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Winter 2013

## Dental Student Indebtedness: Where did It Come From and Where Will It Lead?

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### Recommended Citation

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*School of Dentistry Faculty Research and Publications*. 124.

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# DENTAL STUDENT INDEBTEDNESS

## WHERE DID IT COME FROM AND WHERE WILL IT LEAD?

Gary L. Stafford, DMD, FACD

### ABSTRACT

Today's dental school graduates are burdened by an ever-increasing amount of student loan debt from both their undergraduate and predoctoral educations. Although considered to be multifactorial in origin, this article explores the microeconomic theory of supply and demand as a source for rising tuition costs and subsequent educational debt. The historical context for the cost of a dental education is provided, and serious questions are posed about how this indebtedness might impact the future of the profession.

In 2013, college students in all fields graduated with an average of \$35,200 in student loan debt from their undergraduate education, with 39% of these graduates stating that they would have made different choices related to planning for college had they understood the total cost of an undergraduate education. An astonishing 50% of those surveyed were unaware of the amount of undergraduate student debt they had accumulated (Fidelity Investments, 2013). These same college graduates, once matriculated into dental school, will face a staggering average student loan debt load of \$221,713 upon graduation (American Dental Education Association, 2013b). Yet the prospect of entering a profession whose educational costs continue to escalate has not deterred potential candidates from applying for what remains a highly coveted seat in an entering dental school class.

Based upon current and future demand, job satisfaction, and earning potential, a 2012 *U.S. News and World Report* special report on the 100 best jobs ranked dentistry as the number one occupation in the United States (Graves, 2012). With the U.S. Bureau of Labor Statistics reporting a projected 25,000 new openings in the next eight years, high job satisfaction, and the potential to earn a median salary of \$145,240 dollars per year (U.S. Department of Labor, 2012), it is little wonder that dentistry is viewed as an attractive career choice

and that there is such a high demand to gain admittance to dental school.

For undergraduate students who are contemplating dentistry as a career, these types of reports place dentistry in a very positive light. However they do not provide a complete picture. In the *U.S. News and World Report* special report, no mention was made as to the cost of attaining the education necessary to become a dentist, nor was there any mention of the long-term financial impact of servicing the accumulated educational debt that the new graduate will have. A report commissioned by the U.S. Department of Health and Human Services Health Resources and Services Administration in 2005, concluded that the costs of acquiring a dental education now far exceed the resources of the vast majority of U.S. families (U.S. Department of Health and Human Services, 2005), and this inability for families to help fund their children's education places more pressure on the student to personally accept larger educational loan debt. Without a thorough understanding of the cost of their education and the sacrifices that must be made in order to satisfy their student loan repayments, applicants for admission to dental school might not have a realistic expectation about their true net earnings as they begin their



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careers. One could rightfully assume that any misconception about this economic reality could have a negative effect on overall job satisfaction.

The purpose of this article is to present a working hypothesis about how one specific causative factor (the micro-economic theory of supply and demand) might play a role in contributing to the burgeoning amount of debt that confronts our next generation of dentists than has been previously thought. In addition to exploring a variety of more commonly accepted internal and external causative factors, serious questions will be raised about the consequences that this student loan-related debt could have on the future of our profession.

### WHERE DID IT COME FROM?

To state it simply and directly, the increase in student loan debt mirrors the rise in overall tuition costs. Myriad internal and external factors are commonly cited as sources for the steep rise in dental educational costs; therefore, an argument could be made that the concomitant rise in student loan debt is also multifactorial in origin. However, upon closer inspection, several of the internal and external causal factors that give rise to increased tuition and fees have elements that can be connected to the issues of supply and demand.

### INTERNAL AND EXTERNAL FACTORS

Among the most commonly accepted internal and external factors, and one of the primary drivers of increased tuition,

has been the gradual decline in funding for higher education which had formerly helped colleges keep an education more affordable. Over the course of the two decades preceding the Great Recession of 2007-09, loss of institutional federal support, declining state appropriations, and limitations on student-generated clinical revenue resulted in a greater reliance on tuition and fees. This steady decrease in support was further exacerbated by the Great Recession, which led to further, more drastic cuts in state higher education funding (Johnson & Ostern; *The student debt crisis*; [www.americanprogress.org](http://www.americanprogress.org)). The need to rely more heavily on tuition and fees for institutional operations rather than funds from the federal and state level, naturally led to a notable rise in student borrowing which has been a major contributing factor in adding to a dental student's burden of debt.

