The Private Practice of Prosthodontists: Current and Future Conditions of Practice in the United States (Part 2)

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Purpose: **Data are used to examine current and future conditions important to the private practice of prosthodontics. A concern is raised as to whether the future supply of prosthodontists is in sync with the dynamics of the US population and patient population.**

Materials and Methods: **Four trends are examined using data from various sources. The trends include: (1) growth in the number of private practicing prosthodontists, (2) projections of the future number of private practicing prosthodontists, (3) first year enrollment in dental schools, and (4) enrollments and graduates in residency programs.**

Results: **The number of private practicing prosthodontists has increased modestly over the past 21 years, growing 1.33% per year. The number of private practitioners is projected to reach 4,125 in 2025. A key variable in this projection is the growing number of elderly adults. While dental school enrollments have been increasing, concern is raised about the amount of exposure by students to an undergraduate curriculum in prosthodontics. There has been a general decline in enrollment in the nation's prosthodontics residency programs at the rate of −2.9% per year. An average of 181 program graduates are needed to achieve the 4125 projected number of private practitioners.**

Conclusion: **Increasing demand for services from prosthodontists is supported by an increasing US population size and a growing population of elderly. Efforts to grow the number of private practicing prosthodontists will have to consider several concerns including residency program enrollments, undergraduate exposure to prosthodontics, and the overall economic returns expected from engaging in the private practice of prosthodontics. Choosing a career as a private practicing prosthodontist is a timely consideration and complimented by expected increases in demand for care and favorable financial returns to practice.**

INDEX WORDS: prosthodontists, trends, projections, economic, financial, private practice, specialty

A RECENT REPORT from the American Dental Association (ADA) states, "Overall, the U.S. population's access to dental care is excellent. Most Americans today receive the oral health care services they need and want".[1] Access to care is achieved when individuals who are willing and able to pay for care can readily obtain it. An imbalance between the supply of care and demand for care leads to deterioration in access. The data and information presented in this article can be used to help assess the current and future conditions related to private practice of prosthodontists. Projections of the US population by the US Census Bureau indicate continued growth and diversity in future years as well as an aging of the population.[2] The size and growth of the population are keys to the growth in demand for care by prosthodontists and ultimately the growth in the number of practicing prosthodontists. The supply of private practicing prosthodontists has been modestly increasing over the past two decades.[3] An issue of concern is raised in this report regarding whether the future supply of prosthodontists is in sync with the dynamics of the US population and patient population so that access to treatment from a prosthodontist does not become difficult.

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Materials and Methods

Four trends are examined in relation to the private practice of prosthodontics using various sources of data. First, the historical growth in private practice of prosthodontists is determined using ADA-published data from 1982 to 2003. The year 2003 is the most recent year of publication of the number and geographic distribution of dentists and specialists in the United States.[4] A statistical regression model is used to project the number of private practicing prosthodontists by incorporating the following: the historical data from the ADA,[3] projections of the numbers of active private practitioners, applicants to dental school,[5] and projections of the US resident population by age and gender from the US Census Bureau.[2]

The second trend is based on the US Census Bureau projection of a shifting in the age distribution of the population toward older age groups. A comparison of the age distribution of patients with the shifting age distribution of the population is made using data from a 2005 survey of prosthodontists[6] sponsored by the American College of Prosthodontists (ACP).

For the third trend, dental school applicants and admissions are examined using results from the ADA's surveys of dental education.[7] These trends are examined for their implications for the future growth in the profession of prosthodontics.

A fourth trend based on the historical size of prosthodontics residency programs in the United States is examined using data from the ADA's surveys of advanced dental education.[8] A projection of future residency program size is made using a basic inflow (enrollments/graduates) and outflow (retirements) model. The object of this projection is to identify, using various assumptions, the required residency program sizes (in the aggregate) necessary to meet the future projection of private practicing prosthodontists.

Results

In 2003, the number of private practicing specialists in the United States reached 30,636 and represented 19.1% of all private practitioners. Ninety-eight percent of private practicing specialists are oral and maxillofacial surgeons, endodontists, orthodontists, pediatric dentists, periodontists, and prosthodontists (not included are public health dentists, oral and maxillofacial pathologists, and oral and maxillofacial radiologists). As shown in Figure 1, orthodontists comprise the largest group of specialists, but have grown only 0.9% per year since 1982 (annual percentage growth rates shown on the bars). Endodontists are the fifth largest specialty and have grown an average of 3.6% per year since 1982. The number of prosthodontists in private practice in the United States increased from 2001 in 1982 to 2639 in 2003 (Figs 1 and 2).[3] This increase represents an average annual growth rate of 1.33% over the 21-year period since 1982 and compares to an average annual growth rate of 1.08% in the US population,[9] 1.52% for national dental expenditures,[10] 1.56% for the number of general practitioners,[3] and 1.75% for all specialty groups combined.[3]

