

STUDENT DEBT ASSOCIATED WITH OPTOMETRIC EDUCATION

By

Jason Milo Andrus & Aubrey Marie Dyl

This paper is submitted in partial fulfillment of the
requirements for the degree of

Doctor of Optometry

Ferris State University
Michigan College of Optometry

March, 2014

STUDENT DEBT ASSOCIATED WITH OPTOMETRIC EDUCATION

by

Jason Milo Andrus & Aubrey Marie Dyl

Has been approved

March, 2014

APPROVED:

A large black rectangular redaction box covers the signature of the Faculty Advisor. A handwritten mark, possibly a checkmark or initials, is visible above the redaction.

_____, Faculty Advisor

ACCEPTED:

Faculty Course Supervisor

Ferris State University
Doctor of Optometry Senior Paper
Library Approval and Release

STUDENT DEBT ASSOCIATED WITH OPTOMETRIC EDUCATION

We, Jason Andrus & Aubrey Dyl, hereby release this Paper as described above to Ferris State University with the understanding that it will be accessible to the general public. This release is required under the provisions of the Federal Privacy Act.



Doctoral Candidate



Do

3/26/14

Date

ABSTRACT

Background: Many optometry students must assume a significant amount of debt to finance their professional education. The amount of loans and their repayment schedule can negatively impact the lives of young optometrists until they are repaid. The goal of this study is to compare expected debt of incoming first-year optometry students to the actual debt of graduating fourth-year students and alumni of the Michigan College of Optometry. **Methods:** First-year students, fourth-year students and alumni were anonymously surveyed to assess the amount of debt accrued before optometry school, expected/actual debt upon graduation, loan re-payment terms, other sources of funding for school, and subjective input about how comfortable each participant feels with the loan process. **Results:** Collected data was compared via graphical analysis to determine if there was a difference between the amount of debt expected by incoming first-year students and actual debt acquired by fourth-year students and alumni. **Conclusions:** The results of this study determined that incoming first-year students underestimated the amount of student loans that have been acquired by the fourth-year group. Future students may benefit from gaining a realistic idea of what their optometric education will cost before attending optometry school.

TABLE OF CONTENTS

	Page
LIST OF TABLES.....	v
LIST OF CHARTS.....	vi
INTRODUCTION.....	1
METHODS.....	2
RESULTS	
First-Year Survey.....	3
Fourth-Year Survey.....	6
Alumni Survey.....	8
DISCUSSION.....	10
CONCLUSION.....	16
REFERENCES.....	20
APPENDIX	
A. ADVICE FROM ALUMNI ABOUT LOANS.....	21
B. COPY OF SURVEYS.....	23
First-Year survey.....	24
Fourth -Year survey.....	25
Alumni survey.....	26
IRB APPROVAL PAGE.....	27

LIST OF TABLES

Table	Page
Michigan College of Optometry Tuition Rates.....	14

LIST OF CHARTS

Chart		Page
1	Knowledge About the Loan Process.....	5
2	Debt from Undergraduate Studies.....	11
3	Debt Incurred During Optometry School.....	13
4	Debt Incurred During Optometry School: A Look at the Bell Curve....	13

INTRODUCTION

Federal and State funding for institutions of higher education continues to fall, while the tuition rates continue to rise. According to the National Center for Education statistics, the average amount of loans borrowed by health science professional students has increased from \$14,900 per year in 1995-1996 to \$29,900 per year for the 2007-2008 academic year. Simultaneously, the percentage of students dependent on federal, private, and institutional loans to fund their education has also increased from 73.5% in 1995-1996 to 81.8% in the 2007-2008 academic year.¹ These statistics indicate that there is a general trend of increasing cost for professional education in the health sciences, and the need for federal aid funding has continued to increase contemporaneously.

The optometric profession is no exception to this trend of increasing educational cost. As these costs continue to rise, there is a sense in the optometric community that reimbursements from third parties are declining and are affecting the annual income that Optometrists take home. This income is of particular interest for graduating optometrists because of the necessity to make monthly loan payments.² For this reason, many new optometrists seek a guaranteed salary that is comfortable enough to repay their loans.²⁻³

A study conducted by Hardigan *et. al.* concluded that there is a discrepancy between the amount of compensation expected by graduating optometrists looking to work in a private practice and the amount that private practice owners are willing to provide.⁴ According to this study, more graduates are entering into corporate practice right out of school because it provides guaranteed higher compensation, even though the majority of graduates responded that they would prefer to work in a private practice.^{2,4} It is likely that the desire to earn a higher salary immediately out of school is related to the

higher cost of education and debt acquired by recent graduates.² Perhaps increased awareness about post-graduate debt would help current students plan financially for their future and allow them to select their mode of practice based on desire and interest rather than financial obligation.

The authors postulated that students beginning optometry school are ill-prepared and lack a realistic picture of the amount of debt assumed during the four years of optometry school. Although this study does not represent all economic situations, it is hoped that it will give in-coming first years a better idea of what to expect when financing their optometric educations.

METHODS

Data for this study was gathered from three groups. The first group consisted of first-year optometry students at the Michigan College of Optometry. These students had been in their first year of school between one month and two months when participating in this study. The second group consisted of fourth-year students at the Michigan College of Optometry who were within six months of graduation, which means they were able to provide a fairly accurate prediction of their debt upon graduation. This second group also included alumni of the Michigan college of Optometry who had graduated within the last 7 months. This second group is referred to as “fourth- years” for the duration of the study. The third group consisted of alumni of the Michigan College of Optometry that had graduated between four and six years prior to the study.

