data can be a challenge to "wrong" data, a way to filibuster, or even a way to disprove an unfavorable conclusion, much as objectionable research findings produce challenges to methodology. Even when the data are not disputed, demands for more data can arise because discussion of the extant data lead people to say, "Now that we know this, wouldn't it be great to know that?"

In a few cases, the template data neither confirmed nor refuted common beliefs or popular perceptions, but they generated more questions anyway. At an institution where the data disclosed that no one was denied tenure during the past five years, faculty and staff proposed a number of possible explanations. Could it be that the tenure criteria were faulty? Perhaps the administration was unwilling to make tough decisions? Maybe the institution has a highly effective "weeding out" process? Was it possible that the market was so favorable that the institution could pick and choose the very best junior faculty? Should the institution reconsider its tenure and promotion policies? No attempt was made, at least during this meeting, to resolve these widely divergent and apparently conflicting hypotheses. Provosts, deans, department chairs, and faculty wanted additional comparative data that would help the institution understand norms for certain policies, practices, and trends. In still other cases, the aggregated, institution-wide data from the template led to interest in data disaggregated by department, school, and/or discipline, and by race and ethnicity beyond the two categories used in this study.[3]

Some organizations suffer from "conspicuous overconsumption" of data on the premise that "if some data are good, more data are better." Organizations are most apt to fall prey to "data frenzy" where:

decision criteria are ambiguous;
performance measures are vague;

the success of a decision depends on other decisions that cannot be predicted or controlled;
institutions and occasions are closely linked to rational ideologies (Feldman and March 1981, p. 193).

These four factors epitomize academe and faculty work life, so it is not surprising that on every campus we heard: "Now that we know the numbers, it would be great to know what lies behind them." Armed with quantitative information, decision-makers discussed what qualitative data could answer questions that the numbers raised. The first impulse at many institutions was to gather still more data, about rank, time in rank, workload, publication records, or some other aspect of faculty employment.

### *What Is Measured Becomes What Matters*

The very compilation and dissemination of data place certain faculty issues into play. As Edgar Schein (1992), among others, has recognized, what gets measured is what matters. Data make certain problems, like the percentage of women and minorities in tenured and tenure track positions, harder to ignore. In about half of the cases, the template data catalyzed campus discussions of specific, problematic policy issues. One faculty member said, "Seeing data like these allows us to look at ourselves, to consider possibilities and explanations. It opens the door for a conversation. It puts these issues into play." Confronted with hard data, a department chair remarked that she knew intuitively that the percentage of tenured faculty at her institution was high, "but not that high." Equipped with the actual data, the chair proposed that this issue become an agenda item for further discussion.

How the data are gathered, which distinctions are made, and how they are presented determine how they will be used. Because the template required institutions to report data by gender and race, certain differences were spotlighted. Had we instead asked for data by department, but not by gender and race, departmental differences would have been highlighted and gender/race issues would have been obscured. The template data by gender and race identify possible disproportionate effects of faculty employment policies. For example, one institution's data revealed that the faculty's demographic profile barely



changed over five years. As one faculty member observed, "We have a completely stagnant faculty when you look at women and minorities. We've made no progress." The template data provided a similar insight at another institution, where a faculty member commented, "As I look at the data, gender equity is a glaring issue. This is really quite surprising. Many of us feel that we've made tremendous progress regarding gender equity, but the data don't support this view." There was discussion of the institution's relatively low number of faculty of color. A senior administrator mentioned that the institution had recently undertaken an initiative to recruit faculty of color, but added, "the numbers show we're not there yet."

In some cases, the data provoked discussion of complicated and persistent policy issues that remained unclear and unresolved. In one particularly noteworthy example where an institution with a tenure cap had recently downsized, the template data precipitated reconsideration first of the definitional aspects of the quota and then the utility of the policy altogether.[4] At another institution, the reality of part-time faculty became "all too clear" as campus constituents could no longer deny their existence in increasing numbers over the five-year period, especially when coupled with decreasing numbers of full-time tenured and tenure track faculty. At another institution, the data were used to identify a problem with women's resigning prior to the tenure decision at a much higher rate than men, and the data showed that the number of men and women taking phased retirement was much greater than expected. Where data raised red flags, institutions zeroed in on possible explanations and solutions.

While typically not articulated, the use of faculty employment data is clearly symbolic and acts as a signal to convey what is important at an institution. One provost said, "The very fact that we are collecting and disseminating these data signals the campus community that we are interested in faculty work life and factors that effect it." Said another chief academic officer, "This process is symbolic as well as rational. It shows that we are concerned about how women and minorities fare here." For at least three institutions, the process of collecting these data allowed administrators to bring faculty employment data together in one central location and provided a rationale for why this should be done.

