

# Does the Dental School Work Environment Promote Successful Academic Careers?

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*Abstract:* A consistent theme in the national dialogue about future directions for the educational arm of dentistry is how best to cultivate a school environment that will be seen as attractive by members of the dental community who desire to serve their profession as teachers and scholars. As a first step toward stimulating broad-based reflection on the working environment within dental schools, the ADEA Commission on Change and Innovation (CCI) conducted a symposium titled “Change, Innovation, and the Quality of Faculty Work-Life” at the 2007 ADEA Annual Session in New Orleans. Aspects of this article are based on the content of this symposium, which explored research on the perceptions and concerns of dental faculty regarding the current academic workplace and provided perspectives of university faculty about university life and career growth. This article reviews the findings from two interview-based qualitative assessments of faculty perceptions of work-life in dental schools and other schools of higher education, presents a preliminary summary of the first national survey of dental school faculty regarding their impressions of the academic work environment, and makes recommendations for enhancing the dental school work environment with an emphasis on those factors that influence career growth. Results from these three studies illustrate faculty perceptions about the promotion and tenure and performance evaluation processes; workload and quality of work-life; and quality of institutional support.

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This article is one in a series of invited contributions by members of the dental education community that have been commissioned by the ADEA Commission on Change and Innovation (CCI) in Dental Education to address the environment surrounding dental education and affecting the need for, or process of, curricular change. This article was written at the request of the ADEA CCI but does not necessarily reflect the views of ADEA, ADEA CCI, or individual members of the CCI. The perspectives communicated here are those of the authors.

*Key words:* dental faculty, faculty development, mentoring, promotion and tenure, academic culture

In dental school, student success is driven by definitions, standards, and competencies; however, based on recruitment and retention patterns, conditions that promote and reinforce faculty success in the academic work environment continue to be ill-defined and are apparently applied sporadically. Consider the statistics on the dental faculty workforce in 2004-05. The American Dental Education Association (ADEA) reported that 1,039 faculty—a figure that represents 9 percent of this workforce—left dental education and 36 percent of those individuals entered private practice. Surveys of senior dental students indicated an extremely low interest (0.5 to 1.2 percent of these students) in pursuing academic careers, mainly because of financial considerations such as the burden of dental school debt and a wide disparity between academic salaries and private practice income potential.<sup>1</sup> These trends could be interpreted to mean that, in 2007, current dental faculty are dissatisfied with certain aspects of their academic work-life and that

maybe the work environment in dental schools does not provide a culture conducive to recruiting members of the dental community into faculty roles.

The highly publicized and well-documented faculty “brain drain” should stimulate administrative leaders in dental schools, who now find themselves with dwindling resources in terms of both faculty and finances, to assess the capacity of their institutions to foster attractive and professionally satisfying career paths for junior and mid-career faculty and to ensure continued productivity of senior faculty. As will be described in this article, areas of the academic environment that are sources of dissatisfaction for some dental school faculty also exist in the general university environment to such an extent that the challenges confronting dental education are most likely reflective of a larger set of issues that exist throughout higher education. Furthermore, recent research has shown that there is a divide throughout higher education between the perceptions of early and mid-career faculty

and those of their more senior colleagues about the academic environment, and this difference in outlook encompasses both professional and personal issues.<sup>2,3</sup> Thus, the purposes of this article are as follows: 1) to further explore dental school faculty perceptions of their work-life and to determine the dissatisfactions, if any, that may be contributing to many early and mid-career faculty leaving academia; 2) to compare perceptions of university faculty who work outside of dental schools to those of dental faculty; 3) to present a preliminary summary of the first national survey of dental school faculty impressions of their work environment; and 4) to make recommendations for enhancing the dental school work environment with an emphasis on factors that influence career growth.

This article was sponsored by the Commission on Change and Innovation (CCI) in Dental Education, which was established by ADEA as part of the Association's overall effort to raise awareness of challenges and opportunities and promote dialogue within the academic dentistry community. The CCI was created because numerous organizations within organized dentistry and the educational community have initiated studies or proposed modifications to the process of dental education in recent years but with limited communication and coordination.<sup>4</sup> Thus, the fundamental mission of the CCI is to provide a central hub for communication where dental educators and representatives from organized dentistry, the dental licensure community, the Commission on Dental Accreditation, the American Dental Association's Council on Dental Education and Licensure, and the Joint Commission on National Dental Examinations can share perspectives about how to improve dental education and thereby stimulate national discussion of ideas for creating a dynamic environment for learning within dental schools. A key theme in the national discussion of future directions for the educational arm of the dental profession is how best to cultivate an attractive and intellectually stimulating "academy" that will be seen as a desirable place to work by members of the dental community who desire to serve their profession as teachers and scholars. As a first step toward stimulating broad-based reflection about the working environment within dental schools, the CCI conducted a symposium titled "Change, Innovation, and the Quality of Faculty Work-Life" at the 2007 ADEA Annual Session in New Orleans. Aspects of this article are based on the content of this symposium, which explored research on the perceptions and concerns of potential and current dental faculty regarding the current academic environment

and also provided faculty perspectives about life and career growth in the university environment.

