

Meeting the Demand for Future Dental School Faculty: Trends, Challenges, and Responses

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Abstract: This report presents data from ADEA's 2001-02 survey of vacant budgeted faculty positions and examines challenges likely to exacerbate faculty shortages in the immediate future. The fifty-four dental schools responding to the survey reported 344 vacant budgeted positions, a decrease of 4 percent from 2000 to 2001. Seventy-nine percent of these vacancies are for full-time positions. Approximately one out of four dental schools has ten or more vacancies. Of just over 1,000 faculty separations during 2001-02, 53 percent were reported to be individuals leaving to enter private practice. There is no indication of a near-term reversal of the decade-long trend toward increasing budgeted vacancies, and the current economic environment along with other factors delineated in this report makes the challenge to recruit and retain dental faculty more difficult. ADEA and other stakeholders are currently pursuing a number of strategies to meet the demand for future dental school faculty.

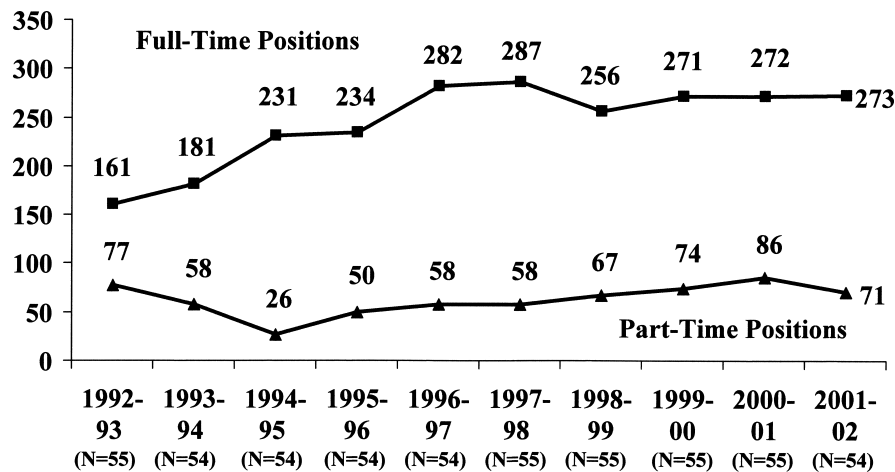
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Over the past decade, concerns about the recruitment and retention of dental faculty have grown. Kennedy articulated these concerns as early as 1990¹ and again in 1995.² In 1998, Kennedy and Hunt predicted a future shortage of clinical faculty, with an estimated need for 200 to 260 new faculty each year.³ In 1999, ADEA, then the American Association of Dental Schools (AADS), published its first Association report on dental school faculty shortages: the Report of the AADS President's Task Force on the Future of Dental School Faculty.⁴ As a result of that report, ADEA has conducted its own annual survey of dental schools regarding vacant budgeted faculty since 1999 and has issued two additional reports.^{5,6} All three of these Association reports have pointed to a trend of increasing dental faculty vacancies.

In 1990, the average number of total clinical faculty per school was seventy-seven (full-time and full-time equivalent part-time), with fifty-six U.S. dental schools in existence.⁷ This number remained relatively unchanged at seventy-eight in 2000 across fifty-four U.S. dental schools. Between the early 1990s and 2000, the number of vacant budgeted fac-

ulty positions increased over 50 percent, from 238 to 358 vacant positions (Figure 1).⁷ During the same period, the average number of vacant positions per school has increased from 4.3 to 6.5. In contrast, from 1990 to 2000, dental school enrollment increased approximately 9 percent, from 15,951 to 17,349.⁸

Dental schools have reported that they are making up the shortfall created by unfilled positions by utilizing part-time faculty, redistributing teaching loads, dividing duties, and providing interdisciplinary coverage, including the use of generalists to teach in specialty areas.⁵ Presumably, as dental school enrollments have increased and the number of vacant positions has increased, dental school faculty are being required to do more with less. Nevertheless, the severity of the vacancies as they impact the ability of dental schools to fulfill their missions is uncertain. This report presents data from ADEA's 2001-02 survey of vacant budgeted faculty positions and examines challenges likely to exacerbate the faculty shortages in the immediate future. Finally, this report summarizes a variety of ADEA's responses currently under way to facilitate the recruitment and retention of dental school faculty.



Source: American Dental Association, Survey Center
American Dental Education Association

Figure 1. Number of vacant budgeted faculty positions in U.S. dental schools, 1992-2001

Survey Methodology

The 2001-02 survey instrument for reporting vacant budgeted faculty positions was sent to the dean of each U.S. dental school. For each currently vacant budgeted faculty position at the dental school or dental school-sponsored program, respondents were asked to provide the following information: primary appointment, primary discipline, full-time/part-time status (along with full-time equivalency of the part-time position), newly established or extant position, active or inactive search, length of position vacancy, and factors influencing recruitment efforts for the vacancy. Data were obtained from all fifty-four schools, giving a 100 percent response rate.

