Dental School Vacant Budgeted Faculty Positions, 2007–08

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The annual turnover of dental school faculty creates a varying number of vacant budgeted positions at any given time. The American Dental Education Association (ADEA) conducts an annual survey, the ADEA Survey of Vacant Budgeted Faculty Positions, to determine the status and characteristics of these positions. Information collected through the faculty vacancies survey allows for exploring trends in the faculty workforce, factors influencing faculty vacancies by appointment and discipline, and the impact of vacant positions on dental schools. This report focuses on findings from the 2007 survey (all years referenced in this report, unless otherwise noted, refer to the academic year).

Key Highlights

Highlights of this report are as follows:

- In 2007, there were 369 reported vacant budgeted faculty positions, including 316 full-time and forty-three part-time positions in the fifty-three schools that responded to the survey. Overall, the number of vacant budgeted positions has fluctuated over the past several years, increasing and then leveling off throughout the 1990s and early 2000s, rapidly increasing in 2005, and then declining in 2006.
- Since 2003, growth of vacant budgeted full-time positions has outpaced that of vacant budgeted part-time positions.
- Between 2006 and 2007, the reported total number of lost positions (those eliminated from the dental school budget) more than doubled, from eight to twenty-one. This is the largest increase in reported lost positions in the past four years. Six schools accounted for all of the lost positions.
- In 2007, active searches were in progress for a smaller percentage of vacancies than the prior year. In particular, in-progress active searches for full-time vacancies dropped from 84 percent in 2006 to 81 percent in 2007.
- While completion of fixed-term employment was the primary factor accounting for part-time and volunteer faculty separations, leaving to take a position at another dental school was the primary factor for full-time faculty separations.

Methodology

Deans at all of the U.S. dental schools received the ADEA Survey of Vacant Budgeted Faculty Positions instrument. The following information was requested for each vacant budgeted position at the dental school or in dental school-sponsored programs at the time the survey was completed: primary appointment, primary discipline, full-time/part-time status (along with full-time equivalency of the part-time positions), newly established or extant position, active or inactive search, length of vacancy, and factors influencing recruitment efforts.

The survey instrument was comprised of three sections: a dean's opinion section, a section on vacant positions, and a section on lost positions. The dean's section was filled out by the dean of each dental school, so the institution is the unit of analysis. For the other two sections, the unit of analysis was the

particular position that was vacant or lost. Responses were received from fifty-four out of fifty-six deans in response to the first section, from fifty-three out of fifty-six schools in response to the vacant positions section, and from fifty-one out of fifty-six schools in response to the lost positions section.

In shedding light on faculty vacancies, the summary report below includes a small number of findings from the annual ADEA Survey of Dental Educators. This survey collects information covering a range of dental school faculty characteristics, including demographics, status, reasons for faculty separations, and sources of new faculty. To the 2007 survey of dental educators, ADEA received responses from forty-nine out of fifty-six dental schools.

Characteristics of Vacant Budgeted Positions

As noted in Table 1, there were 369 reported vacant budgeted faculty positions in 2007 in the fifty-three schools that responded to the survey, including 316 full-time vacancies, forty-three part-time vacancies, and ten vacancies for which the status was not reported.

With a total of 369 reported vacant positions, there was an average of almost seven vacant positions at each dental school. The number of schools with four or fewer faculty vacancies increased from sixteen schools in 2006 to twenty-one schools in 2007. The number of schools with five to nine vacancies decreased from twenty-four schools in 2006 to twenty schools in 2007 (Table 2).

Since survey responses are not received from all dental schools, each year ADEA prepares an estimated figure of the total number of faculty vacancies to facilitate some year-to-year faculty vacancy comparison. The estimate is a simple calculation based on the average number of full-time and part-time vacancies at responding schools, assuming this number of vacancies for schools that did not respond to the survey. After extrapolating to represent all fifty-six dental schools, there were 379 estimated vacancies in 2007, as compared to the estimated figure of 406 in 2006 (Figure 1).

According to the estimated figures, over the past five years, growth of vacant budgeted full-time positions has outpaced that of vacant budgeted part-time faculty positions. While the number of estimated vacant budgeted full-time positions increased by 31 percent over this time period, the number of vacant budgeted part-time positions decreased by 18 percent.