The Great Recession also played a role in the ability of schools to distribute grants and scholarships from their endowments, a vital way to help offset students' educational costs. At institutions with large endowments, endowment spending contributes significant resources toward their operating budgets. In some cases, it is the largest source of revenue for the institution. Thus, endowment spending helps to keep tuition below the level that would be necessary if tuition alone paid

To state it simply and directly, the increase in student loan debt mirrors the rise in overall tuition costs. Myriad internal and external factors are commonly cited as sources for the steep rise in dental educational costs.

the true cost of educating a student. During the Great Recession, the Dow Jones Industrial Average declined by over 50% in its value, and this drop in the valuation of colleges and universities' endowments meant that there were fewer resources available to provide for their students, once again necessitating a greater reliance on students attaining financing from other sources.

The government has always played a role in postsecondary education in the United States, from land grant universities to state-subsidized colleges, to public grants and subsidized loan programs (Klobuchar, 2013). Federal loans made up 39% of student aid received by undergraduates and 69% of total graduate student aid in 2011. Federal grants constituted 27% of grants on which undergraduates relied and 2% of graduate student aid. Tax credits added another material portion of aid. Thus, the federal government provides more than two-thirds of the direct aid to all postsecondary students (Baum & Payea, 2013). Unfortunately, beginning July 1, 2012, Subsidized Federal Stafford Loans, which made up 35% of all new loans in 2011-12 (Klobuchar, 2013), became available only to undergraduate students forcing those in graduate or professional schools to seek other sources of assistance, such as unsubsidized Federal Stafford Loans. These loans, which are sponsored by the U.S. Department of Education, made up 40% of all new loans in 2011-12 (Klobuchar, 2013). However the federal government does not pay the interest accrued while one is in school, during a grace period, or during a deferment. This recent change allows interest to accrue while a student is in dental school and then be

capitalized into the principal amount, therefore compounding the interest and adding to the overall student loan debt upon graduation.

Private lenders such as banks, credit unions, and Sallie Mae created mechanisms to help students finance their education as a result of demand from those who exceeded their Federal Stafford Loan limits, as well as a way to generate profits from the increased enrollment in institutions of higher learning. A key distinction between federal student loans and private student loans is interest rate risk. Today, all federal student loans have fixed rates. Many private student loans are variable-rate loans with risk-based pricing, where rates vary based upon an assessment of the creditworthiness of the borrower. These loans, much like the subprime mortgages that led to the housing crisis, are fueled by investor appetite for asset-backed securities and have much looser lending standards (Consumer Financial Protection Bureau; *Private student loans*; www.consumerfinance.gov). This has resulted in many students borrowing more than required to finance their education with the additional dilemma of having less flexibility in handling deferments, forbearance, or debt forgiveness should repayment become a concern.

In response to the increased demand from high school graduates who wish to pursue postsecondary education, many universities have modified their infrastructure in order to recruit the best students by adding more extravagant amenities such as dorms, gyms, or cafeterias. These projects, which significantly increase the universities' operational costs, are eventually passed on to the student in the form of higher tuition and fees and perhaps to the various schools or colleges in the form of an operational tax. Although some dental schools operate independently with no support from their parent

university, others must contribute to their parent universities' budgets. Increased taxation by the parent institution to help with their operating budgets will decrease any margin of profit by the dental school or force the dental school to experience a larger deficit, ultimately resulting in a tuition and fee increase to cover the shortfall. At many institutions the overall budget is designed so that the more financially lucrative programs and schools help subsidize the less financially viable programs (American Dental Education Association, 2013a). Dental schools, with high student demand for acceptance and a stream of clinical revenue may appear to be more financially viable than other areas with less student demand or those that produce no revenue stream other than tuition.

Dental education is beginning to observe some of the ramifications of the Great Recession that led to a dramatic rise in undergraduate enrollment during the economic downturn. Many of these same students, due to a sluggish economy, are reluctant or unable to settle into full-time careers, so they look to graduate school to stay out of the workforce by seeking advanced training in sectors of the economy that continue to exhibit growth. When studying their options, they often look to careers within those sectors that will provide the greatest job security, income, and job satisfaction, with each of these attributes exerting a great deal of influence on their decision-making process. The attractiveness of the dental profession has driven prospective students to apply for admission and has created a demand that is in excess of our current ability to supply.

