



COVER STORY

Educational debt and intended employment choice among dental school seniors

Tanya Wanchek, PhD, JD; Sean Nicholson, PhD; Marko Vujicic, PhD; Adriana Menezes; Anthony Ziebert, DDS, MS

Dental school students' debt levels are rising. The average educational debt of graduating dental school seniors, including both dental school debt and prior educational debt, rose from \$122,000 in 2004 to \$179,000 in 2011 according to calculations we performed by using data from the ADEA (American Dental Education Association) Survey of Dental School Seniors. Dentists' income has not risen as rapidly over the same period. As a result, average educational debt rose from 70 percent of dentists' median income in 1996 to 103 percent of dentists' median income in 2011.¹ This rise suggests an increase in the burden placed on dental school graduates.

The rising debt relative to income may be exacerbated by an influx in new dental school graduates. The application to enrollment ratio reached a historical high of 2.9 applicants for each first-year dental school student spot in 2007 before easing slightly to 2.5 in 2008, but it remained well above the 1950-2008 average of 1.7.²⁻⁴ The high demand for dental education is spurring an increase in the number of dental schools. Thirteen new dental schools have been planned or proposed in the past few years.²⁻⁴ If the increased supply of dentists is not met with a comparable increase in demand for dental services, then the higher supply of dentists is expected to further limit wage gains and exacerbate the declining return to dental education.

Rising educational debt without a comparable increase in expected income has the potential to affect

Dr. Wanchek is an assistant professor, Department of Public Health Science, University of Virginia, P.O. Box 400206, Charlottesville, Va. 22904, e-mail tnw4j@virginia.edu. Address correspondence to Dr. Wanchek.

Dr. Nicholson is a professor, Department of Policy Analysis and Management, Cornell University, N.Y.

Dr. Vujicic is the managing vice president, Health Policy Resources Center, American Dental Association, Chicago.

Ms. Menezes is a manager, Dentist Surveys, Survey Center Health Policy Resources Center, American Dental Association, Chicago.

Dr. Ziebert is the senior vice president, Education and Professional Affairs, American Dental Association, Chicago.

ABSTRACT

Background. The authors examined the association between educational debt and dental school seniors' intended activity after graduation.

Methods. The authors used multinomial logit regression analysis to estimate the relationship between dental educational debt and intended activity after graduation, controlling for potentially confounding variables. They used data from the 2004 through 2011 ADEA (American Dental Education Association) Survey of Dental School Seniors.

Results. Fourth-year dental school students with high levels of educational debt were more likely to express an interest in choosing to go into private practice, although the magnitude of this effect was relatively small. For each \$10,000 increase in debt, the likelihood of choosing advanced education relative to private practice was 1.5 percent lower (relative risk ratio [RRR], 0.985 [95 percent confidence interval {CI}, 0.978-0.991]). For the same \$10,000 increase in debt, the probability of choosing teaching, research and administration was 3.1 percent lower than that for choosing private practice (RRR, 0.969 [95 percent CI, 0.954-0.986]) and was 8.4 percent lower than that for choosing a government service position (RRR, 0.916 [95 percent CI, 0.908-0.924]).

Conclusions. Although educational debt was statistically significant for predicting intended activity after graduation, the magnitude of influence of other variables such as sex, race and whether a parent is a dentist was substantially larger.

Practical Implications. Concerns regarding rising educational debt and its effect on the dental labor market may be misplaced. The characteristics of the dental school student body may be a more accurate predictor of employment choices than dental school seniors are making than are total educational debt levels.

Key Words. Education; career choice; students; dental economics.

JADA 2014;145(5):428-434.

doi:10.14219/jada.2014.12

graduates' career choices—including specialty training, willingness to work in underserved areas and willingness to treat Medicaid patients—as well as practice ownership options.^{5,6} In theory, rising educational debt is expected to encourage students who are choosing between different employment options to seek the position with a higher income. The higher income is needed for the graduate to maintain a standard of living comparable with those of previous dental school graduates. The result is that educational debt may increase the likelihood of choosing private practice instead of government service; teaching, research and administration; or public health positions. The effect of educational debt on advanced education is more ambiguous. Higher debt could influence a graduate to seek employment sooner to start repaying loans, or it could encourage the pursuit of advanced education to achieve a higher salary later.

