

An Exploration of the Recent Decline in the Percentage of U.S. Medical School Graduates With Education Debt

After decades of stability¹, the percentage of U.S. medical school graduates with education debt has decreased dramatically in recent years. This change represents a near doubling of the number of graduates with no education debt compared with previous years. While all the reasons for this change are not yet clear, this *Analysis in Brief (AIB)* examines several variables that may help explain this recent trend: graduates from new medical schools, the loss of a financially advantageous federal loan, and changes in scholarship resources and the self-reported parental income of medical students. Among graduates who did borrow, the median education debt reported for the class of 2017 was \$192,000, making debt issues of great interest to many stakeholders, including the students taking on this debt.

Methods

The primary data source for this research was the AAMC Graduation Questionnaire (GQ), an annual survey of graduating medical students. The GQ includes self-reported scholarship and debt data.² The debt data are collected in two categories, “premedical/college” and “medical school,” which are combined into the total “education debt.” The AAMC Matriculating Student Questionnaire (MSQ), an annual survey of entering medical students, served as another data source. The MSQ includes self-reported data on combined parental income in the previous year.² Across the eight years of data analyzed in this *AIB*, 80% of all graduates completed the GQ, and 52% of all graduates completed the GQ and provided MSQ parental income data.

Results

The percentage of graduates with education debt dropped sharply between

2013 and 2016, from 86% to 78% (Figure 1). Less than 4% of borrowers graduating from medical school have premedical debt only (data not shown), so the decrease is almost entirely due to the decline in the percentage of graduates with medical school debt. The largest annual changes in percentage of graduates with medical school debt were for the class of 2015 (down from 83% to 78%) and the class of 2016 (down from 78% to 73%).

Impact of New Schools

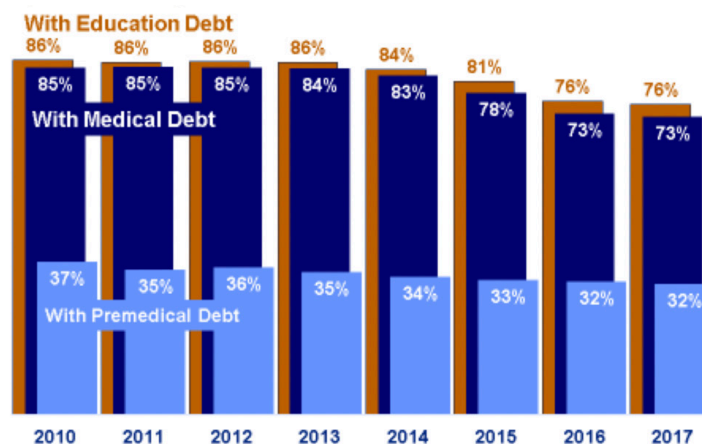
GQ data in recent years include information from graduates of newly accredited U.S. medical schools. Four schools had their first graduating class in 2013, and one to four schools have been added each year since. These graduates had little impact on the percentage of all graduates with medical school debt for two reasons. First, the overall percentage of graduates from this “new schools since 2013” group varies from just 1% to 6% each year from 2013 to 2017. Second, since 2014, the percentage of new-school

graduates with no medical debt is slightly lower at these new schools compared with the percentage for all graduates, typically by 4% (see Table 1, first and third rows).

Changes to Federal Loan Programs

In contrast, a change in the type of federal loans available has had a major impact on the percentage of indebted graduates. Nearly all medical student borrowing is done via federal Department of Education loans. Students used to be able to borrow up to \$34,000 over four years, or \$8,500 per year, in subsidized federal loans, which were interest-free during the years in medical school and periods of eligible deferment.³ Discussions with students, parents, and financial aid staff suggest that many used this strategy when it was available.

However, the subsidized loans were not available after the 2011-12 academic year, which means that the number of students with such loans gradually phased out of the data (i.e., decreased over the next



Source: AAMC Graduation Questionnaire (GQ).

Figure 1. Percentage of U.S. medical school graduates with education, medical school, and premedical debt, 2010-17.