Respondents provided answers for a survey that consisted of seven questions. Participants were given the option to respond to all questions or omit any questions they preferred not to answer. The surveys were emailed to possible participants and used a

cloud-based survey service called “surveymonkey.com.” The Participants were also given the option to comment on the survey, and some of these comments are included later in this paper.

This paper also includes a review of the cost of tuition at the Michigan college of Optometry over the last ten years. This is included to demonstrate the increase in cost of tuition over time and to be considered when analyzing the amount of debt incurred by groups two and three. This information will also be used to extrapolate data that can be used to compare to the data provided by group one. Copies of the surveys are included in the appendix as well as the data showing increase in tuitions at MCO over the last ten years.

RESULTS

First-Year Survey:

We received 20 responses for the “first-year survey” after sending it to the entire class of 2015, which consists of 38 people. 17 (85%) students responded that 75-100% of their optometry school funding will be provided by student loans, zero (0%) people responded 50-74%, one (5%) person responded 25-49%, and two (10%) people responded that less than 25% of their optometry schooling will be funded by student loans. This indicates that the great majority of first-year students estimate that 75-100% of their school funding will be provided by student loans.

Question two of the survey inquired about the amount of debt each student currently has from undergraduate loans. Three (15%) participants responded that they currently have greater than \$30,000 in undergraduate debt, six (30%) responded that they have \$20,000-30,000, five (25%) responded that they have \$10,000-19,999, and six

(30%) responded that they have \$0-9,999 in current undergraduate debt. One participant commented that they currently have no debt from undergraduate school, and another commented that they are currently \$32,000 in debt from undergraduate loans.

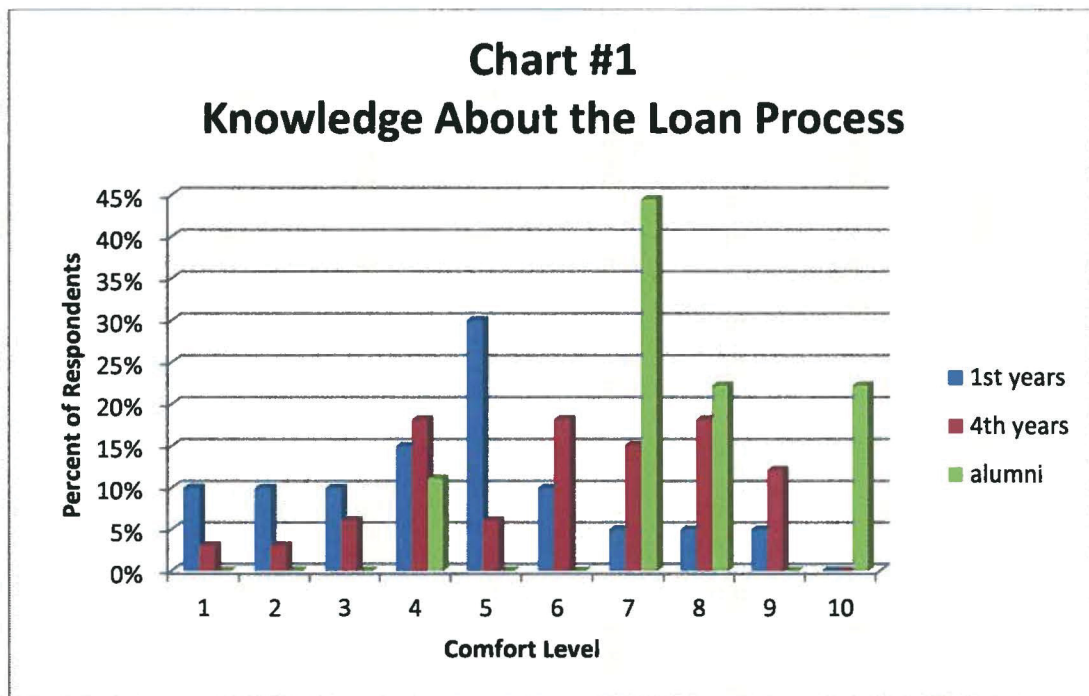
Question three of the survey inquired about expected debt upon graduating optometry school. Zero (0%) students responded that they expected greater than \$200,000 worth of student loans upon graduation, five (25%) responded \$150,000-200,000, nine (45%) responded \$100,000-149,999, four (20%) responded \$50,000-99,999, and two (10%) responded that they expected less than \$50,000 in student debt after graduating optometry school. One person commented that they were “closest to \$100,000.”

Question four asked how many years each student expects to pay in-state tuition. 16 (80%) participants indicated that they expect to pay in-state tuition for four years, three (15%) expect 3 years, zero (0%) expect one or two years, and one (5%) expected to pay in-state tuition for zero years. There were no individual comments for this question.

Question five of the survey inquired about how much each participant thought their monthly student loan payment would be after graduating optometry school. Zero (0%) indicated that their expected payment would be greater than \$2,000 per month, nine (45%) indicated \$1,500-2,000, five (25%) indicated \$1,000-1,499, five (25%) indicated \$500-999, and one indicated less than \$500 per month. The participant that indicated their expected payment would be less than \$500-999 commented that this meant the “mandatory payment,” but they plan to pay more than what is due each month to pay the loans off faster.

Question six asked how many years each student thought it would take to pay off their student loans after graduation. Two (10%) indicated that they thought it would take greater than 20 years to pay back their student loans, one (5%) selected 16-20 years, five (25%) indicated 11-15 years, nine (45%) thought 5-10 years, and three (15%) participants thought it would take less than 5 years to pay back their student loans. One person commented “my plan is to be able to pay off all my loans in 10 years.”