The content of the article is a summary of available and emerging research on faculty members' impressions of their work tasks and settings and the forces that influence, positively and negatively, their opportunities for career growth in the educational arm of the dental profession. This is not a methodological or formal research report; instead, our goal is to communicate findings from three distinct studies conducted across a span of seven years (2000, 2004, and 2007) that we hope will be thought-provoking and serve as a catalyst for discussion and reflection about how dental schools, individually and collectively, can build an institutional culture where individuals who desire to serve dentistry in educational and scholarly roles can be successful and satisfied both professionally and personally. Some of the information presented is based on previously published qualitative research,<sup>5-8</sup> as well as on selected and preliminary results from the Dental Faculty Work Environment Questionnaire, developed and administered in 2007 by the Academy for Academic Leadership for the ADEA CCI. This survey was conducted to generate quantitative data on the perceptions of tenure-track and non-tenure-track faculty members at U.S. dental schools about the work environment in academic dentistry. It was administered in February through April 2007 in an online format. Preliminary findings will be reported based on a total of 1,748 responses provided by faculty at forty-nine of fifty-six U.S. dental schools (87 percent). These data represent only highlights of certain notable outcomes. A subsequent article by Haden, targeted for winter 2007 in the CCI Perspectives Series, will provide a definitive quantitative analysis of the outcomes of the questionnaire with comparisons among categories of respondents grouped by age, gender, ethnicity, academic rank, years of experience as a faculty member, discipline/specialty, job focus, and other factors.

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## Methodology: 2000 and 2004 Faculty Interviews

The qualitative data were obtained from in-depth, one-on-one, telephone interviews conducted with faculty within the dental academic<sup>5</sup> and general university settings<sup>6-8</sup> in order to gauge, in as broad a manner as possible, their perspectives on issues related to faculty work-life. This type of qualitative research is used for gathering information on com-

plex issues and offers methods for outlining these issues in rich, vivid detail.<sup>9</sup>

Within dentistry, ten undergraduate dental students, ten residents in dental postgraduate programs, and ten junior, untenured, full-time faculty working in various U.S. dental schools were interviewed to obtain their perceptions of the positive and negative factors associated with academic life. The individuals in each group were balanced by gender. This qualitative study was conducted in 2000 and was funded by the American Association of Orthodontists Foundation. Similar interviews were conducted in 2004 with a total of fifty untenured (junior) faculty and tenured (mid-career) faculty randomly selected from the sixteen component universities that comprise the University of North Carolina (UNC) system. The 2004 study was funded partly by the TIAA-CREF Institute and the UNC General Administration and was conducted in collaboration with Betsy E. Brown, who was formerly at the UNC General Administration and is now at North Carolina State University. The demographics of these fifty faculty interviewed in 2004 were 61 percent female and 39 percent male. White faculty made up 63 percent, while 22 percent were African American, 7 percent Asian, and 7 percent Hispanic.

The interviews were semistructured, and some of the information discussed during the interviews focused on the following issues:

- reasons for choosing an academic career;
- the institution's interest in and support for teaching, research, and public service;
- required time commitment to meet expectations;
- economic benefits and hurdles;
- benefits (health, retirement, other);
- quality of life, job location, and family support;
- tenure and promotion processes; and
- role of colleagues and senior administrators.

For a more thorough review of the dental and general university faculty perceptions, including a full discussion of all issues, a set of quotations from the individuals who were interviewed, and an in-depth description of the methodology, the reader is invited to review citations 5-8.

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## Methodology: 2007 Dental Faculty Work Environment Questionnaire

The research protocol for this study was reviewed and approved by the Institutional Review

Board of the University of Texas Health Science Center at San Antonio (UTHSCSA) in February 2007 as exempted research. The four objectives of the study were to:

1. determine faculty members' perceptions of work-life and school environment that influence decision making about academic careers in dental education;
2. identify academic work environment factors that are sources of satisfaction to dental school faculty and identify sources of dissatisfaction;
3. elicit faculty opinions about the clarity of procedures and expectations for promotion and tenure and evaluation of job performance; and
4. determine faculty members' perceptions about the availability and value of professional development resources and activities at their dental school including mentoring, career growth planning, faculty development and continuing education programs, and administrative and peer support.

The Dental Faculty Work Environment Questionnaire was based on two sources: 1) the Faculty Job Satisfaction Survey developed for the "Study of New Scholars" at the Harvard Graduate School of Education by Trower and Chait<sup>10</sup>; this survey instrument has been used since 2003 in a variety of higher education institutions including professional schools; and 2) an online survey used for assessing career enhancement needs that could be addressed in faculty development programs at UTHSCSA, which was developed by William Hendricson in his capacity as Director, Educational Research and Development Division at UTHSCSA.