Number and Discipline Areas of Vacant Budgeted Positions

The fifty-four dental schools responding to the 2001-02 survey reported 344 vacant budgeted faculty positions. This is a decrease of fourteen positions, or 4 percent, from the number of vacant budgeted positions reported in 2000-01 (Figure 1). Over the past several years, the change in the number of vacant positions, whether up or down, has been due

primarily to changes in the number of vacant part-time positions. In Figure 1, data for the years 1992 through 2000 are from the ADA Survey Center. The 2001-02 data are from the ADEA survey of vacant faculty positions. In the overlap year of 2000-01, the ADA and ADEA survey data were most similar: 358 vacant positions reported by the ADA, 360 positions reported by ADEA. The ADA Survey Center revised its data for 1995 through 2000 in its 2000-01 report.⁷ These revisions account for the differences displayed in the 2000-01 ADEA faculty vacancy report⁶ and Figure 1. The differences do not alter the overall trend.

Figure 2 displays the number of reporting schools that fell within three ranges of vacant positions. Twenty-four of the fifty-four responding schools in 2001-02 reported four or fewer vacancies. Three of these schools reported no vacancies. The number of schools with five to nine vacancies was sixteen, while approximately one out of every four schools reported ten or more vacancies. The median number of vacant positions per school in 2001-02 was 6.0, compared to 5.5 in 1999-2000 and 2000-01. The average number of vacant positions per school over the last three years has remained around 6.4. While there was a tendency for the smaller schools to have four or fewer vacancies and the larger schools to have ten or more, there were small, medium, and large schools in all three categories of number of vacancies.

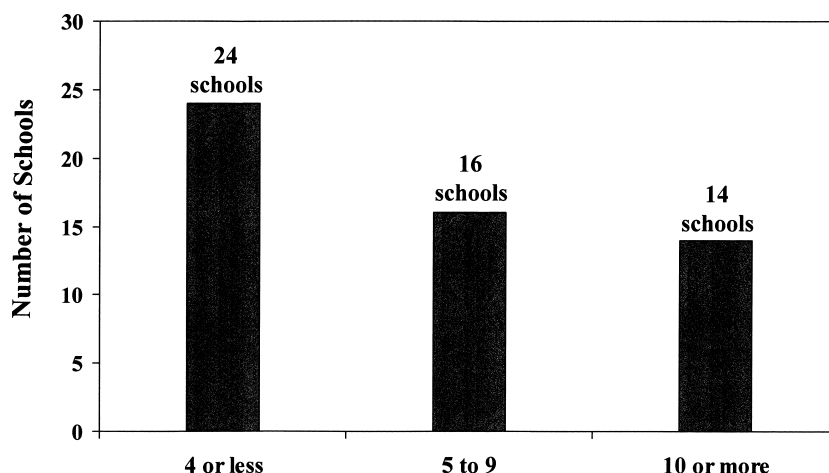


Figure 2. Number of vacant budgeted positions by school, 2001-02

Of the 344 reported vacant positions, 273 (79 percent) were full-time (Table 1). Full-time was defined in the survey as eight or more half-days per week. Seventy-five percent of the vacant faculty positions were in the primary appointment area of clinical sciences. Six percent were in the basic sciences. These percentages are similar to those reported in 2000-01. The vacancies in the primary appointment areas of administration and allied dental faculty, at 8 and 2 percent respectively, are also similar to the percentages reported in 2000-01. However, the number of vacant positions designated as research increased from fifteen to twenty-seven in 2001-02.

Table 2 displays the number of 2001-02 vacancies by primary discipline. The largest number of vacancies, sixty-four, was in general/restorative dentistry, representing almost 19 percent of the reported vacancies; this was little changed from the number in 2000-01. Periodontics had the largest change in vacant positions, increasing from twenty-five in 2000-01 to forty-five in 2001-02. There was no

change in the number of vacant prosthodontic positions; pediatric dentistry increased by two. Oral maxillofacial surgery vacancies increased slightly by three positions, while orthodontics and endodontics fell by six and five positions, respectively. Oral medicine increased from six to thirteen vacancies. Vacancies in the basic sciences fell from twenty-four to eleven, five of which were in microbiology and three in biochemistry. Biomaterials (not included by name in Table 1) fell from twelve vacant positions in 2000-01 to four in 2001-02. Other specifically identified disciplines with fewer than six vacancies included radiology (four); GPR/AEGD (two); and behavioral science, practice administration, and special patient care (each with one).