Some leaders used the data collection process as a way to reinforce

culture. What leaders measure is a sure sign of what is important in an institution (Schein 1992). This was especially evident at those institutions where the president and/or the provost played an active role in leading the data collection effort. These leaders were aware of their institution's involvement and prepared for the process. Said one provost, "We plan to use these data when we hire new faculty and staff as part of an orientation process." At another university, department chairs suggested that they would use the data in a similar capacity: to show prospective and probationary faculty factual data about time to tenure and tenure success rates.

### *Data Are Rarely Directly Linked to Decisions*

Consistent with most prior research on the subject, we did not find direct links between data and policymaking. The literature presents a mixed picture of the value and role of systematic data and analysis for purposes of decision-making and policy development. Carol Weiss (1999) observed:

> Policy does not take shape around a single table. In democracies, many people have a hand in defining the issues, identifying the perspective from which they should be addressed, proffering policy solutions, and pressing for particular policy responses. Legislators[,] . . . civil servants, constituency groups, pressure groups, party leaders, potential beneficiaries of new policy, taxpayers, intellectuals . . . all take part in supporting and opposing new definitions, conceptual frames, and policy proposals. Almost never does the choice of policy hinge on the presence or absence of information. (p. 195)

Further, since decisions usually occur by "accretion," rather than at an official time and place (Weiss 1991a, 1999), no one can be certain which data, if any, affected which decisions.

Similarly, M. S. Feldman and James March (1981) determined that "the link between decisions and information is weak" because:

> Much of the information gathered and communicated by individuals and organizations bears little relevance to the decision.
> Much of the information used to justify a decision is collected and interpreted after the decision has in effect been made.
> Much of the information gathered in response to requests for information is overlooked when making the decision for which it was requested.
> Regardless of how much information is available at the time a decision is first considered, more information is requested.
> The relevance of the information provided is less conspicuous than is the insistence on information (p. 174).



Although tangible links between data and decisions are uncommon, data often do play a role—though rarely the lead role—in decision-making and policy formulation. At the very least, the presence or absence of data can influence how leaders and other parties frame problems and determine which issues to highlight or mute in policy discussions. Data thus can be used for various purposes. (See Table 10.1.) Of the twelve functions identified in the literature, three were particularly prominent in the pilot project on faculty employment data: monitor, compare, and substantiate.

One very important role played by data collected over time is to help organizations evaluate policies and practices, to *monitor* progress, and to make "marginal adjustments in strategies currently in use" (Weiss 1981, p. 188). Throughout our site visits, faculty and administrators discussed how important it is to have trend data—for example, on the number of part-time faculty. On one campus, an administrator discussed how the decision to hire part-time faculty was not made centrally. "Rather," he said, "the growth in numbers of part-time faculty was the cumulative impact of hundreds of separate decisions in separate departments. Snapshot data only provide one part of the picture. The trend data allowed us to see the cumulative picture and will allow us to continually monitor the situation."

A provost put it this way: "You have to keep adjusting the compass. Data show you where you are, and these trend data show you where you've been. But they are only one piece of the picture. We have to consider our technology, our clientele, and our institutional and programmatic strengths to decide on how best to approach the future. The data are part of monitoring what's happening, and they inform institutional adjustments."

**Table 10.1** The role of data in decision-making and policy formulation

| Function | Role of data | Sources | Questions answered/ statements made by the data |
|---|---|---|---|
| Catalyze | As a catalyst for further or improved data collection<br>As a catalyst to rethink assumptions | Feldman and March (1981)<br>Weiss (1991b, 1999) | Do we have the data we need?<br>If not, what additional data should we collect?<br>Are the data that we have appropriate?<br>Are the data correct? |
| Compare | To put an institution's experience with a particular challenge or issue into a broader, comparative context | Weiss (1981, 1999) | How do other institutions handle this issue?<br>How are other institutions doing with regard to X or Y?<br>Are we in a better or worse position on X or Y than our peers? |
| Identify/warn | To identify a specific policy issue or problem<br>To warn decision-makers that there is/may be a problem | McCorkle (1977)<br>Trow (1964)<br>Weiss (1981, 1991b, 1991c, 1999) | How do issues get "put into play" in policy processes?<br>What causes issues to appear on a policymaker's radar screen?<br>Do we have a problem here? (red flag) |
| Illuminate/enlighten | To illuminate policy changes and alternative decision options<br>To shift the spotlight from one place to another | Trow (1964)<br>Weiss (1981, 1991b, 1991c, 1999) | What are the potential policy options?<br>What works or does not work? |
| Influence | To influence policy conversations, discussion, and debates | Weiss (1981, 1991b, 1991c, 1999) | Now that I see the data, my thinking has changed.<br>I might agree with you if the data support your argument.<br>Given these data, it looks like we should move in this direction. |
| Inform | To inform key constituents about how the institution is performing in certain policy areas | Weiss (1981, 1991c) | Based on these data elements, the situation at our institution is as follows . . .<br>The implications of that are as follows . . . |
| Monitor | To monitor and evaluate policies and practices | McCorkle (1977)<br>Weiss (1981, 1999) | Do we actually follow our policies in practice?<br>How do our policies and practices "stack up" against performance expectations? |
| Orchestrate | To promote a shared understanding and a common language on a policy issue | Weiss (1981, 1991c, 1999) | Are constituents all "on the same page" regarding a particular problem or issue? |
| Signal | As a signal of legitimacy in an institution<br>As a signal of a good decision | Feldman and March (1981)<br>Schmidtlein (1999)<br>Stacey (1996)<br>Weiss (1991b, 1999) | Look at all the data we gathered prior to making this decision; it must be good.<br>Ours is an institution that collects data; therefore, we are legitimate. |