Table 1. Variables Influencing U.S. Medical Student Medical Debt from 2010 through 2017

Variable ¹	2010	2011	2012	2013	2014	2015	2016	2017
Graduates with no medical debt, % of all graduates (N)	15% (1,939)	15% (1,779)	15% (1,831)	16% (1,965)	17% (2,200)	22% (2,849)	27% (3,526)	27% (3,750)
New school								
Graduates of a “new school,” % of all graduates (N) ²	n/a ³	n/a	n/a	1% (124)	1% (171)	3% (382)	4% (532)	6% (808)
“New school” graduates with no medical debt, % of all “new school” graduates (N)	n/a	n/a	n/a	23% (28)	13% (23)	18% (67)	23% (120)	23% (182)
Subsidized loans								
Years of subsidized loan availability (total \$), for graduates in medical school for four years only	4 (\$34,000)	4 (\$34,000)	4 (\$34,000)	3 (\$25,500)	2 (\$17,000)	1 (\$8,500)	0 (\$0)	0 (\$0)
Graduates with medical debt between \$1,000 and \$34,000, % of all indebted graduates (N)	7% (765)	7% (735)	7% (716)	8% (864)	8% (865)	8% (866)	4% (323) ⁴	4% (417) ⁴
Scholarships								
Graduates reporting scholarship funds, % of all graduates (N) ⁵	57% (6,832)	57% (6,133)	61% (6,592)	61% (7,222)	59% (7,008)	60% (7,257)	62% (7,534)	62% (7,819)
Median four-year scholarship amount among those reporting scholarship funds ⁵	\$15,000	\$16,500	\$18,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Among graduates with no medical debt, % reporting scholarship funds (N) ⁵	35% (555)	36% (517)	37% (536)	40% (623)	40% (688)	42% (976)	44% (1,297)	44% (1,378)
Median four-year scholarship amount among those reporting scholarship funds and no medical debt ⁵	\$24,000	\$35,000	\$60,000	\$65,000	\$53,000	\$40,000	\$25,000	\$29,000
Parental income								
Graduates with combined parental income >\$200,000, % of all graduates (N) ⁶	24% (2,002)	26% (2,231)	28% (2,584)	28% (2,762)	29% (2,843)	30% (2,771)	30% (2,792)	33% (3,254)
Graduates with no medical debt and with parental income data, % with combined parental income >\$200,000 (N) ⁶	48% (545)	53% (578)	52% (623)	54% (668)	55% (750)	52% (831)	50% (1,002)	56% (1,265)
Total graduates⁷	16,835	17,361	17,343	18,155	18,072	18,703	18,943	19,254

Source: AAMC Graduate Questionnaire, Matriculating Student Questionnaire, and FACTS Table B-2.

1. Students from the Uniformed Services University of the Health Sciences F. Edward Hébert School of Medicine, who graduate with no medical debt and then enter military service, were not included in these analyses.
2. “New schools” are those whose first graduating class was in 2013 or later.
3. Not applicable.
4. The 2016 and 2017 data on borrowers of \$1,000-\$34,000 excludes those who matriculated when subsidized loans were available.
5. Among those reporting scholarships. The four rows with analysis of scholarship data excluded the 10% of graduates earning a dual degree, which is most often an MD-PhD because of the generous scholarship funds available for these graduates, such as from the Medical Scientist Training Program (MSTP).
6. The two rows with analysis of parental income data include only those graduates who also provided parental income data on the MSQ, roughly 65% of the GQ sample.
7. Total graduates data are from AAMC FACTS Table B-2 and include all graduates from all schools, including Uniformed Services, regardless of completion of the GQ or MSQ.

several years). Among medical students in school for four years, 2012 graduates could have borrowed subsidized loans during all four years (\$34,000 total); 2013 graduates could have obtained these loans in their first three years (\$25,500 total); 2014 graduates, for two years (\$17,000 total); and 2015 graduates, just for their first year (\$8,500 total).

For the six years of GQ data from 2010 to 2015, 7% to 8% of all indebted graduates reported medical debt amounts between \$1,000 and \$34,000; unfortunately, the data do not include loan types. In the two

years of GQ data since 2015, when most graduates did not have access to subsidized loans, just 4% reported debt amounts in that same range (see Table 1). This contrast suggests that 3% to 4% of graduates in the years before the 2012-13 academic year borrowed using subsidized loans because they were available and advantageous, perhaps not out of necessity.⁴

Greater Use of Scholarships

Although the percentage of graduates reporting scholarships increased in recent years, the median four-year amounts reported are not large enough

to explain the increase in the percentage of graduates with no debt (see Table 1).