The final question on the survey inquired about how knowledgeable each participant felt about their loans on a scale of zero to ten (0 = know nothing about loans, 10 = loan expert). The results for this question can be found in *chart #1*. These results indicate that 11 (55%) participants fell within a score of 4-6, with the majority (30%) selecting a confidence level of 5. The distribution beyond this point trends toward less confidence, with six (30%) participants selecting a score between 1 and 3 and only three (15%) selecting a score between 7 and 9. Zero participants selected a confidence level of 10, and there were no specific comments for this inquiry.



Fourth-Year Survey:

We received 33 responses for the “fourth-year survey,” which was sent to 38 fourth-year students (class of 2014) and 36 recently-graduated alumni (class of 2013) for a total of 74 surveys sent. Twenty-three (69.70%) of the participants indicated that 75-100% of their optometry schooling was funded by student loans, five (15.15%) selected 50-74%, four (12.12%) chose 25-49%, and one (3.03%) indicated that less than 25% of their optometry schooling was funded by student loans. Two participants commented that their optometry schooling was 100% funded by student loans.

Question two of the survey inquired about the amount of debt each participant had acquired in undergraduate loans. Eight (24.24%) indicated that they had greater than \$30,000 of debt from undergraduate school, two (6.06%) selected \$20,000-30,000, six (18.18%) chose \$10,000-19,999, and seventeen (51.52%) indicated that they had between \$0-9,999 acquired in student loan debt from undergraduate college. One person commented that they have \$40,000 of undergraduate debt, another commented that they have \$0, and a third commented that they currently have \$80,000 worth of debt from undergraduate loans not including interest already accrued.

Question three asked how much debt each participant had, or will have at graduation. Two (6.06%) indicated that they have or will have greater than \$200,000 of student debt upon graduating optometry school, ten (30.30%) selected \$150,000-200,000, eleven (33.33%) chose \$100,000-149,999, six (18.18%) acquired \$50,000-99,999, and four (12.12%) indicated that they have or will have less than \$50,000 in student debt upon graduation. One participant commented that they acquired \$202,000 in student debt, and another commented that they have \$163,000 in student loans.

Question four inquired about how many years each participant paid in state tuition while attending optometry school. Twenty-five (75.76%) indicated that they paid in-state tuition for all four years, two (6.06%) selected three years, zero selected one or two years, and six (18.18%) selected zero years. One person commented that Canadian students are unable to get in-state tuition.

Question five asked how much each participant's monthly payment is currently (class of 2013), or how much it is estimated to be (class of 2014). Six (21.43%) people indicated that their monthly payment will be greater than \$2,000, seven (25%) selected \$1,500-2,000, five (17.86%) chose \$1,000-1,499, five (17.86%) selected \$500-999, five (17.86%) indicated that their monthly payment would be less than \$500, and five (17.86%) skipped the question because they were not sure what the monthly payment would be. One participant commented that their monthly payment is \$2,400 per month for ten years, another commented that it depends on how fast they want to pay the loans off, and three commented that they have not graduated yet so they are unsure of what the payment will be.

Question six inquired about how many years each participant felt it would take to pay off their student loans after graduation. One (3.03%) person indicated that they thought it would take greater than 20 years to pay their student loans back, six (18.18%) selected 16-20 years, eleven (33.33%) chose 11-15 years, ten (30.30%) thought 5-10 years, and five (15.15%) thought it would take less than five years to pay back their student loans. There were no comments for this question.

The final question on the survey inquired about how knowledgeable each participant felt about their loans on a scale of zero to ten (0 = know nothing about loans,

10 = loan expert). The results for this question can be found in *chart #1*. This graph indicates that twenty-five (75.75%) participants fell within a score of 4-8, with the majority (51.51%) selecting a confidence level between 6 and 8.

Alumni Survey:

We received 10 responses for the “Alumni Survey” after sending it to the email addresses we could acquire for the classes of 2007 and 2008. We were only able to send the survey to sixteen people from the class of 2007 and nine for the class of 2008 due to contact availability, for a total of 25 surveys. Eight people (80%) responded that 75-100% of their optometry school was funded by student loans, one (10%) selected 50-74%, zero chose 25-49%, and one (10%) indicated that less than 25% of their optometric education was funded by student loans. There were no comments for this particular question of the survey.

Question two of the survey inquired about the amount of debt each participant acquired during their undergraduate studies. Three (30%) responded that they had greater than \$30,000 worth of debt before optometry school, three (30%) selected \$20,000-30,000, one chose \$10,000-19,999, and three (30%) indicated that they had between \$0-9,999 of debt upon entering optometry school. There were no comments for this section of the survey.

Question three asked how much debt each participant had acquired for their optometric education (excluding undergraduate debt). Zero (0%) indicated greater than \$200,000 of debt due to optometry school, one (10%) selected \$150,000-200,000, three (30%) chose \$100,000-149,999, five (50%) indicated \$50,000-99,999, and one (10%)

said that they had acquired less than \$50,000 worth of debt due to optometry school.

There were no comments for this question.

Question four of the survey inquired about how many years each participant was able to pay in-state tuition. Nine (90%) alumni indicated that they paid in-state tuition for all four years of optometry school, one (10%) selected three years, and zero (0%) selected zero to two years. No participants commented on this question.

Question five asked how much each participant's monthly payment is for their student loans. Zero (0%) indicated that their monthly payment is greater than \$1,500 per month, two (22.22%) selected \$1,000-1,500 per month, three (33.33%) chose \$500-999 per month, and four (44.44%) indicated that their monthly payment is less than \$500. One person indicated that their loans are already paid off.