**Table 10.1** *(continued)*

| Function | Role of data | Sources | Questions answered/ statements made by the data |
|---|---|---|---|
| Socialize | As a way to embed culture in an institution | Schein (1992) | The institution's leaders are asking for, paying attention to, and measuring data about faculty employment. It must be important to our institutional culture. |
| Substantiate | To provide evidence to affirm or refute existing beliefs and perceptions | Feldman and March (1981)<br>March (1994)<br>Schmidtlein (1999)<br>Stacey (1996)<br>Weiss (1981, 1991c) | How does an institution test its assumptions regarding policy questions?<br>What do the data say that support existing beliefs?<br>Are there disconfirming data? |
| Symbolize | As a symbol of rational decision-making in an institution<br>As a symbol of knowledge and alertness | Feldman and March (1981)<br>March (1994)<br>Schmidtlein (1999)<br>Stacey (1996)<br>Weiss (1981, 1991c) | What data are present for use in decision-making?<br>Did decision-makers actually use the data?<br>How rational could the decision have been without data?<br>Look at all the data I have; I am knowledgeable on these issues. |



Data also help institutions place the institution's policies and practices in a broader or different context and counter insularity and parochialism by allowing them to *compare* data. In this fashion, data provide a window into a world that faculty and staff might not otherwise view. Faculty, and maybe to a lesser extent administrators, tend to be rather uninformed about policy and practice elsewhere, except by anecdotes swapped among colleagues in one's discipline. Dissemination of the template data heightened the curiosity of constituents about faculty appointment practices elsewhere and comparable data from peer institutions. As one administrator noted, "I'd like to see some comparative data so I can address the question 'Are we as good as we think we are or as bad as we think we are?'" This question begs the follow-on questions: Compared to whom and to what? Based on what reference point in time?

Administrators and faculty from several institutions wanted to obtain comparative data from peer institutions to ascertain normative trends and conditions and to consider whether the institution's policies and practices were outside the norm. This is consistent with data as reorientation (Weiss 1981). As a dean observed, "We know a lot about ourselves since we are a small institution, but we don't know whether our numbers are higher, lower, or the same as those at peer institutions." Said one provost, "We don't want to be all that different from everybody else on most of these measures. If we are, who are we different from and in what ways?" Another said:

> I'm most interested in our peer/aspirant institutions. If we're 30% above or below, we should be concerned. But we also need to look at these data in the context of everything we do. How helpful would it be to know that we have two unsatisfactory faculty and another system has thirty-five? So what? We would need to know more than this to act strategically based on these data. But to know that one department here has two unsatisfactory faculty and another has sixteen, or that most have none, well, that would be another matter.

On another campus, a faculty senate leader said, "It is critical from a planning standpoint to have these data. We need comparative data because if our peers' data are very different from ours, we can use this in-

formation as a 'convincing point' with the board of trustees or the legislature."

One by-product of collecting and disseminating data was curiosity about relative standing, much as the National Research Council or the *U.S. News & World Report* rankings engender conversations. The template data provided institutions with an opportunity for informed comparison. A senior academic administrator noted, "Data such as those in the template help the institution to see itself in a new light, from a different perspective, and in comparison to other institutions." He added, "These are data we never had before; they help us to highlight important issues and concerns." While several institutions in the pilot group sought comparative data from peer institutions, they did so only on an ad hoc basis. Participants felt that having the template would help them more systematically collect these data on an ongoing basis.