Observing that demand plays such a key role in several of the commonly accepted causal factors that have contributed to higher tuition, and thus

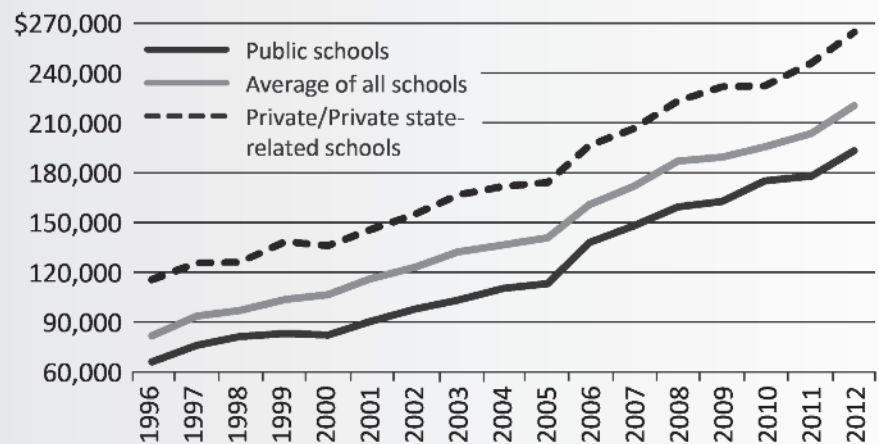
higher amounts of student loan debt, led to the working hypothesis that the microeconomic theory of supply and demand may be a major factor in the problem.

### MICROECONOMIC THEORY of Supply AND DEMAND

Supply and demand is one of the most fundamental concepts of economics and is the backbone of a market economy. This microeconomic theory states that, in general, the greater the supply and the lower the demand, the lower the price will be. Conversely, if there is a low supply or a high demand for a good or service, the price for that good or service will be higher (Rittenberg & Tregarthen, 2012). With a 37% increase in applicants since 2000 and only a 23% increase in enrollees, demand for a dental education remains higher than can currently be supplied (American Dental Education Association, 2012b).

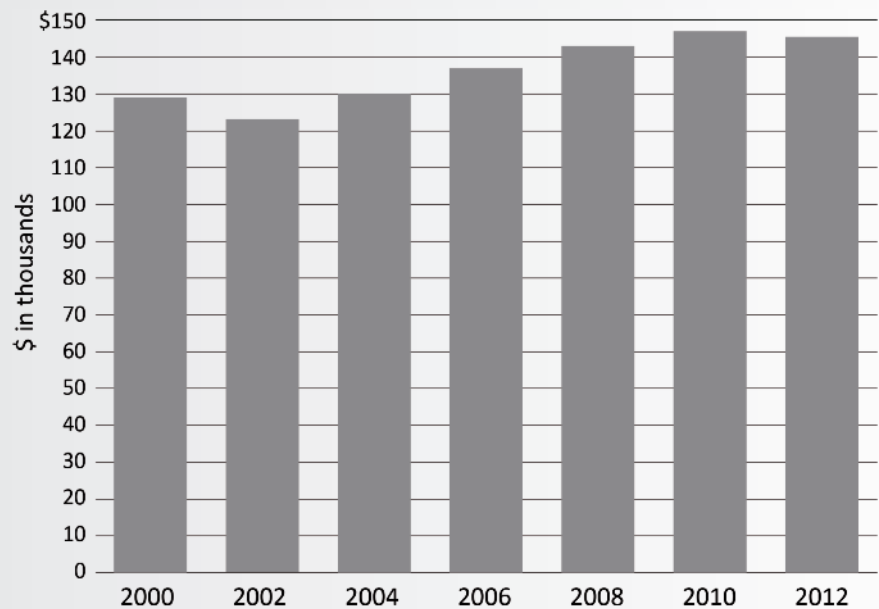
While the demand to gain admittance to dental school over the last 13 years has been high, this has not been the case historically. Decreasing applicant demand for dental school admission occurred over the course of 14 years, beginning in 1975, when there was a historic high of 15,734 applicants and 5,763 first-year matriculates for U.S. dental schools. That high-water mark was followed by a decline in applications that ended in 1989 with 4,964 applicants for 3,979 positions. This small applicant pool (decreased demand) for the available seats (supply) could be considered at least partially responsible for a series of school closures between 1986 and 2001. Beginning in 1986 with Oral Roberts University in Tulsa, Oklahoma, seven dental schools closed their doors over the course of 15 years. Dr. James Winslow, Vice President of