Question six inquired about how many years (from the time of graduation) each participant expected that it would take to pay off their student loans. Four (40%) indicated they thought it would take greater than 20 years to pay off their loans, two (20%) selected 16-20 years, one (10%) chose 11-15 years, one (10%) said 5-10 years, and two (20%) indicated they thought it would take less than 5 years to pay off their loans. There were no comments for this section.

Question seven of the survey inquired about how knowledgeable each participant felt about their loans on a scale of zero to ten (0 = know nothing about loans, 10 = loan expert). The results for this question can be found in *chart #1*. These results indicate that six (66.66%) participants fell within a score of 7 and 8, with the majority (44%) selecting a confidence level of 7. Otherwise, two (22.22%) people selected a confidence level of

10, two (22.22%) chose 8, one (11.11%) answered 4, zero (0%) selected other values, and one person declined to answer the question. No participants commented on this question.

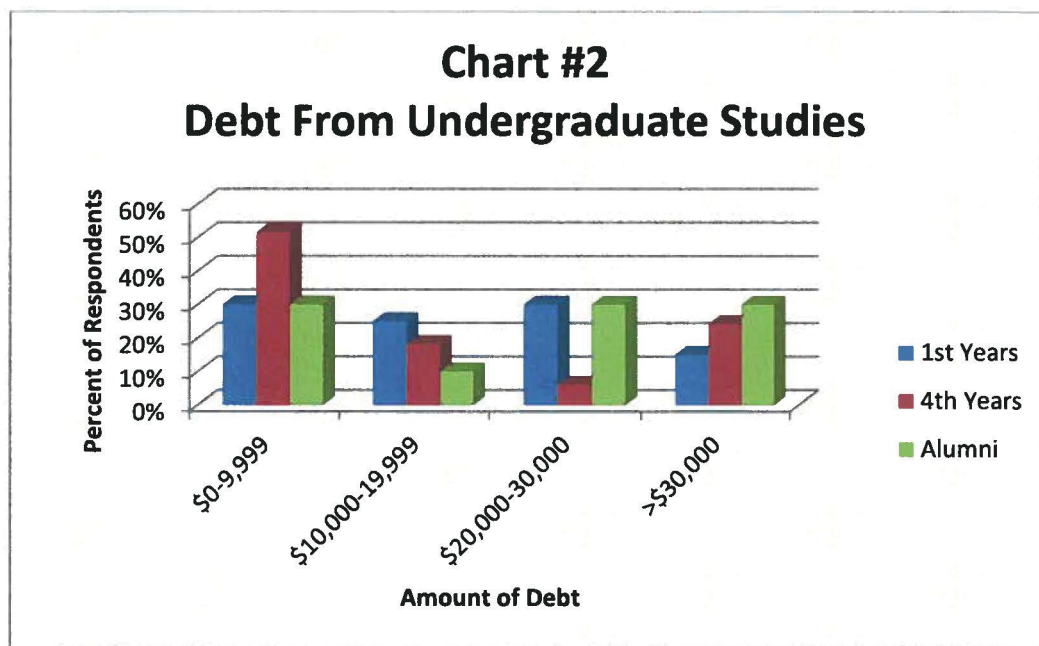
In addition to the seven questions that were included on the first year and fourth year surveys, the alumni were also asked which loans they have found easiest to pay off and what advice they would give to current optometry students regarding student loans. Full responses to these questions can be found in *Appendix A*. Generally, these statements indicated that it is best to not take out extra loans if at all possible, and to pay off the loans with the highest interest first.

DISCUSSION

The results of all three surveyed groups indicate that the majority of optometry students fund their optometric education via student loans. Data collected from all three survey groups shows 70-85% of students funded 75-100% of their professional schooling from student loans.

The respondents did not show a significant difference in debt incurred for undergraduate degrees as demonstrated in *chart #2*. This indicates that the amount of undergraduate debt is relatively more constant than expected across the three groups. Of the current fourth-years, 70% have less than \$20,000 debt from undergraduate course work. The alumni show only 40% with less than \$20,000, while the first-years show 55%. A similar assessment was found to be true at the level of \$30,000 or less, with the fourth-years having 76 %, the alumni having 70%, and the first-years having 85% less than \$30,000 in undergraduate debt. There is a slight trend toward more debt from undergraduate course work, but again, not as much as expected since the cost of undergraduate tuition has continued to rise nationwide.

This study did not inquire further as to what might account for the relative constant average debt acquired prior to optometry school. Some possible reasons that would require further study may include: 1) increased awareness of undergraduate costs 2) increase in grants and scholarships received by undergraduate students 3) decrease in number of optometric applicants from lower socioeconomic status, meaning current optometric students are receiving more financial help from parents or family members with greater disposable income. It is possible that the increased cost of optometry school is deterring students of lower socioeconomic status from considering optometry as a career option. 4) Small sample size may be leading to a sample size error.

