One School's Strategy to Assess and Improve the Vitality of Its Faculty

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ABSTRACT

The authors report how one medical school took an evidence-based, collaborative approach to assessing and improving faculty vitality by building on previous research and including important shareholders (e.g., faculty and administrators).

In 1999, the dean and faculty senate asked all full-time faculty (615) at the University of Minnesota Medical School–Twin Cities to complete a survey to (1) identify vitality areas (individual, institutional, or leadership) in which the school was strong and ones that needed improvement, (2) identify strategies for addressing weak areas, and (3) provide a baseline against which to measure the impact of any vitality efforts initiated. The survey was based on features that research studies have found to be associated with academic productivity. Seventy-six percent responded.

Summaries of the survey findings were prepared for use at the school level, department level, and special group level (e.g., women, clinical-scholar-track faculty). Three key school-level findings were that (1) there is a disconnect between the stated vision of the school and the departments' visions and actions, (2) there is not enough time for scholarly activity, particularly in the clinical departments, and (3) faculty lack the support of a collegial atmosphere and appreciation for the work they do.

In response to the survey's findings every department identified priority faculty needs and initiated tailored development strategies. School-wide strategies were also initiated to address faculty needs common across departments and needs unique to special groups. Together these strategies provide a multi-level, systematic approach to maintaining faculty vitality.

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In the early writings on faculty development (those before 1975), "vitality" was defined narrowly as a faculty issue. The underlying "problems" that strategies such as workshops and leaves were designed to address included such things as faculty fatigue, outmoded teaching skills, and lack of protected time for scholarship. It was commonly assumed that if seminars on pedagogy were offered and sabbaticals and leaves were increased, vitality would take care of itself. Faculty members were held responsible for their own productivity and motivation; all that the administration had to do was leave faculty alone and provide minimal support.[1,p.44]

Since then, a variety of conditions and the forces behind them have challenged this traditional view of faculty vitality, urging us to rethink the purpose, scope, and design of faculty development programs. For example, compared with even just a few years ago, there have been increases in the demands on faculty to generate revenues,[2] increases in the types of appointments,[3–5] and greater differentiation in faculty roles.[6,7] We have witnessed explosions in the areas of medical and pedagogic knowledge—information that faculty are expected to teach and use in more diverse and frequently geographically distributed settings. We are also seeing an increasingly bimodal distribution of faculty; about 58% of fac-

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ulty in higher education are over 50 years of age, and about 50% are over 55.[8] Given this dual population of new and more senior faculty, institutions must strive to provide the members of each group with the unique development opportunities they need. Finally, all faculty members struggle with the issue of increasing work demands, leaving them little time and energy to participate in renewing activities.

These realities demonstrate that institutions can no longer take a laissez-faire attitude to faculty and institutional vitality if they hope to retain faculty who are creative and successful in their work. More than ever, institutions need to carefully identify the areas on which to focus faculty development and to build effective, time-efficient strategies for addressing these areas. In the past, institutions were often somewhat loose about how rigorously they conducted needs assessments and about how much they used the results of such assessments to guide their faculty development efforts. As a result, faculty vitality programs were sometimes more enriching than essential. Today, development efforts must be much more focused on priority areas in order to serve their critical role of helping faculty and schools to endure and thrive.

In this article, we report how one institution—a medical school—took an evidence-based approach to assessing and improving faculty vitality, particularly in the area of research productivity. We first summarize the literature in faculty vitality that guided the design of our needs assessment. We then describe the design and implementation of the assessment tool: our school-wide Faculty Needs Survey. Last, we highlight some key findings from the assessment and describe how those data are being used by our faculty, department heads, and dean to guide the efficient creation of new faculty vitality plans. While our report focuses on assessing and improving faculty vitality at a medical school, we think that the principles and issues involved apply to faculty in higher education generally.

LITERATURE FINDINGS THAT GUIDED THE NEEDS ASSESSMENT

Since the earlier literature on faculty development, the academy has become more sophisticated in its understanding of vitality and what it entails. A key understanding is that vitality issues lie not just with individual faculty members and such things as lack of teaching skills or protected research time. Rather, threats to vitality are increasingly seen to lie with institutional features such as deterioration in work environments, loss of academic culture due to insufficient time for faculty to gather together as colleagues, the increased presence of other cultures (e.g., managed care, collective bargaining, reengineering, responsibility-centered management), a decline in real earnings, and, perhaps most important, a loss of shared vision that truly guides work, hiring, and budget decisions.