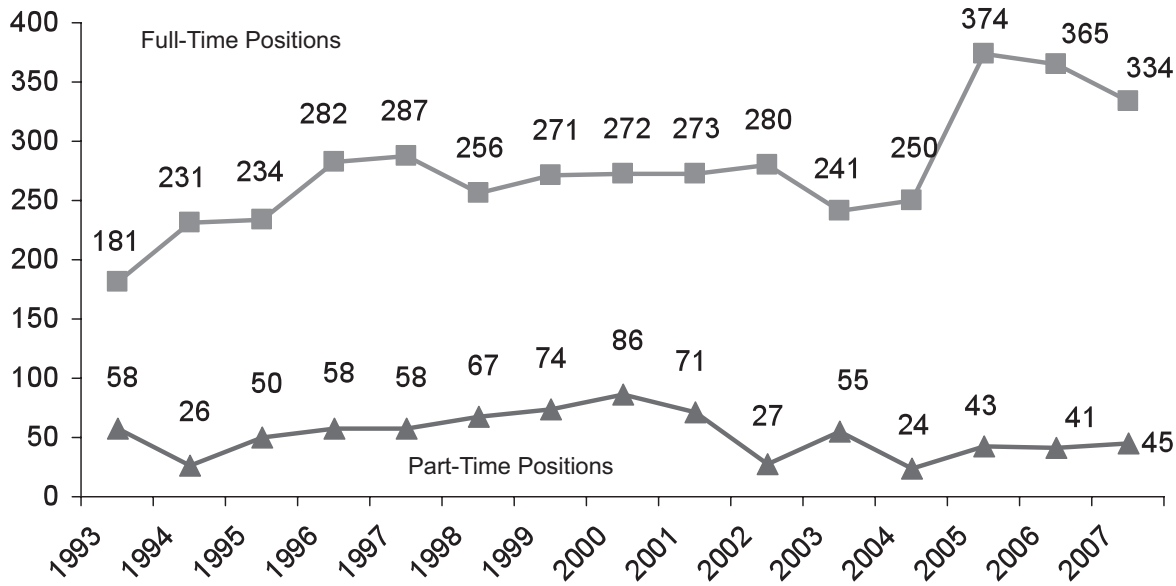
Focusing on actual reported vacancies, Tables 3 and 4 provide a breakdown of the budgeted vacant positions by primary appointment and discipline. As has been the case historically, clinical science accounts for the majority of vacancies, with 254 of these vacancies being full-time. In terms of dis-

Table 1. Reported number of vacant faculty positions by primary appointment, 2007–08 (n=53)

Primary Appointment	Full-Time	Part-Time	Total	Percent of Total
Clinical Sciences	233	41	274	76%
Basic Sciences	18	0	18	5%
Behavioral Sciences	5	1	6	2%
Administration	15	1	16	5%
Allied Dental Education	4	0	4	1%
Research	41	0	41	11%
Total Reported	316	43	359	100%
Appointment Not Reported	–	–	10	
Total	316	43	369	

Table 2. Number of vacant budgeted positions across reporting institutions, 2003 to 2007

	2003	2004	2005	2006	2007
4 or fewer vacant positions	25	28	13	16	21
5 to 9 vacant positions	24	23	27	24	20
10 or more vacant positions	6	5	13	13	12



Sources: American Dental Association, Survey Center 1992-2000; American Dental Education Association 2001-2006.

Figure 1. Estimated number of vacant budgeted faculty positions in U.S. dental schools: 1993–2007

ciplines (rather than primary appointment area), faculty vacancies in general/operative/restorative dentistry continue to be the most numerous, both in number and as a percentage of all vacancies across the disciplines.

Over a quarter of vacant positions were newly created positions in 2007 (Table 5), which is similar to prior years. Most remaining positions were extant positions, with the exception of a small number whose status was not reported. Active searches were in progress for a smaller percentage of vacancies than in 2006. In particular, active searches for full-time vacancies dropped from 84 percent in 2006 to 81 percent in 2007, while active searches for part-time vacancies fell from 77 percent in 2006 to 48 percent in 2007.[1]

In 2007, 26 percent of vacant budgeted positions in inactive search status were reported as vacant for greater than twenty-four months, compared to 13 percent in 2006 and 6 percent in 2005 (Table 6). This upward trend suggests an increase in the percentage of vacant budgeted positions that have been vacant greater than twenty-four months and that dental schools moved into inactive search status. It also could indicate little movement from inactive to active search status amongst positions vacant for greater than twenty-four months.

