

SURVEY OF OPTOMETRISTS INVESTIGATING STUDENT DEBT

by

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SURVEY OF OPTOMETRISTS INVESTIGATING STUDENT DEBT

by

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Has been approved

10 April 2019

APPROVED:



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Faculty Advisor:

ACCEPTED:



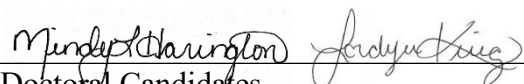
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SURVEY OF OPTOMETRISTS INVESTIGATING STUDENT DEBT

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## ABSTRACT

**Background:** A well-established trend in professional schools is the rising cost of tuition, and consequently, student debt. According to the Association of Schools and Colleges of Optometry, in the 2017-2018 school year, the average cost for all direct expenses for optometry students was \$31,388 to \$42,158.<sup>1</sup> There have been numerous studies conducted to evaluate debt load for optometry students, however, evaluation of the impact of student loan debt on optometric career choices is lacking. The goal of this study is to answer the following two questions: Do optometrists feel they are able to comfortably repay their student debt? Does student debt load influence one's chosen mode of practice? **Methods:** The study was conducted through an online survey that was distributed via email by the Michigan Optometric Association and the Michigan College of Optometry Alumni Association, as well as through social media posting within the Facebook, Inc. groups: "ODs on Facebook" and "ODs on Finance". The survey was open from October 15, 2018 to December 1, 2018. **Results:** A total of 312 responses were received. The majority of the respondents reported a student loan debt total of \$200,000 or more (n=91) upon graduation. 41.03% of participants reported that debt was a deciding factor in the mode of practice they chose immediately after graduation (n=128) and 46.15% felt that their debt prevented them from living the lifestyle they expected to live after graduation (n=144). Overall, 76.28% of participants felt that their student debt was manageable (n=238). **Conclusions:** Despite the rising cost of tuition among professional schools, the majority of the optometrists surveyed did not consider debt to be a deciding

factor in where they chose to start their career, and an even larger percentage of optometrists felt that their student debt was manageable. Additionally, a minority of doctors found their debt prevented them from living the lifestyle they expected to live after graduating.

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## CHAPTER 1

### INTRODUCTION

The rising cost of tuition in professional schools, and consequently, student debt is a well-established trend. The cost to become a doctor of optometry is a larger burden on today's students than students of the past. In 1979, an average student would have to work an estimated 200 hours at minimum wage in order to pay for their tuition; a task that could be easily done between school years by working part-time over the summer. Forty years later, however, due to the ever increasing cost of tuition, this same student would have to work over 1,400 hours at minimum wage in order to cover their school expenses. This would amount to over 6 months of work at a full-time job, something completely unattainable with a jam-packed academic course load.<sup>2</sup> The ability to pay for an education with a part-time job is a thing of the past, with most students now accepting student loans to pay for tuition and living costs as part of a new norm.

A study conducted by Drs. Paula McDowell, Annie Miller, and Jamie Bala at the Michigan College of Optometry in 2014 evaluated if optometry students were informed how much it would cost to acquire a degree, as well as the effects of such debt. Their research found that students are acquiring larger amounts of debt at higher interest rates than previous years. Thus, forcing students to alter their lifestyle after graduation in order to compensate for this overbearing financial burden. It was further suggested that doctors

may be utilizing multiple modes of practice to bring in more revenue after graduation.<sup>3</sup> This is just one of numerous studies conducted to evaluate debt load for optometry students, however, there has not been one steered specifically towards evaluating student debt and its influence on optometric career choices. How does debt affect one's choices? Does it determine the difference between taking a corporate position with guaranteed pay over the risk of a cold-start private practice? And most importantly, does it deter individuals away from their "dream job" in the hopes of a more financially sound option. The goal of this study is to take a closer look at whether or not optometrists feel they are able to comfortably repay their debt as well as the influence debt load has on one's chosen mode of practice.