For this reason, faculty vitality is rarely considered independently of its institutional context in contemporary thinking. "Faculty and institutional vitality development" has replaced the narrower concept of "faculty development." Today, we would define faculty and institutional vitality development as "efforts designed to facilitate faculty members' commitment to and ability to achieve both their own goals and their institution's goals." As a result, the strategies most frequently used to facilitate faculty vitality are institutional-level ones such as enacting alternative personnel policies (e.g., early retirement and buyout options, flexible benefits, flexible staffing patterns), redefining mission, and coordinating faculty work through portfolios.

This is not to say that individual faculty members' characteristics and competencies are not essential to productivity. They are, of course. Numerous studies outline the characteristics of successful faculty members.[8–14] Factors such as motivation, socialization, competence in their content areas, competence in research and teaching skills, having a network of productive colleagues, and having a mentor (see Figure 1) have been found to be positively associated with high academic productivity and satisfaction. But while these individual characteristics are essential, they are not sufficient in and of themselves. Of all the factors that affect an academic's productivity, none is as powerful as the environmental features of the workplace.[15] Studies by G. R. Pellino and colleagues are illustrative of the studies in this area. They found in higher education that

> The place of employment is the single best predictor of faculty scholarly productivity. . . . Faculty who come to productive surroundings produce more there than they did before they arrived and more than they will later if they move to a less productive environment. Resources, support, challenge, communication with producers on other campuses all correlate with a professor's productivity.[16, p.15]

Other studies have echoed this.[17–21] Perhaps the most convincing of these have focused on research productivity and followed faculty as they moved from one institution to another. When relocated to an institution with a less research-conducive environment, even the most research-productive faculty members experienced declines in their productivity. This perhaps explains why the strategy of hiring one "research star" to bring up the research productivity of a group seldom works. A faculty member's productivity is greatly affected by his or her surroundings: the quality of students, the productivity of colleagues, the availability of resources, the culture and climate, the administrative structure, and deci-

