

Out of the Red and into the Deep Purple: The Growing Problem of Medical Student Debt

The Alpha of Ohio Chapter of *Alpha Omega Alpha* Honor
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CWRUSOM Western Reserve University Class of 2007

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Introduction

As of 2006, the average United States medical student graduated with over \$130,000 in debt, rising to almost \$150,000 for private schools.¹ The average debt rose 5% last year and has nearly doubled in the last ten years.² The large increase in tuition over the past ten years coupled with the recent termination of fixed tuition at Case Western Reserve University School of Medicine (CWRUSOM) prompted the AOA Class of 2007 to research more deeply into the topic of rising medical school debt. We asked the following questions: How does CWRUSOM medical student debt compare to that of the national medical student debt? Does the cost of attending medical school deter qualified, underrepresented minority applicants, especially to private schools such as CWRUSOM? Does medical student debt impact career-choices? For example, do students initially interested in primary care or serving the underserved abandon these endeavors because of significant financial concerns? We propose a research-based solution and challenge the administration of CWRUSOM to take a leading role in examining the impact of rising tuition costs and debt burden through data collection, analysis and application of the results to devise congruous solutions.

National Problem of Rising Tuition and Student Debt

The rising cost of medical education and resultant financial debt burden on medical students has long been recognized, but efforts to curb this trend have not provided solutions that are comprehensive or sustainable. In 2006, the median debt burden for graduates of public medical institutions was \$120,000 while that for private school graduates was \$160,000; these values reflect increases of 4.3% and 6.7%, respectively, from the previous year – an unsustainable upward trend.¹ Medical student debt is driven by the rising cost of medical education with absolute tuition rates ballooning over the last decade. The median tuition and fees charged by public and private medical schools in 1995 were \$8,747 and \$23,766, respectively.³ By 2006 those same figures had risen to \$20,370 and \$38,190.⁴ Such increases are significantly outpacing the Consumer Price Index.⁵

At many institutions, raising tuition is seen as the solution to decreases in other revenue sources, particularly state support. With states facing budget deficits, many have cut their funding for medical education. The contribution of state support to overall revenue continues to fail to keep pace with inflation⁶ and currently makes up 12% of public medical school revenue and less than 1% of private medical school revenue.⁷

The AMA reports that decreases in medical schools' funds are also driven by decreased revenue from the Dean's Tax, which is approximately a 10% tax on faculty income used to support the medical school.⁸ This tax represents about 35% of medical school's total revenue,⁷ but with the emergence of managed care and reduced Medicare payments mandated by the Balanced Budget Act of 1997, maintaining this level of clinical revenue is becoming difficult to accomplish.⁹ Subsequently, there is increased pressure on faculty to generate funds through both clinical and research activities. While such actions may benefit the school in terms of revenue and stature, these actions take

significant time away from important teaching activities. To compensate, medical schools are forced into a variety of costly measures to supplement education activities, such as hiring more faculty, thus driving further increases in tuition.

Additionally, supply and demand in medical education is highly elastic. There continues to be far more qualified applicants to medical school than there are positions available.¹⁰ For this reason, institutions recognize that they have a product that's high in demand, hence the price can be raised without any perceivable drop in demand. Pure market pressures will not play a significant role in limiting tuition cost as long as there continues to be greater demand than available positions in medical school.

With tuition increases far exceeding inflation and physician income rising barely at pace with inflation, the affordability of pursuing a career in medicine is coming into question. According to the AAMC 2005 report, 33% of students with educational debt report principal in excess of \$150,000, and 9% of students graduate with debt in excess of \$200,000.¹¹ In addition to financing their medical education, 37.7% of graduates report outstanding loans for college/premedical education, averaging approximately \$22,700.

Under current federal student aid policy, medical students can borrow up to \$8500 per year under the federally subsidized Stafford loan program, and up to an additional \$30,000 per year on an unsubsidized basis. In 2004 the interest rate was at a record low of 2.82% and subsequently climbed to 4.70% in 2005 and 6.80% in 2006, and is expected to continue to increase. The interest rate on Stafford loans already dispersed is variable but capped at 8.25%.