## CHAPTER 2

### METHODS

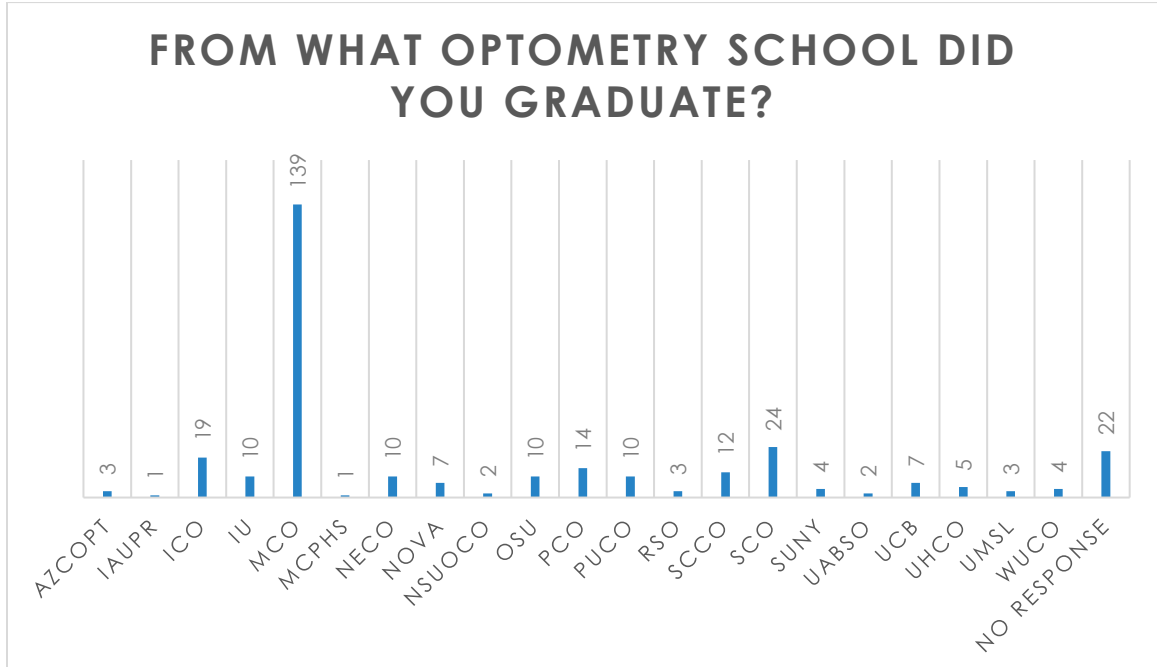
Optometry alumni were surveyed via an anonymous online questionnaire (Appendix A). Participants were asked to report their optometry school and year of graduation. No other identifying information was collected in the survey. The voluntary survey was distributed via email by the Michigan Optometric Association and the Michigan College of Optometry Alumni Association, as well as through social media posting within Facebook, Inc. groups: “ODs on Facebook” and “ODs on Finance”. The survey contained three distinct sections. The first section involved respondent demographics, total debt breakdown, and questions about repayment plans and methods. The second section contained questions about practice modalities that was further divided into three categories: Immediately after graduation, 5 years after graduation, and current. The final section of the survey contained questions regarding one’s personal relationship to their debt and how it influenced their lifestyle. The survey results were analyzed for trends and the statistical significance of those trends.