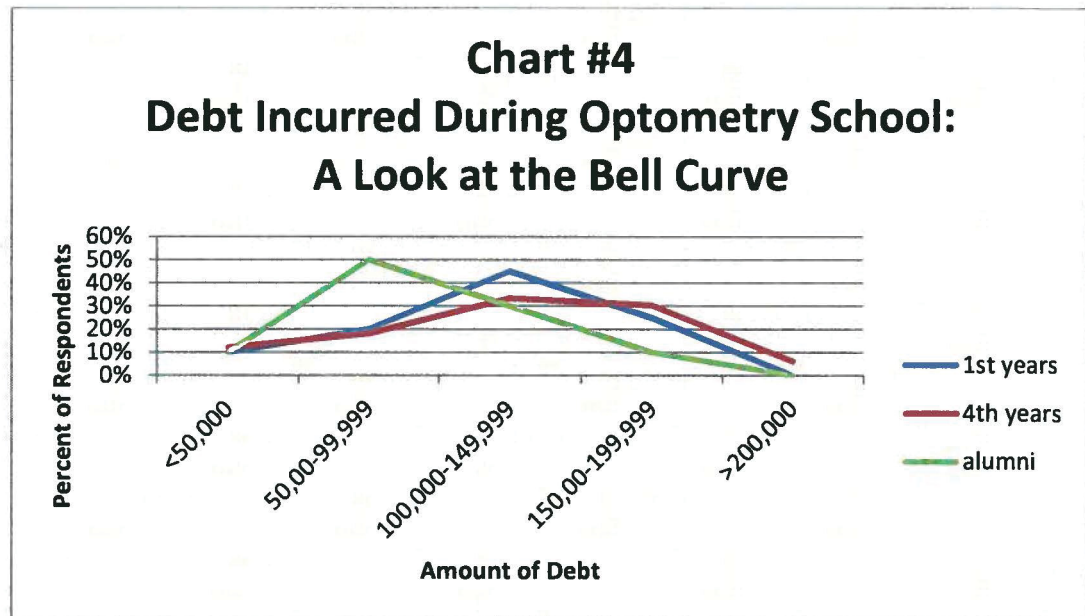
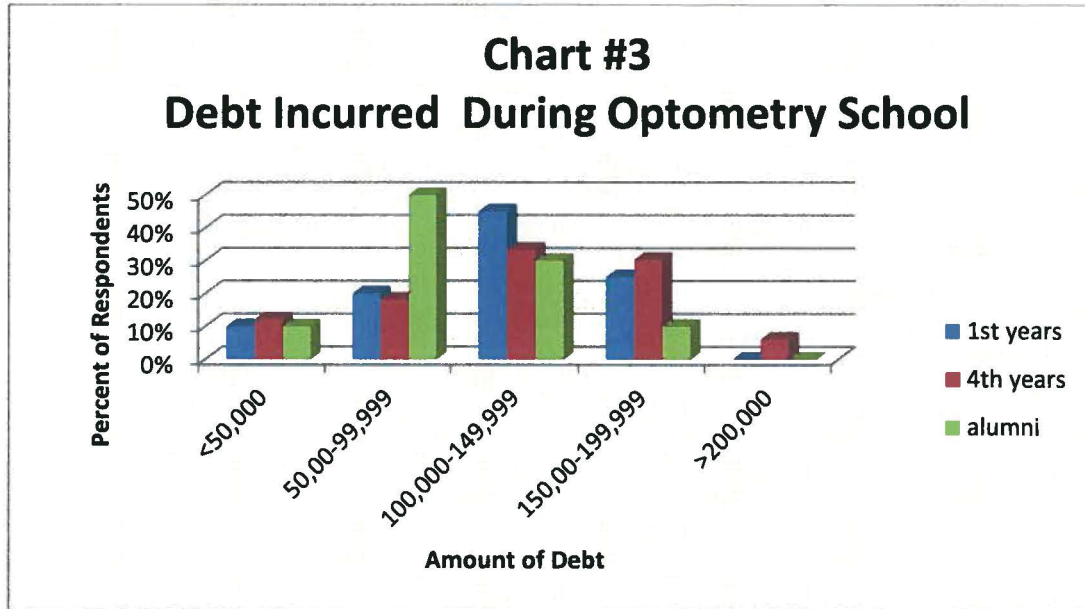


The relatively constant undergraduate debt also indicates that as student debt acquired strictly from optometry school changes, the amount of overall debt changes/increases proportionately. Taking this into consideration increases the disparity between actual debt incurred during optometry school and the amount of debt that incoming first-year students expect to have upon graduation.

The amount of debt assumed by graduates of the Michigan college of Optometry is on track to double in the 10-12 years preceding the graduation of the class of 2017 (specific figures can be found in *Table #1*). Data from this study has indicated that students starting optometry school are under-estimating the amount of debt that they will likely have upon graduation from optometry school. Of the alumni that graduated 5-7 years ago, ninety percent had less than \$150,000 debt (excluding undergraduate debt). Of the fourth-year students, only sixty-four percent have debt of less than \$150,000 (excluding undergraduate debt). Seventy-five percent of first years anticipate debt of less than \$150,000 (excluding undergraduate debt). This is demonstrated by *chart#3* and *chart#4*. These appear to be unlikely expectations for the first year class since the cost of tuition continues to rise, the undergraduate debt has stayed relatively stable, and current optometry students do not qualify for federally subsidized loans as they have in the past.

For ease of quick comparison between the groups, these data have also been analyzed using approximations of mean and range. As respondents were asked to select a range of debt via multiple choice responses, these numbers provide only a very loose estimate of the actual mean and range, which should be taken into consideration for this discussion. Alumni that graduated five or more years ago averaged approximately \$95,000 of debt acquired solely from optometry school with a range of \$70,000-120,000. Fourth-year students averaged approximately \$125,000 of debt with a range of \$100,000-150,000. The average prediction of expected debt from optometry school by first year students was approximately \$117,500 with a range of \$100,000-150,000. These data indicate that debt acquired by fourth year students has increased significantly since the alumni group graduated five to seven years ago. This also shows that the first year

students have estimated that they will owe less than the current fourth year students, which is unlikely since the cost of attendance continues to grow each year.