FIGURE 1. AVERAGE EDUCATIONAL DEBT\* AMONG GRADUATING STUDENTS WITH DEBT BY TYPE OF SCHOOL, 1996-2012



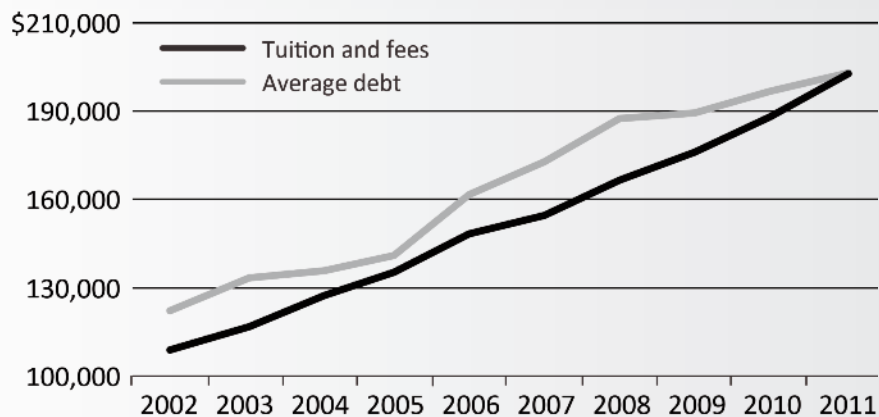
\*Educational Debt is the sum of undergraduate debt and dental school debt of only those respondents who have debt.  
Source: American Dental Education Association, Survey of Dental School Seniors, 2012 Graduating Class, (Current Dollars).

FIGURE 2. GENERAL DENTIST'S MEDIAN AVERAGE ANNUAL SALARIES, 2000-2012



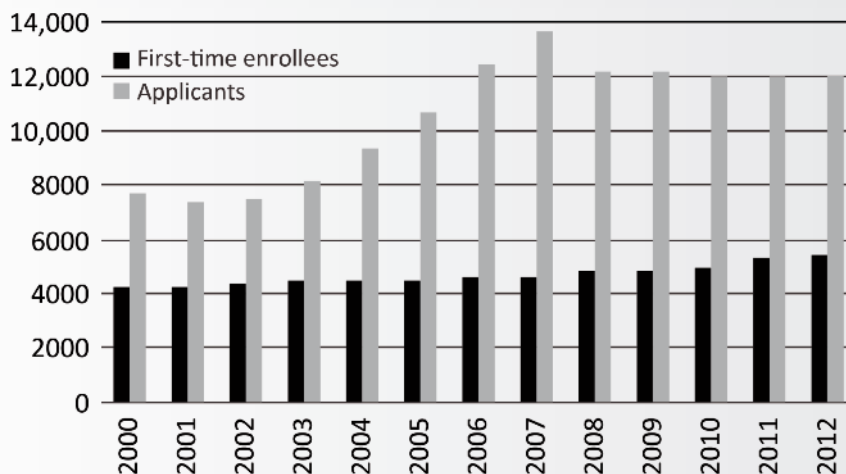
Source: Bureau of Labor Statistics.

**FIGURE 3. AVERAGE EDUCATIONAL DEBT\* AMONG GRADUATING STUDENTS WITH AVERAGE TOTAL TUITION AND FEES, 2002-2011**



\*Educational Debt is the sum of undergraduate debt and dental school debt of only those respondents who have debt.  
Sources: American Dental Education Association, Survey of Dental School Seniors, 2011 Graduating Class, (Current Dollars); American Dental Association, 2010-11 Survey of Dental Education, Average Total Resident and Non-Resident for All Four Years.

**FIGURE 4. DENTAL SCHOOL APPLICANTS AND NEW FIRST-TIME ENROLLEES, 2000-2012**



Source: American Dental Education Association, U.S. Dental School Applicants and Enrollees, 2012 Entering Class.

Student Affairs, stated that the closure of the Oral Roberts University School of Dentistry was linked to student indebtedness and students' subsequent inability to fulfill the mission goals of the university. The debt load of the graduates dictated that they go into private practice, which precluded their performing their mission work, a central goal of the Christian school (*Tulsa World*, 1985). Other economic factors such as the inability of private institutions to compete with public dental school tuition rates, and the desire of parent institutions to use highly valuable real estate for more profitable enterprises such as medical research, forced six other schools to follow suit. In 1995, during the peak of these dental school closures, the Institute of Medicine (IOM) published *Dental Education at the Crossroads: Challenges and Change* (Field, 1995). This comprehensive assessment of dental education provided a thorough review of workforce models, projections, and underlying assumptions. The committee found "no compelling case, at this juncture, that the overall production of dentists will, in the next quarter century, prove too high or too low to meet public demand for oral health services. Accordingly, it found no responsible basis for recommending that total dental school enrollments should be pushed higher or lower."