The question of whether or not student debt load affects the choice to enter primary care has been interrogated by a few investigators. In 2005, Rosenblatt and Andrilla published their analysis of data from the 2002 Medical School Graduation Questionnaire and found that educational debt was inversely associated with students' decision to enter primary care.¹² The effect was most notable at debt levels above \$150,000. Demographic factors such as race and sex also affected students' choice to enter primary care. In 2006, Jeffe et al analyzed data from AAMC graduate questionnaires between the years 1997-2004 and found that student debt (no debt vs. any debt) was positively correlated with students' planning on specialization with statistical significance.¹³ As in Rosenblatt and Andrilla's paper, other factors besides debt were found to correlate with the decision to specialize (e.g., demographics, plans to serve the underserved). Clearly, this is a multifactorial decision, and further analyses are needed to sort out the most important factors.

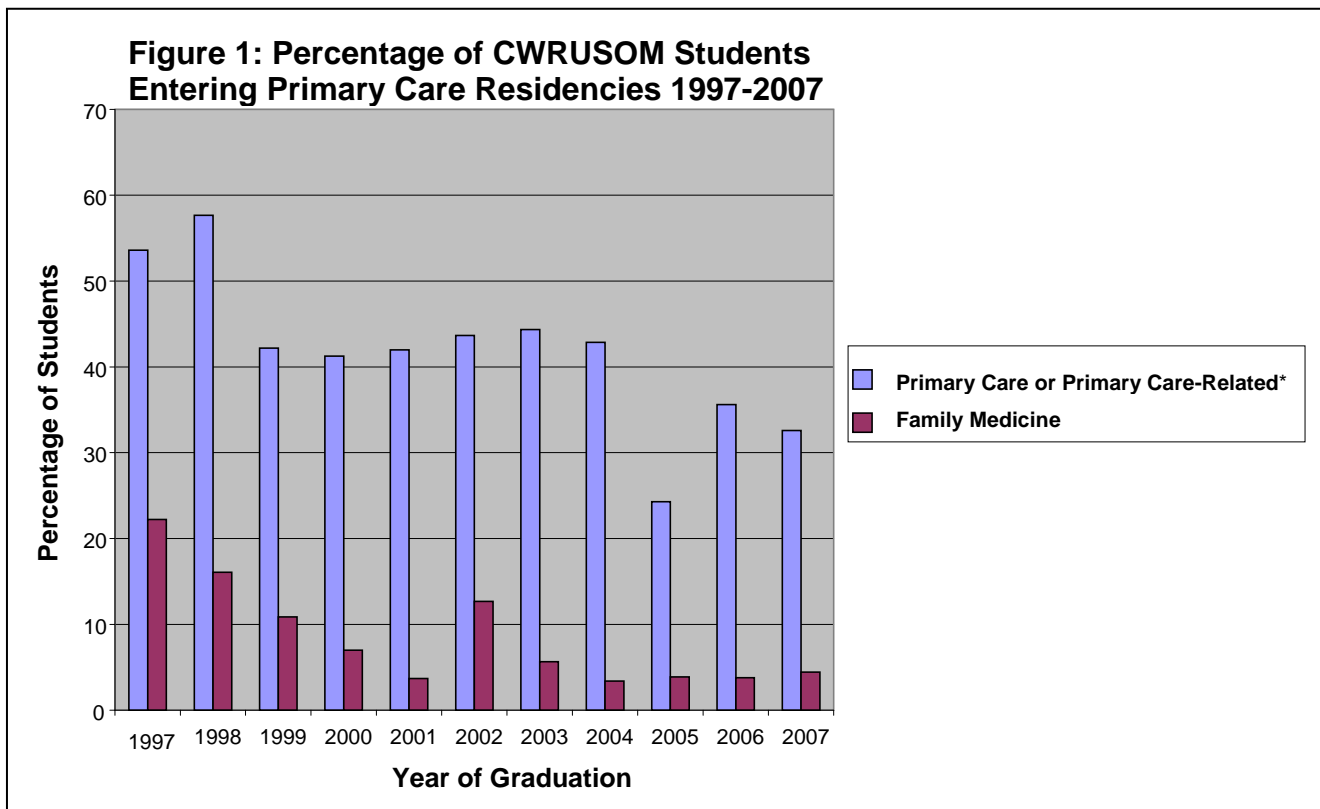
Not all authors have been able to corroborate the above findings. Kahn et al analyzed medical student residency choices (primary care vs. non-primary care) between the years 2001-2005, pooling graduation data from three southern medical schools (Tulane University, University of South Florida, and Louisiana State University).¹⁴ Their study concluded that no significant difference in residency choice could be discriminated by student debt. Several key differences offset the former two papers from the latter. The analyses conducted by Jeffe and Rosenblatt were survey-driven, were multifactorial in scope, included a subjective component, and were conducted nationwide. The study by Kahn et al focused on three medical schools in one area of the country and assessed a limited number of factors.