## CHAPTER 3

### RESULTS

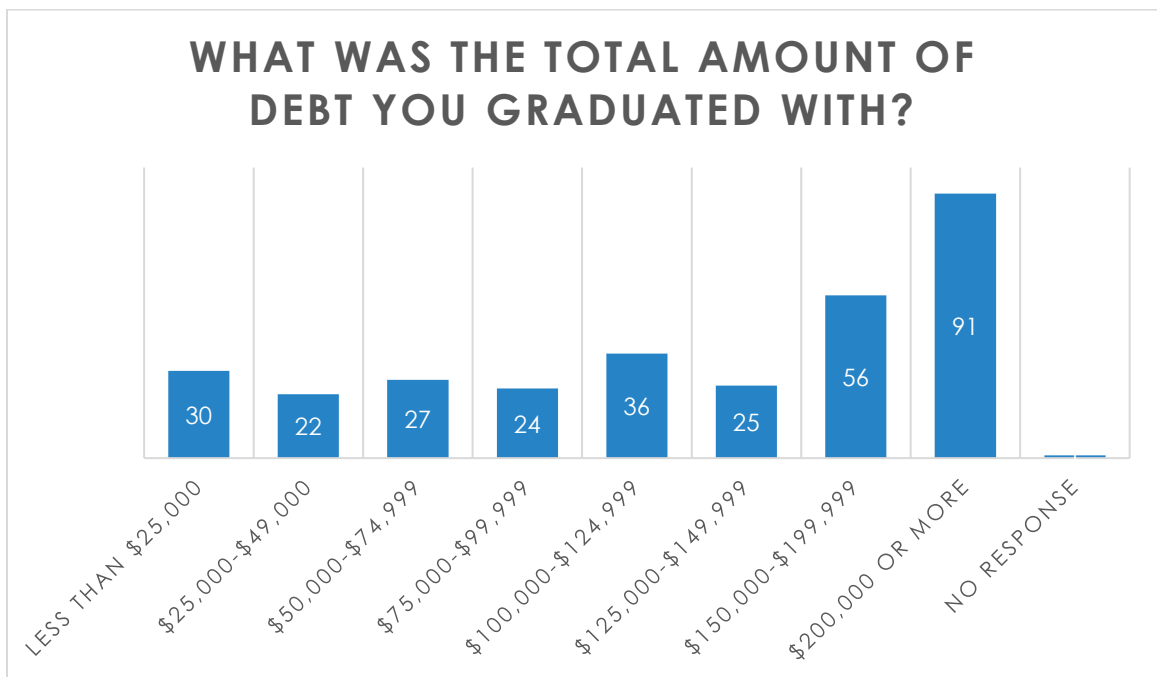
A total of 312 responses were received. A large portion of responses, 44.55%, were from alumni from the Michigan College of Optometry (n=139). The remaining respondents graduated from 20 other schools of optometry with 7.05% of participants choosing not to disclose their alma mater (n=22). The exact demographics of our study participants can be found in Figure 1.

*Figure 1 From What Optometry School Did You Graduate?*



Participants were asked to classify their debt upon graduation into eight ranges. 29.17% of participants reported a loan debt of \$200,000 or more (n=91). This was the largest percentage of responses and also the highest debt bracket on our survey. Out of the other 221 responses gathered, 9.62% reported less than \$25,000 (n=30), 7.05% reported \$25,000-\$49,000 (n=22), 8.65% reported \$50,000-\$74,999 (n=27), 7.69% reported \$75,000-\$99,999 (n=24), 11.54% reported \$100,000-\$124,999 (n=36), 8.01% reported \$125,000-\$149,999 (n=25), 17.95% reported \$150,000-\$199,999 (n=56), and 0.32% did not respond (n=1) (Figure 2).

*Figure 2 What Was The Total Amount of Debt You Graduated With?*



We further asked participants to divide their debt into two categories: undergraduate debt vs. optometry school debt. Responses for the amount of undergraduate debt were as follows: 82.05% reported less than \$25,000 (n=256), 13.14% reported \$25,000-\$49,000 (n=41), 2.88% reported \$50,000-\$74,999 (n=9), 7.69%

reported \$75,000-\$99,999 (n=24), 1.28% reported \$100,000-\$124,999 (n=4), and 0.64% did not respond (n=2). No participants reported \$75,000-\$99,999, \$125,000-\$149,999, \$150,000-\$199,999, nor \$200,000 or more (Figure 3).

Figure 3 What Amount of Your Debt Was From Undergraduate Studies?