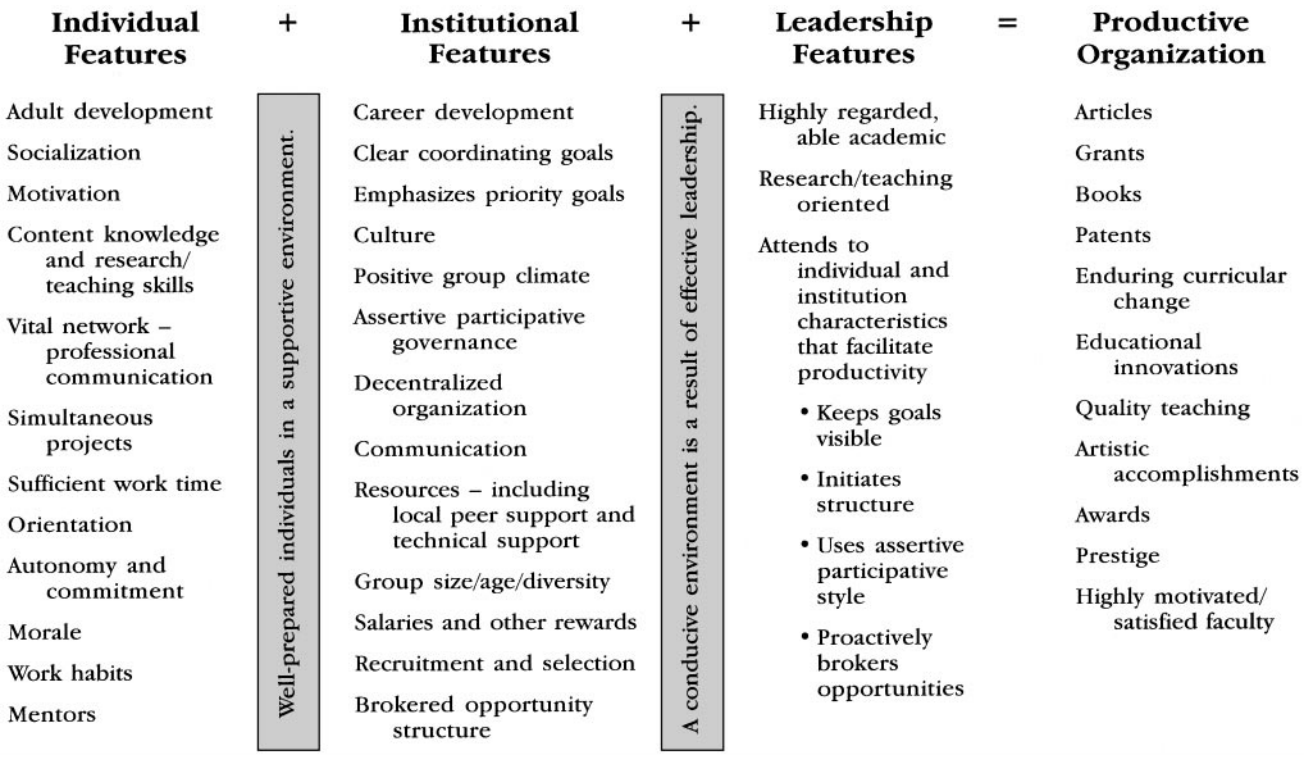

Figure 1. Components of a productive academic organization. (This figure was adapted from several sources—see references 8–12. Used with permission.)

sion-making processes. As Fox points out, faculty work is a very social enterprise, depending a great deal on interactions that are facilitated—or not—by one's environment.[22]

Taken together, these studies have revealed a consistent set of features that characterize a productive academic organization (Figure 1). These include: clear goals that serve a coordinating function; research and teaching emphasis; a culture that embraces the values of academe; positive group climate; decentralized organization; frequent communication; sufficient and accessible resources; a critical mass of faculty who have been together for a while and who bring to the mix different perspectives (size, age, diversity); adequate and fair salaries and other rewards; targeted recruitment and selection; and seasoned, participatory academic leadership. Leadership is such an important institutional characteristic that it has been broken down into discrete qualities. Notably, the characteristics in Figure 1 (for productive faculty, academic organizations, and the leaders of those organizations) are consistently found, regardless of the academic productivity measures employed. (These studies did not look at clinical productivity measures.) Most often, the outcome measures are related to research (e.g., the numbers of articles, grants, patents, and so on generated by faculty). However, studies that have used educational outcomes, such as enduring curricular change, have yielded similar results.[23] Although artistic accomplishments, awards, and prestige have not often been the outcome measures in these studies, there seems little doubt that these are also probable outcomes of the combined individual, institutional, and leadership features listed in Figure 1.

In sum, faculty vitality involves an interplay of faculty qualities and institutional factors. Although Figure 1 lists these individual and organization features separately, it seems that all need to be present for the most productive institution, since they operate as an interdependent whole. As a whole, the body of literature we have cited above points out how important it is for faculty development initiatives to assess and address the multiple features that affect faculty and institutional vitality. To get precious faculty time and attention and to truly help the faculty and the organization reach its goals, a faculty development effort should therefore assess all the areas that impact faculty productivity and satisfaction and then selectively address the areas of greatest need.

In the rest of this article, we describe how the literature findings indicated above served as the blueprint for a comprehensive needs assessment at our institution (the University of Minnesota Medical School–Twin Cities) and how this information is being used to guide faculty and institutional initiatives.

THE NEEDS ASSESSMENT AT OUR SCHOOL

How It Began

The assessment process began in the spring of 1999. The medical school at the University of Minnesota–Twin Cities had just refined its mission, with a particular emphasis on increasing research productivity, in addition to maintaining high-quality education and patient care. At the same time events such as the consolidation of multiple practice plans into one, implementation of new arrangements resulting from the sale of the university's hospital, and decreasing clinical revenues were increasing faculty stress. To increase the school's ability to achieve this refined mission and to address the perceived stress on the faculty, the medical school faculty advisory committee (made up of the university senators from the medical school) and the dean decided to increase the focus on faculty development. A subcommittee composed of senators, with administrative support and input, was established to plan how to carry out this decision.

The initial (and ambitious) goal was to get an understanding of the varied needs of our 615 full-time faculty who are in 24 different departments, in different appointment types, in different career stages, and at different ages. There was a particular interest in assessing how well the school embodied the characteristics of highly productive academic institutions. The first step, therefore, was to survey the faculty with regard to the individual, organizational, and leadership features listed in Figure 1. Our methods for designing the Faculty Needs Survey and analyzing the resultant data are provided below.