Tuition and Student Debt at CWRUSOM

The situation at CWRUSOM closely parallels the national trends regarding rising tuition and student debt and medical student specialty choice, with some notable exceptions. Over the last ten years, tuition costs at CWRUSOM have been rising steadily at a rate of about 4.9% per year.¹⁵ However, this rate has slowed in recent years, with an average increase of 3.1% per year over the last five years, though this rate is still higher than the inflation rate of 2.6%, on average, since 2002.¹⁶ The cost of tuition for the incoming class in 2006 was \$39,272, which is almost 3.0% above the national mean of \$38,143 for private medical schools in the United States.¹ Despite this rise in tuition, the dollar amount of need-based scholarships from CWRUSOM has remained fairly constant and the dollar amount of merit-based scholarships has decreased.¹⁵

Not surprisingly, the graduating medical student debt has been rising as well. The mean student debt upon graduation from CWRUSOM has increased from \$123,100 in 2004 to \$137,100 for the current graduating class of 2007.¹⁵ This reflects an average increase of just over 3% per year. Compared to national data, however, CWRUSOM is actually much lower on average than other private schools with a mean graduating medical student debt of \$149,460.¹ CWRUSOM's median graduating debt in 2006 was \$147,600,¹⁵ also below the national average of \$160,000 for private medical schools.¹ Indeed, CWRUSOM has managed to remain below the national average in medical student debt despite having higher tuition costs on average. While the reasons for this could be manifold, careful data collection and analysis would likely be helpful in understanding the mechanism of such a result. Furthermore, this information should be readily shared with potential medical students who may be deterred by the higher tuition of CWRUSOM.

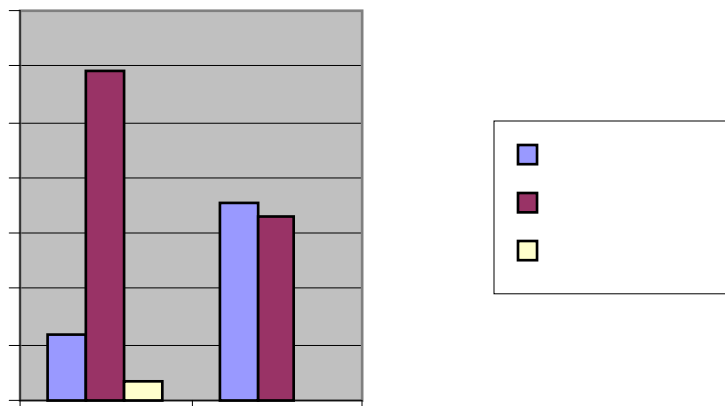
While CWRUSOM should be applauded for its ability to remain below the national average for private medical student debt, the average amount of debt is increasing steadily, and the possible ramifications resulting from this increase should be examined. As noted above, some studies have shown an inverse association between educational debt and students' decisions to enter primary care fields. Based on match results, a decrease in students entering primary care fields, especially family medicine, has been observed at CWRUSOM, consistent with national trends (Figure 1). The proportion of CWRUSOM medical students who have entered primary care or primary care-related fields (defined as family medicine, internal medicine, pediatrics or a combined residency including at least one of those three) has significantly declined since 1998, where it appeared to have leveled off at just above 40%. However, match results from the last three years show significant decreases in the proportion of CWRUSOM medical students entering these fields, which may be a sign of even further decline. The proportion of students entering family medicine has been consistently below ten percent since 2000 (except for 2002). While the explanation of this trend is multi-faceted, the potential contribution of educational debt on career path should be examined. Furthermore, a graduate who enters a primary care residency will not necessarily choose to practice primary care once his or her residency has been completed. Many will choose to specialize in areas other than primary care. In addition to the data discussed here, further data, such as graduates' intentions on practicing primary care as well as actual field upon completion of residency should be tracked.



