

## **Faculty Shortages Challenge Dental Education and, Thus, Dentistry: What Is Being Done?**

When Eric Neuer earned his D.D.S. from the University of Missouri-Kansas City School of Dentistry in May 2001, he already had a range of experience: several externships, the summer research program at NIDCR, and work as a teaching assistant in the clinic and preclinical labs. He spent the next year doing the GPR at the University of Washington, where he says he learned a lot, benefited from being “exposed to dentistry in a different environment,” and “increased my confidence in dealing with difficult situations.” Then he was at a crossroads: Should he go for further training? Enter private practice? Start out on his own or seek a position in a group environment? None of the above. “I decided,” Dr. Neuer says, “to go into teaching.”

That decision is music to the ears of dental professionals. As nearly everyone in the field knows, dental education is facing a severe faculty shortage that will challenge the future of the profession unless something is done—and soon. The 2002 ADEA survey on dental faculty reported 344 vacant positions in the nation’s 54 dental schools. The weak economic environment plus the “graying” of current faculty—half of whom are over 50 and a decade or so from retirement—suggests that the situation will get worse before it gets better. The losers will include not only students, but the patients served in schools’ clinics, often unable to go elsewhere for care, and all who benefit from the research done in dental schools. It’s an uphill battle, but actions are being taken and proposed to turn the situation around.

The primary reason schools can’t fill open positions, according to the ADEA survey, is the lack of applicants. So one obvious goal is to convince more students to follow Eric Neuer in choosing the academic life. His enjoyment of teaching while a TA motivated his decision. In his current position as an advanced fellow in general dentistry at UMKC, his main duty involves teaching on the clinic floor. “I try to sit down with the student and talk about the day’s procedure. Together we lay out a plan and discuss potential complications. I think the students appreciate the one-on-one interaction.” He knows he offers a great deal to them. “Being a recent graduate has helped me with teaching because I have faced the same challenges the students have. I too struggled with requirements, difficult patients, etc., and I bring a fresh perspective to solving the students’ problems. I hope to pass on what I have learned to future generations of dentists.”

### **Exploring Dental Education as a Career**

One way schools are encouraging students to consider academic careers is to give them a taste while they’re still in school, the way Dr. Neuer did. At Baylor College of Dentistry, for example, the Department of Oral and Maxillofacial Surgery/Pharmacology’s new Faculty Extender Program exposes a select group of outstanding fourth-year students to clinical teaching. The 2002 faculty extenders, Shane Bowen, Russell Cunningham, Jane Lambertus, Shannon Owens, Russell Warren, and Clay Williamson, assist faculty with case evaluations, issue starts to uncomplicated cases, and help D2 students set up their first surgical cases. They also work with any student who needs guidance in finishing a case and take on more difficult procedures that less-experienced D3 and D4 students may be reluctant to start. “We’d love to see the faculty

extenders come back in future years as clinical faculty at BCD,” says Dr. Roger E. Alexander, director of predoctoral oral surgery education, who runs the program. “We hope this program plants seeds in their minds.”

With the establishment of the B.S. degree in Dental Hygiene, the University of Pittsburgh School of Dental Medicine Dental Hygiene program is trying to do the same thing because dental hygiene programs face pressures comparable to those in dentistry. In the Pittsburgh program, the school employs dental hygiene students as teaching assistants, exposing them to the responsibilities, challenges, and rewards of both teaching and an academic career. Currently, Lorenza Conforti and Katrina DiBarry serve as teaching assistants, and both intend to pursue careers in academe.

Likewise, the University of Texas Health Science Center at San Antonio dental school has introduced a three-elective series of courses for students to explore facets of an academic career. The Teaching Training series covers topics like how to teach and the pros and cons of an academic career; it also gives students opportunities to teach and be evaluated by students, peers, and faculty. An educational research project, write-up, and presentation of the work are required for receiving Honors in Teaching Training. To encourage students in another aspect of faculty work, the school also offers a research elective series, which involves clinical or basic science research, technical writing, and presentation of research. Following submission of a publication-ready manuscript, the student obtains Research Honors.