How It Was Designed and Implemented

The threefold purpose of the Faculty Needs Survey was

- to identify vitality areas (individual, institutional, or leadership) in which the medical school was strong and ones that needed improvement;
- to identify strategies for addressing weak areas; and
- to provide a baseline against which to measure the impacts of any vitality efforts that were initiated.

A subcommittee of the medical school senate developed the survey instrument. When possible, items were drawn from other surveys, such as one designed by Joseph J. Brocato while he was at the Medical College of Ohio,[24] and the survey by the National Center for Education Statistics, U.S. Department of Commerce.[25] Four specialists in faculty development were asked to assess the content validity of survey items. These were Mack Ruffin, MD, MPH, at the University of Michigan Medical School; Richard Holloway, PhD, at the Medical College of Wisconsin; Francine Hekelman, PhD, at Case Western Reserve University School of Medicine; and Maurice Hitchcock, EdD, at the University of Southern California Keck School of Medicine. Items were revised until it was the consensus of these experts that each item matched the intended content. The survey was then piloted to assure clarity and ease of completion.

The final survey had 56 primary questions, many with subquestions, resulting in approximately 150 items on which faculty provided information. To facilitate the understanding of the needs of different faculty groups, the survey included items on faculty background (e.g., degree, rank) and workload and productivity (e.g., time committed to various tasks, articles published). This information allowed us to develop and compare the responses of different categories of faculty (e.g., clinical versus basic science; men or women; less than 50 years old versus 50 or older; ethnic categories; levels of research productivity; ranks; degrees)—comparisons that could prove useful in developing more targeted revitalization efforts.

With a few exceptions, items were rated on a five-point scale with 1 = "strongly disagree" and 5 = "strongly agree." For some items, respondents had the option to indicate "don't know" or "not applicable." The few items that were open ended asked for such things as faculty development strategies beyond those listed, perceived barriers to faculty productivity, and general comments. Examples of survey items are provided in List 1.

The survey was initially mailed in May 2000 to all 615 full-time faculty (i.e., those who were more than 66% full-time-equivalent) with a cover letter from the dean and the chair of the faculty senate, along with a coupon for a beverage to drink "as they completed the form." After several reminders, 465 were returned, giving us a response rate of 76%. Table 1 describes the respondents with respect to department type (clinical vs. basic science), age, rank, gender, ethnicity, and research productivity. The distribution of characteristics for the non-respondents was found to be very similar to that of the respondents.

For each survey item we computed the mean rating, median, mode, standard deviation, percent agreement ("strongly agree" and "agree"), and percent disagreement ("strongly disagree" and "disagree"). These summary data were prepared for all 465 respondents—that is, the medical school faculty as a whole—as well as separately for each department and for each faculty subgroup. These subgroups included the following:

- department type (clinical or basic science)
- gender

List 1

Sample Items on the Faculty Needs Questionnaire Conducted at the University of Minnesota Medical School, 2000

To assess the motivation of faculty, we used the following item:

I would describe myself as internally driven to:

- Conduct research
- Teach
- Provide patient care

For each of the above items, faculty responded using a five-point Likert scale, with 1 = strongly disagree and 5 = strongly agree.

To assess the presence of a coordinated vision, we used the following items. The first two used the same type of Likert scale described above, followed by a written response.

- *The medical school* has a commonly held vision for what we want to look like in the next five years. If you indicated "Agree" or "Strongly agree" to the preceding question, please state the vision.
- *My department* has a commonly held vision for what we want to look like in the next five years. If you indicated "Agree" or "Strongly agree" to the preceding question, please state the vision.
- It is clear to me how my department's vision and goals are or can be related to the medical school's vision and goals.
- It is clear to me how my work and goals are or can be related to department vision.
- I have confidence in the current direction in which the following are heading:
  - My department
  - My division
  - My center
  - My school
  - My university
  - My discipline.

To assess the presence of participative leadership, we used these items:

- My department leadership keeps us on track by clearly emphasizing our core missions of education and research.
- My opinions are *routinely solicited* for important division and department decisions.
- My opinions are *seriously considered* for important division and department decisions.
- It is *expected* that faculty will meaningfully and actively contribute to important decisions in my: department, division, school.

