Annual ADEA Survey of Dental School Seniors: 2003 Graduating Class


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The American Dental Education Association (ADEA) conducts an annual survey of graduating seniors to obtain information about their financing of their dental education, graduating indebtedness, practice and postdoctoral education plans following graduation, decision factors that influenced post-graduation plans, and impressions on the adequacy of time directed to various areas of predoctoral instruction. ADEA prepares the survey instrument, and each school uses its own distribution and collection system to conduct the survey. Surveys are returned to ADEA for analysis and reporting.

The overall response rate to the survey was 83.2 percent, even accounting for an unfortunate loss in the mail of surveys from one school. Percent of respondents by gender and race/ethnicity are presented in Table 1. The percentages approximate those for 2002-03, except for the slightly lower percentages for black/African Americans and Hispanic/Latino students. The mean age at graduation was 28.1 years.

Where appropriate, the survey findings for the graduating class of 2003 are presented as part of the trend of findings reported by previous graduating classes.

Family Information

Parental Education and Income

The parents of dental students tend toward having higher levels of education than that reported for the U.S. adult population at large. Almost 83 percent of fathers and over 73 percent of mothers of dental students have had some postsecondary education (Table 2), compared with 52 percent of the U.S. adult population as a whole, according to the U.S. Census Bureau’s Statistical Abstract of the United States 2003. Almost 47 percent of fathers and 26 percent of mothers of dental students hold graduate degrees or have had some level of graduate education. For com-

Table 1. Percent responses by gender and race/ethnicity, 2003

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent of Respondents</th>
<th>Percent of Senior Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female/Male</td>
<td>40.7%/59.3%</td>
<td>39.5%/60.5%</td>
</tr>
<tr>
<td>Native American/Alaska</td>
<td>0.9%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>25.7%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>3.7%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>5.3%</td>
<td>6.0%</td>
</tr>
<tr>
<td>White (non-Hispanic)</td>
<td>62.2%</td>
<td>62.0%</td>
</tr>
<tr>
<td>Other or Not Reported</td>
<td>2.3%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Table 2. Parents’ level of education

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Father</th>
<th>Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate degree or some graduate</td>
<td>46.7%</td>
<td>25.9%</td>
</tr>
<tr>
<td>school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College graduate or some college</td>
<td>29.7%</td>
<td>41.3%</td>
</tr>
<tr>
<td>Technical school</td>
<td>6.0%</td>
<td>6.2%</td>
</tr>
<tr>
<td>High school graduate or some high</td>
<td>13.0%</td>
<td>20.8%</td>
</tr>
<tr>
<td>school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary education or some</td>
<td>2.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>elementary education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not reported</td>
<td>2.0%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>
parison, 9 percent of the adult U.S. population holds graduate degrees, according to the 2003 Statistical Abstract.

Almost 73 percent of seniors are from families whose total parental incomes are above the median family household income of $52,275 (as defined in the 2003 Statistical Abstract), with a continuing increase of those from families with combined incomes greater than $150,000 (see Table 3). Slightly more than 25 percent of seniors are from households with total parental incomes above $150,000.

Financial Independence

There has been little change over the last four years in the percentage of seniors reporting themselves to be financially independent from their parents, fluctuating between about 64 and 66 percent (Table 4). But the overall trend over the past decade has been toward an increasing number of financially independent students. In the 1980s, the percent of financially independent students averaged about 55 percent.

Marital Status

The percentage of dental school seniors who were married remained rather constant at 40 percent from 1997 through 2000, but since has trended up to over 43 percent in 2003 (Table 5). During the early 1990s, the percent married fluctuated around 35 percent. The highest percent of married seniors was reported in 1978 at 57.4 percent. Fifty-one percent of the 2003 married seniors had one child; 33 percent had two children.

Dentistry as a Career

Slightly more than 11 percent of the seniors reported that they had made the decision to pursue dentistry as a career before high school; almost 20 percent made that decision while in high school (Table 6). Over 45 percent of the seniors reported making the decision in their third or fourth year of college or after graduation from college. These percentages are similar to those reported in previous years.

The dental school seniors were asked to rate, from low to high, the importance of nine reasons for pursuing dentistry as a career (Table 7). Ranking the nine reasons by combining the high and somewhat high responses indicates that “Control of Time of Work,” “Self-Employed,” and “Service to Others” were the most important reasons for pursuing dentistry as a career, at 86.7, 83.7, and 82.5 percent respectively. These percentages have been most similar, year-to-year, for each of these reasons.

In this year’s senior survey, “Service to one’s own race or ethnic group” and “Opportunity to serve vulnerable and low-income populations” (care to underserved) were added to the list of reasons. Service to one’s own race or ethnic group was rated

<table>
<thead>
<tr>
<th>Table 3. Parental income, 1997-2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50,000</td>
</tr>
<tr>
<td>1997</td>
</tr>
<tr>
<td>1998</td>
</tr>
<tr>
<td>1999</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2001</td>
</tr>
<tr>
<td>2002</td>
</tr>
<tr>
<td>2003</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4. Financial independence of respondents, 1985-2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financially Independent</td>
</tr>
<tr>
<td>Financially Dependent</td>
</tr>
<tr>
<td>No Response</td>
</tr>
</tbody>
</table>
somewhat high or high by only 25 percent of the seniors. The opportunity to serve vulnerable and low-income populations was rated somewhat high or high by 40.4 percent of the seniors.

“Income Potential” and “Working with Hands” received combined ratings of 79.9 and 72.5 percent, respectively. These percentages also have been most similar year-to-year. “Variety of Career Options” and “Status and Prestige” have, year-to-year, received the lowest rate of response as importance to pursuing dentistry as a career, varying from 53 to 56 percent.

Analyzing the importance of the reasons for pursuing dentistry as a career by race/ethnicity gave similar response rates of importance for control of time, service to others, and self-employment opportunities. Income potential also had similar response rates. However there was a marked difference as to the importance of service to one’s own race/ethnic group and opportunity to serve vulnerable and low-income populations (Table 8). Almost 70 percent of the black/African American respondents indicated that service to one’s own race/ethnic group was somewhat or highly important in their decision to pursue dentistry as a career. This motivation was 56 percent for Hispanic/Latinos, 42 percent for Native Americans, and 36 percent for Asian/Pacific Islanders. It was rated somewhat or highly important by only 14 percent of white respondents. The opportunity to serve vulnerable and low-income populations was rated somewhat or highly important by 59 percent of the black/African American respondents and 58 percent of the Hispanic/Latino respondents. Fifty-two percent of the Asian/Pacific Islander and 43 percent of the Native American respondents indicated this reason was of somewhat or high importance to them in selecting dentistry as a career. This reason was said to be of somewhat or high importance to 33 percent of the white respondents.

The dental seniors were also asked to rate, from low to high, ten factors that influenced their decision to pursue dentistry as a career (Table 9). The ten factors were ranked by combining the high and

---

**Table 5. Marital status: selected years, 1985-2003**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>42.9%</td>
<td>35.7%</td>
<td>37.6%</td>
<td>40.9%</td>
<td>43.4%</td>
</tr>
</tbody>
</table>

**Table 6. Time of career decision**

<table>
<thead>
<tr>
<th>Time of Career Decision</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before High School</td>
<td>11.1%</td>
</tr>
<tr>
<td>During High School</td>
<td>19.6%</td>
</tr>
<tr>
<td>1st Year of College</td>
<td>8.5%</td>
</tr>
<tr>
<td>2nd Year of College</td>
<td>15.8%</td>
</tr>
<tr>
<td>3rd Year of College</td>
<td>17.8%</td>
</tr>
<tr>
<td>4th Year of College</td>
<td>10.8%</td>
</tr>
<tr>
<td>After Graduation</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

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**Table 7. Percent responses to reasons for pursuing dentistry as a career**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Low</th>
<th>Somewhat</th>
<th>-</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control of Time</td>
<td>1.6%</td>
<td>2.1%</td>
<td>9.6%</td>
<td>24.9%</td>
</tr>
<tr>
<td>Self-Employed</td>
<td>2.5%</td>
<td>2.8%</td>
<td>11.0%</td>
<td>24.2%</td>
</tr>
<tr>
<td>Service to Others</td>
<td>1.4%</td>
<td>2.6%</td>
<td>13.6%</td>
<td>36.4%</td>
</tr>
<tr>
<td>Service to Own Race</td>
<td>34.3%</td>
<td>18.0%</td>
<td>22.8%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Care to Underserved</td>
<td>11.2%</td>
<td>14.5%</td>
<td>33.9%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Income Potential</td>
<td>1.1%</td>
<td>2.3%</td>
<td>16.8%</td>
<td>39.4%</td>
</tr>
<tr>
<td>Working with Hands</td>
<td>1.9%</td>
<td>5.5%</td>
<td>20.2%</td>
<td>34.6%</td>
</tr>
<tr>
<td>Career Variety</td>
<td>5.3%</td>
<td>11.8%</td>
<td>28.8%</td>
<td>30.0%</td>
</tr>
<tr>
<td>Status and Prestige</td>
<td>4.9%</td>
<td>10.3%</td>
<td>29.5%</td>
<td>32.6%</td>
</tr>
</tbody>
</table>

**Table 8. Percent responses to selected reasons for pursuing dentistry as a career by race/ethnicity**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Service to Own Race/Ethnic Group</th>
<th>Service to Vulnerable and Low-Income Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Somewhat High</td>
<td>High</td>
</tr>
<tr>
<td>Native American</td>
<td>30.3%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>22.4%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>35.6%</td>
<td>34.1%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>28.5%</td>
<td>27.5%</td>
</tr>
<tr>
<td>White</td>
<td>6.9%</td>
<td>7.3%</td>
</tr>
</tbody>
</table>
somewhat high percent responses. The factors of a “Family Member or Friend Who Is a Dentist” or “My Family Dentist” were the two most influencing factors in deciding to pursue dentistry as a career, at 48.2 and 44.2 percent respectively. (Almost 13 percent of the respondents indicated that one or both of their parents was a dentist.) Awareness of the dental workforce and market trends was rated as a somewhat high to high influencing factor by 37.8 percent of the seniors, followed by a “Non-Dentist Family Member or Friend” at 31.8 percent.