The committee also recommended that it was best to leave the decision for increasing or decreasing dental school enrollment to "active surveillance and monitoring of developments that could change trends in supply, demand, or need."

Twenty years after the peak of dental school closures, we are witnessing an expansion in dental education due to a change in demand, both from those interested in entering the profession as well as the recognition that there is a



need to increase access to affordable oral health care for a large segment of the population. In 2000, there were 55 dental schools in the United States and by 2015 it is anticipated that there will be 67. Since 1997, one school has closed (Northwestern University), nine schools have opened, three schools began enrollment in the fall of 2013, and one plans to matriculate its first class in 2015 (American Dental Education Association, 2012c; Fox, 2011).

Even with these new educational facilities and with several other schools increasing their enrollment, demand continues to outpace supply. In fact, with the increase in applications over the last 13 years, the competition to gain admittance to dental school has only made it more difficult for an applicant to be chosen for acceptance. This is true despite 1,249 new seats having been added in U.S. dental schools since 2000. With no apparent decrease in interest by applicants applying for admission in conjunction with a somewhat limited supply, the economic theory of supply and demand dictates that we should logically see a rise in tuition costs.

Daniel Lin (*Why is higher education so expensive?* [www.learnliberty.org](http://www.learnliberty.org)), an economist at American University, postulates that two primary factors have acted as drivers behind this increased demand for those who choose to enter postsecondary education generally: job prospects and government subsidies. Taking a closer look at how these two drivers have specifically contributed to an increased demand for admission to dental school may help to illustrate why they have also led to increasingly higher debt loads for graduates.

#### Job PROSPECTS

There are a multitude of internal forces on campuses that drive tuition upward, but they are less important in setting the price of an education than is the

conviction that college is an unbeatable investment for a better life (Lemann; *The cost of college*; [www.newyorker.com](http://www.newyorker.com)). The evidence indicates that almost without exception, each successive level of higher educational attainment yields additional economic benefits (State Higher Education Executive Officers Association, 2012), so it should come as no surprise that so many college graduates want to enter the dental profession. As noted in the 2012 *U.S. News and World Report* special report as well as in reports by the Bureau of Labor Statistics, those who enter the dental profession have a high degree of certainty in finding gainful employment, enjoying a stable employment future, and earning a comfortable salary. When compared to the unemployment rates of high school graduates, those with some college education, and college graduates, dentistry provides a very high level of job security. In fact, with an unemployment rate of 0.7%, dentistry is one of ten occupations that has the lowest overall rates across all U.S. occupations. Not only do dentists enjoy very high employment rates but their job opportunities have been projected to grow by 21% between 2010 and 2020, faster than all of the other occupations in the U.S. economy (United States Department of Labor, 2013). This growth virtually assures that not only will a job be available once a student graduates from dental school, but opportunities should continue to present themselves for the foreseeable future.

Along with this bright employment picture, salary data show that dentists have the potential for earning an exceptional income when compared to other occupations. In the 2012-13 edition of the United States Department of Labor's *Occupational Outlook*

*Handbook* (2013), the government's premier source for career guidance, dentistry held five of the top ten highest paying occupations, with general dentists ranking sixth out of all occupations in the U.S. economy. It is no surprise that potential income and highly positive current and future job outlook projections are major factors in driving the demand by college students who choose dentistry as a career path.

#### GOVERNMENT Subsidies

The second factor that has led to an increased demand not only for dental education but also for higher education in general relates to public policy. Government subsidies through student loans, grants, and tax credits were instituted to help students fund their education with the thought that an educated workforce would create a beneficial social return. In essence, it is a value proposition for policymakers and the general public that achieving this goal will lead to social and economic benefits for individuals, states, and the nation. The commitment from the U.S. government in providing these subsidies is made evident by the fact that the Department of Education will provide over \$38.5 billion in awards from the Student Financial Assistance account in 2014-15, which is almost double the amount from 2009-10, when there was \$19.4 billion available for awards (Office of Management and Budget, 2008; 2013).