Our survey indicated that first year students expected slightly less debt than the fourth year students accrued throughout their optometric education. *Table #1* shows the cost of tuition per credit at the Michigan College of Optometry. The cost of tuition in 2007-2008 was \$471 (resident) and \$722 (non-resident). By 2013-2014 the rates had

climbed to \$604 (resident) and \$905 (non-resident). This equates into a 22% increase in tuition for residents and a 20% increase for non-residents. Based on increased tuition costs alone we would expect the tuition rates to increase an additional 10%. We expect that this further exacerbates the debt underestimation of students entering optometry school.

Table #1			
Michigan College of Optometry Tuition Rates			
Year	Resident	Non-Resident	
2013-2014	\$604	\$905	Per Credit Hour
2012-2013	\$588	\$882	Per Credit Hour
2011-2012	\$573	\$860	Per Credit Hour
2010-2011	\$545	\$817.50	Per Credit Hour
2009-2010	\$514	\$771	Per Credit Hour
2008-2009	\$488	\$732	Per Credit Hour
2007-2008	\$471	\$722	Per Credit Hour

The participants were also asked to provide or estimate their monthly payment amount and how long they expected it would take to repay their loans. The alumni appear to have lower monthly payments than the first-year and the fourth-year groups expected (none exceeding \$1,500 per month, and the strong majority paying less than \$1000 per month). This discrepancy may be due to: 1) lower amount of initial debt of alumni 2) decreased overall balance and interest accrual (since they have already been paying for more than 5 years) 3) longer term of re-payment 4) decreased incentive to pay loans off due to refinancing at a low interest rate. Again, this topic is beyond the scope of this study. Results for re-payment terms are quite scattered, but the majority of alumni expect it will take greater than 16 years to repay their loans.

The fourth-year group is somewhat evenly spread in their estimate of monthly payment, but the majority of them believe it will take between 11-15 years to pay back

their loans. This is a much lower expectation (11-15) than the alumni group has found to be true (>20), and the alumni group had less debt to pay back (likely with lower interest as well...)!

There was a similar trend found with the repayment expectations of the first-years. The majority of first-year students expect to pay between \$1,500-2,000 per month with a mean re-payment term of 5-10 years. This, again, is a much lower expectation than the alumni group, and the first-years are expected to have a much higher debt than the alumni. However, the alumni currently have a lower monthly payment than expected by the first year students, so this could account for the discrepancy in the amount of time it will take to pay the loans back. Further study is needed to ascertain whether the alumni have made life style choices that do not allow for higher monthly payment or if the expectation of the fourth- years and first-years are unrealistic.

The alumni seem to feel fairly comfortable with their knowledge of student loans, with a mean comfort level of 7.5 out of 10. The fourth-year group had a wider range of comfort levels, and rated their knowledge of student loans slightly lower. The average for this group was 6.0 out of 10. The group with the least mean comfort level with the loan process was the first-year students with an average comfort level of 4.5 out of 10. Some of the variance may be attributed to alumni's exposure to debt and, frankly, ease of automatic payments. In addition, the alumni are likely at the point in their repayment process where they just have to make payments and no further decisions or planning is required (ie. consolidation, selecting a repayment term, etc.), unlike some of the fourth-year group and first-year students who have yet to experience this repayment planning.

CONCLUSION

It is clear that the majority of optometry students fund their professional education either solely or predominantly via student loans. Fortunately, these loans are still widely available to this student population, but the future of this funding is quite uncertain. This uncertainty has recently been demonstrated by cuts to federal funding, which have rendered subsidized loans unavailable for professional students. The discontinuation of subsidized loans will undoubtedly contribute to an increase in the amount of debt acquired by professional students.

This study has shown that the cost of optometric education at the Michigan College of Optometry has increased greatly since the classes of 2007 and 2008 graduated, and the overall amount of debt after graduation has increased proportionately. As previously mentioned in the results and discussion section of this paper, the authors feel that the current first-year students underestimated the amount of debt they will likely acquire by the time they graduate optometry school. This estimation was also lower than the actual debt accrued by the fourth year group. The current trend is for the cost of optometric education to continue rising, so it is expected that the first years will likely acquire even more student debt than the fourth year group. These points clearly indicate that the first year students may not expect or be prepared for the increased amount of debt that will be required for their optometric education.

The same has proven to be true with the length of time required to repay the loans. The alumni group reported an estimated average of 15.15 years to repay their total student loan debt while the current first-years and the fourth-year group estimated a loan term of ten to eleven years. Considering that the amount of student loans required to

fund an optometric education has risen (and continues to rise) significantly, it is interesting that these groups have acquired or will acquire a higher amount of debt than the alumni group, but expect to pay them back in a significantly shorter amount of time. However, the first year and fourth year groups both indicated that they expected a higher monthly payment than the alumni, so it is possible that having higher monthly payments would lead to a decrease in the loan term compared to the alumni. As discussed earlier, it is also possible that the alumni only have lower payments because they have already repaid a significant amount of their debt, and higher payments are no longer necessary. Further research is required to take these details into consideration, but for the purpose of this paper, it is reasonable to conclude that the current first-year and fourth-year groups have likely underestimated the length of time it will take to repay their loans.

A final interesting point of this study is the knowledge level the respondents reported regarding student loans and the loan process. Current first-years reported an average comfort level of 4.5 on a scale of zero to ten, the fourth-year group reported an average level of 6.0, and the alumni of 2007 and 2008 reported a mean knowledge level of 6.8 (see *chart #1* for more details). These data indicate that incoming first-year students feel significantly less knowledgeable about their loans than graduating fourth-year students and alumni. Perhaps it would be beneficial for incoming students to receive more information about the loan process before beginning their optometric career as optometry students.