Figure 2 also includes a projection of 4125 private practicing prosthodontists by the year 2025. The projection estimate was based on data

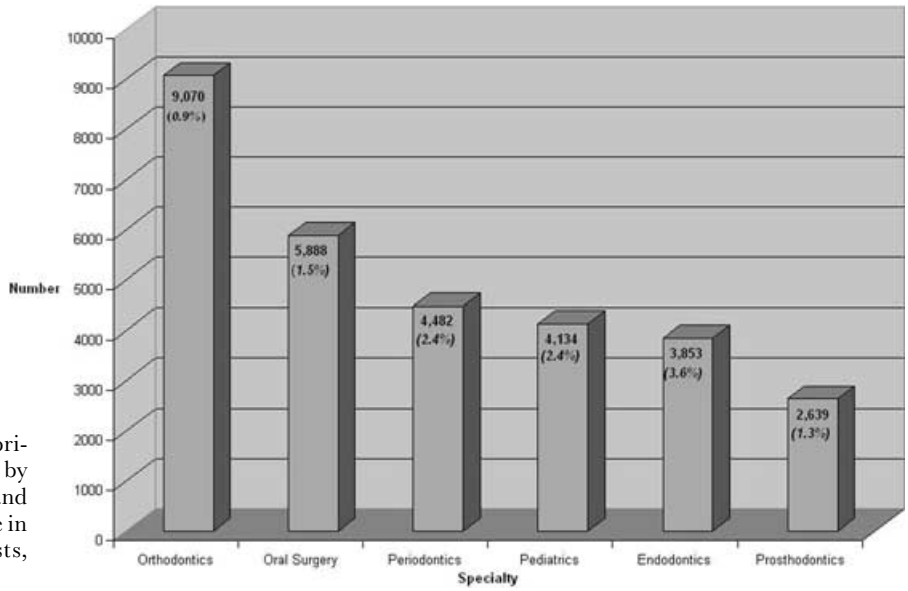

Figure 1. Number of private practicing specialists by dental specialty in 2003 and annual percentage change in the number of specialists, 1982–2003.

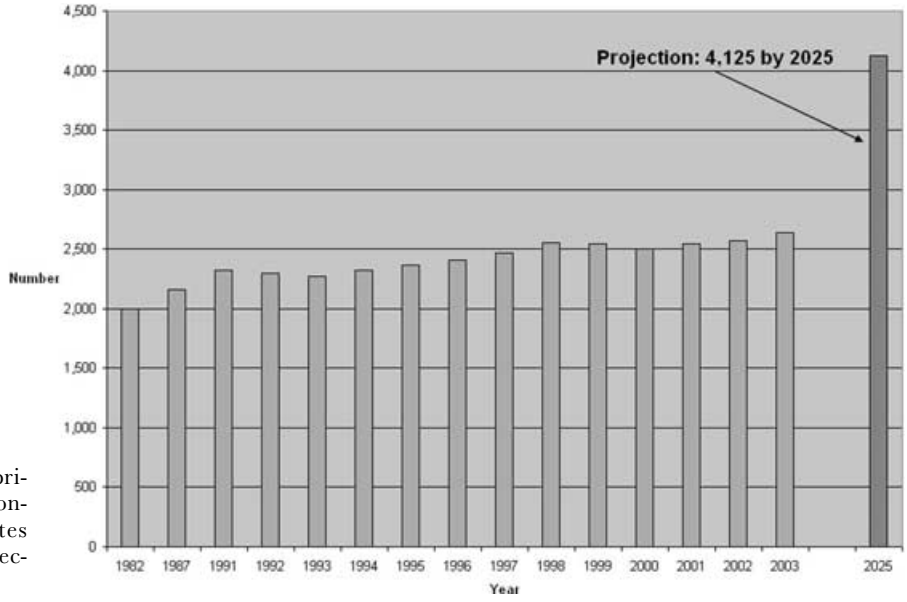

Figure 2. Number of private practicing prosthodontists in the United States (1982–2003) and a projection for the year 2025.

published by the ADA in 2005.[5] The data include historical trends and projections of the number of private practicing dentists in the United States, the number of active dentists in the United States, applicants to dental school, US resident population, and population-to-dentist ratios for the years 1992–2003. Projections of these same variables are also shown for the five years of 2005, 2010, 2015, 2020, and 2025 (Table 1). The ADA data were supplemented with historical trends[11] and projections[12] of the size of the US population aged 55 years or older.