Among the options available to fourth-year students at the Harvard School of Dental Medicine for their two-month elective rotation is the Dental Educator program. In it, students take coursework at the Harvard Graduate School of Education as well as course preparation and evaluation exercises at the dental school. Similarly, the University of Illinois Chicago College of Dentistry has recently changed its clinical program in part to allow more flexibility for students to take advantage of the many educational opportunities in Chicago. Class of 2003 President James Loeser, who served a one-month externship at Cook County Hospital Division of Oral and Maxillofacial Surgery, now says, “Teaching in a dental school is definitely in my plans.”

### **Show Me the Money?**

Planting the seed of an idea is, of course, only the first step, but many students dismiss the idea of becoming a faculty member as economically infeasible. Most dental students graduate with student loan debt—an average, according to another ADEA survey, of around \$100,000. Eager to begin paying that off, they eye the higher salaries available in private practice as the smarter, faster road to getting out of debt and earning significant income.

To counter the salary disparity, many in the profession are directing efforts toward establishing loan forgiveness programs for students who enter academic dentistry. Both ADEA and the ADA are lobbying hard for federal funds, and a recent ADA House of Delegates recommendation called on dentists to contribute to programs at their schools as well as to solicit help from “grateful patients” and “other philanthropic individuals among their friends.”

Dr. David H. Wands is a model for this kind of effort. A 1967 alumnus of the University of Maryland dental school, he set up the David H. Wands Postdoctoral Prosthodontic Fellowship in 1995. The fellowship provides financial assistance for a

student in the prosthodontic program who plans to pursue a career in teaching. With this gift, says Dr. Carl Driscoll, director of the school's Prosthodontic Residency Program, Dr. Wands "has ensured a steady supply of prosthodontic educators at Maryland for the foreseeable future."

The specialties are also beginning to kick in. The American Association of Endodontists has established fellowships to steer students into academic careers. The AAE has awarded seven fellowships in endodontics in the last two years. They pay the students' tuition and give them \$1,000 a month for living expenses. Upon completion of their program, students must become full-time educators for at least five years.

Dental schools themselves are taking steps to make their compensation packages more attractive. With school and state budgets tightening even more in the currently slow economy, finding funds for higher salaries is a challenge. Boston University is countering by allowing students to hold faculty positions—and thus draw a paycheck—while completing a residency in a specialty program. At other schools, the definition of full-time faculty has been loosened so that those who want to earn extra money can work in private practice one day per week.

Students should also look at the entire balance sheet when comparing academic and practice options, rather than merely comparing salaries, say Associate Dean Martin J. Davis, D.D.S., and Associate Professor Kavita Kohli, D.D.S., of Columbia University's School of Dental and Oral Surgery. Not only are academic salaries often supplemented with one-day-a-week practice but with "income derived from other activities, such as writing textbooks, lecturing and related academic endeavors, including patentable research (typically shared with the parent institution)," they explain in the April 2002 *New York State Dental Journal*. In addition, they continue, "the academician rarely assumes significant additional debt in order to produce income, whereas the private practitioner . . . in seeking sole proprietorship of a practice or in buying into a practice as a partner, may achieve significant additional debt in the process."

Further, focusing exclusively on salary overlooks the other advantages of faculty life, including the variety of experiences available, the stimulating intellectual environment, and the opportunity to gain satisfaction from teaching, research, and service as well as practice. (See sidebar.)

### **Choosing the Faculty Life**

There are signs that the message is getting through, and students who have chosen the faculty life are pronouncing themselves satisfied. When Kimberly Mercier received her B.S. in Dental Hygiene from the University of Detroit Mercy in May 2001, her interest in an academic career had already been sparked when she delivered a lecture to fellow students as a senior. Now a clinical faculty instructor in the program, she is happily working with third- and fourth-year dental students and evaluating their treatment of periodontal patients. "I want to take the best pieces of knowledge I have learned," she says, "and share it with my students." She continues to lecture and was a key player in planning and implementing a recall clinic in which she oversaw dental hygiene students.

Michelle Graham, who received her D.M.D. from the University of Florida College of Dentistry in 1999, particularly values her faculty position for its combination of research and practice. As an instructor with the college's Statewide Network of Community Oral Health, Dr. Graham serves primarily low-income, African American

patients with multiple health problems, and her research centers on diseases that disproportionately affect minority women. She earned a National Center on Minority Health and Health Disparities Loan Repayment Program for Health Disparities Research grant in 2001 and, in 2002, an NIH supplement as well. Her long-term career goals have always included an academic career in public health, and she is also currently working toward a master's in public health.