Influence of the other factors fell off sharply. “Opportunity to Participate in a Pre- or Post-Baccalaureate Dental Career Development/School Admissions Program” was reported to have been a somewhat high or high influence for almost 17 percent of the seniors. Sixteen percent indicated a visit to a dental school was somewhat to highly influencing. Slightly more than 8 percent of the seniors reported that being recruited by a dental school was a somewhat or high factor. High school or college counselors were a somewhat to high influence for less than 8 percent of the seniors.

Dentists continue to be a most critical factor in the decision process of pursuing dentistry as a career. Continuing efforts must be made to strengthen the influence and guidance high school and college counselors can give to promoting careers in dentistry.

Analyzing the ten factors influencing dentistry as a career choice by race/ethnicity showed similarity by race/ethnicity for the influence of awareness of dental market trends and of family members or friends who were not a dentist. The influence of a family dentist was rated somewhat high or high by almost 50 percent of the responding white seniors, but in the area of 33 to 37 percent for minority seniors. A family member or friend who is a dentist was rated somewhat high or high by 50 percent of the white seniors and 45 to 46 percent of the Asian/Pacific Islander and Hispanic/Latino seniors, but only 28 percent of the black/African American and Native American seniors. Participation in a pre- or post-baccalaureate dental career development or school admissions program was rated somewhat to highly influencing by 20 to 30 percent of minority seniors, but only 15 percent of white seniors.

Thirteen percent of the black/African American seniors reported that specific recruitment by a dental school had been of somewhat high or high influence. This was 12 percent for Asian/Pacific Islanders, 9 percent for Hispanic/Latinos, and 6 percent for Native American and white seniors. School visits were reported somewhat more of an influence by black/African Americans and Asian/Pacific Islander seniors (20 to 24 percent) than by Hispanic/Latino and white seniors (15 to 17 percent). Minority seniors reported career days, career brochures, and career counselors to be of slightly more influence (9 to 12 percent) than that reported by white seniors (5 to 7 percent). This information begins to document the value of and needs in various strategies to improving the recruitment and enrollment of underrepresented minorities into dentistry.

### Educational Debt

The average educational debt on entering dental school reported by the 2003 dental school seniors was $14,097 (Table 10). The mean graduating debt of dental students in 2003 was $118,748. Graduating debt of individuals from public schools averaged

<table>
<thead>
<tr>
<th>Factor</th>
<th>Low</th>
<th>-</th>
<th>Somewhat</th>
<th>-</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family member or friend who is a dentist</td>
<td>31.6%</td>
<td>7.7%</td>
<td>12.5%</td>
<td>17.2%</td>
<td>31.0%</td>
</tr>
<tr>
<td>My family dentist</td>
<td>28.4%</td>
<td>9.9%</td>
<td>17.6%</td>
<td>18.7%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Awareness of dental market trends</td>
<td>26.8%</td>
<td>11.9%</td>
<td>23.6%</td>
<td>23.1%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Family member or friend who is not a dentist</td>
<td>40.6%</td>
<td>10.8%</td>
<td>16.9%</td>
<td>15.7%</td>
<td>16.1%</td>
</tr>
<tr>
<td>Participate in a dental career development or school admissions program</td>
<td>55.2%</td>
<td>12.5%</td>
<td>15.5%</td>
<td>9.8%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Dental school visit</td>
<td>53.1%</td>
<td>14.5%</td>
<td>16.1%</td>
<td>10.9%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Career day</td>
<td>66.9%</td>
<td>14.2%</td>
<td>10.6%</td>
<td>4.5%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Recruitment by a school</td>
<td>65.1%</td>
<td>14.7%</td>
<td>11.9%</td>
<td>5.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>H.S. or college counselor</td>
<td>69.3%</td>
<td>12.6%</td>
<td>10.3%</td>
<td>4.4%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Career brochure</td>
<td>65.7%</td>
<td>16.3%</td>
<td>11.1%</td>
<td>4.6%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>
At private and private state-related schools, the average was $147,967. This was a 9.1 percent increase in debt for graduates of public schools and an 8.8 percent increase in debt for graduates of private and private state-related schools. Figure 1 illustrates the trend of graduating debt by type of school from 1990 to 2003. The 2003 amount of reported debt continues the overall trend of increasing debt that has occurred over the past decade.

### Educational Debt upon Graduation

Percent levels of educational debt upon graduation over the last seven years indicate a continued skewing of debt to the right (Table 13). In 2003, all reported ranges of debt below $99,999 declined slightly, including that of seniors reporting no debt upon graduation. But the categories of debt of $100,000 and above showed increases in the percent of graduates with these levels of debt, with those with debt greater than $150,000 standing now at over 34.5 percent.

The average entering debt of the seniors who had debt was $33,207 (Table 12). Overall, entering debt has trended upward throughout the last decade, with a marked increase from 2002 to 2003.

### Entering Educational Debt

Almost 58 percent of the year 2003 seniors reported no educational debt upon entering dental school. This is down from the almost 62 percent reported in 2002 (Table 11) and returns more to the levels reported in 1998 and 1999.
Levels of debt for seniors of private and private state-related schools continue to be particularly skewed to the right (Table 14 and Figure 2). Seventy-six percent of the seniors graduating from private and private state-related schools in 2003 reported debt of over $100,000, with over 59 percent reporting debt greater than $150,000 (up from 72 and 55 percent, respectively, in 2002). A little over 55 percent of public dental school seniors reported debt over $100,000, with 13.1 percent reporting debt greater than $150,000 (up from 48 and 9.9 percent in 2002).

Table 15 presents the average graduating educational debt of graduates who had debt, by type of school, for the last eight years. The average of all schools was $132,532 in 2003, an increase of 8.2 percent over 2002. Debt of seniors of public schools who had debt was $103,149 in 2003, an increase of 5.9 percent from 2002. And for indebted seniors of private and private state-related schools, the average graduating debt was $167,676, an increase of 7.5 percent over 2002. Between 1996 and 2002 (most current year of reported data), tuition and fees have increased 6.0 percent per year for residents and 6.4 percent for nonresidents. For this same period of time, overall, average graduating debt of graduates with debt has increased about 7.6 percent per year.

Almost 45 percent of the seniors reported that their educational debt was at a level anticipated. However, almost 44 percent indicated it was “More” or “Much More” than anticipated, with 11 percent reporting it was “Much More” than anticipated. Almost 11 percent reported their educational debt was “Less” or “Much Less” than anticipated, 5 percent indicating it was “Much Less” than anticipated. These percentages are similar to those reported in 2002.

Fifty percent of the seniors reported that they considered their level of debt to be “Much” or “Very Much” a burden, with almost 29 percent indicating it was “Very Much” a burden. Thirty-four percent indicated their level of debt was “Somewhat” of a burden; and slightly more than 16 percent indicated their debt was of “Very Little” or “No” burden, with 8.4 percent reporting their debt was considered of “No” burden. These percentages are also similar to those reported in 2002.

### Educational Debt by Race/Ethnicity

Table 16 and Figure 3 illustrate percent levels of educational debt by race/ethnicity. Discounting the percentages for Native Americans, whose number in

<table>
<thead>
<tr>
<th>Year</th>
<th>No Debt</th>
<th>Up to $29,999</th>
<th>$30,000-$49,999</th>
<th>$50,000-$79,999</th>
<th>$80,000-$99,999</th>
<th>$100,000-$149,999</th>
<th>&gt;$150,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>10.1%</td>
<td>7.3%</td>
<td>16.2%</td>
<td>18.7%</td>
<td>22.8%</td>
<td>17.6%</td>
<td>7.3%</td>
</tr>
<tr>
<td>1997</td>
<td>13.3%</td>
<td>6.8%</td>
<td>10.6%</td>
<td>23.6%</td>
<td>17.5%</td>
<td>18.7%</td>
<td>9.5%</td>
</tr>
<tr>
<td>1998</td>
<td>7.0%</td>
<td>6.6%</td>
<td>7.9%</td>
<td>17.4%</td>
<td>18.9%</td>
<td>26.9%</td>
<td>15.3%</td>
</tr>
<tr>
<td>1999</td>
<td>8.3%</td>
<td>5.6%</td>
<td>6.7%</td>
<td>15.8%</td>
<td>16.4%</td>
<td>25.2%</td>
<td>22.0%</td>
</tr>
<tr>
<td>2000</td>
<td>17.1%</td>
<td>7.0%</td>
<td>5.5%</td>
<td>12.2%</td>
<td>13.1%</td>
<td>24.1%</td>
<td>20.9%</td>
</tr>
<tr>
<td>2001</td>
<td>8.9%</td>
<td>5.5%</td>
<td>5.3%</td>
<td>11.8%</td>
<td>12.8%</td>
<td>27.7%</td>
<td>28.0%</td>
</tr>
<tr>
<td>2002</td>
<td>11.9%</td>
<td>4.9%</td>
<td>5.0%</td>
<td>9.4%</td>
<td>10.0%</td>
<td>29.3%</td>
<td>29.4%</td>
</tr>
<tr>
<td>2003</td>
<td>10.4%</td>
<td>4.0%</td>
<td>4.5%</td>
<td>8.7%</td>
<td>8.1%</td>
<td>30.3%</td>
<td>34.5%</td>
</tr>
</tbody>
</table>
relation to the other race/ethnic groups is very small, there is some similarity in the percent levels of debt below $100,000—though Hispanic/Latinos had 15 percent reporting debt of up to $49,999, whereas the other groups had between 6 and 8 percent reporting this level of debt. It is above $100,000 of debt where differences by race/ethnicity become more marked, with 39 percent of black/African Americans reporting debt between $100,000 and $149,999. This was 33.5 percent for white respondents, and between 21 and 24 percent for the other groups.

Asian/Pacific Islanders had the largest percentage with debt greater than $150,000, at almost 40 percent. Reflecting the lower number of black/African Americans who reported no debt or lower levels of debt, over 72 percent of the black/African American seniors reported debt greater than $100,000. This was 66.5 percent of whites and almost 64 percent of Asian/Pacific Islanders and 53 percent of Hispanic/Latinos.