Multiple regression analysis was used to estimate a linear statistical relationship between the number of private practicing prosthodontists (1992–2003) and three independent variables. The independent regression variables shown in Table 1 include the size of the US population per

Table 1. Multiple Regression Analysis: Dependent and Independent Variables (1992–2003) and Projected Independent Variables (2005, 2010, 2015, 2020, and 2025)[5]

Year	*Prosthodontists in Private Practice (dependent)*	*US Population per Dentist in Private Practice*	*Applicants to Dental School*	*US Population 55 Years or Older*
1992	2299	1833.1	6108	53,216
1993	2275	1822.7	6753	53,727
1994	2325	1819.9	7713	54,219
1995	2363	1822.7	8437	54,752
1996	2404	1829.5	8872	55,309
1997	2472	1845.0	9829	56,001
1998	2550	1823.1	9447	57,053
1999	2543	1834.0	9010	57,929
2000	2501	1841.8	7770	59,259
2001	2545	1823.7	7412	60,366
2002	2566	1826.0	7538	62,167
2003	2639	1827.1	7987	63,776
2005		*1811.9*	*10,531*	*67,072*
2010		*1828.2*	*11,024*	*76,429*
2015		*1864.3*	*11,912*	*87,201*
2020		*1914.8*	*11,607*	*97,363*
2025		*1986.5*	*11,801*	*104,944*

Years and data in italics are for the five projection years.

private practicing dentist in the United States, the number of applicants to dental school, and the size of the US population 55 years and older. Results of the regression analysis, shown in Table 2, resulted in a linear equation used to project the number of private practicing prosthodontists in each of the five projection years using the corresponding historical and projected values of the independent variables from Table 1.[5] The linear estimating equation is shown as follows:

$$\text{pros} = -468.3 + 0.4771(\text{popprv}) + 0.0372(\text{apps}) + 0.0306(\text{age55}), \quad (1)$$

where:

pros = the number of private practicing prosthodontists (the dependent variable)
popprv = the size of the US population per private practicing dentist
apps = the number of applicants to dental school
age55 = the size of the US population aged 55 years or older

Figure 2 contains the historical and projected 4125 private practicing prosthodontists by the year 2025. The estimated regression resulted in an adjusted R-square of 0.927 and a standard error of the forecast ranging from 40.9 in 1992 to 236.3 for the projection year of 2025 (not shown). The 95% forecast confidence interval around the projection for 2025 is 4,125 ± 506.7 (3618–4631).[13] Based on the forecast of 4125 in 2025, the growth in the number of private practicing prosthodontists is projected to be 1.70% per year for the period 1982–2025. This implies that growth in the number of private practicing prosthodontists has to be as high as 2.05% per year from 2003 to 2025 to achieve 4125 private practicing prosthodontists in the year 2025. This rate of growth is about twice the rate of growth in the US population, but it reflects the higher rate of growth expected among the older age groups of the US population.

The expected growth in the older age groups of the US population is an important dynamic for the private practice of prosthodontics as is shown in Figure 3. Figure 3A indicates that 65% of the growth in population from 2000–2040 is expected to occur among the population aged 45 years and older.[12] In comparison, 61% of prosthodontics patients are 55 years and older, and 86% are 35 years and older (Fig 3B).[6] The age groups in the US population expected to grow the most in the next 30 years are the same age groups of patients treated most frequently by prosthodontists.

Prosthodontists reported that they spent 21% of their time in 2001 and 22% in 2004 rendering complete dentures and removable partial dentures (RPDs).[6,14] The ADA reported that the total number of denture insertions including partials, complete maxillary, and complete mandibular dentures has increased over the period of 1979–1999 (Fig 4).[15,16] While the data are somewhat aged (more recent results from the ADA are forthcoming from a survey taken in 2005), these prosthodontic services are still increasing, but that rate of increase appears to be slowing, based on data between 1990 and 1999. The same ADA reports indicated an increase in fixed prosthodontics and implant services. Although the latter were not reported in 1979, they increased between 1990 and 1999.[15,16] Based on treatment time, prosthodontists in private practice reported that they spent 16.3% of their time in 2001 and 19.2% in 2004

Table 2. Results of a Multiple Regression Analysis of the Number of Prosthodontists in Private Practice, 1992–2003 (dependent variable = number of prosthodontists in private practice)

Independent Variables	*Mean*	*Regression Coefficient*	*Calculated t-value*
Population per private practitioner	1843.7	0.477	0.037
Applicants to dental school	8073.0	0.037	3.960
Population 55 years or older	57,324.5	0.031	10.700
Constant term	–	−468.261	−0.20
Summary Statistics			
Sample size	12		
Adjusted R-square	0.927		
Standard error of the forecast	236		
F(3,8) Statistic	47.190		