At most institutions, the template data clarified, confirmed, or refuted what many campus constituents had known intuitively about faculty employment trends at the institution, thus allowing decision-makers to *substantiate* opinions, claims, and beliefs. An administrator stated, "This is so much better than the usual anecdotal stuff; it's very helpful because it provides a reality check." A data provider said, "We need these data as proof that we are doing what we say we are doing, to defend our faculty practices to external constituents like legislators and board members." A state legislator acknowledged, "We all harbor perceptions, or misperceptions, as the case may be. Data like these can provide a reality check to test these perceptions" and to create a new impression or to correct a misimpression. He provided specific examples of how lawmakers might use the template data:

> There is sometimes a perception among some legislators that once faculty earn tenure their scholarship declines, their teaching loads decline, and there is no accountability or review after tenure. The template data can be used to refute this proposition. You can say, "We have post-tenure review, and here are the results." You can use the data to show that faculty members have to adhere to a standard. If there is a perception that a particular institution is too heavily loaded with tenured faculty and that this drives up compensation, you can use the template data on tenure rates, the overall profile of the tenure status of faculty, and data on salary/payroll commitments to show what is actually the case. If legislators think that the institution is not making progress regarding the hiring and retention of women and minorities, the template data can be used to inform recruitment and retention policies.



In some cases, the template data provided confirmation of conventional wisdom about faculty employment. For example, an administrator noted, "There were no surprises; we knew this was the situation at our institution, but now we have actual data to show us what is going on." A provost remarked, "What one might have suspected anecdotally about faculty resignation rates is actually the case."

The template data played a "rumor management" function at one institution, where a common perception was that few junior faculty can achieve tenure there. The template data and supplementary analyses, which distinguished between the voluntary departure of tenurable faculty and faculty counseled to leave, helped to discount rumors that most candidates for tenure were denied.

At another institution, department chairs were routinely asked by prospective faculty about tenure probability rates. For the most part, department chairs answered these questions anecdotally. One chair remarked, "Anecdotes often lead to rumors. Perhaps having the actual data will help us dispel rumors. Some department chairs say things like, 'Well, I've been here for nine years and I've only seen one person denied tenure.' Someone else might tell a very different story." A data provider at another institution termed this use of data "changing the mental image or cliché that people hold in their heads." In a number of instances, the template data did just that.

Constituents at several institutions appeared to take the insights derived from the template data quite seriously. In this sense, one could argue that data play an important role as objective evidence of the actual impact of faculty employment policies (e.g., How many and what percentage of faculty are awarded tenure? How many faculty resign prior to the tenure decision?). Hard data make it more difficult to initiate misperceptions or perpetuate myths. Data have the power to separate fact from fiction and rumor from reality. In a data vacuum, misperceptions can flourish easily. Even with data, rumors may abound; however, they are less likely to persist and prevail. When asked to talk about what the template data revealed, a faculty member at one institution

noted, bemusedly, "The data show that we tenure everyone who comes up, period," a powerful and irrefutable data-based conclusion.

### *Stories May Outweigh Statistics*

Anecdotes about faculty employment issues play a significant role on campuses and are often cited by lawmakers to support proposed legislation. Frank Schmidtlein (1977) described reliance on informal information from trusted sources, past experience, and the power of anecdote:

> Even with the advances made in modern systems of data collection and analysis, most of the information brought to bear on decisions continues to come from personal experience and knowledge obtained from sources other than formal data systems. The impact of informal information is evident in the frequent cases where recitation of a few concrete examples has more weight on a policy decision than a statistical portrait of the area. Policy makers sense the problems of data accuracy, the loss of detail in aggregations, and are suspicious of the motives of those who furnish and use data. Often the advice of a friend or associate whose judgment is valued counts for more than an analysis of data. Policy makers have a tendency to evaluate higher education in terms of their own past experiences attending a particular institution. (p. 37)

In the legislative arena, policymakers often depend more on informal sources of information and anecdotes than on systematic data and analysis about faculty employment. The power of a vivid story conveyed in a well-timed telephone call from a well-placed source cannot be understated, especially for policymakers deluged by information on a myriad of issues and problems. A state legislator tersely characterized his approach as follows: "When my phone rings, I write bills; when I write bills, I effect change; when I effect change, I get reelected." This legislator emphasized the advantage of linking legislation, whenever possible, to an actual person (e.g., the Brady bill) or event (e.g., Columbine) because such connections are so much more memorable than dry data.

A lobbyist for one institution remarked, "Anecdotes are more powerful than formal data for many policymakers." In the same vein, a longtime institutional researcher from a system that gathers extensive data on faculty employment policies and practices declared, "The legislators in my state actually say, 'I don't care about the data. I don't want it.'" Indeed, a "don't confuse me with the facts" attitude characterizes many policymakers. If one constituent had a bad experience in college, there may be sufficient political reason to act, regardless of overall data. In these cases, a sample size of one suffices to pass judgment and even legislation. In some states, compulsory post-tenure review was triggered by powerful stories about relatively few allegedly deadwood professors.



### *Data Use Differs by Constituent Group*

Most legislators and trustees want headlines and punch lines, and data in small doses, if at all. The few with a proclivity for data want the information presented in a fashion that tells a simple story, embellished with pie charts and bar graphs. Legislators want data that prove a point. In short, legislators want ammunition. If the data are unavailable, ambiguous, or complicated, they will be replaced by anecdotes.