- age (junior = less than 50 years of age, senior = 50 or older)
- ethnicity (Caucasian or non-Caucasian)
- level of research productivity (fewer than five articles in preceding two years, or five or more during that period), and
- faculty rank and degrees.[26–28]*

For the quantitative data, standard statistical software was used to perform *t*-tests, logistic regressions, and multiple regressions. The written suggestions on faculty development strategies and other general comments were summarized using theme analysis.

From these data, written reports were prepared for use by the dean, the faculty senate, and each department to guide faculty development decisions. No data were reported with attribution or with sufficient demographic information to identify respondents. The use of these data for the present report was approved by the University of Minnesota Institutional Review Board.

What We Found

The point of this article is to report a strategy for assessing faculty needs and how we used the assessment data to address needs. Therefore, we have not reported here all the specific data for our school. But to provide a general flavor of the

*Some may be concerned that number of articles is a poor indicator of "contribution to science," given the pressure for faculty to "publish or perish" and the mushrooming number of journals in which to publish. Although frequency of publication is not a perfect measure, it does highly correlate with citation counts (about .7), which many consider to be a good measure of the impact of a work.[26–28]

kinds of results that can emerge from such a needs assessment, we present below three general findings that might also have relevance to other institutions, both within and outside academic medicine:

1. *There is a disconnect between the stated vision of the school and departments' visions and actions.*

Recall that a key characteristic of a productive group is having clear, shared, organizational goals. These goals serve to coordinate unit and individual activities, as well as significantly influence other environmental characteristics such as recruitment, culture, and reward structure. But what we found at our medical school was a very different scenario:

- 27% of the responding faculty perceived the school had a vision for the next five years,
- 36% perceived their departments had a vision (more in the basic sciences, 47%), and
- 28% of the faculty thought that their departments' goals related to the school's goals.

These low percentages were surprising, given that over the previous year significant emphasis had been placed on refining our medical school's vision. This had occurred via a medical school retreat, a dedicated working committee with continual communication with the faculty, and the recent regents' approval of that vision. Our findings illustrate how challenging it is to make a vision truly shared and thus really serve a coordinating function. Creating a shared vision among faculty can be hard, but it can be done. For example, in a study of the ten colleges in the nation identified by a survey as having the highest faculty morale, *everyone* knew the goals and vision of their institution.[29]

2. *There is not enough time for scholarly activity, particularly in the clinical departments.*

Unfortunately, this is likely to be true of most medical schools. The faculty in this survey reported they worked, on average, 58 hours a week. This is significant time, but even with this time commitment faculty felt it was difficult to excel in any one area, largely because their time was fragmented across so many responsibilities: direct patient care, research, education, administration, university service, outreach, and more. Faculty found they did not have sufficient uninterrupted time to do their work, particularly scholarly work.

Faculty did offer write-in suggestions for improving their productivity and satisfaction. The most frequently cited strategy was to increase support staff, especially secretaries, but also research assistants and other technical support as well as clinic staff.

Table 1

Characteristics of the 465 Faculty Members Who Responded to the Faculty Needs Survey of the University of Minnesota Medical School, 2000

Characteristic	%
Department type	
Clinical	79
Basic science	21
Rank	
Assistant professor	23
Associate professor	21
Professor	39
Clinical assistant professor	16
Gender	
Male	74
Female	26
Age (years)	
Junior (<50)	57
Senior (≥50)	43
Research productivity	
Published fewer than five articles in previous two years	55
Published five or more articles in previous two years	45
Ethnicity	
White/Caucasian	87
Other origin	13

3. *Faculty lack the support of a collegial atmosphere and appreciation for the work they do.*

Our faculty's responses to many of the items demonstrated a need for help with developing stronger, more frequent, and more productive connections to their colleagues. In their written comments, faculty expressed a need for more formal mentoring, as well as increased time for building and maintaining collegial networks. Their quantitative responses also reflect this theme:

- Just 37% reported having at least weekly substantive teaching or research conversations with colleagues in their departments; less than half had such conversations with anybody in their departments, the medical school, or the entire University of Minnesota; and
- Only 52% believed they even *had* a network of colleagues in their department.

Along similar lines, it is clear that the responding faculty desired greater recognition and appreciation for their work

—from colleagues and leaders alike, and in both tangible and intangible ways:

- 50% felt appreciated by their colleagues for their teaching and research, and
- less than half (46%) felt fairly compensated in relation to their peers.