These statistics direct us back to the matter of supply and demand, where a strong argument can be made for a direct correlation between applicant demand and rising tuition costs. Thanks in part to these government subsidies; more and more Americans have sought out higher education due to the belief that education is more affordable. Universities have responded to the availability of federal dollars by doing

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what subsidized industries usually do, which is to raise prices (tuition) to capture the subsidy. Ordinarily, such upward pressure would be restrained by consumers' willingness and ability to pay, but as government subsidies have helped absorb tuition increases, the public's budget constraint has been lifted (Edwards. & McCluskey, 2009; Vedder, 2004).

Over time, this public policy has helped to create a vicious circle of economic events. As more college students express a desire to pursue a dental education, more students compete to gain admittance, and this increase in demand has eventually contributed to higher tuition costs. Simply put, when something is subsidized, it is cheaper for people to consume, so people consume more of it and demand rises. According to the economic theory of supply and demand, a rise in demand will usually be followed by a rise in costs (Daniel Lin; *Why is higher education so expensive?* [www.learnliberty.org](http://www.learnliberty.org)). Since many dental schools or parent institutions have lost federal and state level appropriations, they are eager to capture funding in other ways, most notably through the student via federal student loans. In the long run, these federal student loan subsidies are actually detrimental to the student borrower for the simple reason that with any rise in tuition, there is political pressure to increase the very subsidies that were designed to provide assistance to the students. Subsidies function not only to make higher education less affordable but also to create a situation where students pay higher tuition and are ultimately burdened with a higher debt load.

#### INCREASED DEMAND

With this rising demand by applicants, three alternatives present themselves to the parent institution. Maintaining the

status quo in terms of class size and tuition costs, where admission standards rise and the school or parent institution forgoes an increase in revenue is the first and perhaps most unlikely option. Secondly, an increase in enrollment could occur, but for many institutions this is not a realistic option due to space limitations on the number students that can be enrolled. Lastly, with the present demand fueling higher tuition for a slowly increasing supply (seats), schools or parent institutions could enhance their revenue stream by increasing tuition and passing the added cost on to the students who are able to receive federal dollars to help subsidize their education costs (Daniel Lin; *Why is higher education so expensive?* [www.learnliberty.org](http://www.learnliberty.org)). This option appears to be far more likely and certainly fits the microeconomic theory of supply and demand.

Support for this theory can be found in data from the American Dental Association. Between the 2000-01 and 2010-11 academic years, total costs to students through the entire predoctoral dental education program increased 101.6% for in-state residents and 92.5% for nonresidents. Resident total education costs increased by an average of 7.3% annually while nonresidents increased by 6.8% annually. To illustrate how educational costs have risen faster than most other goods and services, during this same period of time the consumer price index (CPI), which measures changes in prices paid for a representative sample of these goods and services, increased by an average annual rate of 2.4% (United States Department of Labor, Bureau of Labor Statistics; *Consumer price index*; [www.bls.gov](http://www.bls.gov)).

These trends, which certainly could be considered warning signs for dental education and the profession as a



**Table 1. CHANGES in DENTAL Schools, 1986-2015**

<i>Year</i>	<i>Closed</i>	<i>New, open</i>	<i>New, planned</i>
1986	Oral Roberts U, Tulsa, OK		
1988	Emory University, Atlanta, GA		
1990	Georgetown U, Washington, DC		
1990	Fairleigh Dickenson, Rutherford, NJ		
1991	Washington U, St. Louis, MO		
1993	Loyola University, Chicago, IL		
1997		Nova Southeastern, Fort Lauderdale, FL	
2001	Northwestern U, Chicago, IL		
2002		U of Nevada, Las Vegas, NV	
2003		A.T. Still U, Mesa, AZ	
2007		Midwestern U, Glendale, AZ	
2009		Western University, Pomona, CA	
2011		East Carolina U, Greenville, NC	
2011		Roseman U, South Jordan, UT	
2011		Midwestern U, Downers Grove, IL	
2012		Lake Erie Osteopathic, Bradenton, FL	
2013			U of New England, Biddeford, ME
2013			A.T. Still, Kirksville, MO
2013			University of Utah, Salt Lake City, UT
2015			Bluefield College, Bluefield, VA

Source: American Dental Education Association.

whole, were predicted in a 2001 study conducted by the American Dental Association, which came to an ominous conclusion: "Education is expected to undergo dramatic changes within the next 15 years. The cost of dental education, probably the highest of all the major academic offerings, threatens to price dentistry out of the education marketplace" (American Dental Association, 2001).