The issue of increasing medical school tuition and debt raises important questions of fairness and opportunity. As medical school debt continues to increase and physician incomes do not, will only the wealthy be able to finance a medical education? According to Jolly,⁵ this rising cost may deter qualified applicants, especially minority applicants. Because CWRUSOM is a private school, we investigated percentage of minority matriculants at CWRUSOM as compared to national data. On average, from 2003 to 2006, 14.8% of the matriculating students at CWRUSOM Western Reserve University are under-represented minorities, as compared to national data of 2005, which showed that 13.7% were classified as under-represented minorities (Figure 2). Again, while CWRUSOM should be applauded for attracting more minority students, on average, as compared to other private schools, perceived cost of medical education by potential minority students should be investigated.

We also inquired as to the financial quarter and quintiles of the parents of entering students. Unfortunately, these data are collected but not pooled and organized for analysis. The average parental income of the class of 2007 is \$95,331.¹⁵ We recommend that these data be analyzed to ensure that qualified applicants of varying financial backgrounds are not deterred from matriculating into CWRUSOM.

Figure 2. Average under-represented minority sub-groups matriculating at CWRUSOM (2003-2006) compared with AAMC national data on matriculating minorities in the United States (2005).



Proposed Solutions and Charge to CWRUSOM

If medical school debt continues to rise at current rates, there is realistic concern for the future affordability of medical education. To prevent the debt crisis from reaching untenable dimensions, medical schools must join state and federal-based solutions to address the problem. The current efforts of CWRUSOM to contain tuition, however, have been limited. They have tried to increase revenue by reaching out to alumni for donations. The Medical Annual Fund, which provides immediate funds for student scholarships and loans through annual gifts, has set a goal of \$1,250,000 from its 2720 donors (6,332 total alumni) and efforts have been made to improve relations with the CWRUSOM Alumni Association.¹⁷ However, if the debt-to-income ratio for physicians continues to increase, future alumni will be unable to embrace this tradition. In addition to soliciting philanthropy, CWRUSOM has tried to decrease operating expenses, including reducing utility costs and freezing faculty salaries.^{18,19} Case Western Reserve University School of Medicine second quarter data forecasted approximately \$409 million in expenses for fiscal year 2007, as compared to the original budget of \$415 million (-1.4%).²⁰ In addition, the \$409 million represents a 1% increase over the previous year's forecasted expenses, which is well below inflation. Nevertheless, trimming costs in an effort to balance operating expenses has not resulted in reduced tuition rates. As CWRUSOM's tuition continues to increase beyond inflation, the School of Medicine must become more creative in developing solutions to the problem. It is a problem for higher education nationally, but it is also a way for CWRUSOM to distinguish itself from other schools. Indeed, attracting talented students depends on keeping medical school affordable.

Medical schools have a responsibility to support the development of a diverse group of future physicians to meet society's needs. One mechanism that CWRUSOM uses to achieve this goal is to award need-based and merit-based scholarships to selected students, encouraging a diverse group of medical students to enroll in each class. We propose that grants and scholarships be awarded during medical school training to maintain a diversity of interests among students. Working with alumni to recruit funds for primary care or rural medicine scholarships, CWRUSOM could support the career development of second- and third-year medical students who have expressed sincere interest in these under-represented fields. Hence, financial resources can be allocated during the course of medical education to encourage students interested in careers in which there is a deficit of practitioners.