Ninety-six of the reported 344 vacancies were newly established positions to be filled (Table 3). Seventy-four of these new positions were for full-time faculty. Overall, the primary disciplines of the newly established positions closely followed the order of primary disciplines by number of vacant posi-

Table 1. Vacant faculty positions by primary appointment, 2001-02

Area of Primary Appointment	Vacant Positions		Total Full-Time and Part-Time Vacant Positions	Percentage of Total Faculty Vacancies
	Full-Time	Part-Time		
Clinical Sciences	194	63	257	75%
Basic Sciences	20	1	21	6%
Administration	25	1	26	8%
Allied Dental	3	3	5	2%
Research	25	2	27	8%
Other	6	1	12	4%
Total Indicated	273	71		
Not Indicated		0		
Total		344		

Table 2. Vacant positions by discipline, 2001-02

Primary Discipline	Number of Vacant Positions		
	Total	Full-Time	Part-Time
General, Operative, Restorative Dentistry	64	38	26
Periodontics	45	33	12
Oral Maxillofacial Surgery	32	27	5
Prosthodontics	32	25	7
Pediatric Dentistry	24	22	2
Orthodontics	21	21	0
Endodontics	18	13	5
Community Dentistry/Public Health	14	11	3
Oral Medicine	13	13	0
Oral Biology	12	12	0
Basic Science	11	10	1
Oral Pathology	8	7	1
Dental Hygiene	7	3	4
Genetics/Embryology/Growth & Development	6	6	0
Others with fewer than six vacancies	37	32	5

tions shown in Table 2; that is, general/operative/restorative dentistry accounted for twenty-five of the new positions, periodontics for twelve, and oral maxillofacial surgery, prosthodontics, and pediatric dentistry each with six. Seven of the thirteen vacant positions in oral medicine were newly established, as were six of the twelve vacant positions in oral biology. Five of the fourteen vacancies in community dentistry were newly established positions.

Of the reported vacant positions, 250 had ongoing active searches, while ninety-four were accounted for on budget but had no search in progress. Thus, over 27 percent of the vacant positions in 2001-02 had inactive searches. This is up from 20.5 percent in 2000-01. Figure 3 displays the length of time positions have been vacant. Twenty-two percent of the positions have been vacant for one to three months. Twenty-eight percent have been vacant from four to six months, and 29 percent have been vacant from seven to twelve months. Twenty percent have been vacant for over a year, an area of significant increase from 2000-01 when only 13 percent of the positions were reported vacant for over twelve months.

Figure 3 also displays the number of vacant positions by time period for which searches were inactive. Twenty-eight percent of the positions that had been vacant one to three months had inactive searches, up from 21 percent in 2000-01. Twenty-six

percent of the positions that had been vacant four to six months had inactive searches, up from 11 percent in 2000-01. At the seven-to-twelve-month time period, the percent of inactive searches was almost the same for 2001-02 and 2000-01. Notably, the number of positions that had been vacant with inactive searches from thirteen to eighteen months increased from 20 to 30 percent in 2001-02. For the nineteen to twenty-four and greater than twenty-four month periods, the percent of inactive searches declined in 2001-02, respectively from 43 to 32 percent and 47 to 40 percent. These numbers corroborate comments made by several survey respondents that 2001-02 budget reductions and restraints have forced a delay in announcing vacant positions and actively searching to fill the position. Also, as positions remained vacant, even from one to two years, efforts were still in place to retain the vacant position as a budgeted position.

Table 3. Status of Vacant Positions

New Position to be Filled	96
Current Position to be Filled	248
Active Search	250
Inactive Search	94

Length of Time in Months	Number and Percentage of Positions Vacant	Number and Percentage of Positions with Inactive Search
1 - 3	74 (22%)	21 (28%)
4 - 6	96 (28%)	25 (26%)
7 - 12	100 (29%)	24 (24%)
13 - 18	30 (9%)	9 (30%)
19 - 24	25 (7%)	8 (32%)
>24	15 (4%)	6 (40%)