The evidence is also mixed for the subset of graduates with both a scholarship and no medical debt because the percentage of this subset with a scholarship has increased, but the median four-year scholarship amounts increased and then decreased in the past eight years (from \$24,000 in 2010 to \$65,000 in 2013 to \$29,000 in 2017). Furthermore, these median four-year scholarship amounts are far below the four-year cost-of-attendance totals for medical

schools,⁵ suggesting that scholarships may be more likely to supplement than to completely replace other non-loan funding sources for this subset of graduates.

Changes in Self-Reported Parental Income

The fourth variable examined was the financial background of graduates. For each year of GQ data from 2011 to 2017, the median parental income among graduates with no medical debt who completed both the GQ and MSQ surveys was \$200,000. The percentage of graduates reporting parental income of at least \$200,000 has increased slightly in recent years (Table 1), which has also occurred in U.S. census data (data not shown). Even among the graduates with very high parental income in 2017, 58% had medical debt.

If more personal and/or family contributions were a major driver of the recent increase in the percentage of graduates with no medical school debt, data might show that the percentages of graduates with high parental incomes increased and that this subset of graduates makes up more and more of the group of graduates with no medical debt (among those submitting data from both the GQ and the MSQ).

However, the data show the opposite. The percentage of graduates reporting no medical education debt and parental income of at least \$200,000 increased

from 48% in 2010 to 56% in 2017, and it declined from 2014 to 2015 (55% to 48%) and from 2015 to 2016 (52% to 50%), right as the overall number of graduates with no medical debt increased sharply (Table 1). While this variable explains some recent trends in the percentage of graduates with medical education debt, it does not tell the whole story.

Discussion

The decline in the percentage of graduates reporting medical school debt is notable but defies easy explanation. Three variables appear to play a role. First, with the discontinuation of federally subsidized loans, graduates using only these financially advantageous loans steadily phased out of the debt data in recent years, possibly accounting for up to a quarter of the overall decline.

Second, scholarship dollars and frequency increased in recent years, though not by enough to explain all the increase in graduates with no medical school debt. Third, the percentage of graduates from families with parental income of at least \$200,000 has increased since 2010, but the percentage of such graduates among the total number with both no medical school debt and parental income data actually decreased in two key years (2015 and 2016). These two variables explain some but not all of the increase in graduates with no medical school debt.

A fourth variable — graduates from newly accredited medical schools — did not affect the decline in the percentage of graduates with medical school debt. These graduates are a small percentage of all graduates and, in every year since 2014, have slightly higher rates of indebtedness compared with graduates from all schools.

More analysis is needed to better understand the recent decrease in the proportion of graduates with medical school debt, particularly given other interesting debt trends. For example, the median amount of education debt of indebted graduates is growing more slowly than inflation after many years of growing faster than inflation, and there are now several federal repayment plans that link loan payments to income, not debt levels, and offer forgiveness after a fixed number of years. These changes suggest that medical student borrowers, with few exceptions, will be able to manage their education debt after graduation — regardless of their specialty.

Notes

1. See Youngclaus J, Fresne J. Trends in cost and debt at U.S. medical schools using a new measure of medical school cost of attendance. *Analysis in Brief*. 2012;3(2):1-2. Association of American Medical Colleges: Washington, DC. https://www.aamc.org/download/296002/data/aibvol12_no2.pdf.
2. For more information about these surveys and related publications, see the AAMC websites for the questionnaires: aamc.org/data/gq and aamc.org/data/msq.
3. Medical students are “graduate/professional school” students for federal borrowing purposes, meaning they are considered financially independent of their family. Therefore, most medical students would have shown a financial need that allowed them to borrow subsidized loans each year of medical school, up to \$8,500 per year. The Budget Control Act of 2011 (P.L. 112-25) eliminated the availability of the Subsidized Stafford Loans to graduate and professional students for academic years beginning on or after July 1, 2012, that is, starting with academic year 2012-13.
4. This analysis incorporated a medical student’s exact matriculation date to determine eligibility for subsidized loans. That is, the analysis of 2017 data excluded graduates, typically MD-PhD students, who matriculated during an academic year earlier than 2012-13, when subsidized loans would have been available.
5. For more information about cost and debt at U.S. medical schools, see the August 2017 *AIB*, “An Updated Look at Attendance Cost and Medical Student Debt at U.S. Medical Schools.” <https://www.aamc.org/download/482236/data/august2017anupdatedlookatattendancecostandmedicalstudentdebtatuu.pdf>.

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