### Table 14. Percent levels of educational debt for the 2003 graduates by type of school

<table>
<thead>
<tr>
<th>Level of Debt in Thousands</th>
<th>All Schools</th>
<th>Public Schools</th>
<th>Private and Private State-Related Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Debt</td>
<td>10.4%</td>
<td>9.2%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Up To $29.9</td>
<td>4.0%</td>
<td>5.3%</td>
<td>2.5%</td>
</tr>
<tr>
<td>$30-$49.9</td>
<td>8.7%</td>
<td>12.4%</td>
<td>4.4%</td>
</tr>
<tr>
<td>$50-$79.9</td>
<td>8.1%</td>
<td>12.5%</td>
<td>3.0%</td>
</tr>
<tr>
<td>$80-$99.9</td>
<td>30.3%</td>
<td>42.0%</td>
<td>16.6%</td>
</tr>
<tr>
<td>$100-$149.9</td>
<td>34.5%</td>
<td>13.1%</td>
<td>59.4%</td>
</tr>
</tbody>
</table>

### Table 15. Average graduating educational debt of graduates with debt by type of school, 1996-2003

<table>
<thead>
<tr>
<th>All Schools</th>
<th>Public Schools</th>
<th>Private and Private State-Related Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>$84,247</td>
<td>$66,153</td>
</tr>
<tr>
<td>1997</td>
<td>$94,182</td>
<td>$75,830</td>
</tr>
<tr>
<td>1998</td>
<td>$97,961</td>
<td>$80,216</td>
</tr>
<tr>
<td>1999</td>
<td>$105,150</td>
<td>$83,029</td>
</tr>
<tr>
<td>2000</td>
<td>$105,969</td>
<td>$82,963</td>
</tr>
<tr>
<td>2001</td>
<td>$115,951</td>
<td>$90,255</td>
</tr>
<tr>
<td>2002</td>
<td>$122,491</td>
<td>$97,370</td>
</tr>
<tr>
<td>2003</td>
<td>$132,532</td>
<td>$103,149</td>
</tr>
</tbody>
</table>

### Figure 2. Percent levels of educational debt by type of school, 2003

Almost 30 percent of the seniors reported that they had had “Much” or “Very Much” concern about being able to finance their dental education, with over 16 percent indicating that they had been “Very Much” concerned (Table 17). About 27 percent reported having been “Somewhat” concerned about being able to finance their dental education. Over 43 percent indicated that they had had “Very Little” or “No” concern, with almost 27 percent reporting “No” con-
cern. These percentages are very similar to those reported for 2002.

The percentage of seniors reporting concern with financing their dental education was highest for Hispanic/Latino and black/African American students, at 41.3 and 40 percent, respectively, indicating “Much” or “Very Much” concern. One-third of the Asian/Pacific Islander seniors reported these levels of concern with financing their dental education. White and Native American seniors reported these levels of concern at 26.6 and 29.8 percent, respectively.

Seniors were asked in the 2003 survey for an estimate of the percentages of financial support for their dental education that came from self- and/or spousal-earned income and/or savings; loans, grants, and scholarships; and gifts and/or support from parents and/or relatives (Table 18). Over 42 percent of

---

**Table 16. Percent levels of educational debt for year 2003 graduates by race/ethnicity**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>No Debt</th>
<th>Up to $29,999</th>
<th>$30,000-$49,999</th>
<th>$50,000-$79,999</th>
<th>$80,000-$99,999</th>
<th>$100,000-$149,999</th>
<th>Greater than $150,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native American</td>
<td>19.4%</td>
<td>9.7%</td>
<td>12.9%</td>
<td>19.4%</td>
<td>0</td>
<td>22.6%</td>
<td>16.1%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>13.2%</td>
<td>3.8%</td>
<td>4.3%</td>
<td>8.0%</td>
<td>6.9%</td>
<td>24.0%</td>
<td>39.8%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>6.7%</td>
<td>4.5%</td>
<td>1.5%</td>
<td>6.7%</td>
<td>8.2%</td>
<td>38.8%</td>
<td>33.6%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>9.4%</td>
<td>4.2%</td>
<td>11.0%</td>
<td>12.6%</td>
<td>10.0%</td>
<td>21.5%</td>
<td>31.4%</td>
</tr>
<tr>
<td>White</td>
<td>9.3%</td>
<td>4.0%</td>
<td>3.4%</td>
<td>8.5%</td>
<td>8.4%</td>
<td>33.5%</td>
<td>33.0%</td>
</tr>
</tbody>
</table>

---

**Table 17. Percent concerned with financing their dental education by race/ethnicity**

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Very Little</th>
<th>Somewhat</th>
<th>Much</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students</td>
<td>26.9%</td>
<td>16.7%</td>
<td>26.7%</td>
<td>13.5%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Native American</td>
<td>36.4%</td>
<td>15.2%</td>
<td>18.2%</td>
<td>18.2%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>22.8%</td>
<td>16.5%</td>
<td>27.4%</td>
<td>16.2%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>17.0%</td>
<td>14.1%</td>
<td>28.9%</td>
<td>13.3%</td>
<td>26.7%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>18.0%</td>
<td>15.5%</td>
<td>25.3%</td>
<td>16.0%</td>
<td>25.3%</td>
</tr>
<tr>
<td>White</td>
<td>29.3%</td>
<td>17.2%</td>
<td>26.9%</td>
<td>12.3%</td>
<td>14.3%</td>
</tr>
</tbody>
</table>
Almost 42 percent of the seniors reported receiving no gifts or financial support from their parents and/or relatives for support of their dental education. Another 30.6 percent reported that between 1 and 10 percent of their educational costs were met through gifts and/or financial support of their parents and/or relatives. A little over 7 percent indicated that between 91 and 100 percent of their dental education was financed by their parents and/or relatives. All of the percentages reported in Table 18 are most similar to those reported in 2002.

The seniors were asked if they had applied for any public assistance (food stamps, WIC, Medicaid) while they were in dental school. Over 8.7 percent (319) indicated that they had. Almost 92 percent of those who applied received the public assistance requested.

**Student Loans.** The percent of seniors reporting the use of one or more types of loans to finance their dental education was 91.5 percent. The major loan source continues to be the subsidized and unsubsidized Stafford loan programs, at 81.5 and 77.6 percent respectively (Table 19). The Health Professions Student Loan program was used by 30 percent of the seniors over their years of dental education. While the loan amounts were small, but with low interest rates, the Perkins program had a 27.6 percent rate of use. The Health Education Assistance Loan (HEAL) program was discontinued in 1999, which explains the subsequent declines in this program and increases in the unsubsidized Stafford program.

The program of Supplemental Loans for Students was discontinued in 1998, contributing to fur-

<table>
<thead>
<tr>
<th>Table 18. Percent of financial support through various sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earned Income and/or Savings of Self and/or Spouse</td>
</tr>
<tr>
<td>0%</td>
</tr>
<tr>
<td>1-10%</td>
</tr>
<tr>
<td>11-20%</td>
</tr>
<tr>
<td>21-25%</td>
</tr>
<tr>
<td>26-35%</td>
</tr>
<tr>
<td>36-50%</td>
</tr>
<tr>
<td>51-65%</td>
</tr>
<tr>
<td>66-75%</td>
</tr>
<tr>
<td>76-90%</td>
</tr>
<tr>
<td>91-100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 19. Reported use of loans, 1990-2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Professions Student Loan</td>
</tr>
<tr>
<td>Perkins Loan</td>
</tr>
<tr>
<td>Stafford Loan (Subsidized)</td>
</tr>
<tr>
<td>Stafford Loan (Unsubsidized)</td>
</tr>
<tr>
<td>Health Education Assistance Loan</td>
</tr>
<tr>
<td>Supplemental Loans for Students</td>
</tr>
<tr>
<td>Personal Bank Loan</td>
</tr>
<tr>
<td>Family/Relative Loans</td>
</tr>
<tr>
<td>A-DEAL/Private Lender</td>
</tr>
<tr>
<td>School Program</td>
</tr>
<tr>
<td>Disadvantaged Student Loan</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Credit Card</td>
</tr>
</tbody>
</table>

*Discontinued
ther increases in the use of unsubsidized Stafford loans and A-DEAL and other private lender loans. Loans from families and relatives fell to 15.7 percent after fluctuating between 21 and 22.5 percent over the previous four years. (In 1980, over 67 percent of the seniors reported family/relative loans.) The percent of seniors reporting personal bank loans has increased over the last four years, from 4.6 to 6.7 percent. The use of A-DEAL and similar private lender loans has remained little changed over the last three years, standing now at 26.7 percent. The percent of seniors reporting loans from their dental school fell slightly to 8.8 percent, from 10.4 percent. Loans for Disadvantaged Students rose slightly to 4.2 percent, from 3.7 percent. The percent of seniors reporting credit card debt fell slightly from 11.8 to 10.1 percent.

Grants, Scholarships, and Loan Forgiveness. The percent of seniors reporting the receipt of one or more grants or scholarships fell slightly in 2003, from 51.3 to 50.2 percent. Grants and scholarships awarded by the dental schools continue to be the type most frequently awarded, with 30 percent of seniors indicating in 2003 that they had received such awards during their dental education (Table 20). State grants and scholarships showed essentially no change, standing at 12.2 percent. Need-based federal grants and scholarships (Scholarships for Disadvantaged Students, Scholarships for Exceptional Financial Need, and Financial Assistance for Disadvantaged Health Professional Students) were reported by 3.4 percent of the seniors, down markedly from 7.3 percent reported in 2002. Scholarships from one of the uniformed services, Indian Health Service, or National Health Service Corps were reported by 7.4 percent of the seniors, up slightly from 6.5 percent reported in 2002. Receipt of other types of grants/scholarships was reported by 11.3 percent of the seniors—also up slightly from 2002.

Almost 10 percent of the seniors reported that they would be participating in a repayment program that “forgave” or repaid a part or all of a loan, scholarship, or grant through a service or placement obligation.

### Rating of Time Devoted to Areas of Instruction

The number of areas of instruction was increased in the 2003 survey. They are reported here in two sections: one pertaining to basic and dental sciences and the clinical disciplines; the other, to dental public health and community dentistry.