## Design

The questionnaire was designed in an online format that employed a forced choice "menu," but included opportunities for write-in responses. The questionnaire consisted of twenty-nine questions and ninety-nine items that requested responses. Practice administrations during instrument development and pilot-testing indicated that completion time was approximately fifteen minutes. The questionnaire included eight sections: 1) background information: dental school, highest academic degree obtained, length of time as a faculty member (current position and all positions during career), current academic rank, tenure vs. non-tenure track, full-time vs. part-time, department or discipline, race/ethnicity, age, gender, total compensation, and main focus of academic appointment (teaching, research, service,

administration, combination); 2) clarity of information about the promotion and tenure process, expectations, and criteria; 3) clarity of information about terms of employment in non-tenure-track positions; 4) satisfaction with day-to-day activities as a faculty member; 5) professional development support and resources including mentoring; 6) satisfaction with professional development opportunities and mentoring; 7) perceptions of the dental school environment and culture; and 8) perceptions of the dental school as a place to work.

The questionnaire was pilot-tested with a sample of forty faculty members at the UTHSCSA in January 2007. Following modifications based on pilot-test feedback, the full questionnaire was distributed electronically to faculty at fifty-six U.S. dental schools in February to April 2007. The chair of the CCI, Dr. Kenneth Kalkwarf, sent emails to the deans of each U.S. dental school informing them of the aims and methodology of the study and the uses of the data by ADEA. Deans were informed that they could elect to decline participation if they so desired. The link (URL address) to the Dental Faculty Work Environment Questionnaire and the IRB-approved information sheet (equivalent to a subject consent form for exempted education research) accompanied the message to the deans.

## Subjects and Distribution

All full- and part-time dental school faculty in clinical, basic science, and behavioral departments were eligible to complete the questionnaire.

The CCI has implemented mechanisms to facilitate a national discussion of curricular issues and sharing of strategies that foster innovation in dental education. One mechanism was to establish a network of faculty who serve as CCI liaisons at U.S. dental schools. The goals of the CCI liaison network are to promote two-way communication between the schools and the commission, serve as a conduit for information exchange between the CCI and the faculty who implement the curriculum for students, and provide leadership for implementation of educational innovations. Recruitment of CCI liaisons as site coordinators for this study provided two benefits: it facilitated response by having the questionnaire come from faculty peers at each campus versus the central office of ADEA, and it provided an opportunity for the liaisons to communicate with their peers about faculty development issues and thus raise their vis-

ibility at their own schools. In February 2007, the CCI liaisons initially distributed the questionnaire to faculty at their schools via email with an embedded link to the host website and distributed it for a second time in April 2007. The liaisons received an explanatory message from the investigators that was used as the participation invitation message for their faculty peers. This message described the objectives and uses of the data by ADEA.

## Response Rate and Basic Subject Demographics

Through April 15, 2007, a total of 1,748 faculty from forty-nine U.S. dental schools completed the Dental Faculty Work Environment Questionnaire; the average response rate per school was thirty-six faculty members. Overall, the subjects represent 17 percent of all U.S. full- and part-time dental school faculty and 21 percent of the faculty at the responding schools. The respondents were 34 percent female and 66 percent male, and 87 percent indicated that their “home” discipline/department was in the clinical sciences. The subjects were 81 percent Caucasian, 7 percent Asian, 7 percent Hispanic, and 3 percent African American. Distribution of subjects by academic rank was 27 percent full professors, 32 percent associate professors, 30 percent assistant professors, 6 percent instructors, lecturers, research associates, or teaching assistants, and 5 percent adjunct faculty. Approximately 78 percent of respondents were full-time, and 22 percent were part-time. By age, 28 percent reported they were sixty years and older, 37 percent were fifty to fifty-nine, 20 percent were in their forties, and 15 percent were less than forty years of age. Although the age of the respondents to the questionnaire may appear to be skewed, the age distribution is indeed representative of dental school faculty in 2007. In addition, any age-related bias in the data obtained is counterbalanced by the 2000 and 2004 interview data that were obtained primarily from junior and mid-career faculty.

The three studies conducted in 2000, 2004, and 2007 represent combined interview and questionnaire-derived data and provide faculty perspectives and insights from within academic dentistry and outside the dental school in the wider university setting. It is hoped that these data will stimulate reflection about faculty development, career planning, mentoring, and promotion and tenure processes at each academic dental institution.

## Summary of Key Findings

As shown in Figure 1, key outcomes from the three studies are summarized in relation to three categories related to academic work-life (the academic evaluation process, workload and quality of work-life, and quality of institutional support). Findings from the 2000 and 2004 interviews represent the combined perceptions of the eighty interviewees: thirty dental and fifty non-dental respondents. However, in instances where dental school subjects provided uniquely different insights about academic life, their responses are described separately. Verbatim comments from transcripts of the 2000 and 2004 interviews are presented to illustrate prevailing themes. Data presented from the 2007 Dental Faculty Work Environment Questionnaire represent the opinions of only dental school faculty (n=1748). In each section, findings from the 2000 and 2004 interviews are described first, followed by corresponding data from the questionnaire.