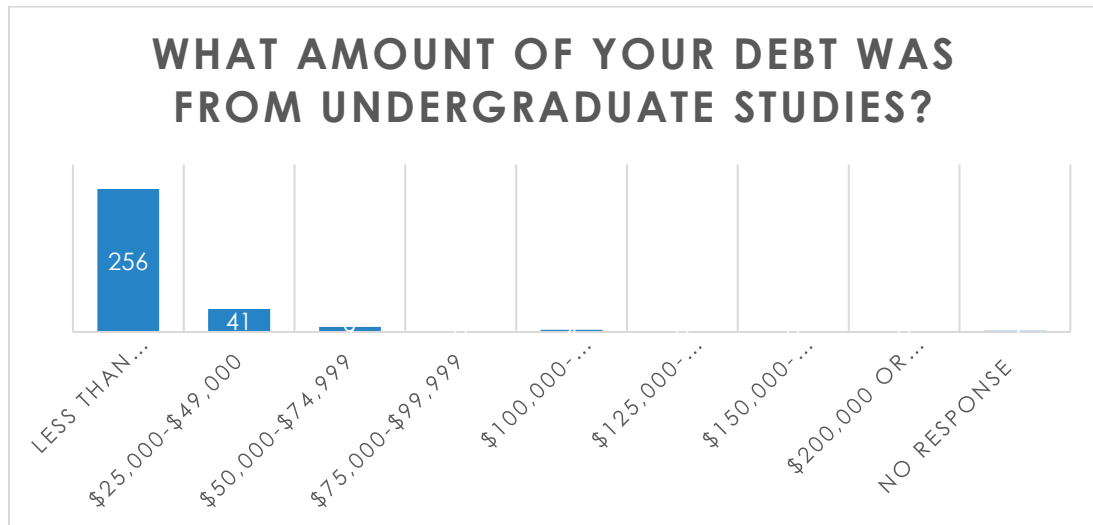
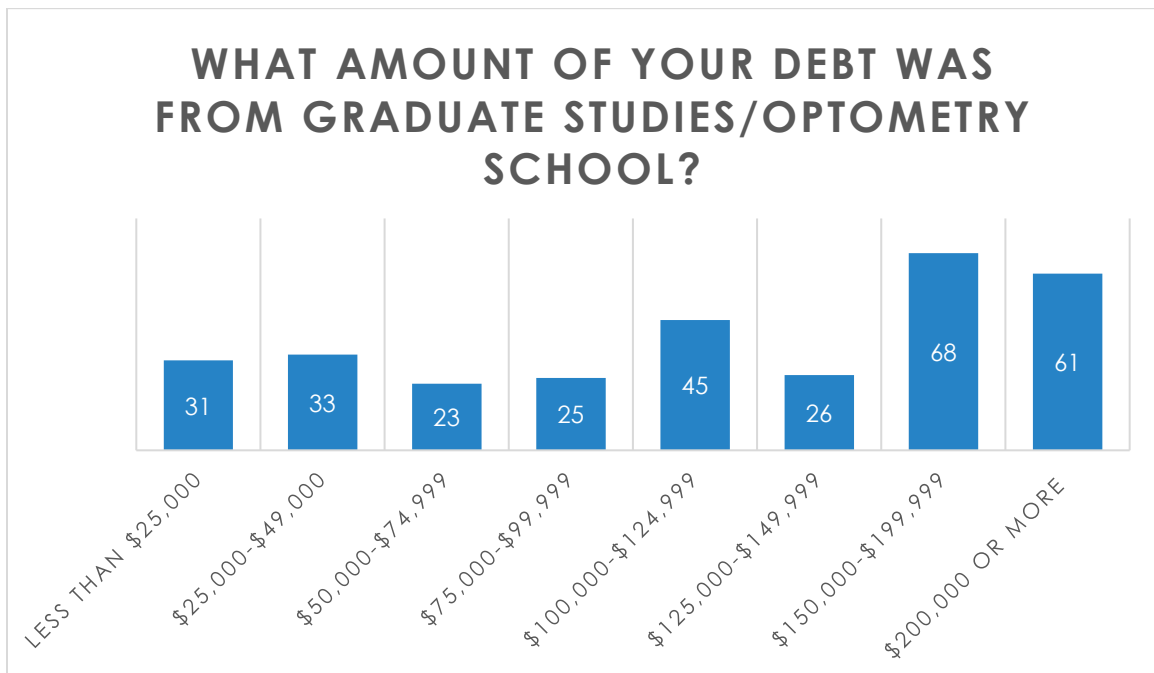


Figure 4 What Amount of Your Debt Was From Graduate Studies/Optomtery School?