The instructional areas of basic and dental sciences and the clinical disciplines receiving the highest time ratings of “inadequate” or “excessive” have remained much the same from year to year (Figure 4). Implant dentistry received the highest inadequate rating at 43 percent, down though from an inadequate rating of over 50 percent in 2001. Implant dentistry was, again, followed closely by orthodontics and practice administration, at 39.5 and 36 percent respectively. All of the other twenty-one course areas reported on had “appropriate” time ratings of over 70 percent.

While their appropriate time ratings were over 70 percent, geriatric dentistry had an inadequate rating of over 18 percent—followed, as in previous years (though not necessarily in the same order), by endodontics, pharmacology, and medical emergencies, at between 16 and 17 percent.

Several areas of instruction routinely receive relatively high ratings for excessive. These again, for 2003, include basic science-medicine (19.8 percent), behavioral science (16.7 percent), periodontics (12.7 percent), dental materials (11.2 percent), and pharmacology (10.3 percent).

Figure 5 presents the instructional areas grouped as dental public health and community dentistry. Health services organization and financing, hospital dentistry, gender-related issues, and cultural competency each received “appropriate” time ratings of less than 70 percent. In particular, health services

<table>
<thead>
<tr>
<th>Type of Scholarship or Grant</th>
<th>1990</th>
<th>1995</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>13.9%</td>
<td>15.6%</td>
<td>11.8%</td>
<td>7.5%</td>
<td>9.6%</td>
<td>13.4%</td>
<td>13.3%</td>
<td>12.3%</td>
<td>12.2%</td>
</tr>
<tr>
<td>School</td>
<td>23.2%</td>
<td>29.7%</td>
<td>29.4%</td>
<td>26.9%</td>
<td>30.1%</td>
<td>31.6%</td>
<td>29.7%</td>
<td>29.9%</td>
<td>30.0%</td>
</tr>
<tr>
<td>Federal</td>
<td>NA</td>
<td>8.1%</td>
<td>13.2%</td>
<td>15.5%</td>
<td>14.1%</td>
<td>16.4%</td>
<td>12.8%</td>
<td>13.8%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Other</td>
<td>9.1%</td>
<td>12.5%</td>
<td>11.9%</td>
<td>10.8%</td>
<td>10.0%</td>
<td>16.5%</td>
<td>12.9%</td>
<td>12.6%</td>
<td>11.3%</td>
</tr>
</tbody>
</table>

Table 20. Receipt of scholarships and grants, 1990-2003
organization and financing received an “appropriate” rating of less than 59 percent. Dental health policy was rated “appropriate” by just over 70 percent of the seniors. While receiving an “appropriate” rating of nearly 80 percent, ethics was reported to be “excessive” by over 13 percent of the seniors. Dental public health was reported “excessive” by almost 11 percent of the seniors.
Practice Plans Immediately Following Graduation

Preparedness for Practice

The 2003 senior survey increased to twenty-six the number of subject areas for which the seniors were asked to indicate their sense of preparedness for entry into practice (Table 21). There were seven areas in which 90 or more percent of the seniors indicated they were prepared to well prepared for practice. These were operative/restorative dentistry, preventive practices and patient education, radiology, diagnosis and treatment planning, fixed and removable prosthodontics, oral surgery, and patient evaluation. Three areas in which nearly 50 percent or more of the seniors indicated they sensed they were not well enough prepared for practice included practice administration (55.8 percent), implant dentistry (49.5 percent), and orthodontics (48.8 percent).

Immediate Plans Following Graduation

There was a slight change in the percent of seniors with plans to immediately enter private prac-

### Table 21. Preparedness for practice in selected areas of education and training

<table>
<thead>
<tr>
<th>Area</th>
<th>Not Well Enough Prepared</th>
<th>Prepared</th>
<th>Well Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Administration</td>
<td>27.0%</td>
<td>28.8%</td>
<td>30.7%</td>
</tr>
<tr>
<td>Patient Evaluation</td>
<td>1.9%</td>
<td>8.5%</td>
<td>47.5%</td>
</tr>
<tr>
<td>Radiology</td>
<td>1.3%</td>
<td>5.5%</td>
<td>46.3%</td>
</tr>
<tr>
<td>Oral Pathology</td>
<td>2.2%</td>
<td>12.0%</td>
<td>46.7%</td>
</tr>
<tr>
<td>Diagnosis and Treatment Planning</td>
<td>1.8%</td>
<td>6.9%</td>
<td>41.1%</td>
</tr>
<tr>
<td>Integrating Oral Health Care with Medical Care</td>
<td>2.9%</td>
<td>12.7%</td>
<td>48.5%</td>
</tr>
<tr>
<td>Interacting with Medical Colleagues</td>
<td>4.6%</td>
<td>15.3%</td>
<td>46.0%</td>
</tr>
<tr>
<td>Providing Emergency Treatment</td>
<td>2.9%</td>
<td>11.3%</td>
<td>45.5%</td>
</tr>
<tr>
<td>Therapeutics and Prescription Writing</td>
<td>3.7%</td>
<td>15.7%</td>
<td>47.3%</td>
</tr>
<tr>
<td>Anesthesiology/Sedation and Pain Control</td>
<td>4.4%</td>
<td>14.5%</td>
<td>46.2%</td>
</tr>
<tr>
<td>Preventive Practices and Patient Education</td>
<td>1.4%</td>
<td>4.8%</td>
<td>44.8%</td>
</tr>
<tr>
<td>Operative/Restorative Dentistry</td>
<td>1.1%</td>
<td>3.2%</td>
<td>35.1%</td>
</tr>
<tr>
<td>Fixed and Removable Prosthodontics</td>
<td>2.2%</td>
<td>7.2%</td>
<td>41.0%</td>
</tr>
<tr>
<td>Implant Dentistry</td>
<td>25.2%</td>
<td>24.3%</td>
<td>32.0%</td>
</tr>
<tr>
<td>Endodontics</td>
<td>4.6%</td>
<td>12.8%</td>
<td>45.3%</td>
</tr>
<tr>
<td>Periodontics</td>
<td>3.1%</td>
<td>8.8%</td>
<td>45.9%</td>
</tr>
<tr>
<td>Orthodontics</td>
<td>25.9%</td>
<td>22.9%</td>
<td>33.9%</td>
</tr>
<tr>
<td>Oral Surgery</td>
<td>1.9%</td>
<td>8.1%</td>
<td>45.4%</td>
</tr>
<tr>
<td>Pediatric Oral Health Care</td>
<td>2.8%</td>
<td>10.9%</td>
<td>50.1%</td>
</tr>
<tr>
<td>Geriatric Oral Health Care</td>
<td>3.6%</td>
<td>16.0%</td>
<td>51.1%</td>
</tr>
<tr>
<td>Oral Health Care for Disabled Patients</td>
<td>8.9%</td>
<td>25.8%</td>
<td>44.2%</td>
</tr>
<tr>
<td>Oral Health Care for Patients with HIV/AIDS</td>
<td>5.6%</td>
<td>15.4%</td>
<td>47.9%</td>
</tr>
<tr>
<td>Oral Health Care for a Diverse Society</td>
<td>3.2%</td>
<td>9.9%</td>
<td>48.6%</td>
</tr>
<tr>
<td>Adaptive Treatment Planning for Low Income Populations/Individuals</td>
<td>5.0%</td>
<td>13.1%</td>
<td>48.5%</td>
</tr>
<tr>
<td>Oral Health Care for Rural Areas</td>
<td>6.1%</td>
<td>15.4%</td>
<td>48.7%</td>
</tr>
</tbody>
</table>
tice, declining from 52.2 to 50.3 percent in 2003 (Figure 6 and Table 22). Within those pursuing private practice, the declines were within those entering practice solo (4.4 percent) and in a partnership or group arrangement (7.4 percent). Of the 38.5 percent entering practice as an associate or in an employee arrangement, 1.9 percent indicated they would be employed by a community clinic. There was a continuing slight increase in the percent of seniors immediately pursuing advanced education, standing now at 37.1 percent.

The percent of seniors with plans to enter government service continued its decline to 7.6 percent. The percent with immediate plans to pursue careers in academia, while still small, increased from 0.5 to 1.9 percent. (No explanation for this increase can be accounted for through the senior survey.)

Immediate Plans Following Graduation by Respondents’ Gender and Race/Ethnicity

In 2003 there was a marked decline in the percent of women immediately entering private practice (from 54.0 to 49.1 percent), particularly as associates or in an employee arrangement (from 44.5 to 40.7 percent) (see Table 23). There was a corresponding increase in the percent of women immediately pursuing advanced education (from 36.3 to 39 percent). There was little to no change in the percent of men immediately pursuing private practice and advanced education between 2002 and 2003.

There were also particular gender differences by type of practice. Of the male seniors, 5.9 percent had plans to immediately enter solo practice; of the female seniors, 4.4 percent entered solo practice in 2003 (from 44.5 to 40.7 percent) (see Table 23). There was a corresponding increase in the percent of women immediately pursuing advanced education (from 36.3 to 39 percent). There was little to no change in the percent of men immediately pursuing private practice and advanced education between 2002 and 2003.