Figure 3. Length of time positions have been vacant

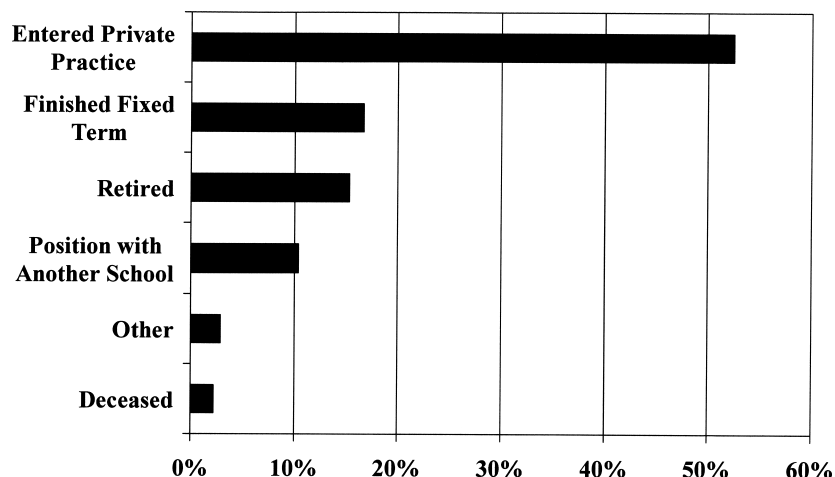


Figure 4. Reasons for separations of full-time faculty, 2001-02

Factors Influencing Faculty Separations and Recruitment

The annual ADEA Survey of Dental Educators obtains information regarding faculty separations (Figure 4). In 2001-02 there were 1,011 reported faculty separations (9 percent of the total reported dental school full- and part-time faculty). This is nearly three times the number reported in the 2000-01 survey of dental educators.⁹ The reason for separation was provided for 825 or almost 82 percent of the reported separations. Figure 4 displays the 2001-02 individual reasons by percent of total reasons reported, along with the 2000-01 percent responses for comparison. Of the 2001-02 full-time faculty separations, 53 percent were individuals leaving to enter private practice, up from 18 percent in 2000-01. Finishing a fixed-term contract with the school accounted for 17 percent of the separations in 2001-02, up from 6 percent in 2000-01. Separations due to retirement dropped from 34 to 15 percent; leaving for a position with another school/program dropped from 33 to 10.5 percent. Three percent of the separations were for other reasons such as a temporary leave or sabbatical; 2 percent were due to death.

Some of the large changes in reasons for separations between the two reported years can be attributed to more complete reporting of separation reasons in 2001-02, (82 vs. 62 percent). Still it is apparent that a shift occurred in reasons for separations, from retirement and moving to another school to leaving to enter private practice.

The ADEA survey requests information regarding factors influencing the ability to fill a position (Figure 5). Forty-two percent of the 2001-02 faculty vacancies (145 of 344 vacant positions) were influenced by a lack of response to the position announcement. A salary/budget limitation was the most reported influencing factor in the 2000-01 survey at 70 percent (235 of the 335 reported position), but dropped to the third highest factor in the 2001-02 survey. Meeting position requirements was the second most reported factor for both years. The failure of job applicants to meet both dental school position requirements and the scholarship requirements of the parent institution suggests dental schools' continued commitment to qualified faculty—and the challenge to find faculty with requisite credentials.

Implications of the 2001-02 Survey and Challenges

Based on the number of vacant budgeted faculty positions reported in Figure 1, one might assume that the shortage of dental school faculty has at least stabilized. Anecdotal observations provided to ADEA suggested that many positions have been lost over the past year due to budget cuts or other factors. The fact that over 27 percent of the 2001-02 vacant positions had no active search in process, up from almost 21 percent in 2000-01, may be a harbinger of the loss of positions (Table 3). Of further concern is that the increase in inactive searches largely occurred in the more newly vacated positions. Sev-

	2001-02
Lack of Response to Position Announcement	145
Meeting Position Requirements	137
Salary/Budget Limitations	129
Meeting Scholarship Requirements	81
Other Department Needs/Priorities	53
Board Eligibility/Status Requirements	27
Meeting Licensure Requirements	19
Geographic Location/Cost of Living	15
Other	20

Figure 5. Factors influencing the ability to fill a position

eral respondents to the survey indicated that budget reductions had led to the deactivation or no activation of a number of position searches.

To investigate further the impact of budget cuts and other factors on the number of faculty vacancies, ADEA followed up the 2001-02 survey of vacant budgeted faculty positions with a two-question survey sent via email to U.S. dental school deans. This survey inquired about 1) the number of vacant positions that deans considered normal in the usual departure and recruitment of faculty and 2) the number of positions lost during 2001-02 due to budget cuts or other reasons. Based upon forty-two responses (78 percent) to this follow-up survey, forty-six faculty lines were lost in 2001-02. As noted, in addition to these lost positions, the number of inactive searches increased to ninety-four, or 27 percent of budgeted vacancies. While new positions created more than compensate for those lost (Table 3), the number of new positions is approximately equal to those existing budgeted vacancies with inactive searches. It is plausible that the number of vacant budgeted positions nationally has reached a plateau over the past three years, but the loss of positions combined with the increase in inactive searches suggests that budget restraints and related considerations may further reduce the number of faculty in the near term.

The local problem is elucidated by the first question in the follow-up survey. When asked how many positions the school considered normal or usual in the departure and recruitment of faculty, only two schools of the forty-two responding noted a range as high as 10. The majority of the respondents indicated an expected number of budgeted vacancies at six or

fewer. As noted above, the median number of vacant positions per school in 2001-02 was 6.0, and the average number was 6.4. Fourteen dental schools, 26 percent, have ten or more vacancies (Figure 2). If the range of median and average number of budgeted vacancies noted by the follow-up survey is accepted as a baseline for comparison, then at least one out of four U.S. dental schools have budgeted vacancies that exceed what one would expect in the course of faculty separations and recruitment.