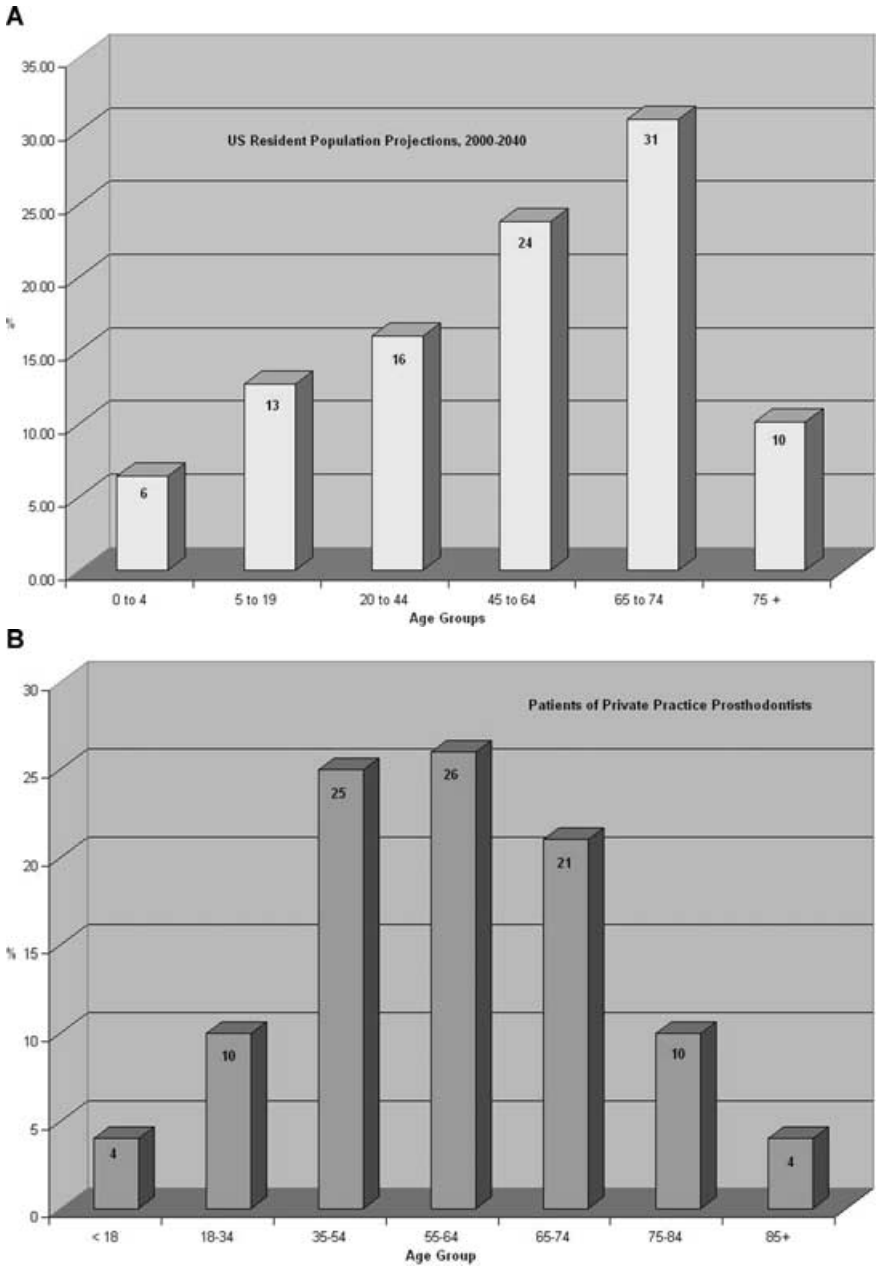

Figure 3. (*A*) Percentage growth of the US population in each age group, 2000–2040. (*B*) Patients of private practicing prosthodontists by age group, 2004.

rendering implant services, including surgical placements and implant surgical placements.[6,14] As members of an ADA-recognized dental specialty, prosthodontists are providers of complete dental implant services with respect to offering both surgical and restorative treatment. The impact of including a greater scope of implant care is a shift in the private practice treatment profile in response to an increase in the demand for the clinical services by prosthodontists.

Although it appears that basic prosthodontic care has been increasing in the United States over the past three decades, other data have been used to suggest a concern for growth in the future. One source of data is derived from the National Health and Nutrition Examination Surveys (NHANES) conducted by the Centers for Disease Control.[17] NHANES is a program to assess the health and nutritional needs of children and adults in the United States. This program uses both interviews and