On matters of data usage, trustees resemble legislators. Many board members expressed greater interest in what the data simply mean than in nuances of numbers and methodology. One trustee complained that discussion of the template data focused more on "the mechanics of the data" than on their importance. He had two key questions: How can you link these data to efforts to improve the quality of education, and how can these data help the institution do a better job? He said, "If these data can help us answer these questions and questions about curriculum and faculty hiring, then they might be useful." In short, trustees—and others—want less information with more meaning.

Presidents and provosts used data to shape an agenda, to provide support for hunches, to demonstrate accountability, to make comparisons with peer institutions, to change culture, and to make a case to board members or legislators. Those presidents and provosts with an appetite for data were more likely to use the template data in a variety of venues with many constituents, although this also depended on the issue and the executive's leadership style. For example, at one institution, the provost's desire to disseminate and use the template data

explains why data on several issues (i.e., post-tenure review and resignations) will continue to be collected and monitored. The provost intends to use the data with both internal and external constituents.

Deans and department chairs valued data that apply specifically to their discipline or profession. Many expressed reservations about the utility of institution-wide template data, preferring instead data disaggregated by school and department so as to reflect the culture and market in the various disciplines. One department chair observed, "Most of my actions with faculty are individual ones. We like to think that we're all exceptions, so at first blush, the template data are not very helpful." Another department chair remarked, "I need help solving problems involving individual faculty, not more data." A number of department chairs wanted data by department, gender, and race/ethnicity. One chair stated, "It is important to identify those departments where women and minorities are not faring well and encourage improvement." On a somewhat more pragmatic level, a department chair desired data to argue for additional money for his unit. Convinced that his unit was more productive and efficient than others, he remarked, "We argue for positions every year; we could use the template data to make the case for more faculty lines."

Faculty are often involved on campus committees and task forces charged with policy review and in that capacity are sometimes asked to draft faculty handbook language. Members of faculty welfare and promotion and tenure committees were particularly interested in faculty employment data. Frequently faculty comprise, for example, the campus committee on the status of women or the task force on women and minorities. Their interest in data would typically be tied to involvement with such groups or with disciplinary associations where faculty employment issues were under review. Not unexpectedly, faculty with leadership roles in campus governance, senates, and unions tended to have more interest in the template data.

### *There Is No Single "Owner" of Faculty Data*

This project revealed that institutions had data providers and data checkers, and usually data users (although the users were not always readily identifiable), but no data "owners." Where should these data reside? Who "owns" these data? Who will insure that they are captured



in the future in a systematic way? Is it the responsibility of the provost's office, where many institutions place faculty personnel matters? Or should it lie with the institutional research office, where other institutional reporting lies? Does the human resources office bear responsibility for housing these data? Even beyond where the data reside lie the questions of who owns the data and who is ultimately responsible for insuring that the academic institution has viable, accurate, and ongoing faculty appointment data. In the words of a vice provost, "Regardless of the technical, structural, and organizational issues surrounding data collection and use, there still remains that issue of a data owner who speaks up and says, 'This is the kind of long-term data that I need.' Provosts and presidents are like corporate CEOs who want to know what the next quarter shows rather than what the company is going to be like in five years. In fact, the tenure of senior leadership is not long, so it is rare that you get a long-term perspective in terms of data." As noted earlier, it is sometimes difficult to find data users, let alone data owners, in many academic institutions. With so many urgent matters at hand every day, most data get lost, and data about faculty appointments, for example, can easily be placed on a back burner and forgotten entirely until an issue where it is required comes into play.

## Implications for Practice

While there are a number of problems and challenges endemic to the use of data on faculty employment policies and practices, decision-makers and data providers can mitigate some of these difficulties. This section identifies several strategies and approaches, first for decision-makers and then for data providers, that should increase the likelihood that systematic data collection and analysis will inform the review and development of faculty employment policies.

### *Recommendations to Leaders and Decision-Makers*

*Be careful what data you ask for.* The very fact that a leader or decision-maker asks for certain data can raise suspicion or anger. When those data concern faculty employment, the potential for trouble increases. However innocent the motives may be, demands for such data elicit questions such as "Who wants to know?" "Why?" and "What is this all

about?" Faculty anxieties rise proportionate to administrative requests for employment data.

*Remember that data are not neutral.* C. O. McCorkle (1977) writes, "We must always bear in mind that none of the information, neither the judgmental elements nor the quantitative 'factual' information, is neutral. Although we sometimes might like to think otherwise, the information we use to analyze . . . is subjective, reflecting the opinions and biases of the individuals who gathered and analyzed the data" (pp. 4–5). Minnesota's experience in its review of the tenure code offers an instructive example. There were no neutral data elements, and the parties could hardly agree on the facts.