### Academic Evaluation Process

The 2000 and 2004 interviews and the 2007 Dental Faculty Work Environment Questionnaire elicited information from study participants about the promotion and tenure process, tenure expectations and criteria, and mentoring. Not surprisingly, a major theme from the interviews of faculty, including the dental faculty, was that, for those on the tenure track, the tenure and promotion process was of major importance but also a source of frustration due to lack of consistent information. Most schools have

guidelines for tenure, but many faculty members perceived these guidelines as ambiguous and almost like chasing a “moving target.” Many felt they had to rely on other faculty who were not related to their promotion process to obtain tangible information and insights about methods for performance evaluation and standards/expectations for achieving tenure. In addition, most respondents indicated that there was little follow-up on their progress toward obtaining tenure by their department chairs or other senior faculty. Some commented that it was important to have a head start in that it helped greatly if you came from another institution with prior or pending grant funding and publications. Others perceived a disconnect between the tenure process and other faculty work: that is, the time commitment for completing the work leading to tenure did not match the contractual work expectations. Junior dental faculty observed that they had few recently tenured role models as examples, and the dental residents who were interviewed questioned whether tenure was even a possibility.

Regarding mentoring, the importance of the department chair and other senior faculty was highlighted. Interviewed faculty felt that support from the chair in terms of protecting time in the schedule, providing feedback on progress, and being an overall advocate were critical for successful career planning and growth, although such mentoring and career guidance were only sporadically available.

Following are selected quotations<sup>6,7</sup> from faculty on specific topics:

[Tenure process] “It’s been a situation generally that I would characterize by ambiguity.

2000 Dental Student, Resident, and Faculty Interviews	2004 Interviews with Faculty at University of North Carolina Component Schools	2007 Dental Faculty Work Environment Questionnaire by ADEA CCI
<b>The Academic Evaluation Process</b>		
<b>Workload and Quality of Work-Life</b>		
<b>Quality of Institutional Support</b>		

Figure 1. Structure of findings summary comprised of data sources (horizontal axis) and characteristics of academic work-life (vertical axis)

In other words, you get a message from an official and you sort of think that's right and then you'll hear someone else articulate it slightly differently."

[Tenure requirements] "The disturbing part is watching how quickly tenure requirements are changing. We have an eight-year clock here, and tenure requirements have crept up at least two or three times in the five years I've been here. . . . For the people who came in under the old rules and who are going to be scrutinized by the new rules, that's a little disturbing."

[Tenure process] "I think in this particular college there's a fairly transparent and supportive administration such that if there are issues that need to be dealt with, they seem to make you aware of them pretty quickly and then provide you the opportunity to find your way around to improve things, or if there are a series of marks that one needs to hit, they're relatively visible from the moment you get here."

[Tenure expectations] "We just had this document about teaching loads or whatever, time distribution, and it was said that you should spend 60% of your time teaching, 20% of your time on research, and 20% of your time on service. Well, that is not, if you look at the tenure package, what the university evaluates you on. And so there's a total disconnect between what I'm supposed to be doing."

Faculty who responded to the 2007 Dental Faculty Work Environment Questionnaire rated the clarity of the tenure and promotion process, performance standards and expectations, and career planning advice as minimally adequate, which is consistent with the responses obtained by interviews in 2000 and 2004. For example, less than 20 percent of not-yet-tenured faculty on tenure-track appointments said that expectations for obtaining tenure in any of the three main areas of performance (teaching, research, service) were clear. Only 14 percent of this same group of not-yet-tenured faculty reported that advice about career planning from senior faculty was clear, and more than 80 percent said that the overall process for obtaining tenure was not clear at all or could be improved. Additionally, 62 percent of ten-

ured faculty said that the process they experienced to obtain tenure was not clear or could be improved. Among dental school faculty in non-tenure-track positions, 66 percent reported that the information they received about their rights and obligations as a non-tenure appointee was either not clear or could be improved. When asked to indicate their level of satisfaction with "the mentoring I have received from senior faculty in my department," 54 percent responded ok, dissatisfied, or very dissatisfied. These data suggest that minimal progress has been made over the past seven years in clarifying the faculty evaluation process or helping faculty understand the expectations for obtaining tenure.

## Workload and Quality of Work-Life

This component of the 2000 and 2004 interviews and the 2007 Dental Faculty Work Environment Questionnaire elicited information on satisfaction with day-to-day activities as a faculty member; the environment and culture; and the academic environment as a place to work. Based on the interviews, virtually all respondents, whether in dental schools or in general education settings, expressed a deep appreciation for teaching and truly appeared to value their interactions with students. Many commented on the importance of collegial dialogue and advice from department chairs and senior colleagues as having a major influence on their confidence and ability to succeed in an academic environment. Not surprisingly, work and family responsibilities clashed, and many faculty members indicated they desired information about support services to help balance these two aspects of their life. Such information included assistance with finding daycare facilities and general information on university policies and the university community. Other faculty with families whose academic work duties allowed flexibility appreciated the ability to have those flexible work schedules to assist with meeting family obligations and needs. On the negative side, some faculty expressed an awareness of competition among their colleagues and felt burdened by internal departmental politics.