While an acceptable number of vacant budgeted positions is school-specific and therefore does not readily translate into a national norm, a variety of challenges are subject to less debate and will probably have a negative impact on the recruitment and retention of dental school faculty in the near term. The clear trend of increasing budgeted vacancies (Figure 1) that emerged during the 1990s is likely to continue because of the following factors.

1. The Gap Between Private Practice and Dental Faculty Income Continues to Grow

Budget limitations have always affected dental schools' ability to offer faculty salaries competitive with private practice. Over the last ten years it has become even more difficult to remain competitive. During that time, guaranteed annual salaries for full-time dental clinical faculty of the academic ranks of assistant, associate, and full professor have risen on average about 25 to 30 percent.¹⁰ But during that same time, the average net income of solo, private practitioners has increased 78 percent.¹¹ More spe-

cifically, in 1999 the average net income of solo, full-time, private practice dentists was almost \$168,000. The average guaranteed annual salary of full-time clinical faculty of professor rank was about \$103,100. It was almost \$80,400 for full-time clinical faculty of associate professor rank and \$67,550 for those of assistant professor rank. More fairly comparing the average total compensation of full-time clinical faculty of professor rank (\$133,100) with the above-mentioned average net private practice income still leaves more than a 26 percent difference between academic and private practice incomes.

While salaries are only one consideration that influences career choice and job satisfaction, the lure to private practice is strengthened when income is juxtaposed with other factors within the academic context that affects job satisfaction. Shepherd et al. argue, based on their research of new dental educators, that work environment is the most important consideration for those who are considering an academic career. Salary then grows in importance and contributes to faculty separations when the work environment does not support junior faculty through mentoring and other faculty development opportunities.¹²

Based on their survey of 240 new faculty, Schenkein and Best reported that income relative to private practice opportunities and indebtedness are influential factors in choosing career paths in dentistry. They conclude: "This is seen even among select individuals who have chosen to enter academia despite these obstacles, further implicating these factors as those requiring immediate attention during the next several years."¹³ Kula et al. found in a study of orthodontic faculty that faculty typically leave academia for monetary reasons.¹⁴ As reported above, the number of faculty separations during 2001-02 indicates a significant increase in faculty departures. Over 50 percent of those who left dental schools entered private practice (Figure 4). These data support the contention that private practice represents not only a challenge to the recruitment of junior faculty, but poses a significant challenge to the retention of established dental school faculty.

2. Student Debt Continues to Increase and Affects Decisions about Postdoctoral Opportunities

In 2001, the average graduating debt of a dental school senior was \$105,500.¹⁵ As debt levels increase, the percentage of dental school seniors who choose private practice immediately upon graduation also in-

creases. Debt also affects students' decisions to pursue advanced dental education, those programs from which young faculty are most likely to emerge. Disparities in the incomes of private practitioners compared to dental school faculty, combined with high levels of student debt, contribute to the limited number of individuals who express interest in dental academia, as evidenced by the small number of graduates who indicate plans for careers in academia and the current lack of response to position announcements.

3. Dental Faculty Retirements Are Likely to Accelerate in the Near Term

In the 2001 report, ADEA reported that the graying of dental school faculty will significantly increase the number of faculty separations over the next decade.⁶ Table 4 shows the average age of dental school faculty by appointment and rank.¹⁶ Fifty percent of all faculty are fifty years old or older, and 20 percent (2,266 individuals) are sixty or older. If the full-time faculty who are currently sixty or older retire in the next decade, these retirements alone will create 900 vacancies. While the current U.S. recession may result in faculty members delaying their retirements, an economic recovery will likely increase the rate of retirement.

4. Parent Institutions Will Expect Higher Levels of Scholarship in the Future

Of the fifty-five U.S. dental schools, thirty-four (63 percent) are located in universities classified as Carnegie Research Extensive institutions, while seven

Table 4. Dental school faculty and age

Total Number:	11,332	<i>Average Age</i>
Full-Time:	4,758	All Faculty: 49.6 years
Part-Time	6,476	Full-Time: 50.6 years
Not Reported:	98	

Average Age by Primary Appointment and Rank

	Basic Science	Clinic Science	All Appointments
Professor	58.9	59.7	59.0
Assoc't Prof	53.9	54.0	53.7
Assis't Prof	46.7	48.3	45.4

50% of all faculty are 50 or older
 20% of all faculty are 60 or older
 55% of full-time faculty are 50 or older
 20% of full-time faculty are 60 or older

schools are in Carnegie Intensive Research institutions. Eleven dental schools, or 20 percent, are in academic health centers classified as specialized institutions.¹⁷ Of the fifty academic institutions receiving the most National Institutes of Health (NIH) funding, twenty-seven have dental schools (three others *had* dental schools).¹⁸ According to a recent study conducted by the Association of Academic Health Centers (AHC), nearly all academic health centers are actively expanding their research enterprise.¹⁹ Forty-four dental schools are part of academic health centers. Of the seventy-five institutions responding to the AHC survey, 99 percent reported that they were currently expanding or developing their research programs. Motivating influences behind this expansion include federal and state funding, particularly funding from the NIH, local and regional economic development, and recognition and prestige. Dental schools are located in just over 50 percent of the academic health centers included in the AHC study.