Table 22. Percent responses to categories of immediate plans

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solo</td>
<td>17.3%</td>
<td>9.4%</td>
<td>5.8%</td>
<td>5.8%</td>
<td>5.6%</td>
<td>5.3%</td>
<td>5.5%</td>
<td>4.0%</td>
<td>4.7%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Partner/Group</td>
<td>9.8%</td>
<td>14.3%</td>
<td>12.0%</td>
<td>11.1%</td>
<td>9.7%</td>
<td>12.7%</td>
<td>9.5%</td>
<td>7.7%</td>
<td>8.7%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Associate/Employed</td>
<td>29.9%</td>
<td>34.4%</td>
<td>31.3%</td>
<td>32.9%</td>
<td>35.9%</td>
<td>35.6%</td>
<td>36.5%</td>
<td>41.1%</td>
<td>38.9%</td>
<td>38.5%</td>
</tr>
<tr>
<td>Total Private Practice</td>
<td>57.0%</td>
<td>58.1%</td>
<td>49.1%</td>
<td>49.8%</td>
<td>51.2%</td>
<td>53.6%</td>
<td>51.5%</td>
<td>52.8%</td>
<td>52.2%</td>
<td>50.3%</td>
</tr>
<tr>
<td>Advanced Education</td>
<td>18.3%</td>
<td>23.6%</td>
<td>33.4%</td>
<td>36.0%</td>
<td>35.8%</td>
<td>34.0%</td>
<td>34.1%</td>
<td>34.4%</td>
<td>35.7%</td>
<td>37.1%</td>
</tr>
<tr>
<td>Teach/Research/Admin.</td>
<td>1.3%</td>
<td>0.9%</td>
<td>1.0%</td>
<td>1.1%</td>
<td>0.5%</td>
<td>1.3%</td>
<td>0.5%</td>
<td>0.6%</td>
<td>0.5%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Government Service</td>
<td>14.5%</td>
<td>10.3%</td>
<td>11.6%</td>
<td>8.9%</td>
<td>10.0%</td>
<td>10.7%</td>
<td>11.0%</td>
<td>10.0%</td>
<td>9.3%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Undecided</td>
<td>8.9%</td>
<td>7.2%</td>
<td>4.9%</td>
<td>4.2%</td>
<td>2.5%</td>
<td>2.6%</td>
<td>2.9%</td>
<td>2.3%</td>
<td>2.2%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Figure 6. U.S. dental school seniors’ immediate practice plans, 1980-2003
female seniors, only 2.1 percent planned to immediately enter solo practice. While 8.2 percent of the male seniors had plans for entering practice in partnership or group arrangements, 6.2 percent of the female seniors had such plans. Thirty-seven percent of males had plans to enter practice in an employed status, whereas this was 40.7 percent of the females. The percent of female seniors entering practice as employees of a community clinic was 2.4; for male seniors, it was 1.7. These 2003 practice plan characteristics by gender continue to be similar to those reported since 1998.

In previous years, there was little difference between the percent of women and men reporting plans to immediately pursue advanced education, usually one percentage point or less. However, in 2003, 39 percent of the female seniors reported plans to immediately pursue advanced education. This percentage was 35.9 percent for male seniors, which is similar to the percent reported in 2002. While the percent of seniors with immediate plans to pursue careers in academia increased for both males and females, the percentage continues to be higher for females than males, 2.6 and 1.5 percent respectively. As might be expected, a larger percentage of men entered government service than did women, 9 as to 5.7 percent.

A much lower percentage of the year 2003 Black/African American seniors indicated immediate plans to enter private practice upon graduation than the overall average of seniors who planned to do so: 26.5 percent as compared to 50.3 percent (Table 24). This continues what has been reported in previous years for black/African American seniors. Another consistency from year to year is the lower percentage of Asian/Pacific Islanders entering government service. Black/African American seniors, again, exceeded the average percent of seniors entering government service. It is the second year that the percentage of Hispanic/Latino seniors doing so has been below the average.

The percentages of Native American/Alaska Natives (15.2 percent) with plans to immediately pursue advanced education was less than the overall average of 37.1 percent of seniors planning to do so. The percentage of black/African Americans (56.1 percent) with plans to immediately pursue advanced education was well above the overall average, continuing a marked upward trend that began in 1999. The other percentages of seniors by race/ethnicity pursuing advanced education in 2003 approximate the overall average of seniors doing so.

### The Influence of Educational Debt on Plans Following Graduation

Almost 38 percent of the year 2003 seniors reported that their levels of educational debt did not influence their immediate career plans following graduation. Almost 24 percent, however, indicated that their debt was a major factor influencing their career plans following graduation. The remaining 38 percent of seniors indicated educational debt was a

---

**Table 23. Plans following graduation by gender**

<table>
<thead>
<tr>
<th>Immediate Plans</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo Private Practice</td>
<td>5.9%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Partnership/Group Private Practice</td>
<td>8.2%</td>
<td>51.1%</td>
</tr>
<tr>
<td>Private Practice—Employed</td>
<td>37.0%</td>
<td>40.7%</td>
</tr>
<tr>
<td>Advanced Education</td>
<td>35.9%</td>
<td>39.0%</td>
</tr>
<tr>
<td>Teaching, Research, or Admin.</td>
<td>1.5%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Government Service</td>
<td>9.0%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Undecided</td>
<td>2.5%</td>
<td>3.6%</td>
</tr>
</tbody>
</table>

---

**Table 24. Plans following graduation by race/ethnicity**

<table>
<thead>
<tr>
<th>Immediate Plans</th>
<th>Native American/Alaska Native</th>
<th>Asian/Pacific Islander</th>
<th>Black/African American</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo Private Practice</td>
<td>15.2%</td>
<td>2.8%</td>
<td>0.8%</td>
<td>5.7%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Partner/Group Private Practice</td>
<td>24.2% ▶️ 66.7%</td>
<td>7.6% ▶️ 51.3%</td>
<td>3.0% ▶️ 26.5%</td>
<td>8.3%</td>
<td>52.3%</td>
</tr>
<tr>
<td>Private Practice—Employed</td>
<td>27.3%</td>
<td>40.9%</td>
<td>22.7%</td>
<td>38.3%</td>
<td>38.9%</td>
</tr>
<tr>
<td>Advanced Education</td>
<td>15.2%</td>
<td>38.5%</td>
<td>56.1%</td>
<td>38.3%</td>
<td>35.9%</td>
</tr>
<tr>
<td>Teaching, Research, Admin.</td>
<td>6.1%</td>
<td>2.1%</td>
<td>1.5%</td>
<td>2.1%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Government Service</td>
<td>12.1%</td>
<td>4.7%</td>
<td>9.8%</td>
<td>5.2%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Undecided</td>
<td>-</td>
<td>3.5%</td>
<td>6.1%</td>
<td>2.1%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>
factor, but of somewhat or little influence in making immediate career plans.

Table 25 displays the percent responses to educational debt being a factor influencing immediate plans following graduation by type of immediate plan. About 41 percent of the individuals pursuing private practice solo and 30 percent pursuing private practice in partnership/group arrangements reported that debt was not a factor in reaching this decision. Almost 20 percent entering private practice solo and a little over 25 percent entering a partnership/group arrangement indicated their debt was a major influencing factor. Debt was more of a factor for individuals entering private practice as associates or employees, with about 32 percent indicating debt was a major factor and 26 percent indicating it was not. Debt was also more of an influencing factor for the individuals who indicated they would be entering practice employed by community health clinics, since only a little over 18 percent indicated debt was not a factor.

Over 52 percent of the seniors pursuing advanced education reported that their level of educational debt was not a factor in making that decision. Less than 10 percent indicated that it was a major factor in making that decision. For the seniors with plans to immediately pursue careers in academia, almost 56 percent indicated debt was not a factor in this decision; a little over 14 percent reported it was a major factor. For individuals pursuing government service, debt was a major factor for almost 51 percent of them; it was not a factor for about 27 percent.

While the influence of debt on immediate career decisions undoubtedly varies from individual to individual, looking at levels of debt by graduation plans (Table 26) shows that, overall, varying levels of debt affect graduation plans. Further, the trends by level of debt correlate with the influences of debt expressed by the seniors. As the levels of debt increased, an increasing percentage of the seniors with higher levels of debt planned to immediately enter private practice, rising from 42.7 percent of seniors reporting no debt to 53.7 percent of seniors with debt greater than $150,000. Also as debt increased, the percentage entering private practice as an associate or in some employee arrangement increased, from 30.4 percent of seniors with no debt to 41.1 percent of seniors with debt greater than $150,000.

Entering private practice solo or in a partnership/group arrangement showed some fluctuation along the continuum of debt levels, but overall not much difference between the percentages reported with no debt through the highest levels of debt. These trends of entering private practice by levels of debt have been similar for the past six years, the time span for which this information has been displayed.

Prior to 2000, seniors with high debt pursued advanced education at about the same rate as individuals with no or low debt. This year, as well as for the past three years, seniors reporting no debt pursued advanced education at a higher rate than seniors with debt. Still, of those with debt, it continues to appear that once a decision has been made to pursue advanced education, debt level is of little influence—with the percent of individuals with the highest levels of debt similar to the overall percent of seniors pursuing advanced education.

Levels of debt did appear to have an inverse influence on decisions to enter government service. As debt increased, the percentage of seniors entering government service decreased, from about 24 percent of seniors with low debt to 6 to 4 percent of seniors with average to high debt. The higher percentages of individuals entering government service that have lower levels of debt is undoubtedly related to the fact that many of these individuals were recipients of uniform services scholarships. Of the relatively few seniors immediately pursuing academia, it appears that the level of debt was not an overly influencing factor.

The survey asked respondents to indicate the primary activity they would have pursued upon graduation if it

---

**Table 25. Percent response to educational debt being a factor influencing immediate plans following graduation, by immediate plan**

<table>
<thead>
<tr>
<th>Immediate Plan</th>
<th>Debt a Major Factor</th>
<th>Debt a Factor</th>
<th>Debt Not a Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo Private Practice</td>
<td>19.5%</td>
<td>39.6%</td>
<td>40.9%</td>
</tr>
<tr>
<td>Partner/Group</td>
<td>25.3%</td>
<td>44.6%</td>
<td>30.1%</td>
</tr>
<tr>
<td>Associate/Employed</td>
<td>31.9%</td>
<td>41.9%</td>
<td>26.2%</td>
</tr>
<tr>
<td>Employed Comm. Clinic</td>
<td>29.6%</td>
<td>52.2%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Total Entering Private Practice</td>
<td>29.8%</td>
<td>42.5%</td>
<td>27.7%</td>
</tr>
<tr>
<td>Advanced Education</td>
<td>9.8%</td>
<td>37.8%</td>
<td>52.4%</td>
</tr>
<tr>
<td>Teach/Research/Admin.</td>
<td>14.3%</td>
<td>30.0%</td>
<td>55.7%</td>
</tr>
<tr>
<td>Government Service</td>
<td>50.9%</td>
<td>21.9%</td>
<td>27.2%</td>
</tr>
<tr>
<td>Undecided/Not Reported</td>
<td>30.4%</td>
<td>29.7%</td>
<td>39.9%</td>
</tr>
</tbody>
</table>
were not for their amount of educational debt, having reported that their level of debt did influence their immediate plans upon graduation (Table 27). Of those immediately pursuing solo private practice, slightly more than 60 percent would still have pursued solo private practice, and 14 percent said that, if not for their amount of debt, they would have pursued advanced dental education. In other categories, 3.2 percent reported they would have pursued academia (teaching/research/administration), and 8.6 percent would have pursued private practice in a partnership/group arrangement and 6.5 percent as an associate.