*Clarify your data and analysis needs with data producers prior to the collection and display of data.* Lack of data is rarely a problem on most campuses; however, ill-defined demands for data are common and problematic. Data providers at several institutions expressed frustration about having the data but not knowing how best to present it to those who ask for it. When the requests are vague, data providers may spend an inordinate amount of time producing reams of information that will never be used. As one data provider noted, "Decision-makers don't always know what they really want; or if they do, they aren't sure how to get it. My advice to decision-makers is to ask knowledgeable questions and know the limitations of the data you are seeking." Another said, "If decision-makers want us to track something, they should be as specific as possible about definitions and also how they intend to use the data, so that we can produce reports tailored to those needs."

Be clear about what policy questions you are trying to address and about the data you want. "Data become informative only when we have specific policy questions that need illumination and resolution. The kind of policy question that is asked dictates information requirements" (McCorkle 1977, p. 3). In other words, the answer depends in large part on the question. At several institutions, specific policy questions were not linked intentionally to the data being collected. As a result, opportunities were missed to use data to enlighten policy discussions and to meet the analytic needs of decision-makers. Questions posed by senior administrators, trustees, and faculty leaders should shape the agenda for data acquisition and analysis, not vice versa.

*Model the behavior that you want others to show.* Presidents, provosts, deans, and other senior administrators play a critical role in establishing institutional norms for data collection, dissemination, and use. If leaders make clear that data matter to decisions, then others are more apt to marshal data, whether to advocate positions or to monitor progress. A provost at one institution deliberately involved campus constituents in data-driven policy discussions of faculty employment issues and was careful to exemplify the point that policy discussions would be grounded in data and analysis, not anecdote and conjecture.



*Recognize the symbolic functions data serve that are not directly tied to decisions.* Some data will be ignored, and some will be used in ways that cannot be directly observed. Data collection provides symbolic legitimacy to decisions and by extension to organizations. When data inform decisions, those decisions may be perceived as better, sounder, or more rational than they would have if no data were used at all. As Carol Weiss (1981) put it, "Decision-makers and organizations establish legitimacy by their use of information. Decisions that are viewed as legitimate will tend to be information-intensive" (p. 178). One reason that organizations collect so much data is that the "use of information is embedded in social norms that make it highly symbolic" (p. 171). "Decision-makers," notes James March (1994), "often seem to treat the gathering and use of information as part of the pursuit of symbolic meaning rather than as part of the resolution of decision uncertainties. Gathering information and making decisions are signals and symbols of competence. The possession and exhibition of information symbolizes (and demonstrates) the ability and legitimacy of decision-makers" (p. 226). In fact, several leaders noted that participation in this research project to collect and disseminate faculty employment data conveyed a message of enlightened management at work on campus.

## *Recommendations to Data Providers*

*Understand the appetite and aptitude of decision-makers for data, and tailor analytic products to their preferences and abilities.* Be aware of how decision-makers frame particular policy issues or problems and provide data accordingly. Present data in clear, preferably graphic, formats that decision-makers can understand quickly and easily. In a number of instances, data providers gave decision-makers data and analyses that the latter did not want or could not use. Part of the problem in a number of cases was that data providers appeared to neither understand nor ap-

preciate how policymakers viewed particular policy issues and problems. The concerns and interests of policymakers were not aligned with the data and analyses that were presented.

One state legislator provided very explicit advice to data providers: "You've got to do two things. First, target the data to your audience; you need to link to their interest and affinity or their eyes will glaze over. Second, you need to present data in 'tiers,' moving from the general to the specific. Start with one-page highlights, then provide tables, charts, and subcharts as supporting material. Don't give us those one-inch thick reports—no one reads them."

"Perfect" data do not exist; so data providers should be realistic about what is possible and avoid "analysis paralysis." "The near infinite amounts of data that can be collected, and severely limited resources for collection and analysis, always constrain the practical uses of data" (Schmidtlein 1977, p. 31). If organizations and decision-makers waited until they had all the data that could be brought to bear on an issue, "or if they sought to ground all decisions in objective evidence," they would be paralyzed (Weiss 1981, p. 187). Expect repeated requests for more data or the same data arrayed slightly differently. Very often, less is more. Decision-makers are more apt to drown in too much data that makes too little sense than to die for want of a datum.

*Don't just provide data; be explicit about how to use it.* Data providers can play an important role in helping decision-makers use information by being explicit about which data answer what questions and whether the answers are complete or partial, certain or uncertain. Prior to data collection, institutional researchers should understand the policy issues underlying the need for the data. Data providers should ask questions to clarify the purpose of data collection and analysis. They should also explain the findings to decision-makers, being careful to explain the limitations of the data.