Responses for amount of optometry school debt were as follows: 9.94% reported less than \$25,000 (n=31), 10.58% reported \$25,000-\$49,000 (n=33), 7.37% reported \$50,000-\$74,999 (n=23), 8.01% reported \$75,000-\$99,999 (n=25), 14.42% reported \$100,000-\$124,999 (n=45), 8.33% reported \$125,000-\$149,999 (n=26), 21.79% reported \$150,000-\$199,999 (n=68), 19.55% reported \$200,000 or more (n=61) (Figure 4).

Participants selected their repayment plans from five options: standard repayment plan with fixed payments, graduated, income-based, extended, and other. The majority of participants (67.95%) chose a repayment plan of standard with fixed payment amounts (n=212), 20.51% chose income-based repayment plans (n=64), 5.45% chose extended repayment plans (n=17), 3.53% chose graduated repayment plans (n=11), and 2.44% chose other forms of repayment plans (n=7). 0.32% of participants did not respond to this question (n=1) (Figure 5). 34.94% of participants reported switching repayment plans or refinancing at some point while paying back their loans (n=109); 203 participants reported that they did not change plans or refinance their loans (65.06%) (Figure 6).

*Figure 5 What Type of Repayment Plan Did You Choose After Graduation?*

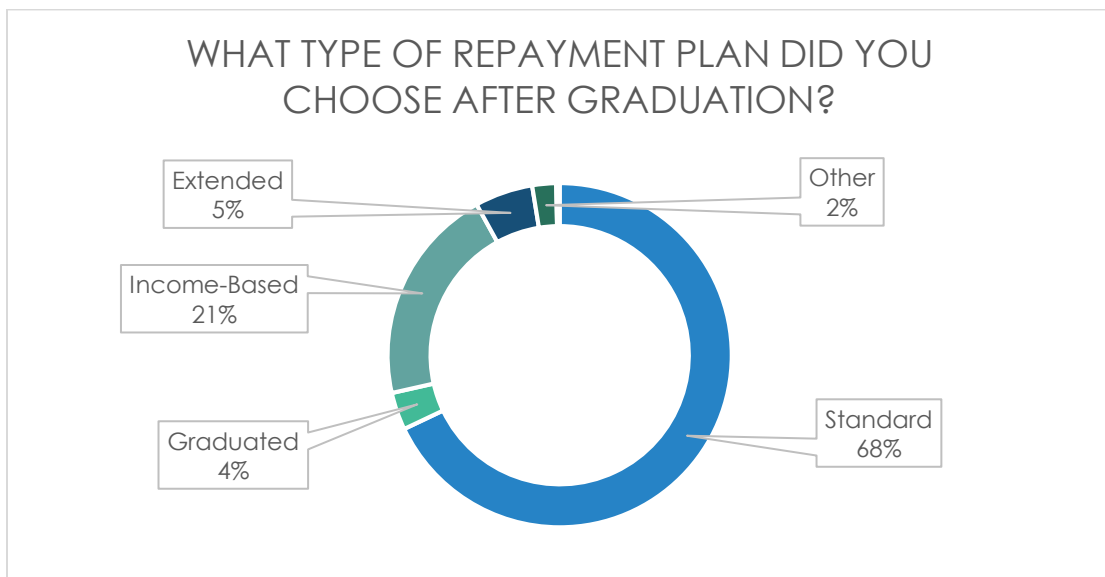
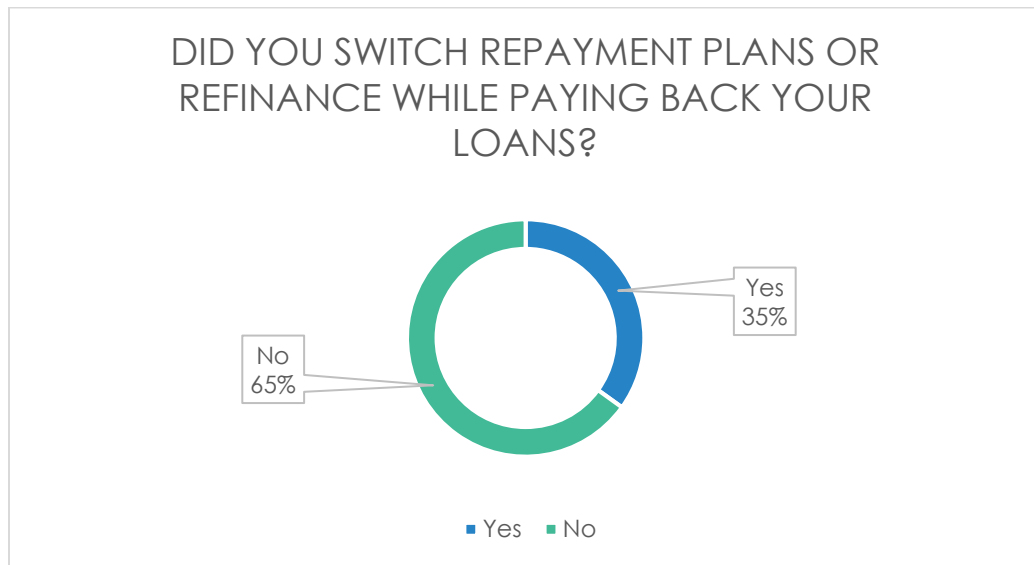