Almost 60 percent of the individuals immediately entering private practice in a partnership/group arrangement would have continued to do so, regardless of their debt. About 18 percent reported they would have entered solo private practice; over 9 percent would have pursued advanced dental education. Large changes would have occurred in plans following graduation for individuals with immediate plans to enter private practice as associates/employees. Only 39 percent would have remained entering private practice as associates/employees, if not for debt. Nineteen percent would have entered solo private practice, and another 16 percent would have entered into partnership/group arrangements. Almost 16 percent would have pursued advanced dental education, and 2 percent would have pursued academic careers.

Likewise, large changes would have occurred in plans following graduation for individuals with

<table>
<thead>
<tr>
<th>Table 26. Graduation plans by levels of graduating debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Plans</td>
</tr>
<tr>
<td>Solo Private Practice</td>
</tr>
<tr>
<td>Partner/Group Private Practice</td>
</tr>
<tr>
<td>Private Practice—Employed</td>
</tr>
<tr>
<td>Employed Community Clinic</td>
</tr>
<tr>
<td>Total Entering Private Practice</td>
</tr>
<tr>
<td>Advanced Education</td>
</tr>
<tr>
<td>Government Service</td>
</tr>
<tr>
<td>Teaching, Research, Admin.</td>
</tr>
<tr>
<td>Undecided</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 27. Influence of educational debt on immediate plans following graduation</th>
</tr>
</thead>
</table>

| Of Those Who Reported That Debt Influenced Their Immediate Plans to Pursue | Percent who would have pursued these activities upon graduation if not for their level of educational debt |
|----------------------------------------------------------------------------|
|                                                                            | Solo | Partner/ Group | Associate/ Employed | Comm. Clinic | Advanced Education | Teach/ Research/ Admin. | Gov. Service | Undecided | No Change |
| Solo Private Practice (93 of 159)                                          | -    | 8.6%          | 6.5%              | 2.2%         | 14.0%             | 3.2%              | 1.0%        | 4.3%      | 60.2%     |
| Partnership/Group (185 of 269)                                            | 17.8%| -             | 5.9%              | 2.7%         | 9.2%              | 1.1%              | 0.5%        | 3.2%      | 59.5%     |
| Associate/Employed (972 of 1,329)                                         | 19.1%| 15.9%         | -                 | 3.8%         | 15.6%             | 2.0%              | 1.0%        | 3.3%      | 39.2%     |
| Employed Comm. Clinic (57 of 70)                                          | 22.8%| 22.8%         | 7.0%              | -            | 5.3%              | 3.5%              | 0.0%        | 5.3%      | 33.3%     |
| Advanced Education (641 of 1,349)                                         | 5.0% | 6.1%          | 5.3%              | 0.9%         | -                 | 1.4%              | 0.3%        | 3.7%      | 77.2%     |
| Teach/Research/Admin (31 of 70)                                           | 12.9%| 9.7%          | 9.7%              | 0.0%         | 19.4%             | -                 | 3.2%        | 6.5%      | 38.7%     |
| Government Service (203 of 279)                                           | 15.3%| 19.2%         | 13.8%             | 2.5%         | 17.2%             | 0.5%              | -           | 3.4%      | 28.1%     |
| Undecided/Not Report (61 of 108)                                          | 19.7%| 11.5%         | 8.2%              | 4.9%         | 9.8%              | 3.3%              | 3.3%        | -         | 39.3%     |
immediate plans to enter private practice as employees in community clinics. Only a third of the individuals with this plan would have continued to do so if it hadn’t been for their debt. Almost 23 percent indicated they would have entered private practice solo if it hadn’t been for their debt; another 23 percent would have entered private practice or a partnership/group arrangement. Another 5.3 percent would have pursued advanced education, and 3.5 percent would have gone into academia.

Of the seniors immediately pursuing advanced dental education and for whom their level of debt influenced that decision, over 77 percent indicated that they still would have pursued advanced education. Only about 17 percent reported that they would have immediately entered private practice if it hadn’t been for their amount of debt: 5 percent solo, 6.1 percent in partnership/group arrangements, 5.3 percent as associates/employees, and almost 1 percent in community clinics.

Of the small number of individuals who reported plans to immediately pursue academia and for whom debt influenced that decision, almost 39 percent said they would have continued to do so, regardless of their debt. Another third indicated they would have immediately pursued private practice, in one manner or another. Over 19 percent would have pursued advanced education.

Immediately entering government service was another area where major changes in plans would have occurred if not for debt. Only 28.1 percent would have continued with plans to enter government service; 17.2 percent would have pursued advanced education; and over 50 percent would have entered private practice: 19.7 percent solo, 11.5 percent in partnership/group arrangements, 8.2 percent as associates/employees, and 2.5 percent in community clinics.

Again, it is evident that educational debt affects immediate plans following graduation and what those plans might have been if not for debt. This is particularly apparent for individuals whose immediate plans were to enter private practice immediately as associates/employees and those immediately entering government service. Overall, after computing changes from one immediate plan to another, approximately forty more individuals would have pursued academia and almost 235 more would have pursued advanced dental education. Regarding academia, however, seventeen individuals who had plans to immediately enter academia indicated they would have done otherwise if it hadn’t been for their debt.

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**Long-Term Plans for Practice and Education**

Seniors were asked to indicate their intended activity ten years after graduation (Table 28). Over the last five years, intended future practice ownership, either as sole owner or as an owner in a partnership or group practice, has fluctuated between 85 and 89 percent. It was 87.1 percent in 2003. This continues to be up from 81 percent of the seniors during the early 1990s expressing such long-range plans. The increase primarily has come through plans for entering partnership or group arrangements, rather than the entering of solo practices. At ten years after graduation, 3.5 percent of the seniors indicated that they plan to be in a private practice associate or employee status. While 1.9 percent of the seniors at the time of graduation indicated they would be employed at community clinics, this apparently was not a long-range plan for over half of them. Only 0.7 percent of the seniors reported this as a long-term plan.

In the aggregate, future plans of ownership by today’s seniors are similar to actual ownership by today’s practitioners, as reported by the American Dental Association in its 2001 Survey of Dental Practice (93.0 percent own their practice—76 percent as sole owner and 17 percent in partnership). However, as has been the tendency over the years of the senior survey, a far larger number of seniors report plans to be in partnerships than what actually occurs.

Only 1.6 percent of the seniors indicated future plans in academia, less than the 1.9 percent who indicated such plans upon graduation. However, when asked whether their immediate or long-range plans included teaching on a part-time basis, 46.5 percent indicated such plans.

There were differences in long-term plans by gender (Table 29). Over 42 percent of the males indicated future plans of solo private practice, whereas about 33 percent of the females did so. More females had future plans of partnership arrangements (51.2 percent) or remaining in an employee status (5.5 percent) than did males. Of the individuals with long-range plans for academia, slightly more were women than men. These trends are similar to what has been reported in previous years.

**Practice Location Preferences**

Practice location plans of seniors entering practice were predominantly toward larger metropolitan
and urban/suburban areas (Table 30). Almost 60 percent of the practice settings were to be in metropolitan areas greater than 100,000 population; 11.8 percent in metropolitan areas with 50,000 to 99,999 population; and 18.4 percent in practice settings in urban/suburban areas of 25,000 to 49,999 population. About 6 percent of the practice settings were to be in urban/suburban areas with populations of 10,000 to 24,999. Slightly more than 4 percent were in urban/rural areas with populations of less than 10,000.

Table 31 presents seniors’ practice location plans by race/ethnicity. Readers should exercise caution in interpreting these findings due to the small number of responses that comprise some of the cells. It appears that minority seniors had a greater tendency to enter practice in larger metropolitan areas than white seniors, whereas white seniors indicated a slight tendency for entering practice in the smaller metropolitan, urban, and suburban areas. Relatively few seniors had plans to enter practice in areas with populations under 10,000.

Based on their planned practice location, seniors were asked to indicate the percent of patients they expected would be from underserved areas. Almost 29 percent of the black/African American seniors indicated they expected that over 50 percent of their patients would be from underserved areas (Table 31).
This number was 15.5 percent for Hispanic/Latino seniors, 12.5 percent for Native American seniors, and 9.0 and 3.1 percent respectively for Asian/Pacific Islander and white seniors. These data continue to confirm the trend that minority graduates tend to establish their practices in areas serving underserved populations at a greater rate than white graduates, particularly for black/African American graduates.

Community-Based Dental Education

With increasing attention being given to roles and responsibilities in addressing issues of access to oral health care for underserved populations, a series of questions was added to the 2003 senior survey regarding community-based dental education and extramural clinical rotations. Table 33 presents the frequency, by week, for the reported time seniors would be spending during their senior year on extramural clinical rotations, providing (not just observing) oral health care. Almost 50 percent of the seniors reported they would be spending from one to four weeks providing care through one or more extramural clinical rotations; 12.5 percent would be spending twelve or more weeks providing care through one or more extramural clinical rotations; and 14.5 percent indicated they would not be providing care at extramural clinics.