These examples demonstrate the utility of this kind of comprehensive survey in informing leaders about the presence or absence of the essential vitality features and in revealing areas on which to focus faculty and institutional development efforts. In addition, although here we have not presented our results broken down for specific faculty categories (e.g., by department, gender, race, or appointment type), this information is readily generated and analyzed, allowing one to discern whether there are differences in perceptions about important vitality features.

Importantly, this kind of survey also allows one to identify which of the many vitality features are most pertinent for specific outcomes. Like many medical schools, the University of Minnesota Medical School is trying to increase its research rankings. Thus, understanding what makes for a productive researcher is important. To this end, we conducted a multiple logistic regression to further delineate the relationship between a faculty member's level of research productivity and the vitality features surveyed. All demographic variables except rank were included in the regression (e.g., gender, age, time spent on various activities, degree, race, etc.). The outcome variable used in the logistic regression was "faculty who produced five or more peer-reviewed articles in the last two years"—called highly research-productive (n = 201)—versus those who produced fewer—called moderately research-productive (n = 241). The moderately productive group of faculty had published an average of 2.15 articles in the preceding two years.

Knowing the ratings of, or information about, nine items resulted in correctly assigning 75% of the respondents in our survey to the categories of highly or moderately research-productive. That is, these nine characteristics were associated with a faculty member's research productivity. The nine characteristics and the ratings we obtained are summarized in Table 2. Six of the nine variables were positively associated with individual research productivity, meaning that high ratings or high numbers on these are associated with higher research productivity. Of course, it is not known whether these variables "caused" high research productivity, but it does suggest that these variables are ones to consider when trying to create and implement faculty development programs and other types of initiatives to facilitate individual research productivity. Three variables were negatively associated with individual research productivity, meaning that low ratings or numbers on these were associated with high levels of research productivity.

Most of the regression outcomes in Table 2 make sense intuitively, but a few deserve discussion. The finding that spending a larger amount of time on administration was associated with high productivity in research may have emerged

Table 2

Logistic Regression of Faculty Vitality Features on 465 Individual Faculty Members' Research Productivity, University of Minnesota Medical School, 2000*

Variable	Coefficient (β)	Standard Error	Wald χ^2	p Value	Odds Ratio
Internally driven to conduct research	1.21	.245	24.40	.000	3.35
Has a well-developed network of external colleagues with whom one can discuss research projects and education	.516	.157	10.86	.001	1.68
Has or has had a formally assigned mentor in the department	.631	.284	4.95	.026	1.88
Considers the number of faculty in the department large enough to achieve departmental research goals	.286	.113	6.37	.012	1.33
Number of hours/week involved in research	.019	.009	4.57	.032	1.02
Number of hours/week involved in administration	.057	.017	11.01	.001	1.06
Number of hours/week involved in teaching	−.065	.019	11.04	.001	.977
Considers a large portion of the department faculty to be significant external grant-getters	−.422	.125	11.35	.001	.655
Has a well-developed network of colleagues in the department with whom one can discuss research projects and education	−.294	.122	5.78	.016	.746

*Part of findings from the faculty needs survey conducted at the medical school. Knowing the faculty members' ratings or information about the above nine items resulted in correctly assigning 75% of the respondents to the categories of highly versus moderately research-productive.

given that 70% of the department heads (and likely many of the division heads) fall into the category of highly research-productive. These faculty members, all strong researchers, would also have listed large numbers of hours in administration. Also, highly productive researchers often manage large grants, requiring time to be spent on such things as personnel, budget, and so on. Interestingly, our results suggest that having a network within the department is not necessary for research productivity, whereas having an external network is essential. It is possible that this external network of highly productive researchers becomes the frame of reference for a highly productive researcher, thus perhaps leading the respondents to view their department, in comparison, as not composed of significant grant-getters. Having fewer hours in teaching reflects the reality of highly productive researchers' committing more time to research compared with others.

The reader may wonder why the logistic regression results did not include some of the institutional features shown in Figure 1, such as research emphasis in the institutional mission and in the reward structure, particularly promotion and tenure. Most likely, this occurred because all the departments in this survey are within the same medical school and university, where research is emphasized in the missions of both and in the university promotion and tenure policies that apply to all schools and departments. Thus, the feature "research emphasis" is a constant across our departments. Studies that have identified the importance of institutional features, such as mission emphasis, to research productivity have found this as a result of investigating the impacts of vitality features on faculty in different institutions with different missions, or at least missions that differed in how much they emphasized research. Our study is one of the few to examine the impacts of these features on a single institution, and it is one of the few studies to simultaneously investigate the entire set of research-conducive features.