Some options such as the National Health Service Corps (NHSC) and Armed Forces Health Professions Scholarship Program (AFHPSP) may be attractive to students who are looking for a means to pay for medical school. Each scholarship pays tuition costs and educational fees as well as a stipend to cover monthly living expenses. In return, students are obligated to serve a period of time after residency training depending on their specific scholarship program. At CWRUSOM, there are currently five students participating in the NHSC and sixteen students among the Army, Navy, and Air Force participating in the AFHPSP. Unfortunately, this represents a very small portion of the student body. These scholarship programs are a tremendous opportunity both to cut tuition costs and to encourage primary care practice in greatly needed areas. Although institutions like CWRUSOM are not obligated to promote these programs, it would be beneficial to students to receive more information about available scholarships through the medical school financial aid office.

Finally, we recommend a thorough examination of the current medical school budget and the role that tuition plays in financing the cost of a medical education. It is difficult to determine the exact cost of a medical education at CWRUSOM due to the various facilities in which students are educated and the impact of patient care on facility income. However, efforts should be undertaken to improve data collection in order to address this important question. Within the School of Medicine, direct expenses account for approximately 86.5% of total expenses.²¹ These direct expenses include faculty salaries (25.9%) at all three affiliated hospitals (The Cleveland Clinic Foundation, MetroHealth Hospital, and University Hospitals) and benefits (6.9%). Student aid accounts for approximately 4.7% of the total expenses, but it is important to note that this aid includes graduate Ph.D. work and undergraduate work affiliated with medical science. Forty-seven percent of the total expenses are allocated to the affiliated hospitals for their assistance in medical education, but this money primarily comes from revenue brought in from the research and training component of these affiliated hospitals resulting in a pass through effect.²² Indirect expenses account for only 13.5% of total expenses and include student services and medical school facility maintenance.²¹

Total tuition funds only account for approximately 8.8% of total revenue, and this includes tuition from professional, graduate, and undergraduate funds.²¹ Professional tuition contributes 63% of total tuition funds. Research and training accounts for the majority of revenue generation, but much of this money goes back to the affiliated hospitals in the non-salary portion of direct expenses.²² Endowment supplies approximately 5.7% of total revenue, and gifts contribute only 3.3% of total revenue.²¹

Endowments and gifts are the main areas that CWRUSOM is attempting to increase revenue.²²

With tuition funds contributing so little to total revenue, the utility of tuition increases in excess of the rate of inflation and the recent change from fixed tuition to increased tuition should be called into question. The potential gains in revenue generated by tuition money should be balanced against the potential harms that such tuition hikes may foster such as deterrence of under-represented minorities to attend medical school, continued decline in medical school graduates entering primary care residencies, and fewer graduates pursuing careers working with underserved populations where financial compensation may be lacking. As noted above, the argument that such harms are correlated with financial concerns is lacking in clear-cut data; thus our charge to CWRUSOM shall be primarily to begin to gather such data in order to investigate any possible associations. CWRUSOM can integrate the experience of the investigators noted above to examine its own students' decisions. Like Kahn et al's investigation, the School of Medicine may find it useful to conduct a study restricted to its own recent graduating classes. Like Rosenblatt et al and Jeffe et al, however, CWRUSOM investigators may find a richer source of data in surveys which address more factors than debt alone, e.g., demographic data, subjective evaluation of specialty lifestyle, plans to serve the underserved, anticipated compensation, etc.

Additional Requests of CWRUSOM

The rising cost of medical school and debt accrued by students as they pursue their career aspirations means that change is needed both nationally and here at Case Western Reserve University, in the School of Medicine and at the level of university-wide administration. In addition to challenging CWRUSOM to become a leader in researching the problem of rising tuition and educational debt, we challenge the school to take concrete steps to effect changes in regard to opportunities for and information about medical education financing.