Specific to dental faculty and their perceptions about academic workload, many said that they expected that academia would allow them to have more personal time than in dental practice and they would be able to maintain a predictable and standard forty-hour work week. In contrast to this expectation, many of the junior dental faculty who were interviewed reported that they actually had little control

over their work schedule and overall academic life and thus saw this as a negative factor. However, junior dental faculty indicated that they liked the variety of tasks performed during an academic workday versus a private practice workday and saw this diversity of activity as a positive factor. In regard to the need to move to a different dental school for career advancement, better compensation and/or a more satisfying work environment, some junior faculty viewed relocation as a positive factor of academic life and perceived the possibility of mobility as a freedom. However, others felt that having to move to improve career prospects or working conditions was burdensome, especially when families have to be uprooted in the process.

Following are selected quotations<sup>6,7</sup> from faculty on specific topics:

[Work balance] “In principle I think that would be possible [i.e., to balance work and family life], but if you think about the fact that I’m on the tenure track and that you need to satisfy certain requirements, which are not very well defined, so there could be some uncertainty as to, well, am I doing enough? Am I going to make it? That makes it hard to . . . make those decisions.”

[University information] “That’s totally played down [university community information] and you kind of have to try and find stuff. I’ve been here, this is my fourth year and I still don’t know anything. . . . I mean, I was not even told when graduation was or where the ceremony was.”

[University policies] “To be honest I don’t think I know enough about that [university policies], and I think it would be useful. The orientation for new faculty, at least when I went through it, really went through things like, well, particularly retirement plan options very, very quickly, and you know, I don’t think any of us really knew what our options were, what was going on.”

[Daycare] “I know the daycare director’s very careful, but I mean you really need to be on it, you know, the day you get proof [of a pregnancy]. And everyone who’s here knows that. So you go from the doctor to the childcare place with the letter from the

doctor . . . and it’s very, very expensive and it’s not subsidized.”

[Flexible academic work schedule] “The answer is that it’s [flexibility] marvelous, but I don’t think that’s at all unusual. I think that all of us professors have it really good across the country when it comes to arranging our schedules, compared to most laborers in the United States.”

Responses of faculty to the Dental Faculty Work Environment Questionnaire tended to support the interview results. The vast majority of faculty respondents (86 percent) enjoyed their interactions with colleagues and felt that they were treated fairly (73 percent) by their department chair. When asked to rate their department as a place to work, 73 percent responded that they were either satisfied or very satisfied, but only 62 percent rated their dental school environment as a good or excellent place to work, with more than 30 percent indicating that the environment was just “ok” and “could be better.” Write-in comments submitted by dental faculty on the questionnaire indicated that multitasking was an expected and necessary aspect of their job; faculty reported that they were required to “bounce among tasks that were quite different” and “wear multiple hats such as be a clinician, educator, administrator, advisor, school citizen (serve on committees).” Faculty at both the associate and assistant professor levels reported that they were performing many of these tasks without appropriate training.

Interestingly, interviews of the dental students in 2000 revealed that while one-on-one teaching by faculty was appealing, they reported that they had few examples of full-time faculty who made academic careers look attractive. These students perceived that there were no incentives for teaching and that full-time faculty were pulled in too many directions while part-time faculty (adjuncts) were viewed as more positive role models. The old adage of academia being a fallback for failed private practice was mentioned by some of the interviewees in 2000. In addition, although many students recognized that research could enhance clinical teaching, many perceived that faculty were overburdened by research. These perceptions contributed to an overall “negative” culture in some school environments that was seen as a deterrent for entering academia.

Following are selected quotations<sup>5</sup> from residents on specific topics:

[On research] “I mean it’s [obtaining grant funding] extremely competitive and that’s pretty terrifying to be able to put in the number of years that these people have put in and then not be able to advance through the academic system.”

[On success] “I haven’t found very many people who are successful in doing the things I want to do, that is, being able to do research, support a lab, and also be involved clinically.”

The perceptions of the students are consistent with findings from the Students’ Perspective Project (SPP) conducted by Henzi et al.<sup>11-13</sup> In the SPP, more than 2,000 dental students from thirty-two U.S. and Canadian dental schools qualitatively evaluated the educational environment in their dental school and analyzed the strengths and weaknesses of the curriculum. From the viewpoint of the students in the SPP study, failure to create an environment conducive to keeping effective teachers was often described as a major threat to the quality of dental school. Students at virtually every school in the SPP study bemoaned the loss of high-quality faculty to the lures of private practice and provided testimonials about the impact of these losses upon their education: namely, experienced faculty with enthusiasm for teaching were replaced with individuals who had little teaching experience. Students described situations in which dentists who came directly from private practice and who had never taught were placed in charge of major courses shortly after they started work in the school. A key finding from the SPP study is that the loss of skilled instructors is diminishing the educational product delivered by dental schools in the minds of the students. Given the Generation Y students’ expectations for high-quality, efficient, and cost-effective educational “service” from faculty,<sup>14,15</sup> will faculty retention problems ultimately drive down the perceived value of dental education in the minds of the value-conscious Gen Y learner to such an extent that prospective students will look elsewhere for a professional career? Students’ concerns about the faculty “brain-drain”<sup>13</sup> are illustrated by these responses from SPP participants:

“Faculty shortage is the greatest threat to quality. The really good faculty consistently indicate that they are not paid enough to make the job worthwhile.”