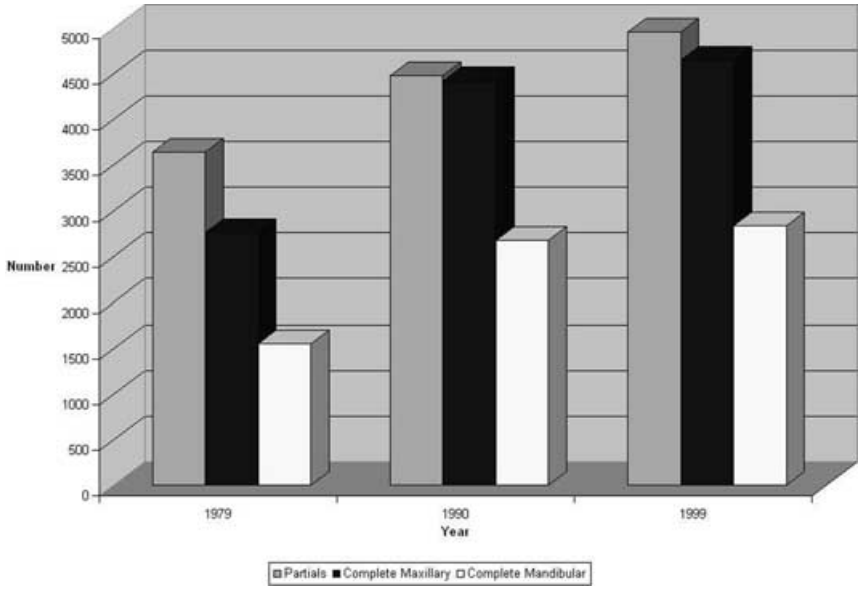

Figure 4. Number of denture insertions in the United States by private practicing dentists and prosthodontists, 1979, 1990, and 1999.

health examinations for collecting data and health information, and is based on a nationally representative sample of individuals in the United States. The first program was conducted and reported as NHANES I, 1971–1975. Over time, results from the NHANES program have been reported to show that (1) adults are retaining a larger number of teeth, and (2) a smaller percentage of US adults are edentulous. Data from the NHANES III, 1988–94, indicated that adults 60 years or older retained an average of 18.38 teeth. This average increased to 19.38 teeth for adults 60 years or older based on NHANES, 1999–2002.[18] Data from NHANES I indicated the mean number of teeth for older adults was 16.75.[19]

Based on results of the NHANES program, the ADA has calculated that the percent of edentulous (total tooth loss) US adults 65 years or older decreased from 45.8% in NHANES I, to 28.6% in NHANES III (1988–94), to 23.9% in NHANES 1999–2002.[1]

Growth in the specialty of prosthodontics is partially derived from the growth and success of dental schools. First year enrollment in the nation's dental schools for the years 1979 to 2004 is shown in Figure 5.[20] First year enrollment of

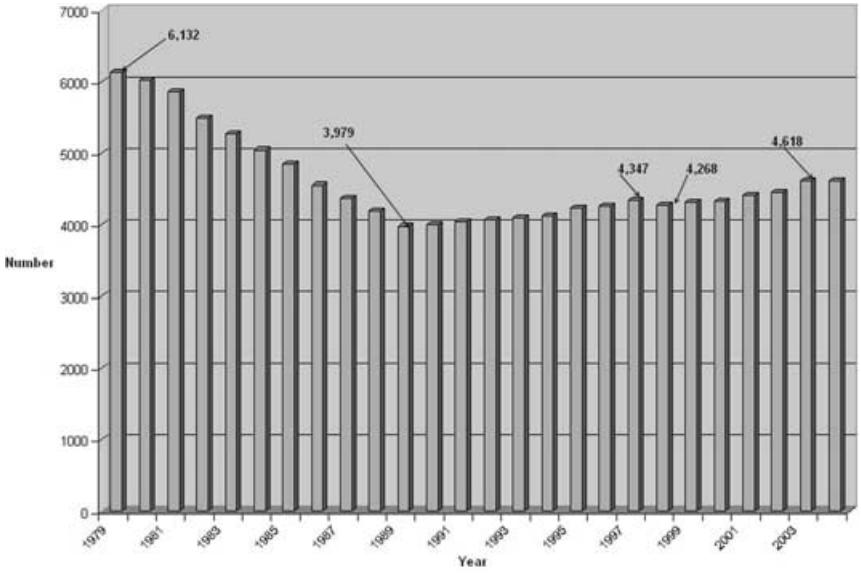

Figure 5. First year enrollment in dental school, the United States, 1979–2003.

6132 in 1979 is the peak enrollment year in recent history. Since 1979, first year enrollments have gone through four turning points (1990, 1998, 1999, 2003). There have been 12 years of first year enrollment declines and 13 years of increases. Since the lowest enrollment year of 1989, the average annual growth in first year enrollment has been about 1% per year (without any adjustments for the closing/opening of dental schools over the period). Graduates of dental schools peaked in 1983 at 5,756 and then generally declined until 1993.[20] Since 1993 the number of graduates has increased, except for 3 years (1996, 2002, 2004). The number of graduates of the nation's dental schools has increased at an average annual rate of 1.55% per year since 1993.