More and more undergraduate students are considering academics as a personal option—as well as acknowledging students' obligation to help solve the general problem. *ASDA News* contributing editor Kate Warren, a senior at the University of the Pacific dental school, wrote in the June 2002 issue about the need for dental educators in the future, concluding, "We should all feel, with acute awareness, the responsibility to give back and be sobered by the honor inherent in the opportunity." Ronald Hsu, a fourth-year student at the University of Washington dental school and the school's ADEA/Dentsply Student Clinician for 2002, says he aims to balance didactic, clinical, and research pursuits in his career. "I am currently looking into preparing myself for an academic career," he says, "and I hope that more of my peers consider teaching as a supplement to their professional careers. The need is great in the field of dental education." And that's just the way the need will be filled.

#### **{SIDEBAR} Making the Case for the Academic Life**

Many dental educators are now making a conscious attempt to effectively communicate to students the many satisfactions of an academic career.

Associate Professor Kavita Kohli and Associate Dean Martin Davis of Columbia's dental school make a strong case in the April 2002 *New York State Dental Journal*. "One of the many attractive aspects of academics is the great variety of activities and opportunities," they write. "An academic career includes many options, such as: teaching both didactic and clinical concepts; laboratory teaching; providing patient care; designing and conducting research in different fields, such as biomedical, clinical or policy research; writing for journals; discussing new technologies with colleagues; and administration." By contrast, they continue, "private practice alone may not offer such a wide variety of experiences and certainly carries significant stress. The responsibility of operating one's own business is tremendous and can be both exhilarating and frustrating."

Drs. Kohli and Davis refer in the same article to a piece by Dennis M. Morea, D.D.S., a part-time educator for 30 years, in the March 2001 *Journal of the American College of Dentists*. A private practitioner in prosthodontics in New York City and clinical professor at Columbia, Dr. Morea recalls with fondness his first years as a faculty member, when senior colleagues helped him grow as both an educator and practitioner.

He points to the many benefits he has gained from combining practice and teaching: "Association with an accredited teaching institution provides one with a certain degree of prestige in the eyes of other professionals and patients. Teaching forces the practitioner to stay current with the dental literature and evidence-based dental procedures. Academicians form professional bonds and friendships that reach far beyond

the walls of the institution. Teaching provides its personal rewards, especially as former students become successful, dedicated, ethical practitioners.” Interactions with other professionals, Dr. Morea continues, broaden one’s private practice and create new learning opportunities.

“Academics not only broadens one professionally,” he concludes, “it also serves to maintain the continuum that has brought dentistry to where it is today.”

### **{SIDEBAR} Highlights of the Latest ADEA Report on Future Faculty**

The latest ADEA report on future faculty appears in the September 2002 *Journal of Dental Education*. The report presents data from ADEA’s 2001-02 survey of vacant budgeted faculty positions, examines challenges likely to exacerbate shortages in the near future, and summarizes what ADEA is doing in response. Some highlights of the report are:

- Of the 344 vacant budgeted position reported in the nation’s 54 dental schools, 79 percent are for full-time positions. One out of four schools has ten or more vacancies.
- Schools says they are making up the shortfall by utilizing part-time faculty, redistributing teaching loads, dividing duties, and providing interdisciplinary coverage, including the use of generalists to teach in specialty areas.
- 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 largest number of vacancies was in general/restorative dentistry, representing almost 19 percent of the total. Periodontics had the largest change in vacant positions, increasing from 25 in 2000-01 to 45 in 2001-02.
- The number one reason given to explain the inability to fill a position was lack of response to the position announcement. The second reason was meeting position requirements, and third was salary/budget limitation.

To address these problems, ADEA is working aggressively, often in conjunction with the ADA and other organizations, to call attention to the problem and seek federal and other funds to remove student debt as a deterrent to choosing an academic career. In addition, among other actions, ADEA will launch this year an Academic Careers Website to facilitate communication among schools and job seekers; is continuing its publication of the Faculty Applicant Registry, from which deans and program directors can recruit junior faculty members; is developing, through its Council of Students, a promotional video about academic careers in dentistry; and continues to recognize and develop teaching and leadership through its Excellence in Teaching Award and Leadership Institute.

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