Institutional-vitality features that could vary in our study were those in departments, such as the department head's research background and leadership processes and the productivity of department colleagues. These vitality features were major predictors when group research productivity was looked at (departments with high proportions of highly research-productive faculty compared with departments with low proportions of highly research-productive faculty). These features were also the major predictors of faculty satisfaction (these findings about faculty satisfaction will be discussed in a future article).

HOW WE USED OUR FINDINGS

The point of conducting any needs assessment is to use the findings to develop strategies for addressing the identified needs. At our institution, we began this process in 2000 by first sharing the findings of the Faculty Needs Survey with department heads and the faculty senators. This was done in a combined department head/senate meeting led by the chair of the faculty senate (ES).

The next step was to provide each department head with the survey results, broken down for his or her department. Prior to distributing these reports, two of us (CJB and ES) reviewed with the department heads why this information was important for productivity and satisfaction and how the information had been gathered. We also provided a brief overview of faculty development strategies that might be used to address needs identified in each department. Department heads received not only their departments' responses for each survey item, but also tables that summarized the percentages of faculty in their departments who agreed (or not) with the presence of the items that had emerged as predicting an individual faculty member's research productivity, a department's research productivity, and a faculty member's satisfaction.

At the same time, the dean asked each department to develop—with faculty participation—a compact for next year. A compact is a four-page document describing the department's goals and budget for next year and how these relate to the goals and priorities of the medical school, the larger academic health center in which the school resides, and the university. In addition, the dean asked each department to list at least three needs it identified from the results of the survey and its plan for addressing these needs. Collaborations helped propel their efforts. For example, the department heads were asked to join with one of their faculty and with a medical school senator from another department to present their department-level results at a department faculty meeting. This strategy was chosen to emphasize the partnership between faculty and administration on this school-wide project. These compacts will be reviewed next year by the dean at his annual meeting with each department head to determine whether the stated goals—including goals related to meeting faculty vitality needs—have been met.

As noted above, the survey results were also analyzed for gender differences. Specifically, demographics such as appointment types, hours worked, research productivity, and perceptions on the presence or absence of vitality features were compared by gender. These results were presented in a special workshop for women faculty sponsored by the dean and associate dean for faculty affairs. As a result of this workshop, an advisory group has evolved and been charged with developing strategies to address gender concerns.

Clearly, the application of our needs assessment findings is a work in progress. We conclude with a few additional thoughts that reiterate the value of this broad, collaborative approach.

First, recall that a primary finding from our survey was that a disconnect exists between the stated vision of the school and those of the departments. The compact strategy,

besides serving as a management and budgeting tool, provides a mechanism for addressing this issue. That is, it is likely to increase faculty awareness of, first, the medical school's vision and priorities; second, their own departments' visions; and third and most important, the connection between the two. By actually using the vision in planning, it is anticipated that faculty, when resurveyed, will be able to articulate the school's vision and the department's vision and the connection between them—an important sign of a productive academic organization.

The compact mechanism serves another faculty vitality purpose in that it allows the dean's office to identify common faculty development needs across departments for which it could provide support. For example, it is highly likely that several departments will identify mentoring as a need to address. Providing resources to support departments' efforts in this area could avoid "reinventing the wheel" in each department. Or it may be that a central mentoring initiative would complement department-level efforts.

CONCLUSION

Frequently universities, schools, residency programs, or departments offer a hodgepodge of structural changes and strategies designed to facilitate vitality and productivity. These result in a much smaller impact than would be expected from a coordinated set. Moreover, these strategies are often driven by external funding agency interests rather than the needs identified for the institution. We maintain that success is likely to be greater if guided by a locally designed, comprehensive assessment. Further, it is also more likely to be effective if built on previous relevant research and done via a process that includes important stakeholders (e.g., faculty and administrators). In this article we have reported an evidenced-based, collaborative approach to assessing and improving faculty and institutional vitality. We believe this approach provides faculty and administrators with a rigorous and shared understanding of faculty needs. Using this foundation to select individual and organizational development activities will better assure continued faculty and institutional vitality.

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