With generally increasing enrollments in dental school since 1990 as a background, there has been a general decline in enrollment in the nation's prosthodontics residency programs (not adjusting for openings/closures of programs).[21] The most recent high enrollment of 201 residents occurred in 1993/94 (Fig 6). The average enrollment over the decade has been 162 students. The decline in enrollment has occurred at an average annual rate of −2.9% per year since 1993/94. Over the past 5 years, the average number of first year enrollment was 147 residents (including both US and international citizenships).

Based on a projected 4125 private practicing prosthodontists in 2025, what will be required of the nation's prosthodontics residency programs to meet this future number of prosthodontists? Table 3 contains a simplified input/output (entrance of new prosthodontists)/(prosthodontists leaving practice) model of the number of graduates from prosthodontics residency programs to meet the projection. Two direct assumptions are made in Table 3: (1) 2.1% of private practicing prosthodontists will leave private practice due to retirement, death, changes in occupation, and for other reasons, and (2) 80% of practicing prosthodontists in a given year are in private practice. The assumption of a 2.1% annual rate of retirement is based on estimates from the ADA for all dentists.[1] Column 7 of Table 3 is the number of new prosthodontists from residency programs required each year to offset the number of prosthodontists who leave private practice (Column 2) plus meet the projected number of private practitioners (Column 4) for the year. The number of residents shown in Column 7 is the number estimated to be required to meet the projected number of private practitioners of 4,125 for the year 2025. The sum of the annual class sizes in Column 7 yields 3,794 residents required over the next 20 years, or an average of 181 residents per year. This is a 12% increase over the average first year enrollment of 162 residents since 1992.

Discussion

While the number of private practicing prosthodontists has been growing modestly at around 1.33% per year, the projection made

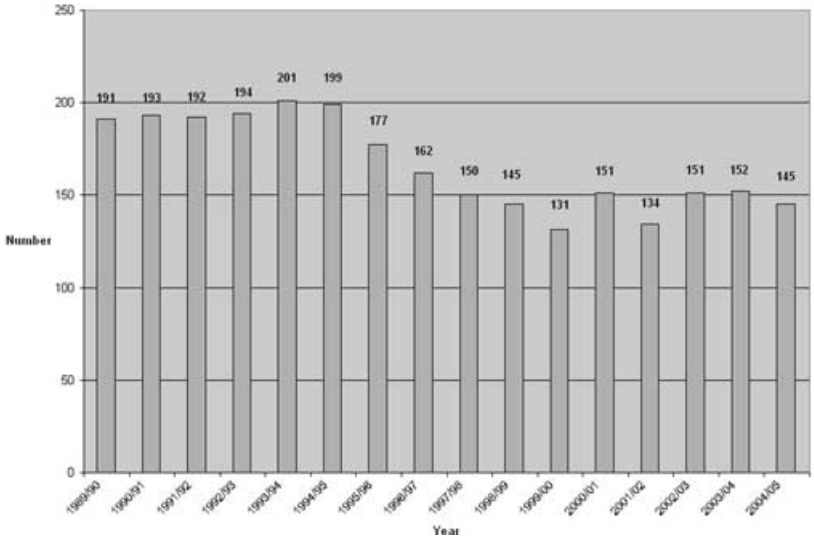

Figure 6. First year enrollment in prosthodontics residency programs, the United States, 1989–2004.

Table 3. Prosthodontics Residency Graduation Class Sizes Required to Meet Forecast Objective of 4125 Private Practicing Prosthodontists in 2025

	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*
Year							
2005	2750	58	2692	2813	121	24	**145**
2006	2813	59	2754	2872	118	24	**142**
2007	2872	60	2812	2932	121	24	**145**
2008	2932	62	2871	2994	123	25	**148**
2009	2994	63	2931	3057	126	25	**151**
2010	3057	64	2992	3121	128	26	**154**
2011	3121	66	3055	3193	138	28	**165**
2012	3193	67	3126	3267	141	28	**169**
2013	3267	69	3198	3343	144	29	**173**
2014	3343	70	3272	3420	148	30	**177**
2015	3420	72	3348	3499	151	30	**181**
2016	3499	73	3426	3564	138	28	**166**
2017	3564	75	3489	3629	141	28	**169**
2018	3629	76	3553	3696	143	29	**172**
2019	3696	78	3619	3764	146	29	**175**
2020	3764	79	3685	3834	148	30	**178**
2021	3834	81	3753	3890	137	27	**164**
2022	3890	82	3809	3948	139	28	**167**
2023	3948	83	3865	4006	141	28	**169**
2024	4006	84	3922	4065	143	29	**172**
2025	4065	85	3979	4125	145	29	**174**

Columns:
1—number of private practicing prosthodontists at the beginning of the year.
2—number of prosthodontists who exit (leave) private practice.
3—private practicing prosthodontists minus the exits.
4—projected number of private practicing prosthodontists for the year.
5—projected number of new private practicing prosthodontists.
6—projected number of new non-private practice for the year.
7—projected number of new entrants into the profession of prosthodontists.

in this article suggests there is a need for more than 4100 private practitioners by the year 2025. The projected growth of private practitioners is expected to reach 1.70% per year, which is about 0.37% greater than historical growth.