“Being able to attract quality faculty is a concern. The smart people know there’s not as much money in teaching as in private practice, so it can be very difficult attracting quality full-time faculty.”

“There is a shortage of quality faculty who enjoy teaching and have a positive attitude about the school and dentistry.”

“One of the biggest threats is the decrease in the number of really good instructors. Many times the good ones get chased out and we the students see this.”

“My classmates and I are concerned that skilled and knowledgeable faculty are becoming rare; there has been a decrease in enthusiastic, qualified instructors.”

“Faculty accepting positions without having the desire to teach; there are too many older faculty and not enough younger faculty.”

Junior dental faculty who were interviewed in 2000 also appreciated the importance of teaching and very much enjoyed their students’ successes, but also felt that teaching was not valued by administrators, whom some viewed as untrustworthy. The following is a quote<sup>5</sup> from a junior faculty member that illustrates the positive perception of teaching:

[Dental faculty on teaching] “And you know teaching goes back hundreds and hundreds of years and it’s a tradition, it’s a wonderful tradition, it’s a wonderful thing as a human being to be involved in.”

## Quality of Institutional Support

The 2000 and 2004 interviews and the 2007 Dental Faculty Work Environment Questionnaire elicited respondents’ perceptions about support for professional development, satisfaction with compensation, and clarity of information about terms of employment. Interviewed faculty reported that support for professional development was limited. The opportunity for sabbaticals was considered very important. However, faculty reported that the availability of sabbaticals was inconsistent: they were possible in some departments, but not in others. Many faculty expressed frustration with poor

pay raises and issues of salary compression, and for those faculty in the general university, many felt the need to supplement their salaries by, for example, teaching in the summer. Benefits were an issue but were state-specific. For example, some faculty in North Carolina felt that the health insurance benefits offered by the state were inadequate, but most felt that the retirement benefits were adequate. Dental students and junior dental faculty reported that faculty were given limited instructions in the how-to's of teaching, and some junior faculty felt somewhat unprepared for teaching. In addition, to accommodate a wider variety of potential faculty, some interview subjects felt that university administrators should allow greater flexibility in job requirements such as part-time, tenure-track appointments, flexible teaching schedules, etc.

Following are selected quotations<sup>6,7</sup> from faculty on specific topics:

[Sabbatical] "If I wanted to take a year instead of a semester, the deans have always said that would be fine, but none of my chairs have ever agreed to that because it's a small department and I'm too important and blah, blah, blah."

[Salary] "[My salary is] not even really in keeping with inflation. And I mean, you would think that, you know it's not the same job: I'm a much better teacher asset to the university now than I was 13 years ago and so I would've hoped we could've done better than an x% increase in salary."

[Salary] "My wife has a job at X University, we have no children, and I had relatively wealthy parents, you know, who paid for my college education and so forth, so I have no outstanding loans and that sort of thing. Because of this social position, I really could care less."

[Extra teaching] "The one thing that I have been able to do, which was really a sacrifice, and that was summer teaching. I have taught every summer and cannot afford not to teach in the summer. . . . I consider my summer salary as part of my yearly salary."

[Benefits] "The benefits are going down . . . almost every semester."

[Benefits] "The dental insurance, I think, is particularly upsetting because there's a cap on it."

Among respondents to the Dental Faculty Work Environment Questionnaire, 52 percent indicated that their compensation was \$100,000 or less (67 percent of the individuals in this category were females, and 44 percent were males); 31 percent earned between \$101,000 and \$150,000; and 17 percent earned \$151,000 and higher. These figures were not based solely on salary but on their total compensation package, which included salary, benefits, continuing education stipends, faculty practice reimbursements, and other compensation such as tuition and travel. Regarding satisfaction with compensation, the questionnaire results indicate that 39 percent of all respondents (e.g., all academic ranks) were equally split between being "satisfied with their compensation" and "not satisfied," with 22 percent in the "neutral" category. However, as might be expected, respondents at the assistant professor level were far more likely to report dissatisfaction with compensation. Among all assistant professors, 31 percent were satisfied with compensation, and 45 percent were not satisfied. Although less well paid at all academic ranks than their male peers, the responses of female faculty reflected the same overall response pattern: 38 percent were satisfied, 24 percent were neutral, and the remaining 38 percent were not satisfied. Regarding benefits (which were defined as number of vacation days, sick leave policies, the quality of health insurance, and retirement plan options), 73 percent of dental faculty were satisfied with the packages offered, and only 11 percent were not satisfied.

Overall, respondents to the Dental Faculty Work Environment Questionnaire provided a mixed picture about the availability of professional development resources at their schools. On the positive side, 58 percent indicated that travel funds for professional meetings were available, and more than half of the respondents indicated their schools conducted regular in-service programs, brought in outside speakers for enrichment, and conducted faculty development retreats for the whole school. On the other hand, only 20 percent of respondents reported that a formal mentoring program existed for new faculty, 25 percent reported that mentoring existed for junior faculty on tenure tracks, and 26 percent reported that their school conducted workshops on the promotion and tenure process. Overall, more than 50 percent indicated that their level of satisfaction with professional

development opportunities at their school ranged from “adequate” to highly dissatisfied.