One fundamental reason for the expansion of the research enterprise is the view that state legislators have come to hold of institutions of higher education, particularly for first-rate research universities: that these institutions are essential contributors to state economic development through their generation of new knowledge and technological advancements. In addition, academic health centers have expanded roles as providers of health care for underserved communities and populations. Institutional recognition, prestige, and image have been important motivating factors for expanding the research endeavors of individual academic health centers.

The AHC report indicates that academic health centers are coordinating their expanded research efforts with the clinical operations and educational programs of their settings. Recruitment of new faculty is one of the major ways that academic health centers are expanding research. It is critical that dental schools be part of the expanding research capacity and scope of academic health centers; that the education, service, and research missions of dental education complement and meet the missions and expectations of the academic health centers; and that dental schools continue to give real and visible value to the recognition, prestige, and scholarship of their parent institutions. While recruiting retired private practitioners and part-time faculty and building collaborations with the practicing community for clinical teaching are critically important means of addressing dental schools' education mission, such faculty typically do not contribute to basic biomedical or

clinical research. As noted, recruitment and retention of faculty with the requisite scholarship credentials are significant problems that are likely to grow more severe in the near future.

5. The Nation's Economic Downturn Will Result in Further Budget Cuts for Higher Education

As a result of lower-than-expected revenues plus spending overruns, forty-six states reported budget gaps totaling at least \$37.2 billion by June 30, 2002, according to a recent report by the National Conference of State Legislatures.²⁰ Looking ahead to fiscal year 2003, the report estimates budget gaps at \$58 billion, with California alone accounting for nearly 40 percent of this total. To close fiscal year 2002 gaps, nineteen states cut funding for higher education. Aggregate appropriations for higher education rose by a total of 4.6 percent in 2001-02, the smallest increase in five years.²¹ Sixteen states have targeted higher education for further cuts in FY 2003. In the early 1990s, two-thirds of states filled budget gaps by raising taxes, but this is an unlikely action in the current political environment. State revenue increases lagged behind the end of the recession by some fifteen months in the 1990s.²²

Not only public colleges and universities are suffering from budget cuts; private institutions are facing significant financial losses as well. In the 2001 fiscal year, the average college endowment lost 3.6 percent of its value. With losses expected for 2002, college endowments will lose value two consecutive years, an event that has not occurred since the 1970s.²³ Poor returns on investments combined with a reduction in gifts from donors have left many private colleges and universities, including the nation's wealthiest, with substantial shortfalls.²⁴

Financial shortfalls are likely to affect dental schools in a variety of ways. Many schools report facing significant budget cuts over the past year and expect additional cuts for fiscal year 2003. The effect on dental faculty is likely to translate into inactive searches for vacant positions and the loss of faculty lines. In addition, faculty are less likely to receive salary increases, strengthening the lure for clinical faculty to leave for private practice. In one extreme example, the acting governor of Massachusetts recently vetoed a \$29.6 million pledge for salary increases for the state's public college faculty members and administrators.²⁵ State budget cuts and the

loss of revenue from endowments and donors will make the recruitment and retention of dental faculty more difficult for a significant period, even after the current economic recession ends.

6. Faculty Shortages Are a Global Problem

Dental education leaders from around the world gathered in March 2001 in Prague, Czech Republic, for the first Global Congress on dental education. A series of working sessions occurred during the congress, one of which addressed the topic of scholarship and the university. The individuals who comprised this group included educators from the United States, United Kingdom, Ireland, Hungary, Italy, Pakistan, Spain, Japan, Norway, and Argentina. Among the findings of this diverse group of dental educators was the following: "A major challenge in most dental schools is the recruitment and retention of academic staff [faculty] of the highest caliber in research, teaching and specialized clinical skills. There is a serious shortage of dental teachers and researchers, a problem that is likely to increase."²⁶ The group also observed that "Universities now exist in an environment of increasing accountability for their academic performance both in teaching and research. Dental schools are expected to meet the academic expectations of their parent university and, in addition, to contribute to the healthcare needs of the community."²⁶

During the 1970s, higher education in the United States, including dental education, benefited significantly from the recruitment of foreign faculty to U.S. schools. For dental education, the resource of foreign-educated faculty is limited. Addressing dental faculty shortages, meeting the scholarship expectations of the parent university, and providing access to oral health care are challenges facing academic dental institutions worldwide. For the foreseeable future, U.S. dental schools cannot depend on the recruitment of sufficient numbers of foreign faculty to alleviate faculty shortages.