### **WHERE Will It Lead?**

Today, most students enter dental school with a bachelor's degree and a sizable undergraduate debt load. With 85% of graduating seniors responding to the

Class of 2011 ADEA Survey of Seniors, on average, they reported entering dental school with \$35,670 in undergraduate debt (American Dental Education Association, 2012a). This undergraduate debt, combined with the financed costs of four years of dental school, leaves our new graduates shackled with a large monthly obligation that will remain with them for the life of the loan.

A certain degree of speculation is required when predicting how rising tuition costs and the subsequent mounting debt will affect entry into the profession. Although dentistry has not felt the aftershocks of the Great Recession of 2007-09 to the extent of many of the other sectors in the U.S.

economy, one should not assume that the profession is immune from any of the future consequences that may arise as a result of our new graduates shouldering such a large financial burden as they begin their professional careers in a sluggish economy.

First and foremost, escalating tuition costs and indebtedness may deter future dental school applicants from considering dentistry as a career, and in order to face any of the profession's future challenges, we must continue to attract the best and

**Table 2. Highest Paying Occupations: Ten occupations with the highest annual median pay**

<i>Occupation</i>	<i>2010 Median Pay</i>
Oral and Maxillofacial Surgeons	≥ \$166,400
Physicians and Surgeons	≥ \$166,400
Orthodontists	≥ \$166,400
Chief Executives	\$165,080
Dentists, All Other Specialists	\$161,020
Dentists, General	\$141,040
Judges, Magistrate Judges, and Magistrates	\$119,270
Architectural and Engineering Managers	\$119,260
Prosthodontists	\$118,400
Podiatrists	\$118,030

Source: U.S. Department of Labor, Bureau of Labor Statistics, *2012-13 Occupational Outlook Handbook*.

the brightest undergraduate applicants from a diverse applicant pool. These rising costs are especially troubling when attempting to attract minority applicants or those applicants who are economically disadvantaged. A lack of diversity in the dental workforce could have a profound negative impact on access to care for our most vulnerable, underserved populations, since minority dentists are more likely to provide dental care for minority patients (Mitchell & Lassiter, 2006).

High levels of student indebtedness make it increasingly difficult for recent graduates to start families, save for retirement, and take the risks that are associated with building a successful career. This high level of student indebtedness may be a determinate of

occupational choices, forcing many of these young practitioners to place undue influence on monetary priorities during the formative phase of their careers (American Dental Association, 2001). In a profession where the majority of dentists have historically practiced in a sole proprietor business model, high debt levels may delay or prevent our new colleagues from buying existing practices or from starting their own. Overall, there is a downward trend of those in solo practice, with 69.4% of dentists in 2010 practicing as sole proprietors in contrast to 76% in 2006 (Fox, 2012). With the driver of job prospects attracting applicants into the profession based upon statistics that are derived primarily from information supplied by solo practitioners, indebtedness that delays or prevents solo practice may eventually have a negative influence on this income data, which in turn could make the profession seem less attractive to applicants. Similarly, any delay or inability to enter solo practice may limit the future income potential of the new graduate, affect lifetime earnings or influence job satisfaction.

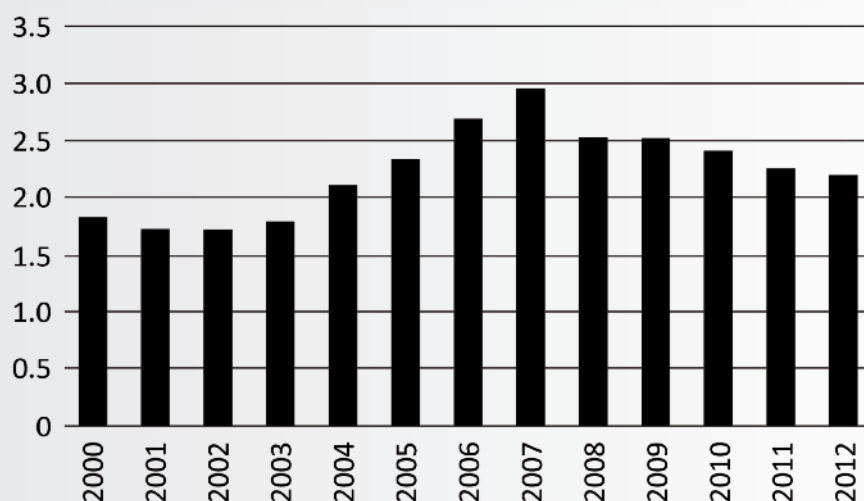
For some, facing the economic realities of student loan repayment might mean forgoing a career, either full- or part-time, in dental education. For others, it might mean choosing a type or location of practice that will provide a more immediate financial return while neglecting the growing needs of a large segment of the population. Career choices that are based on debt levels do not bode well for expanding access to dental services for underserved and vulnerable populations (Johnson & Ostern; *The student debt crisis*; [www.americanprogress.org](http://www.americanprogress.org)), since these new graduates may choose not to see low-income patients because of low reimbursement rates from