Overall, the information collected in the 2007 vacancy survey indicates an increase in full, associate, and assistant professor faculty position vacancies and a slight decrease in instructor vacancies (Table 7). The academic rank of nearly 60 percent of vacant positions was at the assistant professor level, an increase from 2006. In addition, the percentage of associate professor vacancies increased 9 percent to 23 percent from 2006 to 2007. Similar to prior years, in 2007 12 percent of vacant budgeted positions were at the full professor level.

Lost Faculty Positions

While most vacant positions remain in a dental school's budget, others are reported as lost. A total of twenty-one positions were reported lost in 2007, compared to eight lost positions in 2006, the largest increase in lost positions in the past four years. Six schools accounted for all of the lost positions.

Table 3. Reported vacant faculty positions by primary appointment, 2007–08

	Full-Time		Part-Time		Total	
	n	%	n	%	n	%
Administration	15	5%	1	2%	16	5%
Basic Sciences	18	6%	0	–	18	5%
Clinical Sciences	233	74%	41	95%	274	76%
Behavioral Sciences	5	2%	1	2%	6	2%
Allied Dental Education	4	1%	0	–	4	1%
Research	41	13%	0	–	41	11%
Total Reported	316		43		359	
Appointment Not Reported	–		–		10	
Total	316		43		369	

Table 4. Reported vacant positions by discipline, 2003 to 2007

	2003		2004		2005		2006		2007	
	n	%	n	%	n	%	n	%	n	%
General/Operative/Restorative Dentistry	55	19%	45	16%	70	18%	63	16%	62	17%
Pediatric Dentistry	26	9%	29	11%	41	10%	43	11%	39	11%
Prosthodontics	23	8%	24	9%	40	10%	39	10%	39	11%
Periodontics	33	11%	28	10%	35	9%	37	10%	36	10%
Orthodontics	18	6%	19	7%	34	9%	27	7%	28	8%
Basic Sciences	11	4%	12	4%	27	7%	8	2%	14	4%
Oral and Maxillofacial Surgery	22	8%	18	7%	22	6%	27	7%	27	7%
Endodontics	20	7%	13	5%	22	6%	19	5%	18	5%
Oral Biology	10	3%	12	4%	19	5%	15	4%	18	5%
Community Dentistry/Health Ecology	10	3%	9	3%	16	4%	17	4%	19	5%
Oral Medicine/Oral Diagnosis/Treatment Planning	12	4%	7	3%	11	3%	21	6%	9	2%
Oral Pathology	4	1%	8	3%	7	2%	9	2%	7	2%
Biomaterials/Dental Materials	6	2%	6	2%	7	2%	4	1%	7	2%
GPR/AEGD	6	2%	5	2%	7	2%	7	2%	6	2%
Radiology	8	3%	11	4%	6	2%	5	1%	4	1%
Allied Dental	3	1%	4	2%	6	2%	6	2%	4	1%
Genetics/Embryology/Growth Development	3	1%	3	1%	4	1%	5	1%	3	1%
Other or Not Reported	21	7%	22	8%	21	5%	33	9%	29	8%
Total	291		275		395		385		369	

In 2007, lost positions were almost evenly divided between full-time and part-time faculty positions, while roughly two-thirds of lost positions were full-time faculty positions in 2006 (Table 8). Also, in 2007, three-quarters of lost positions had a primary appointment in clinical science. The remaining positions had primary appointments in research and allied dental education.

No more than one or two lost positions were reported for most disciplines (Table 9). The highest number of lost positions was reported in general/operative/restorative dentistry, which lost four full-time positions in 2007.

Factors Influencing the Ability to Fill a Vacancy

Dental schools were asked to select up to five factors that influenced their ability to fill a vacant position. As shown in Table 10, in 2007 the number one factor influencing the ability to fill a position was the degree to which candidates' experience, qualifications, and interest aligned with the requirements of the position, followed by lack of response to the position announcement. The third major factor reported was salary/budget limitations. Over the past

three years, these factors have consistently ranked in the top three.

In light of budget constraints associated with the start of a recession in the United States in December 2007,[2] institutions are experiencing hiring freezes and retirement deferments, which could further influence schools' salary and budget limitations in the coming years.[3]

Factors Influencing Faculty Separations

Between the 2006–07 and 2007–08 academic years, there were 877 reported faculty separations. As shown in Table 11, while completion of fixed-term employment was the primary factor accounting for part-time faculty separations (178 out of 441, or 40 percent), leaving to take a position at another dental school was the primary factor for full-time faculty separations (sixty-three out of 274, or 23 percent). The other leading reasons for full-time faculty separations were retirement and leaving to pursue private practice.