The key to these projections is derived from the projection of 4125 prosthodontists required by 2025. There are four important considerations to recognize regarding our projection of the number of prosthodontists. First, the projection does not directly take into account the effects of increases in productivity of prosthodontists. An increase in productivity is important, since it means fewer prosthodontists can produce the same amount of care or the same number of prosthodontists can produce more care. Second, there were no direct prosthodontist effects as independent variables to reflect changes or trends in the provision of prosthodontist care. Third, the variable for population aged 55 or older indirectly reflects increases in prosthodontics care due to future growth in the number of older adults. Although it is difficult to measure the effects from increases in productivity, growth in the number of older adults was included as an independent variable. The ADA has estimated that dentists' (including prosthodontists) increase in productivity expanded at a rate of 1.12% annually for the period 1990–2002.[1] Finally, the projection of prosthodontists in 2025 is also dependent on other projections made independent of this article. The methodology used in deriving the projections of population, number of dentist private practitioners, and the US population aged 55 years or older influences the projection of private practicing prosthodontists. Given these caveats and the projection for 2025, the number of private practicing prosthodontists will have to grow at a rate larger than the historical rate of growth.

In addition to the growth in the number of private practicing prosthodontists, the number of private practicing prosthodontists "per million US population" has grown only modestly at an average annual rate of 0.24% per year.[3,9,24] The prosthodontist-to-population ratio has remained between eight and ten prosthodontists per one million population over the period 1982–2003. But based on the previous projection of 4125 private practicing prosthodontists, the population-to-prosthodontist ratio would be projected to rise to 11.8 based on a projected US population in 2025 of 349.4 million individuals.

The US population is also projected to increase toward a more elderly population, and this reflects an increase in the "potential" demand for care by prosthodontists, since the highest percent of patients are also the elderly. The US population 65 years and older in the United States is expected to increase by 128% over the period 2000–2040. The 45 years and older population in the United States is expected to increase by 72% over the same period. While basic prosthodontic care has been increasing, there are two concerns raised by other emerging trends: (1) more adults are retaining teeth into old age, and (2) a smaller percentage of adults are edentulous. Both conditions suggest, other things constant, a decline in demand for care from a prosthodontist.

But others have argued that the need for prosthodontics care will continue to increase in the

future. Douglass[22] presents the case that the issue of a growing need for care cannot be based solely on declining edentulous statistics. A combined analysis is required of the decline in edentulous adults relative to the increase expected in the number of older adults. Douglass concludes that the growth, "particularly" in the older age groups, that will occur in the United States is large enough to offset the effects of declining tooth loss among adults. The net effect suggests a continued increase in the demand for complete dentures among older adults. Douglass assumed a constant 10% decline per decade in the percentage of edentulous people for all age groups. This assumption should be reconsidered in light of the results from NHANES data on percent edentulous by age group and the variation in percentage decline across age groups. Douglass[23] similarly concluded, with regard to partial dentures, that the demand for fixed partial dentures will continue to increase with the growth in the elderly population. Based on these results, both the need and demand for the services of a prosthodontist are likely to continue increasing in the future.

While increasing enrollments and graduates in the nation's dental schools are favorable trends for growth in the prosthodontics specialty, there is concern over the prosthodontics training curriculum in dental schools. The seeding for postdoctoral education in prosthodontics is largely dependent upon the undergraduate educational exposure and resources provided in the pre-doctoral programs. There is concern for the long-term consequences of decreasing exposure and development of clinical skills in the undergraduate prosthodontics curriculum. This concern was viewed by Taylor et al[25] for the 15 years prior to his published 1984 survey of sixty US dental schools. Fifty-one respondents provided a mean of 11.2 units as a national representation (one complete set of dentures or one removable partial denture (RPD) equated to one unit). In 1999, Jacobson[26] surveyed 55 US dental schools, attaining a response from 39 programs. The average number of complete dentures required of dental school graduates in the preceding year was 6.1. The average number of RPDs incorporating a metal framework was 3.7 (total removable of 9.8 units). Only 2.2 metal ceramic or all-metal fixed bridges were required of dental school graduates. He also noted that of the surveyed dental schools, two had no requirement for completing a single complete denture, three allowed students to graduate without having completed a single metal-based RPD, and four graduated students without having completed a single all-metal or metal-ceramic fixed bridge. McGarry and Jacobson[27] published concern with the findings that the pre-doctoral educational standards are being diminished from one of a competency level to only exposure. In 2006, Petropoulos and Rashedi[28] reported the results of a similar survey of 54 programs (44 respondents) that questioned requirements of undergraduate dental programs. Among numerous specific results, they found that 83% of the programs required only three units to graduate (one unit equated to either one single denture or one RPD) while the remainder of programs (18%) had no minimum requirement.