## Making Sense

Perhaps with some naïveté, we began this study with the idea that data might make a difference—that is, that the presence of data would lead to better decisions. We assumed that the academy is grounded in scientific inquiry, that scientific inquiry requires data and analysis, and that better decisions are made when data are at hand. Yet experience in



the academy could easily lead one to reach a conclusion similar to the one David Dery did: "Confronted with such common patterns as systematic gathering of information with little decision relevance, the gathering of information after the decision has been made, the non-consideration of available information, and the tendency to ask for yet more information, one is tempted to conclude that organizations are systematically stupid" (1990, p. 22). Since it is not heartening or particularly useful to conclude that colleges and universities are "systematically stupid," we have to dig deeper to answer such questions as: How are data used? Why do data play so many roles but not a definitive one? Why are we unable to establish a link between data and decisions? We first answer these questions in generic terms and then offer possible answers where the decisions to be made concern faculty work life.

Analyzing how decisions are made in universities may require a consideration of organized anarchies[5] and garbage cans. In describing how decisions are made in universities, Michael Cohen and James March (1986) discovered one "quite consistent theme: Decision opportunities are fundamentally ambiguous" (p. 81). Analyzing decision-making in universities is quite complex because often "organizational participants arrive at an interpretation of what they are doing and what they have done while doing it" (p. 81).

From this point of view, an organization is a collection of choices looking for problems, issues and feelings looking for decision situations in which they might be aired, solutions looking for issues to which they might be the answer, and decision-makers looking for work.

A key to understanding the processes within organizations is to view a choice opportunity as a garbage can into which various problems and solutions are dumped by participants. The mix of garbage in a single can depends partly on the labels attached to the alternative cans; but it also depends on what garbage is being produced at the moment, on the mix of cans available, and on the speed with which garbage is collected and removed.

Using the Cohen and March (1986) framework, we offer six possible explanations of why there are so few direct links between data and decisions.

1. A dominant assumption is that universities are engaged in a rational process when they make policy decisions. Reality

suggests, however, that data are used selectively for political and symbolic purposes that may or may not be directly tied to decisions. Further, "creative organizations operate at the edge of chaos where the links between action and long-term outcome get lost, making it impossible for their members to use rational, intentional processes." We cannot postulate "a link between a particular kind of overall decision-making process and a successful outcome, because such links get lost" (Stacey 1996, p. 251).

2. We tend to assume that all participants have all the data at the same time. In truth, various participants have different types and amounts of data at different times, so that decisions are in part a function of the availability of data.
3. The amount of data that people can or choose to consume differs; people have different appetites for data, and these appetites change over time and as a function of the issue at hand.
4. Sometimes a sample of one (e.g., a single deadwood faculty member or a Nobel Prize winner) is all people need to draw a conclusion or make a case. These "data points" become iconic and lessen the need for any additional information.
5. Data appear in different places at different times. Because participation is fluid, people carry data from one arena to another and use it in ways not originally intended. This makes it difficult for leaders in a particular "garbage can" to get the right data into play in the right venue. Data sets come and go as people come and go.
6. Data use is an ambiguous concept. In the interactive model of decision-making, information is sought from a number of sources in a nonlinear way. In this model, "the use of research [data] is only part of a complicated process that also uses experience, political insight, pressure, social technologies, and judgment" (Weiss 1991b, p. 177). Often decision-makers are not even sure what data, if any, they are using and how they are using it. People gather data but use other means to make decisions. Decisions are often made before seeing data, and the data are then used to justify the decision. In fact, decision-makers will rarely admit to gut-feel decisions—because they sound so irrational and anti-intellectual—so instead they pretend to use



> data. "When asked why they [senior managers] were pretending to make the decision one way when they had already effectively made it in another way, they indicated that they were not aware of doing this and then said that the real reasons were so general and experience-based—gut feeling is the pejorative for this—that they could not hope to persuade [others]" (Stacey 1996, p. 270).

In sum, a link between data and decision-making has not been established in other studies of organizations and policymakers. When the spotlight turns to academic institutions and issues of faculty work life, matters are even more complicated. Why?

Faculty work is complex and not easily quantified.

Because of the high degree of faculty autonomy, there is at best only a weak internal market for performance data that "supervisors" might use to regulate behavior.

Even when faculty work is quantifiable, the data are subject to multiple interpretations. For example, does the fact that 85% of all tenure decisions are positive mean that standards are too low, the undeserving were weeded out during the probationary period, faculty development and mentorship programs succeeded, the performance criteria were so clear that faculty knew precisely what to do, or something else entirely?

In the faculty work life domain, data do not address visceral concerns. Data do not address public resentment of tenure as privilege, for example, or concern that tenure overempowers faculty. These issues are not illuminated by data. How do you place academic freedom into the realm of data? It is difficult to bring data to bear on many questions that are at the core of the current debates about faculty work life.