Across all ranks except full professor, departing to pursue private practice was a leading reported reason for faculty separation (Table 12). This reason accounted for 23 percent of associate professor separations (twenty-one out of ninety), 34 percent of assistant professor separations (106 out of 313), and 62 percent of instructor separations (ninety-three out

Table 5. Number of reported vacant positions by status, 2007–08

	Full-Time	Part-Time	Total
New Position to Be Filled	91	11	102
Extant Position to Be Filled	213	28	241
Total Reported	304	39	343
Not Reported	–	–	26
Total	304	43	369
	Full-Time	Part-Time	Total
Active Search	247	21	268
Inactive Search	68	22	90
Total Reported	315	43	358
Not Reported	–	–	11
Total	315	43	369

Table 6. Length of time positions have been vacant

	Total Positions Vacant		Total Positions with Inactive Searches	
	n	%	n	%
Less than one month	18	5%	5	6%
1–3 months	84	24%	12	14%
4–6 months	68	19%	12	14%
7–12 months	90	25%	21	24%
13–18 months	27	8%	9	10%
19–24 months	21	6%	5	6%
Greater than 24 months	48	14%	23	26%
Total Reported	356		87	
Not Reported	13		7	
Total	369		94	

Table 7. Vacant positions by academic rank, 2007–08

Academic Rank	n	%
Professor	42	12%
Associate Professor	82	23%
Assistant Professor	203	58%
Instructor	6	2%
Other Rank	17	5%
Total Reported	350	
Not Reported	19	
Total	369	

Table 8. Lost faculty positions by primary appointment, 2007–08

	Status, 2007		Total	
	Full-Time	Part-Time	n	%
Clinical Sciences	7	9	16	76%
Research	2	0	2	10%
Behavioral Sciences	0	0	0	–
Basic Sciences	0	0	0	–
Allied Dental Education	1	2	3	14%
Total	10	11	21	100%

Table 9. Number of lost positions by discipline, 2007–08

Primary Discipline	Full-Time	Part-Time	Total
Microbiology	1	0	1
General/Operative/Restorative Dentistry	0	4	4
Genetics/Embryology/Growth Development	1	0	1
Oral Biology	0	1	1
Oral and Maxillofacial Surgery	1	0	1
Oral Medicine/Oral Diagnosis/ Treatment Planning	1	1	2
Orthodontics	1	2	3
Practice Administration	1	1	2
Pediatric Dentistry	2	0	2
Periodontics	1	2	3
Other (specify)	1	0	1
Total	10	11	21

of 150). For full professors, retirement and moving to another dental school accounted for over two-thirds (sixty-seven out of ninety-eight) of the separations.

Sources of New Faculty

About 9 percent (1,009) of the 2007 dental school faculty were reported as new faculty. Table 13 displays the sources of new faculty for those positions for which a source was reported for the years 2002 through 2007. In the 2007 survey, individuals coming from private practice to academia continued to be the primary source of new faculty. The share of new faculty entering academia following dental school graduation increased to 10 percent from 4 percent in 2006.

In 2007, the percent of new faculty coming from advanced education programs dropped by six percentage points, from 21 percent to 15 percent. Finally, a relatively small percentage of new faculty entered academia from the uniformed services or the Veterans Administration.

Table 10. Number one recruitment factor influencing the ability to fill a vacancy, 2007–08

	n	%
Meeting Requirements of the Position	84	27%
Lack of Response to Position Announcement	67	21%
Salary/Budget Limitation	65	21%
Other Department Priorities/Needs	26	8%
Meeting Scholarship Requirements	25	8%
Licensure Requirements	15	5%
Board Eligibility/Status Requirements	2	1%
Geographic Location	8	3%
Other	23	7%
Total Reported	315	
Not Reported	54	
Total	369	

Factors Contributing to Faculty Vacancies

Deans reported that the main factor contributing to faculty vacancies was a difficulty in filling vacant positions as they became vacant, thereby increasing

Table 11. Reasons for faculty separations between the 2006–07 and 2007–08 academic years by status of position

	Full-Time	Part-Time	Volunteer	Not Reported
Finished fixed-term employment	32	178	77	10
Entered private practice	55	142	47	0
Retired	55	50	9	0
Went to another dental school	63	14	1	2
Went to a hospital or advanced dental ed program	22	18	4	0
On leave	11	7	2	0
Deceased	7	7	2	1
Other	29	25	7	0
Total	274	441	149	13

Source: American Dental Education Association. Survey of dental educators, 2007. Washington, DC: American Dental Education Association, 2007.

the number of positions yet to be filled (Table 14). Nearly half of the deans responding reported this factor as being a significant reason underscoring the number of vacancies. About 48 percent of deans responding reported that an increase in faculty retirements has impacted the number of vacancies at their dental school.