On average, about 5 percent of the seniors who reported one to four weeks of extramural rotation indicated the amount of time was excessive (Table 34). This rose to about 13 percent of the seniors who reported five to twelve or more weeks at extramural clinics, regardless of whether it was five weeks or more than twelve weeks. Over 48 percent of the seniors who reported one week of extramural rotation reported the time was inadequate. This dropped to about 30 percent of the seniors who had two or three weeks of extramural rotation. Between 17 and 22 percent of the seniors who reported four to six weeks of extramural rotation reported the time was inadequate. An inadequate amount of time was indicated by about 15 percent of the seniors with seven to eleven weeks of extramural rotation. About 8 percent of the seniors with twelve or more weeks indicated their time was inadequate. Over 63 percent of

<table>
<thead>
<tr>
<th>Number of Weeks</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7-11</th>
<th>12 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.5%</td>
<td>11.0%</td>
<td>16.9%</td>
<td>10.3%</td>
<td>10.4%</td>
<td>7.0%</td>
<td>6.0%</td>
<td>11.4%</td>
<td>12.5%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Weeks</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7-11</th>
<th>12 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate</td>
<td>63.6%</td>
<td>48.4%</td>
<td>31.6%</td>
<td>29.8%</td>
<td>20.4%</td>
<td>17.3%</td>
<td>22.0%</td>
<td>15.2%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Excessive</td>
<td>-</td>
<td>3.2%</td>
<td>6.0%</td>
<td>4.2%</td>
<td>7.5%</td>
<td>13.6%</td>
<td>13.4%</td>
<td>12.9%</td>
<td>12.8%</td>
</tr>
</tbody>
</table>

Table 33. Percent of seniors, by number of weeks, expected to be providing oral health care on extramural clinical rotations

Table 34. Time at extramural rotations was inadequate or excessive, by number of weeks on extramural rotations
the seniors who reported no extramural rotations said that having no such time was inappropriate.

Fifty-five percent of the seniors judged that, for comparable periods of time, they provided less treatment in extramural clinical rotations than they did in the main school clinic. A little over 18 percent judged that the amount of treatment was comparable, and almost 27 percent reported they judged themselves more productive at extramural rotations, providing more care in those settings, for comparable periods of time, than at the main school clinic.

The seniors were asked to rate their perception of technical quality and how patients were treated as people at the main school and extramural clinics (Table 35). Overall, the technical quality of care was perceived to be better at the main school clinic, with slightly more than 75 percent of the seniors reporting technical quality was more than satisfactory at this setting. Technical quality was reported more than satisfactory at extramural settings by slightly more than 56 percent of the seniors. There was a slightly higher rating of how patients were treated as people at main school clinics than at extramural clinics.

There were significant differences expressed in levels of participation in quality assurance activities between main school and extramural clinics (Table 36). Almost 42 percent of the seniors reported they never participated in quality assurance activities (as chart audits and critical incident reviews) at their extramural clinic rotations. This was slightly more than 13 percent at their main school clinics.

Emphasis on preventive orientation and services provided (Table 37) was higher at the main school clinics than at the extramural clinics, at 55.4 percent somewhat high to high at main school clinics versus 32.5 percent somewhat high to high at extramural clinics. This was reported low by 3.4 percent of the seniors for main school clinics, but by 12.6 percent of the seniors for extramural clinics.

Almost 25 percent of the seniors indicated that their extramural experiences had little or no effect on their ability to provide care to racially, ethnically, and culturally diverse groups, whereas over 75 percent indicated the experiences did somewhat to highly affect these abilities, with one-third of the seniors reporting it was a high to very high effect (Table 38). However, 58.6 percent of the seniors reported the extramural clinical experiences had little or no effect on their practice location plans. Eleven percent indicated these experiences did highly affect their practice location plans, with 3.4 percent reporting the experiences very highly affected the plans.

Almost 8 percent of the seniors reported that their extramural clinical rotations were a negative or very negative experience; 30.1 percent considered the experiences "neutral"; and 61.6 percent indicated the experiences were positive to very positive, with over 25 percent reporting them very positive.

Table 35. Rating of technical quality and treatment of patients at main school clinics and extramural clinics

<table>
<thead>
<tr>
<th>Technical Quality</th>
<th>Very Poor</th>
<th>-</th>
<th>Satisfactory</th>
<th>-</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Clinic</td>
<td>1.0%</td>
<td>2.2%</td>
<td>21.7%</td>
<td>49.4%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Extramural Clinic</td>
<td>1.8%</td>
<td>5.2%</td>
<td>36.8%</td>
<td>40.2%</td>
<td>16.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment of Patients</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Clinic</td>
<td>2.6%</td>
<td>4.7%</td>
<td>24.4%</td>
<td>41.2%</td>
<td>27.1%</td>
</tr>
<tr>
<td>Extramural Clinic</td>
<td>2.0%</td>
<td>5.1%</td>
<td>31.1%</td>
<td>40.2%</td>
<td>21.7%</td>
</tr>
</tbody>
</table>

Table 36. Participation in quality assurance activities

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Clinic</td>
<td>13.2%</td>
<td>21.8%</td>
<td>33.5%</td>
<td>31.5%</td>
</tr>
<tr>
<td>Extramural Clinic</td>
<td>41.9%</td>
<td>26.9%</td>
<td>21.0%</td>
<td>10.2%</td>
</tr>
</tbody>
</table>

Table 37. Comparative emphasis on preventive orientation and services provided

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>-</th>
<th>-</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Clinic</td>
<td>3.4%</td>
<td>7.0%</td>
<td>34.3%</td>
<td>32.8%</td>
</tr>
<tr>
<td>Extramural Clinic</td>
<td>12.6%</td>
<td>17.1%</td>
<td>37.8%</td>
<td>19.3%</td>
</tr>
</tbody>
</table>

Table 38. Effect of extramural experiences on abilities to care for diverse groups and practice plans

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>-</th>
<th>Somewhat</th>
<th>-</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to care for diverse groups</td>
<td>10.8%</td>
<td>13.9%</td>
<td>41.7%</td>
<td>21.0%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Practice plans</td>
<td>33.8%</td>
<td>24.8%</td>
<td>29.9%</td>
<td>7.6%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>
Seniors were also asked to provide their perception of the cultural and social environment of their school promoting the acceptance and respect of students and patients of different races, ethnicities, and cultures (Table 39). Eighty-six percent of the seniors reported that they thought their school had a cultural and social environment that did promote the acceptance and respect of students and patients of different races, ethnicities, and cultures. Slightly more than 14 percent disagreed or strongly disagreed with this statement. By race/ethnicity, 27.6 percent of the Native American seniors and 23.4 percent of the black/African American seniors indicated that they thought their schools did not have an environment that promoted the acceptance and respect of students and patients of different races, ethnicity, and cultures. This was in the area of 12 to 14 percent for Asian/Pacific Islander, Hispanic/Latino, and white seniors.

About two-thirds of the seniors indicated that they thought low-income individuals and populations were more challenging to serve because they presented with so many problems. By race/ethnicity, between 65 and 71 percent of Asian/Pacific Islander, Hispanic/Latino, and white seniors agreed or strongly agreed with this statement. However, only 48.5 percent of black/African American seniors agreed or strongly agreed with the statement.

Between 82 and 84 percent of Asian/Pacific Islander, Hispanic/Latino, and white seniors agreed or strongly agreed that providing oral health care to underserved individuals or populations was challenging because they often lacked personal or public financial resources to pay for it. Only about 71 percent of black/African American seniors agreed or strongly agreed with the statement.

The 2003 survey included a series of questions regarding issues of access to oral health care. Over 79 percent of the respondents agreed or strongly agreed that access to oral health care was a societal good and right (Table 40). A larger percentage of the

<table>
<thead>
<tr>
<th>Table 39. Environment of the school promotes acceptance and respect of students and patients of different races, ethnicities, and cultures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity of Respondents</td>
</tr>
<tr>
<td>All Respondents</td>
</tr>
<tr>
<td>Native American</td>
</tr>
<tr>
<td>Asian/Pacific Islanders</td>
</tr>
<tr>
<td>Black/African American</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
</tr>
<tr>
<td>White</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 40. Access to oral health care is a societal good and right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity of Respondents</td>
</tr>
<tr>
<td>All Respondents</td>
</tr>
<tr>
<td>Native American</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
</tr>
<tr>
<td>Black/African American</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
</tr>
<tr>
<td>White</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 41. Access to oral health care is a major problem in the United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity of Respondents</td>
</tr>
<tr>
<td>All Respondents</td>
</tr>
<tr>
<td>Native American</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
</tr>
<tr>
<td>Black/African American</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
</tr>
<tr>
<td>White</td>
</tr>
</tbody>
</table>
Asian/Pacific Islander, black/African American, and Hispanic/Latino respondents agreed or strongly agreed (82.2 to 85.5 percent) than white respondents (76.8 percent).

Almost 71 percent of the respondents agreed or strongly agreed that access to oral health care is a problem in the United States (Table 41). (In a similar question posed to senior medical students in their 2003 medical school graduation questionnaire administered by the Association of American Medical Colleges, 85 percent of the respondents agreed or strongly agreed that access to medical care continued to be a major problem in the United States.) There was an overall similarity of agreement by race/ethnicity, though black/African American respondents had a higher percentage strongly agreeing with the statement.

Almost 82 percent of the respondents agreed or strongly agreed that ensuring and providing care to all segments of society are ethical and professional obligations (Table 42). By race/ethnicity, over 21 percent of the white respondents disagreed or strongly disagreed with this statement; whereas this number was between 18 and 18.6 percent of the Asian/Pacific Islander, black/African American, and Hispanic/Latino respondents.

Table 42. Ensuring and providing care to all segments of society is an ethical and professional obligation

<table>
<thead>
<tr>
<th>Race/Ethnicity of Respondents</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents</td>
<td>25.0%</td>
<td>56.8%</td>
<td>15.7%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Native American</td>
<td>27.6%</td>
<td>48.3%</td>
<td>24.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>27.7%</td>
<td>59.4%</td>
<td>11.4%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>41.4%</td>
<td>45.1%</td>
<td>10.5%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>37.3%</td>
<td>53.5%</td>
<td>7.0%</td>
<td>2.2%</td>
</tr>
<tr>
<td>White</td>
<td>21.5%</td>
<td>57.1%</td>
<td>18.4%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Table 43. Everyone is entitled to receiving basic oral health care regardless of ability to pay

<table>
<thead>
<tr>
<th>Race/Ethnicity of Respondents</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents</td>
<td>20.0%</td>
<td>54.4%</td>
<td>21.3%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Native American</td>
<td>17.9%</td>
<td>50.0%</td>
<td>32.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>23.9%</td>
<td>57.5%</td>
<td>16.2%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>33.8%</td>
<td>48.1%</td>
<td>15.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>31.7%</td>
<td>50.0%</td>
<td>15.6%</td>
<td>2.7%</td>
</tr>
<tr>
<td>White</td>
<td>16.5%</td>
<td>54.3%</td>
<td>24.0%</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

Plans for Postdoctoral and Specialty Education

Table 44 shows that 49 percent of the year 2003 survey respondents applied to one or more programs of postdoctoral dental education. This continues the slight year-to-year increases that have occurred since 1999 and now exceeds the peak percent reported in 1998.