There are many ways that students can become more prepared for their inevitable student debt before beginning optometry school, and optometry schools can help with this preparation by providing education, guidance, and updated information about cost of

attendance each year. A great time to discuss financial details is at the interview (before the student must decide which school to attend), and shortly after beginning school in the fall of first year. Optometry schools usually provide information about tuition, fees, and additional expenses such as books and equipment during the interview process, but this is often one of the last things on the interviewee's mind at this point in time. It would be beneficial for schools to provide more education about the loan process during the first few months of optometry school to reiterate the importance of keeping student debt as low as possible. One important point to stress is not to ignore INTEREST! Though the principal amount of loans acquired can be astronomical for optometry school, interest accrues more rapidly than most new students realize, and it NEVER stops accruing until the loans are paid off.

Another way to prepare students for student debt is by providing resources for cost of attendance and available loans and scholarships. The Michigan College of Optometry website has a page devoted to tuition, equipment and books, which provides general figures for the cost of attendance for each year of optometry school, although this does not account for living and life expenses.⁵ This page also has a link to all of the available scholarships for optometry students, which could prove useful for reducing overall student debt. Though the federal loan website can be somewhat intimidating, it also has a lot of great information regarding management of student debt and what to expect when repaying student loans after graduation.⁶ See the reference section of this paper for more information about these resources.

Though cost of attendance is the biggest expense for an optometric education, it is important not to forget about every-day expenses that are often over-looked. Things such

as rent, groceries, travel expenses, cable, and electricity are easily forgotten about, and the best way to account for these expenses is to make a budget. The American Optometric Association has an excellent website dedicated to providing guidance for creating and managing a student budget, and more information about this site can be found in the reference section of this paper.⁷

Colleges of Optometry could also have a seminar every year to remind students about the true cost of debt. These seminars may include a few case studies of monthly payments for a total loan amount and a discussion of take home salary after taxes for given incomes. These seminars may also include time to make a budget, both for loan repayment and during school.

The best way not to become overwhelmed by student debt is to be knowledgeable about the amount of expected debt, the loan process, and by trying to keep expenses at a minimum. Though not all-inclusive, it is the hope of the authors that this study provides some extra information to incoming students about their expectations for school-related debt. Acquiring a significant amount of debt is necessary for the life-long investment of becoming a professional optometrist, but it is important to make good financial decisions when entering optometry school. Making educated decisions about student finances early in the education process is important for planning a successful future in the optometric profession, especially when considering post-graduate employment and desired mode of practice.

REFERENCES

1. US Department of Education. "Student financing of graduate and first-professional education: 2007-08." *National Postsecondary Student Aid Study (NPSAS)*. NCES 2011-217. <http://nces.ed.gov/pubs2011/2011217.pdf>.
2. A. A. Ghanayem, D. L. Grostick, R. K. Sabharwal. "Student debt and private practice." *Optometric Management*, November 2006.
3. M. Bacigalupi. "Can you afford a young O.D.?" *Optometric Management*. October 2013; 48:66-7.
4. P. C. Hardigan, M. W. Silverman, C. Woodruff. "The future of optometric practice? The results of a survey of optometrists and optometry students." *Optometry*. October 2004; 75(10):615-23.
5. Ferris.edu. *Tuition, Equipment and Books*. Retrieved March 17, 2014, from Ferris.edu: <http://www.ferris.edu/HTMLS/colleges/michopt/admissions/Tuition-Equipment-and-Books.htm>.
6. FederalStudentLoans.gov. *FederalStudentLoans.gov*. Retrieved March 17, 2014, from FederalStudentLoans.gov: <https://studentloans.gov/myDirectLoan/index.action>.
7. AOA.org. *Financial Aid*. Retrieved March 17, 2014, from AOA.org: <http://www.aoa.org/students/tools-and-resources/financial-aid>.

APPENDIX A
ADVICE ABOUT LOANS FROM ALUMNI

ADVICE FROM ALUMNI ABOUT LOANS

“When [you] graduate, [just] because [you are] a doctor doesn’t mean you need to buy a fancy house or car... Pay off your loan!!! Interest will [keep you] poor and working for a long time!!!”

“Don’t take them if you don’t have to.”

“Your interest rates are higher than [in] the past, we were about 3-5 percent for most loans, so avoid taking extra loans if at all possible.”

“Don’t assume because you can make \$100,000 a year that you will pay off a \$100,000 loan in a couple years. Life happens and it will take a lot longer to pay off.”

“Pay any extra you can on the highest interest loans, even if the loan amount is smaller. Watch the interest rates and statements carefully.”

“I was fortunate enough to be able to consolidate. I now have it automatically debited on the same day of the month so [I] just plan on it so I don’t really think twice about it. Less thinking equals less frustration at the cost.”

“Pay off your loans with the highest interest first. My remaining loan is at an interest rate of 2.35% and I have about \$30,000 total student debt [remaining] after being graduated for about 10 years. I have not been in a huge hurry to pay this loan off, I’m instead able to put my money into higher yield investments!!!”

“Easiest to pay off are the higher percent [loans]. [I] had no problem paying them off ASAP. My current 2% interest loans are hard to pay off [because] there is not really much of a penalty to make minimum payments. Advice: Good luck getting loans, I guess they are very difficult to get these days? If you can get loans, I would say enjoy optometry school and don’t worry too much about them. Study and have fun with your classmates while you have the time. Make memories over working a job. Loans are the way of life and just accept you will be in debt, to those of you not fortunate enough to get parental support. Your OD degree is a great investment, you will have a high quality of life and be able to pay them back however quickly you choose.”