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## Recommendations: Enhancing the Dental School Work Environment

Much has been written on the topic of faculty recruitment and retention, specifically as it relates to the impact of work activities on faculty attitudes and perceptions. Researchers, including those in dentistry, have proposed several best practices and strategies that can be implemented to alleviate faculty concerns.<sup>4,7,8</sup> In this section, several recommendations are described that can be applied to academic dentistry settings. These recommendations are based on three assumptions: 1) “success” must be recognized as being different for each of the talented faculty at our institutions who are driven to teach and to foster the development of dental practitioners; 2) chairs and deans must create an environment for success that is specific to the faculty member, and this specificity should entail a process whereby a faculty member (whether newly hired, mid-career, or senior) is moved successfully through the ranks of promotion in an environment that is motivating, with supportive and challenging student interactions, collegial interactions among faculty, excitement and passion in research endeavors, expectations of fair and balanced compensation practices, and adequate time for family; and 3) as much as possible, the dental school environment must be more closely integrated into the general university environment. Only through integration can other colleges appreciate the importance of the dental school mission and the diversity of faculty necessary to support this mission. Such an appreciation can be beneficial during the promotion process for dental faculty as they move through the ranks of the university.

Our recommendations for enhancing the dental school work environment are as follows:

### 1. **Articulate Clear Expectations of Faculty.**

Clear expectations help to dispell anxiety associated with uncertainty over job performance. This is especially important for tenure guidelines. Our research suggests that junior faculty at dental schools find tenure guidelines range from being too rigid and unrealistic to unclear and vague. Obviously, some balance must be reached

by administrators to have tenure guidelines that allow both flexibility and clarity. Best practices such as employing written expectations that are reviewed yearly with specific milestones of achievement can go a long way towards solving problems of trust with administrators, perceived departmental political influences, and other stresses. These milestones can be tied directly to compensation practices to ensure a measure of fairness.

### 2. **Do Your Homework: Make Sure the Job “Fit” and Environment Are Good Ones for You.**

A good resource for dental school faculty is Mary Deane Sorcinelli’s “The Top Ten Things New Faculty Would Like to Hear from Colleagues.”<sup>16</sup> Three “things” from this Top Ten can help to stabilize the academic environment for faculty, especially those taking on new academic appointments. These three are as follows: first, “figure out what matters” in their new job; second, “decide what does not matter”; and third, know that “teaching always matters.” Faculty should seek advice from their mentors and senior colleagues to make these determinations, and senior administrators should provide guidance to faculty related to these three criteria for success in new academic roles. For new faculty or faculty in new roles, answering these questions about what matters to your success in your new position and what does not matter will help clarify whether the position is a good fit for both you and the department and will improve your efficiency toward meeting expectations once you are in the job.

### 3. **Teaching Matters MOST. Make No Mistake About This!**

Data from the three studies reported here and elsewhere indicate that both faculty and students greatly value the intellectual stimulation and interactions that occur during teaching. That being said, many mixed messages on teaching are perceived by faculty and students; these include being overburdened by teaching, and, yet, having no rewards or value associated with teaching activities. Some student respondents observed that some faculty were inadequately trained to teach and that training to acquire teaching skills should be offered. Hosting teaching seminars for both new and more seasoned faculty that are targeted toward teaching in the dental environment is one opportunity to help prepare new faculty for their roles and keep seasoned

faculty current. Data from the Dental Faculty Work Environment Questionnaire indicate that dental schools engage in a variety of efforts to support the development of their faculty, but few schools have the resources to implement a comprehensive initiative to develop the teaching or research skills of newly hired faculty. The questionnaire responses suggest that dental school faculty perceive a need for additional professional enrichment opportunities. At the national level, as depicted in Figure 2, ADEA provides a continuum of support and enrichment that reflects the career arc of dental school faculty and consists of four inter-related components: 1) the Academic Dental Careers Fellowship Program (ADCFP) to promote and support interest in academic careers among students; 2) the Scholarship of Teaching and Learning (SoTL) online community to provide enrichment and networking opportunities for a broad segment of the ADEA membership in conjunction with ADEA's faculty development workshops at the Annual Session; 3) the Institute for Teaching and

Learning (ITL), cosponsored with the Academy for Academic Leadership (AAL), which provides an in-depth "immersion" learning experience for early career faculty or practitioners transitioning into the academic environment; and 4) the ADEA Leadership Institute for mid-career faculty who desire to attain administrative roles within their own or other institutions or enhance their effectiveness in these roles.