Responses to the Faculty Problem

Previous ADEA Reports

Beginning with the Report of the AADS President's Task Force on the Future of Dental School

Faculty in 1994 and including the 2000 Association report on dental school faculty shortages,⁵ ADEA has issued two sets of strategies and recommendations to address the recruitment and retention of faculty. ADEA is currently implementing many of these recommendations. Perhaps one of the most important outcomes of the ADEA reports is that they have served to inform and to galvanize a variety of stakeholders in dental education into action.

Collaborations

The American Dental Association (ADA) held two dental education summit conferences last year that resulted in a variety of resolutions in support of dental education going to the 2001 ADA House of Delegates. The ADA, through the leadership of 2000-01 President Robert Anderton and 2001-02 President Gregory Chadwick, has worked extensively to inform ADA grassroots membership about the most critical issues facing dental education. President Chadwick led another dental education summit this past June to develop action steps toward the implementation of the 2001 ADA House of Delegates resolutions. ADEA has been a significant contributor to these summits.

In addition to ADA activities, a variety of dental specialty organizations have mobilized to address the shortage problems in their respective specialties. Some of these have developed scholarships to support students who commit to pursue an academic career. The dental specialty organizations also participated in the June 2002 ADA dental education summit.

In partnership with ADEA, the National Institute of Dental and Craniofacial Research (NIDCR) held a Deans' Research Summit in October 2001 in Bethesda, Maryland. As an outcome of this conference, NIDCR has recently issued a Request for Applications for planning grants to help dental schools build their research missions. Funding from these grants can be used for a variety of needs, including the recruitment and retention of faculty. In addition, NIDCR continues to offer a wide range of training opportunities for predoctoral and postdoctoral students as well as early and mid-career faculty.²⁷

Other ADEA Efforts

In addition to these collaborative efforts, ADEA is pursuing a variety of other strategies focused on the recruitment and retention of faculty. Among these efforts are the following:

- **The ADEA Academic Dental Careers Network.** This website, currently under development, will provide a means for dental schools to advertise jobs and for job seekers to learn about academic careers, what jobs are available, and if they wish, to post curriculum vitae. The website will thus serve as a resource for students, dental school faculty, private practice dentists interested in an academic career, career counselors, and others. ADEA's goal is to link this site to other dental websites around the world to create a global resource for information about academic careers. The ADEA Academic Dental Careers Network will complement the *ADEA Faculty Applicant Registry*.
- **ADEA Faculty Applicant Registry (FAR).** The FAR is an ADEA publication designed to facilitate the match between postdoctoral students and dental schools seeking junior faculty. Deans and advanced dental education program directors (PDs) have access to the names in the registry and are encouraged to use it to reach potential faculty candidates. The FAR provides a central source from which dental deans and PDs can recruit junior faculty members. A copy of the FAR is mailed to U.S. dental deans annually in October. The registry is made available to PDs upon request. In addition, the FAR is designed to facilitate the recruitment of faculty from among candidates who are eligible to participate in the federally funded Disadvantaged Health Professions Faculty Loan Repayment Program (FLRP). This program was created to attract and retain health professions faculty members for accredited health professions schools. The FLRP includes a government/institutional partnership for the payment of principal and interest on qualified, nondelinquent educational loans in addition to the salary paid by the institution.
- **Promotional Video about Academic Careers in Dentistry.** ADEA is currently pursuing through the ADEA Council of Students the development of a promotional video about academic careers. It is envisioned that this video will engage key leaders and faculty in dental education from around the nation to discuss opportunities in teaching, research, and service in academia. The video will provide information useful not only to students, but to private practice dentists, dentists retiring from the federal services, and others interested in academic careers. The video will be distributed to dental students, career counselors, and others. ADEA plans to link the video to its academic career website.
- **ADEA Excellence in Teaching Award.** This award, presented each year at the ADEA Annual Session, has become one of the most sought-after awards offered through ADEA. In addition to national recognition, nominees are recognized at their home institutions. The ADEA Council of Faculties has played the lead role in establishing and promoting this award. The recognition of teaching excellence adds to the job satisfaction of faculty, contributes to the retention of faculty, and encourages students to consider the benefits of an academic career. In addition, ADEA received a grant from the Carnegie Foundation for the Advancement of Teaching and Learning through the work of Dr. John Killip, the 2000 ADEA-William J. Gies Fellow, to promote the scholarship of teaching as a fundamental mission of dental education. Over the past twelve months, ADEA's Council of Faculties has devoted educational programs on the improvement of teaching and learning.
- **Curricular Reform and the Characteristics of Future Faculty.** A conference addressing the curriculum of the future and characteristics of future faculty will occur at Marquette University School of Dentistry this October, involving the ADEA Councils of Faculties, Sections, Students, and Deans. The goal of the conference is to develop action steps that these ADEA constituency groups can take together to address curricular changes and recruit and retain faculty.
- **Comprehensive Minority Faculty Development Program.** ADEA submitted in March 2002 a proposal to the W.K. Kellogg Foundation for a Comprehensive Minority Faculty Development Program. Underrepresented minorities—black/African American, Hispanic, and Native American—constitute 8.4 percent of full-time dental faculty. ADEA policy supports the advancement of women and minorities in dental education. This \$5 million grant request is expected to include the following strategies: formal mentorship programs; academic partnerships; use of federal and other minority/supplemental training opportunities; research skills development; and an underrepresented minority faculty registry and database.
- **ADEA Leadership Institute.** This year-long program to develop future leaders in dental education will accept its fourth class in 2003. The institute provides a means to retain the best and

brightest faculty and equip them for leadership positions. A number of participants have pursued projects on faculty recruitment and retention as a part of their institute experience.