Given that the average age of dental faculty members is fifty-four years, it seems likely that dental school deans will continue to report on the impact of faculty retirement on the number of vacancies. Nearly 70 percent of deans responding reported that filling vacant faculty positions will become increasingly difficult over the next five years.

Table 12. Reasons for faculty separations between the 2006–07 and 2007–08 academic years by academic rank of separated faculty

	Professor	Associate Professor	Assistant Professor	Instructor	Other or Not Reported	Total
Finished fixed-term employment	6	8	91	34	158	297
Entered private practice	4	21	106	93	20	244
Retired	49	28	22	3	12	114
Went to another dental school	18	14	37	7	4	80
Went to a hospital or advanced dental ed program	4	5	14	9	12	44
On leave	4	6	7	1	2	20
Deceased	8	2	4	1	2	17
Other	5	6	32	2	16	61
Total	98	90	313	150	226	877

Source: American Dental Education Association. Survey of dental educators, 2007. Washington, DC: American Dental Education Association, 2007.

Table 13. Sources of reported new dental faculty, 2002–07

	2002	2003	2004	2005	2006	2007
From private practice	51%	52%	62%	49%	51%	53%
From graduation from an advanced education program	18%	20%	16%	18%	21%	15%
From another dental school	24%	15%	14%	20%	21%	11%
From dental school graduation	4%	11%	7%	10%	4%	10%
From the uniformed services	3%	2%	2%	3%	4%	2%
From a faculty position at another hospital	–	–	–	–	–	1%
Other	–	–	–	–	–	8%

Note: Percentages may not total 100% due to rounding.

Source: American Dental Education Association. Surveys of dental educators, 2002 through 2007. Washington, DC: American Dental Education Association, 2002 through 2007.

Table 14. Factors contributing to dental faculty vacancies, 2007–08, by percentage of total respondents

	Insignificant				Significant
A budgetary increase or reallocation of funds that enabled an increase in faculty positions that have yet to be filled.	29%	16%	10%	36%	10%
An increase in the number of faculty leaving academia for private practice, creating an increase in the number of vacancies.	13%	36%	26%	16%	10%
An increase in the number of faculty retiring, creating an increase in the number of vacanicies.	3%	13%	36%	29%	19%
An increase in the difficulty of filling vacant positions as they became vacant, thereby increasing the number of positions yet to be filled.	0%	13%	37%	43%	7%

Note: Percentages may not total 100% because of rounding.

Conclusion

The annual ADEA Survey of Vacant Budgeted Faculty Positions highlights important changes and trends taking place within dental schools throughout the country. While the information collected through the survey instrument allows for a greater understanding of the trends in dental education, the findings can be contextualized within the broader health education arena.

For example, difficulty filling vacancies is not a problem felt only by dental schools. Rather, it is an issue throughout many academic health centers.[4] The Association of Academic Health Centers (AAHC) reported that 94 percent of CEOs at academic health centers believe faculty shortages are a problem in at least one health professions school. Even further, 69 percent of those surveyed by the AAHC felt those shortages were a problem for their entire institution. Others studying the issue at the national level have noted some factors that could contribute to the shortage, including retirement among baby-boomers, low level of interest in academic careers among those entering the health professions, and disparities in salaries between academe and private practice or industry.[5]

Also of note, the increase in faculty separations due to fixed-term appointments is affecting not only dental schools but universities across the country. Researchers studying the issue are finding that contingent or fixed-term appointments are now the chief modes of operation for universities.[6] In the context of filling dental school vacancies, it remains to be seen what impact this trend will have in the short and long term.

Finally, of considerable interest in the near future will be the effect of the U.S. economic recession that began in December 2007 on vacant budgeted and lost positions at the nation's dental schools. The data reported in the future (for example, from the 2008 faculty vacancy survey) could provide more details on how schools and deans manage vacant budgeted faculty positions in a difficult economic climate. If, as is already occurring at universities across the country, institutions are forced to deal with budget constraints by cutting faculty salaries and furloughing faculty,[3,7] the impact on deans' ability to recruit and retain faculty could be quite pronounced.

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