When the issue at hand concerns beliefs and values about academic freedom, academic tenure, the intrinsic worth of knowledge, or political correctness, data have less sway. There are few aspects of faculty work life where incontrovertible data illuminate policy issues, as might be the case with budgets or enrollments.

It is often difficult, and sometimes impossible, to find the locus for many decisions in academe. Shared governance clouds the identity of decision-makers, so data assume other functions. Even if we could establish that data lead to better decisions, or at least

that data enlighten decision-makers, we do not always know who the decision-makers are or will be. In some cases, decisions seem to occur mysteriously from out of nowhere. Henry Rosovsky, former dean of the Harvard Faculty of Arts and Sciences, presents a wonderful example in his 1990–1991 Dean's Report. In a section on a "decision" to reduce faculty course loads, Rosovsky wrote: "First, the Dean has only the vaguest notion concerning what individual professors teach. Second, the changes that have occurred were never authorized at the decanal level. . . . No chairman or group of science professors ever came to the Dean to request a standard load of one half course per year. No one ever requested a ruling concerning, for example, credit for shared courses. Change occurred through the use of *fait accompli*—i.e., creating facts" (p. 10).

While we cannot assert that data on faculty work life drive policy decisions, we would argue that data matter in numerous and more ways than we first thought possible. But they also matter in unpredictable ways. It is rarely clear, and never obvious, which data on faculty employment will be used, by whom, and in what ways. In fact, as we gather data about faculty work life, productivity, and the outcomes of post-tenure review, we cannot be sure that they will be used or, if used, what the impact will be.

One thing is clear: once a person's mind is made up, it is unlikely that data will change that person's position. As the old maxim proclaims, "Everyone is entitled to my opinion." It is also clear that some issues do not lend themselves well to data collection and numerical evidence. Data about instances of teenage pregnancy, for example, or on capital punishment as a deterrent to crime will not alter the views about abortion or the death penalty of someone for whom the sanctity of life is an inviolate moral principle. If tenure is indeed "the abortion issue of the academy" (Chait 1997, p. B4), data will not matter much. In fact, where emotions are involved, people will disregard or ignore disconfirming data and perhaps even resent the very fact that data were trotted out at all. As Rosovsky (1990, p. 259) wryly observed:

> Never underestimate the difficulty of changing false beliefs by facts. . . . Currently, over 90 percent of our senior faculty teach at least one undergraduate course per year. The firmly held belief that Harvard professors do not teach undergraduates is not the least bit weakened by these statistics. . . . When given the opportunity—in the absence of incontrovertible scientific proof, and sometimes even then—people believe what they wish, and empirical evidence does not lead to quick altering of cherished positions.



## Notes

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1. Cathy Trower, as a subcontractor to one of the regents' consultants in Minnesota, gathered, analyzed, and provided data in this case, especially concerning policies and practices at other Big Ten institutions.
2. To obtain the glossary of terms and the data template, e-mail the Project on Faculty Appointments at *hpfa@gse.harvard.edu.*
3. The templates required institutions to gather race data by two categories only: white/Caucasian and color. Faculty of color were grouped to provide anonymity for those faculty members at especially small colleges.
4. Three months after the site visit, the president at this institution reported that they lifted their tenure cap after searching the Faculty Appointment Policy Archive CD-ROM for other institutions with a tenure quota (and finding very few), making a careful analysis of their template data, and conducting numerous conversations on campus.
5. There are three defining properties of an organized anarchy (Cohen and March 1986): (1) ambiguous and therefore problematic goals, (2) transient participants, and (3) unclear technology.

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# 11

# *Gleanings*

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UNLIKE THE TEN PREVIOUS CHAPTERS, this one is not organized around a question. It is instead chiefly animated by answers to the questions that guided earlier chapters. Principally from those chapters, we can derive four important inferences.

First, *context counts.* Almost 1,300 four-year colleges and universities, from public research universities to private liberal arts colleges, and over 665 two-year colleges award faculty tenure (National Center for Education Statistics 1996, p. 21, Table 4.1). Within Carnegie classifications, and even more dramatically across institutional categories, there are monumental differences with respect to governance, mission, structure, programs, curricula, culture, wealth, admissions criteria, and student life, to name only a few variables. Knowledgeable observers of higher education unfailingly cite the unusual degree of institutional diversity that characterizes American higher education (e.g., Jencks and Riesman 1968; Birnbaum 1983; Clark 1987). Academicians do not expect to see uniformity; in fact, we tout the variety of colleges and universities. With such heterogeneity, members of the academy generally do not find the "industry" as a whole to be a particularly useful unit of analysis.

Yet many academicians, trustees, and politicians speak often about the tenure "system" as if there were just one. The research reported in prior chapters suggests that the practice of tenure across the academy