Given the concern for decreasing exposure to a prosthodontics curriculum in dental schools by graduating general dentists, there may be a greater demand for experienced clinicians and prosthodontists to offset the pending needs in society. There is also a concern that because of the limited exposure and lack of the necessary introduction to the discipline of prosthodontics, the recruitment potential of undergraduate dental students and recent graduates will be undermined toward the pursuit of prosthodontics as a specialty career. This effect also suggests that deterrents of this nature will negatively affect the future projection of 4125 prosthodontists by 2025, since the regression model relies heavily on historical trends.

While several shortcomings of the regression model were enumerated, the input/output model used to estimate required class sizes suffers from weaknesses as well. No adjustment was made for graduates who do not practice in the United States after completion of the residency program. Fifty-two percent of the 2003–04 graduating class maintained an international citizenship.[21] The required number of graduates needed to meet the projection of 4125 prosthodontists by 2025 would need to be larger, the higher the percentage of graduates who choose not to practice in the United States.

Also omitted were the effects from changing occupations within prosthodontics, such as leaving the military and starting a private practice. This would tend to offset the effect of prosthodontists leaving private practice due to retirement and other reasons. The percentage of prosthodontists expected to leave practice was based on

retirement data for active dentists in the United States and may underestimate the percentage of prosthodontists leaving for all reasons. Finally, no adjustments were made for any reduction in exposure and development of clinical skills in prosthodontics during dental school. There may be two opposing effects from this condition: (1) fewer dental school graduates may choose a career as a prosthodontist because of less exposure to prosthodontics during dental school, and (2) general dentists will be rendering less prosthodontic care because of a lowered clinical exposure to prosthodontics during dental school, which may increase the number choosing a career as a prosthodontist.

Conclusions

The number of private practicing prosthodontists has grown modestly since 1982, averaging 1.33% per year. More recent trends, however, show an actual negative growth in the numbers of prosthodontists available from graduate programs to enter the prosthodontist private practice market. Future growth rates require a need to exceed historical rates of growth to accommodate an expanding population and especially a growing elderly population. The latter growth variable is important since the largest percent of patients treated by private practicing prosthodontists are elderly. Another important condition is whether a growing number of elderly will affect the changing dynamics of the practice of prosthodontics. The incorporation of new procedures and technologies can potentially create a lesser demand or dramatic need depending on specialty practice models of the future. Current trends and projections appear to demonstrate a growing number of elderly people presenting with edentulism or partial edentulism until 2040. The collective findings presented here support an increased demand for prosthodontic skills, including those offered by a prosthodontist.

There are several issues to consider in any effort to grow the number of individuals who would consider a career as a prosthodontist. One issue is that the overall economic rate of return for an investment in residency training must remain positive and as large as possible. The rate of return to prosthodontics training (relative to practicing as a general dentist) has been measured to be as low as 8.12% based on earnings among all private practicing prosthodontists and no financial assistance received during residency to as high as 12.18% for full-time practice and stipends and loans both used while in residency training.[29] The rate of return is a means of evaluating whether it is economically worthwhile to undertake residency training knowing that substantial direct expenses plus foregone earnings as a general dentist will have to be incurred. As long as the rate of return is positive, investments return enough to pay all costs and yield a profit. As long as the rate of return is large, individuals will tend to choose a career as a prosthodontist over other careers with lower (and positive) rates of return.

Choosing a career in the private practice of prosthodontics or engaging in an adjunctive career path, such as research or education, is a timely consideration. The specialty is well positioned. While we have presented specific areas of concern, these concerns serve as the dynamics to stimulate valid opportunities existing in the marketplace. There is a growing future demand for clinical services with the increasing number of elderly patients requiring special clinical skill sets. These needs align well to both the discipline and the specialty. It favors the latter due to the nature of the specialty educational experience, the exposure to research, and the unique clinical practice. Prosthodontists are well suited to assume the responsibility for engaging in comprehensive and complex treatment scenarios. Based upon the 2005 survey, they allot a high percentage of their service to technological applications and are diagnostically oriented, which compliments the treatment of patients having special needs. Also, their working relationship with dental laboratory technicians and the related dental technologies positions this group well for future advancement. This lends to a natural collaborative relationship with the whole of dentistry, including the supporting corporate industry. The positive investment for pursuing the specialty, coupled with favorable financial private practice returns, serves as a positive adjunct to support this career choice. This is further complimented by a supply and demand model that shows favorable growth potential for the future of the specialty.

Acknowledgments

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