We envision this process as a five-part approach, based on the AAMC Working Group Report on Medical Educational Costs and Student Debt published in March 2005.¹¹

First, there must be increased accountability and transparency regarding the cost of medical education. According to the AAMC report, one-third of student affairs officers at medical schools surveyed had little or no say in the fee-setting process.¹¹ Just as transparency is required by government and private lenders for monies paid for research grants, so too do students have a right to know how yearly tuition and fees are set and how this money is actually used. We challenge CWRUSOM to inform medical students, at least annually, about medical school finances and the rationales for tuition increases. The medical school should also advocate on behalf of its students to the university administration about our concerns regarding the burden of medical school debt. The medical school should provide a position for a medical student representative to take part in the tuition and fee-setting process. In this way, there can be more well-informed and successful discussions about solving the challenges of medical educational debt.

The second part of ensuring the success of this process starts at an early stage. From the time potential medical students apply for admission, CWRUSOM should fully disclose a realistic estimate of the costs of the M.D. educational program, including but not limited to:

- The expected cost of attendance (including tuition, fees, room and board, books and supplies) for the full length of study
- What kind of financial assistance is available to students including scholarships, grants, and loans and how much a typical student receives
- The average educational debt of the school's graduating physicians.

Upon acceptance, the Case medical school's financial aid department must work closely with accepted students to provide estimates of financial aid available as early as possible. Case must also work to ensure greater predictability regarding the full cost of their students' medical education. This will ensure that students are better able to plan their financial futures.

The cost of attendance for medical school is extremely variable across medical schools and there seems to be little rationale to explain this variability.¹¹ We challenge the administrators of CWRUSOM to regularly review how the cost of attendance is set and to ensure that these costs are appropriate and justified.

As students at CWRUSOM, we have seen the importance of diversity in the different hospitals where we rotated. This has helped us to realize that to ensure the well-being of an increasingly diverse society, a diverse physician population is needed. Some students of under-represented minorities, though, shy away from medicine because of their concerns about costs.¹¹ To meet this challenge, we ask the medical school to work diligently to find additional sources of funding, whether private or government, to fund need-based scholarships and loan repayment and forgiveness programs that will encourage under-represented minorities to pursue medical careers without the fears of a large debt burden.

Lastly, we challenge CWRUSOM to develop a reliable system to educate medical students about the financial aspects of medical education. The medical school should provide mandatory educational events at regular intervals to students incurring debt. Unlike the system now where students receive this education at the beginning and at the end of medical school, students should have education during each year of study regarding financial debt, managing loans, and other points that will help us to succeed in repaying debt and becoming financially successful.

Conclusion

The efforts of CRWUSOM to decrease debt burden below the national average for private schools and to attract a diverse population of medical students should be saluted. The AOA Class of 2007 challenges CWRUSOM not to take this success as grounds for complacency; rather, it should be a launching pad from which CWRUSOM can pursue national leadership in the subject of medical student debt. Both on the national level and at CWRUSOM, tuition rates have been increasing above inflation. Concurrently, fewer students have been pursuing careers in primary care. Whether these

two observations are linked is unclear but warrants investigation. We propose that CWRUSOM becomes a center for researching the impact of anticipated debt on the medical school applicant population as well as the effect of debt burden on career choices after medical school. Such data could be used to identify students who might benefit from the National Health Service Corps (NHSC) and Armed Forces Health Professions Scholarship Program (AFHPSP), to create scholarships to encourage career interest in primary care, and to inform the allocation of resources from the medical school budget so as best to achieve the goals of CWRUSOM.

On its home page, CWRUSOM asserts itself as a “leader in medical education.”²³ Such leadership includes fostering the development of physicians who will pursue a wide variety of careers and contributing to the national discussion on key subjects in medical education. The subject of medical student debt provides an opportunity for CWRUSOM to distinguish itself as a national leader. The AOA Class of 2007 challenges CWRUSOM to embrace that opportunity, using a data-driven approach to address the growing problem of medical student debt.

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