APPENDIX B
SURVEYS

SURVEYS

First-Year Survey

1. What percentage of your optometry school funding will be provided by student loans? (examples: Health Profession, Unsubsidized, Grad Plus, etc.)
 - a. <25%
 - b. 25-49%
 - c. 50-74%
 - d. 75-100%
2. What is your current amount of debt from undergraduate loans?
 - a. \$0-9,999
 - b. \$10,000-19,999
 - c. \$20,000-30,000
 - d. > \$30,000
3. What do you expect your debt to be upon graduating optometry school?
 - a. < \$50,000
 - b. \$50,000-99,999
 - c. \$100,000-149,999
 - d. \$150,000-200,000
 - e. > \$200,000
4. For how many years of optometry school do you expect to pay in-state tuition?
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. 4
5. How much do you think your monthly payment will be after graduating optometry school?
 - a. <\$500
 - b. \$500-999
 - c. \$1,000-1,499
 - d. \$1,500-2,000
 - e. > \$2,000
6. How many years do you expect it will take to pay off your loans after graduation?
 - a. <5 years
 - b. 5-10 years
 - c. 11-15 years
 - d. 16-20
 - e. >20
7. On a scale of 0 to 10 (0 = know nothing about loans, 10 = loan expert) how knowledgeable do you feel about your loans?

0 1 2 3 4 5 6 7 8 9 10

Fourth-Year Survey

1. What percentage of your optometry school funding was provided by student loans? (examples: Health Profession, Unsubsidized, Grad Plus, etc.)
 - a. <25%
 - b. 25-49%
 - c. 50-74%
 - d. 75-100%
2. What is your current amount of debt from undergraduate loans?
 - a. \$0-9,999
 - b. \$10,000-19,999
 - c. \$20,000-30,000
 - d. > \$30,000
3. How much debt will you have at graduation from optometry school (excluding undergraduate debt)?
 - a. < \$50,000
 - b. \$50,000-99,999
 - c. \$100,000-149,999
 - d. \$150,000-200,000
 - e. > \$200,000
4. For how many years of optometry school did you pay in-state tuition?
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. 4
5. How much is your monthly payment(s) on your student loans?
 - a. <\$500
 - b. \$500-999
 - c. \$1,000-1,499
 - d. \$1,500-2,000
 - e. > \$2,000
6. How many years do you expect it will take to pay off your loans after graduation?
 - a. <5 years
 - b. 5-10 years
 - c. 11-15 years
 - d. 16-20
 - e. >20
7. On a scale of 0 to 10 (0 = know nothing about loans, 10 = loan expert) how knowledgeable do you feel about your loans?

0 1 2 3 4 5 6 7 8 9 10

Alumni Survey

1. What percentage of your optometry school funding was provided by student loans? (examples: Health Profession, Unsubsidized, Grad Plus, etc.)
 - a. <25%
 - b. 25-49%
 - c. 50-74%
 - d. 75-100%
2. What was your amount of debt from undergraduate loans?
 - a. \$0-9,999
 - b. \$10,000-19,999
 - c. \$20,000-30,000
 - d. > \$30,000
3. How much debt did you have at graduation from optometry school (excluding undergraduate debt)?
 - a. < \$50,000
 - b. \$50,000-99,999
 - c. \$100,000-149,999
 - d. \$150,000-200,000
 - e. > \$200,000
4. For how many years of optometry school did you pay in-state tuition?
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. 4
5. How much is your monthly payment(s) on your student loans?
 - a. <\$500
 - b. \$500-999
 - c. \$1,000-1,499
 - d. \$1,500-2,000
 - e. > \$2,000
6. How many years (from the time of graduation) do you expect it will take to pay off your loans?
 - a. <5 years
 - b. 5-10 years
 - c. 11-15 years
 - d. 16-20
 - e. >20
7. On a scale of 0 to 10 (0 = know nothing about loans, 10 = loan expert) how knowledgeable do you feel about your loans?

0 1 2 3 4 5 6 7 8 9 10

What loans have you found are easiest to pay off? What advice would you give to current optometry students regarding student loans?

To: Dr. Roger Kamen, Mr. Jason Andrus and Ms. Aubrey Dyl
From: Dr. John Pole, IRB Interim Chair
Re: IRB Application #130411 (Title: *Student Debt Associated with Optometry Education*)
Date: June 12, 2013

The Ferris State University Institutional Review Board (IRB) has reviewed your application for using human subjects in the study, "*Student Debt Associated with Optometry Education*" (#130411) and determined that it is exempt-1C from full committee review. This approval has an expiration date of three years from the date of this letter. As such, you may collect data according to procedures in your application until *June 12, 2016*. It is your obligation to inform the IRB of any changes in your research protocol that would substantially alter the methods and procedures reviewed and approved by the IRB in this application. Your protocol has been assigned a project number (#130411) which you should refer to in future applications involving the same research procedure.

We also wish to inform researchers that the IRB requires follow-up reports for all research protocols as mandated by Title 45 Code of Federal Regulations, Part 46 (45 CFR 46) for using human subjects in research. We will send a one-year reminder to complete the final report or note the continuation of this study. The final-report form is available on the [IRB homepage](#). Thank you for your compliance with these guidelines and best wishes for a successful research endeavor. Please let us know if the IRB can be of any future assistance.