Over the past eight years, dental seniors have been asked their opinion of a required year of postdoctoral dental education (Table 45). While 49 percent of the seniors applied for postdoctoral education, less than 30 percent state that it should be required.

The percent of seniors applying to a general practice residency (GPR) program or a program of advanced education in general dentistry (AEGD) was 29.4 percent, little changed from the 29.9 percent in 2002 (Table 46 and Figure 6). At the time of the survey, 25.8 percent of the seniors indicated they had been accepted to a GPR/AEGD program. Thus 87.6
percent of the individuals who had applied to a GPR/AEGD program had been accepted. While this is similar to the percentage accepted in 2002, it is down from the 90 to 92 percent acceptance rates seen prior to 2002.

The percentage of seniors applying to a specialty program in 2003 was 23.6 percent, down slightly from the 24.6 percent of 2002. At the time of the survey, 16.6 percent of the seniors indicated they had been accepted to a specialty program. The percent of the seniors indicated that they had not been accepted was 5.6. Thus at the time of completing the 2003 senior survey, of the seniors who had applied to specialty programs, 70 percent had been accepted, most similar to the acceptance rate of 2002. The several years prior to that had acceptance rates around 75 percent or higher.

Over the past several years, while the number of seniors applying to postdoctoral programs was increasing, the rate of acceptance of those that applied declined slightly.

Orthodontics, most significantly, continues to be the dental specialty most pursued by graduating seniors, with 28.9 percent of the senior applicants to specialty programs in 2003 (Table 47). However, there was a decline in this percentage from that of 2002 (31.5 percent). Pediatric dentistry also had a decline, after two years of increases, falling from 23.5 to 19.9 percent. The declines in orthodontics and pediatric dentistry were offset by slight increases in the other specialty areas.

Over 200 seniors indicated they had applied to dental school-sponsored advanced dental education programs that offer certificates or degrees, but are not accredited by the Commission on Dental Education. These include programs such as operative/restorative dentistry (forty applicants), oral biology (thirty-two applicants), oral science (seventeen applicants), biomaterials (nine applicants), and anesthesiology (seven applicants). With such a variety of advanced dental education programs, the largest category was Other, with eighty-nine applicants.

Fifty seniors indicated they were pursuing education in nondental areas. Basic science had the largest number at twenty-one, followed by business administration (ten) and behavioral science (five). Medicine and education each had three; law had one.

### Table 44. Pursuit of postdoctoral education

<table>
<thead>
<tr>
<th>Applied for Training</th>
<th>Did Not Apply for Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>48.4%</td>
</tr>
<tr>
<td>1999</td>
<td>45.7%</td>
</tr>
<tr>
<td>2000</td>
<td>47.2%</td>
</tr>
<tr>
<td>2001</td>
<td>47.6%</td>
</tr>
<tr>
<td>2002</td>
<td>48.9%</td>
</tr>
<tr>
<td>2003</td>
<td>49.0%</td>
</tr>
</tbody>
</table>

### Table 45. Required postdoctoral education

| 1996 | 29.3% | 63.1% | 7.5% | - |
| 1997 | 26.5% | 66.3% | 7.2% | - |
| 1998 | 25.7% | 66.8% | 7.4% | - |
| 1999 | 25.6% | 65.5% | 8.9% | - |
| 2000 | 27.2% | 70.9% | NA | 1.9% |
| 2001 | 27.7% | 69.1% | NA | 3.2% |
| 2002 | 31.6% | 64.5% | NA | 3.9% |
| 2003 | 28.5% | 65.4% | NA | 6.1% |

### Table 46. Percent of respondents applying and accepted to postdoctoral dental programs

<table>
<thead>
<tr>
<th>GPR or AEGD</th>
<th>% Who Applied</th>
<th>% Accepted</th>
<th>% Not Accepted</th>
<th>% Being Evaluated</th>
<th>% Withdrew</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>23.2%</td>
<td>18.9%</td>
<td>4.3%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1990</td>
<td>38.1%</td>
<td>29.2%</td>
<td>8.9%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1992</td>
<td>36.9%</td>
<td>30.9%</td>
<td>6.0%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1994</td>
<td>30.8%</td>
<td>28.4%</td>
<td>1.5%</td>
<td>0.9%</td>
<td>NA</td>
</tr>
<tr>
<td>1996</td>
<td>29.5%</td>
<td>27.8%</td>
<td>0.7%</td>
<td>1.0%</td>
<td>NA</td>
</tr>
<tr>
<td>1998</td>
<td>29.4%</td>
<td>25.9%</td>
<td>2.6%</td>
<td>0.8%</td>
<td>NA</td>
</tr>
<tr>
<td>1999</td>
<td>25.6%</td>
<td>23.6%</td>
<td>1.5%</td>
<td>0.5%</td>
<td>NA</td>
</tr>
<tr>
<td>2000</td>
<td>28.6%</td>
<td>25.5%</td>
<td>2.1%</td>
<td>0.9%</td>
<td>NA</td>
</tr>
<tr>
<td>2001</td>
<td>28.8%</td>
<td>26.2%</td>
<td>1.0%</td>
<td>1.6%</td>
<td>NA</td>
</tr>
<tr>
<td>2002</td>
<td>29.9%</td>
<td>26.4%</td>
<td>2.2%</td>
<td>1.4%</td>
<td>NA</td>
</tr>
<tr>
<td>2003</td>
<td>29.4%</td>
<td>25.8%</td>
<td>1.7%</td>
<td>0.8%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialty</th>
<th>% Who Applied</th>
<th>% Accepted</th>
<th>% Not Accepted</th>
<th>% Being Evaluated</th>
<th>% Withdrew</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>17.9%</td>
<td>11.5%</td>
<td>6.4%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1990</td>
<td>21.9%</td>
<td>14.2%</td>
<td>7.7%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1992</td>
<td>22.3%</td>
<td>14.5%</td>
<td>7.8%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1994</td>
<td>19.1%</td>
<td>14.3%</td>
<td>4.2%</td>
<td>0.6%</td>
<td>NA</td>
</tr>
<tr>
<td>1996</td>
<td>18.4%</td>
<td>14.1%</td>
<td>3.4%</td>
<td>0.9%</td>
<td>NA</td>
</tr>
<tr>
<td>1998</td>
<td>21.8%</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>NA</td>
</tr>
<tr>
<td>1999</td>
<td>16.9%</td>
<td>13.4%</td>
<td>3.1%</td>
<td>0.5%</td>
<td>NA</td>
</tr>
<tr>
<td>2000</td>
<td>17.1%</td>
<td>13.1%</td>
<td>3.5%</td>
<td>0.6%</td>
<td>NA</td>
</tr>
<tr>
<td>2001</td>
<td>22.8%</td>
<td>15.9%</td>
<td>0.7%</td>
<td>6.1%</td>
<td>NA</td>
</tr>
<tr>
<td>2002</td>
<td>24.6%</td>
<td>17.0%</td>
<td>6.5%</td>
<td>1.1%</td>
<td>NA</td>
</tr>
<tr>
<td>2003</td>
<td>23.6%</td>
<td>16.6%</td>
<td>5.6%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

*High error rate in respondents following a survey skip pattern led to insufficient data for these fields.
Figure 7. Percent of respondents applying and accepted to postdoctoral education programs

Table 47. Percent of applicants to specialty programs by type of program

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthodontics</td>
<td>28.0%</td>
<td>30.6%</td>
<td>34.6%</td>
<td>33.3%</td>
<td>34.3%</td>
<td>32.1%</td>
<td>29.4%</td>
<td>32.7%</td>
<td>31.5%</td>
<td>28.9%</td>
</tr>
<tr>
<td>Oral Max. Fac. Surg.</td>
<td>23.3%</td>
<td>23.7%</td>
<td>22.6%</td>
<td>27.4%</td>
<td>16.8%</td>
<td>18.5%</td>
<td>17.9%</td>
<td>15.4%</td>
<td>17.0%</td>
<td>17.8%</td>
</tr>
<tr>
<td>Periodontics</td>
<td>16.1%</td>
<td>12.3%</td>
<td>10.9%</td>
<td>11.0%</td>
<td>10.4%</td>
<td>9.4%</td>
<td>9.2%</td>
<td>10.2%</td>
<td>9.9%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Pediatric Dentistry</td>
<td>11.6%</td>
<td>16.4%</td>
<td>15.5%</td>
<td>20.4%</td>
<td>19.5%</td>
<td>18.5%</td>
<td>18.7%</td>
<td>20.3%</td>
<td>23.5%</td>
<td>19.9%</td>
</tr>
<tr>
<td>Endodontics</td>
<td>11.1%</td>
<td>11.6%</td>
<td>9.6%</td>
<td>11.0%</td>
<td>12.5%</td>
<td>15.0%</td>
<td>17.8%</td>
<td>14.6%</td>
<td>12.1%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Prosthodontics</td>
<td>8.0%</td>
<td>6.0%</td>
<td>5.0%</td>
<td>5.7%</td>
<td>4.8%</td>
<td>4.7%</td>
<td>5.1%</td>
<td>5.6%</td>
<td>5.2%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Oral Pathology</td>
<td>0.6%</td>
<td>0.2%</td>
<td>1.1%</td>
<td>0.8%</td>
<td>0.9%</td>
<td>1.1%</td>
<td>1.2%</td>
<td>0.7%</td>
<td>0.5%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Pub. Health Dentistry</td>
<td>1.3%</td>
<td>0.6%</td>
<td>0.7%</td>
<td>0.6%</td>
<td>0.8%</td>
<td>0.8%</td>
<td>0.8%</td>
<td>0.5%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Oral Radiology</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.3%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>