- **ADEA Resolution 7H-2002.** Passed in March 2002, this resolution increases the representation of the dental specialties in ADEA. This increased representation will give the dental specialties a greater role through ADEA to address a variety of issues, including those associated with faculty vacancies in the specialty areas.
- **ADA/ADEA Oversight Committee on Minority Recruitment and Retention.** An ADA Board Action (2/97) established a joint ADA/ADEA Steering Committee on Minority Recruitment and Retention charged with developing a national minority recruitment proposal. Components of the proposal have been recently updated to reflect current enrollment data. The program concept includes the provision of grants to dental schools to assist them in minority recruitment activities. The ADEA Board of Directors at its September 2001 meeting voted to continue support for the joint effort of the ADA/ADEA Steering Committee.
- **Financing Dental Education.** ADEA is actively engaged in a number of initiatives to help dental students finance dental education. One of the goals of these efforts is to remove student debt as a deterrent to choosing an academic career. Among ADEA's top legislative priorities is securing increased federal funding for General Dentistry/Advanced Education in General Dentistry, Pediatric Dentistry, and Dental Public Health residency programs, resulting in millions of dollars to support schools and hospitals in training primary care dentists. ADEA has assisted dental schools in gaining a better understanding of the opportunities for funding through Graduate Medical Education (GME). To date, twenty-seven dental schools have agreements with hospitals to share GME funding for dental residency training, and another fourteen are in negotiations with hospitals. ADEA and others have been successful in securing federal support for the five loan repayment programs at the National Institutes of Health (NIH) and new extramural loan authority for NIH in 2000.

ADEA actively advocates for federal student loan programs that help keep the cost of borrowing at a minimum. The Association works to secure funding for HRSA's Health Professions Student Loan (HPSL) and the Loans for Disadvantaged Students (LDS) programs, as well as the

U.S. Department of Education's Perkins and Stafford Loan programs. In January 1994, ADEA worked with Key Education Resources/Key Bank (previously Knight College Resources) and ASDA to establish the ADEAL (Alternative Dental Education Assistance Loan). The ADEAL helps to meet the special education financing requirements of dental and postdoctoral dental students. About 16 percent of dental students borrow through this program. ADEA has received a \$1,000,000 grant from the W.K. Kellogg Foundation to provide grants and scholarships to dental students from underrepresented minority groups.

- **Initiatives at the Grassroots.** Many dental schools are actively engaged in new programs and initiatives to recruit and retain future faculty. Some of these activities are described in the *ADEA Best Practices in Dental Education, 2001* and *ADEA Best Practices in Dental Education, 2002*. These publications may be downloaded from the ADEA website (www.adea.org).

Conclusion

The two previous ADEA Association Reports^{5,6} about vacant budgeted faculty positions emphasized the urgency of the increasing number of vacant positions and the adverse effects faculty shortages will have on the structures and quality of academic programs, the preparation of competent graduates, and the ability of the profession to meet the oral health demands of the public. These concerns have not changed, and meeting the demand for future dental school faculty remains a daunting challenge. Nevertheless, in the past three years the sense of urgency has risen dramatically among stakeholders, as have the actions from national organizations and individual schools to address the recruitment and retention of dental school faculty. These activities, many of which are delineated above, will certainly help meet the demand for future dental faculty. Unfortunately, there is no indication of a near-term reversal of the decade-long trend toward increasing budgeted vacancies. Moreover, the current economic environment and other factors listed above make the challenge to recruit and retain dental faculty more difficult.

ADEA has not issued with this report a new set of recommendations because the 2000 Association Report⁵ contains a number of short, intermediate, and long-term strategies that ADEA continues

to pursue and encourages other stakeholders to pursue as a viable plan to meet the demand for future dental school faculty. The challenges are multifaceted, as are the organizations, people, and action steps that must be taken to ensure the dental faculty of the future. Outcome measures need to be developed to ascertain what actions are having the greatest impact. Coordination of activities among the various stakeholder groups is critically important. Stakeholders must continue to work together to ensure a dental faculty workforce sufficient in size and expertise to meet the teaching, research, patient care, and administrative needs of the dental education community. The future of dental education is the future of oral health care.

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