public assistance programs such as Medicaid (American Dental Education Association, 2013a).

A specious theory has emerged based on the presumption that if we enroll more students and graduate more dentists, we will be better able to address the critical dental needs of these underserved populations. This theory has been used as a rationale to increase class sizes of existing schools and for the opening of new educational facilities. Unfortunately, higher tuition costs and increasing student debt makes it difficult for entry-level practitioners to care for the very segment of the population that they are being trained to treat and whose dental needs demand the services they can provide. As long as it remains economically impractical for our recent graduates to either join existing practices or locate their new practices in underserved areas, policymakers will continue to investigate other delivery options in order to provide the necessary dental care to the populations in need. Increasing the number of practicing dentists, burdening them with more debt, and therefore making it difficult for them to help address access to care issues, may force public policymakers to dictate changes in how and by whom dental care will be delivered.

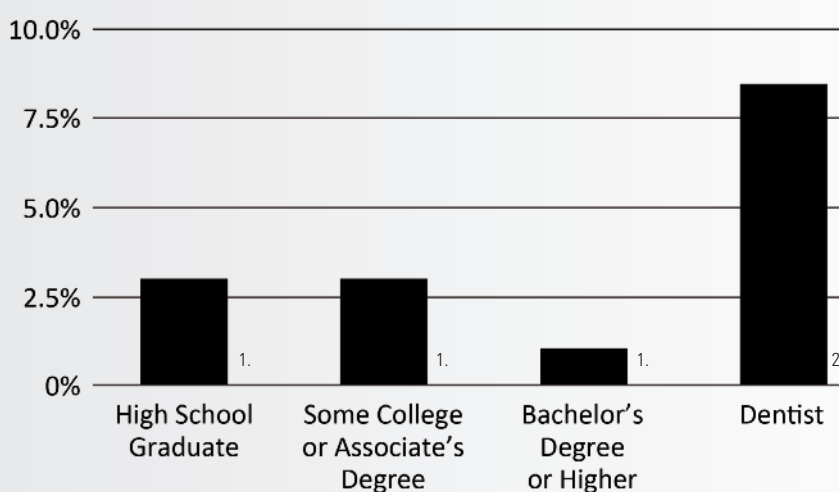
There appears to be nothing on the horizon to indicate that there will be a change in either dental schools or parent institutions from continuing to raise tuition costs and therefore add to the educational debt of their graduates. This increasing burden of debt is worrisome for dental students, their families, dental school faculty members, and policymakers alike, and without concrete solutions, we may be heading for a financial precipice that could only

FIGURE 5. DENTAL SCHOOL APPLICANT/FIRST-YEAR ENROLLEE RATIO, 2000-2012



Source: American Dental Education Association, U.S. Dental School Applicants and Enrollees, 2012 Entering Class.

FIGURE 6. UNEMPLOYMENT RATES



1. Source: [www.bls.gov/news.release/empsit.t04.htm](http://www.bls.gov/news.release/empsit.t04.htm) May 2013 Data.

2. Source: 2013 U.S. News Special Report—The 100 Best Jobs in America.

Career choices that are based on debt levels do not bode well for expanding access to dental services for underserved and vulnerable populations since these new graduates may choose not to see low-income patients because of low reimbursement rates from public assistance programs such as Medicaid.

be deemed to be precarious for the future of the profession.

Although the original intent of the following quote was to address access issues, it might also be considered appropriate when applied to the rising burden of dental student indebtedness. In the words of Henry S. Pritchett, President of the Carnegie Foundation for the Advancement of Teaching in 1926, "To set up a generation of physicians, of dentists, of nurses, whose service is so costly as to be out of the reach of the self-respecting man of modest means who desires to pay his way would be a dismal mistake." ■

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