Empirical evidence for the effect of total educational debt is mixed. Typically, educational debt plays a central role in the decision-making process. One exception is students who already were obtaining advanced education. In one study, surgical residents reported that total educational debt did not play a role in their choosing to go into an academic program instead of private practice, except at the highest debt levels.⁷ Residents with debt greater than \$301,000 were more likely to choose private practice. On the other hand, more than one-half of practicing dentists in several graduate cohorts from one dental school reported that educational debt levels influenced their career choices.⁸

Investigators in studies have used the results of the ADEA's annual Survey of Dental School Seniors to examine the role of educational debt in employment choice.^{9,10} The results of a multivariate analysis showed that debt reduced the likelihood of planning to enter public service, and entry into a loan repayment program increased the likelihood of public service relative to other plans.⁹ The results of a study of 2009 dental school graduates showed a correlation between total educational debt and plans to enter private practice.¹⁰ The authors of the study did not, however, control for other student characteristics. In the same study, no clear majority response emerged when questions on the survey asked students to what extent educational debt influenced their choice of activity after graduation.¹⁰ Twenty-eight percent of seniors with debt indicated that their debt did not influence their choice, 39 percent indicated that it influenced their choice somewhat or moderately, and 33 percent indicated that it influenced their choice much or very much.

Empirical evidence regarding whether educational debt influences the decision to pursue advanced education is mixed. The authors of two studies who conducted their own surveys of dental school students found opposing results.^{11,12} The results of a multivariate analysis of data from surveys distributed to both fourth-year

students and advanced-standing students at one dental school showed that respondents' debt levels reduced their intentions to pursue specialty training, even after controlling for sex, age and class year.¹¹ The result is consistent with those of an annual ADEA survey, which showed that senior dental school students with higher debt loads were less likely to have intentions of pursuing specialty training.¹⁰ Alternatively, investigators in a survey that tracked 138 students from six publicly funded dental schools found that students' plans to pursue advanced education were not influenced by higher debt levels, higher than expected debt, sex, race or whether they had children.¹² Rather, the decision to pursue advanced education was influenced by whether the student had a dental school mentor, a high grade point average (GPA) or encouragement from significant others.¹² However, for the latter result, investigators controlled only for whether debt was less than or greater than \$100,000, which may not have provided sufficient variation to identify an effect on graduation plans.

We conducted a study in which we used the ADEA's dental school senior surveys to extend the previous research in several ways. We examined several years of data to increase the sample size and look at the correlation between the total educational debt and employment choice over time. We used multinomial logit regression analysis to control for various (observable) confounding factors, and we examined the impact of educational debt on several distinct career choices.

METHODS

Data sources. We obtained the data for our study from the annual ADEA survey of senior dental school students. The surveys are provided to dental schools in March and administered to students during the spring or summer shortly after graduation. The Institutional Review Board for Health Sciences Research at the University of Virginia (Charlottesville) reviewed our study and determined it to be exempt from institutional review board oversight. Response rates ranged from 62 percent in 2009 to 86 percent in 2005, with an average of 75 percent. We used *t* tests to compare the survey respondent characteristics with the American Dental Association's survey of dental school graduates from 2004 through 2010.¹³ We found no statistical difference in sex or race, with the exception of 2010 when a higher proportion of white students took the ADEA survey than did non-white students.

We pooled data from 2004 through 2011 to increase the sample size. We excluded students who reported they were younger than 24 years or older than 50 years (329 respondents) and students who reported that they had more than \$600,000 of debt (74 respondents) to remove

ABBREVIATION KEY. ADEA: American Dental Education Association. GPA: Grade point average.

Download English Version:

<https://daneshyari.com/en/article/3136854>

Download Persian Version:

<https://daneshyari.com/article/3136854>

[Daneshyari.com](https://daneshyari.com)