In the ADCFP, upper-class dental students participate in a year-long fellowship in which they teach in classrooms, labs, and the clinic, conduct research projects, interview faculty at various academic levels about academic careers, create posters and presentations to share their experience with other students at the ADEA Annual Session, write personal educational philosophy essays, and compile reflection journals to chronicle their experiences and perceptions of faculty life. The goal is to expose students to the opportunities and rewards of teaching and scholarship in dental schools. The ADEA/AAL Institute for Teaching and Learning is a national

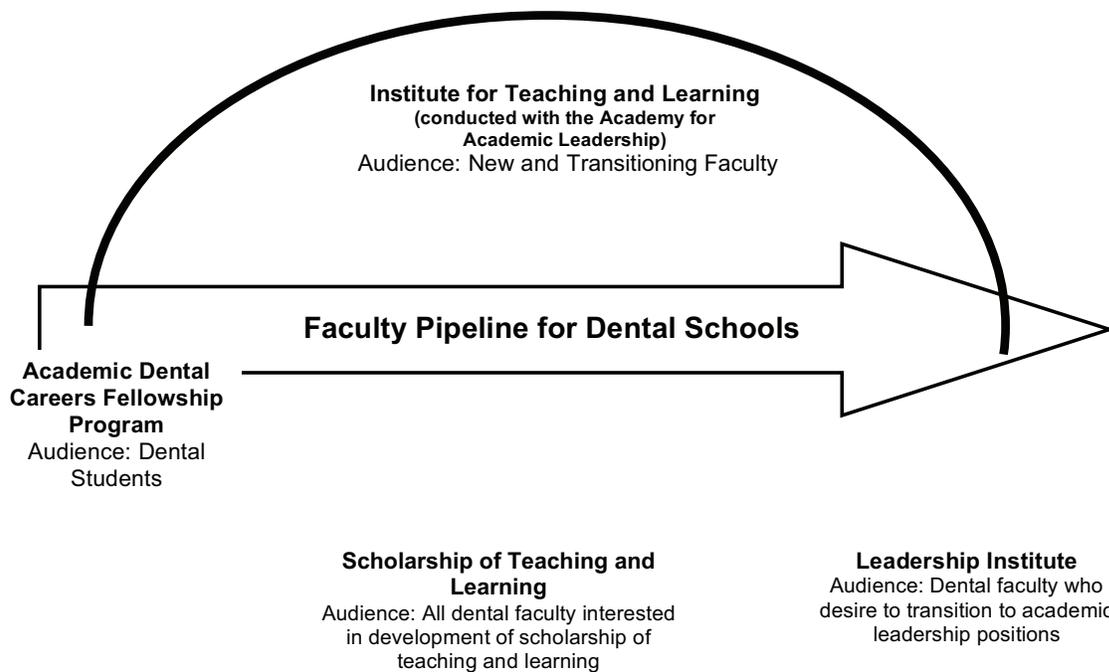


Figure 2. ADEA professional development continuum

effort to aggressively identify future faculty and provide intensive training to assist potential and new faculty to become excellent teachers, scholars, and satisfied academicians. Cohort groups of twenty-five to thirty ITL Scholars from a variety of dental schools complete a seven-day program, conducted in two phases, that addresses skills in teaching, curriculum planning, student assessment, and scholarship with “at-home” application assignments between phases, team projects, and practice teaching and peer feedback during ITL sessions. Numerous studies and comprehensive reviews of the literature indicate that the intensive, longitudinal “immersion” approaches to faculty development that involve active learning (e.g., practice teaching activities, roleplay, analysis of case scenarios, participation in simulations, self-assessment, and peer feedback) are the most likely to produce lasting modifications in behavior and retention of acquired skills.<sup>14-27</sup>

#### **4. Establish a Mentoring Structure as the Cornerstone of Faculty Development.**

Within each school, protocols for mentoring should be established to assist department chairs in monitoring faculty progress toward meeting their annual and long-term career development goals. Establishing mentoring committees for individual faculty members allows chairs to receive somewhat impartial advice in faculty progress. Timely feedback on progress should be provided to junior faculty in as collegial a manner as possible. The department chair should be an advocate for his or her faculty members and be committed to their development and mentoring, with the provision of appropriate resources when necessary for those activities that foster development. Sabbaticals should be available for mid-career and senior faculty to retool and/or enhance their academic development. The latter can be in terms of research or leadership development. As previously described, the ADEA Leadership Institute is the association’s flagship career enhancement program and is specifically designed to provide dental educators with perspectives about dental education issues, insights about leadership strategies, and opportunities to acquire and practice skills associated with effective leadership. Nearly 150 dental educators who are interested in pursuing positions in academic leadership are graduates of this year-long program. Coauthor Haden has directed the Leadership Institute for the past eight years.

#### **5. Create and Maintain an Atmosphere of Enthusiasm Among Faculty, Staff, and Students.**

Because faculty work-life is intimately related to our academic successes and achievements, the negativity mentioned by the dental students in terms of full-time faculty who appeared to be discontented and complaining, the negative departmental politics, and issues of distrust with administrative staff tend to weaken enthusiasm among faculty, staff, and students toward their daily activities. A major challenge, then, for dental administrators as they try to foster the recruitment of students into the academic profession is to highlight the attractiveness of an academic career and to maintain enthusiasm among faculty at a time when financial resources are dwindling. Hosting informative orientation forums for new faculty and other types of seminars focused on showcasing full-time faculty research and clinical activities may help to engage students, staff, and faculty and create a more positive atmosphere.

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