Figure 6 Did You Switch Repayment Plans or Refinance While Paying Back Your Loans?



When asked about average monthly repayment amounts, only 50.00% (n=156) of participants were making payments above their minimum required amounts. 153 participants (49.04%) were making minimum monthly payments (Figure 8). The breakdown of average monthly payment amounts were as follows: 22.12% recounted paying less than \$500 (n=69), 22.12% recounted paying \$500-\$999 (n=69), 23.40% recounted paying \$1,000-\$1,499 (n=73), 11.22% recounted paying \$1,500-\$1,999 (n=35), 9.94% recounted paying \$2,000-\$2,499 (n=31), 10.26% recounted paying \$2,500 or more. Three participants did not respond to this question (0.96%) (Figure 7). 62.82% of participants reported either increasing or decreasing their average monthly repayment amounts at any time (n=196). 2 participants did not respond to this question (0.64%) and the remaining 36.54% reported never changing their average monthly repayment amounts (n=114) (Figure 9).



Figure 7 What Were Your Average Monthly Payment Amounts?

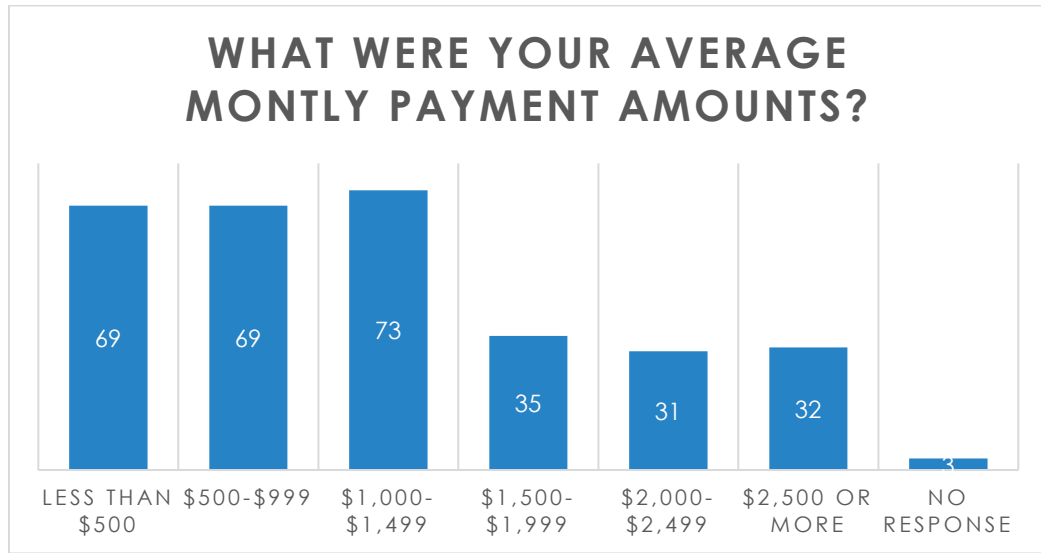


Figure 8 Were The Payments Above Your Minimum Required Payments?

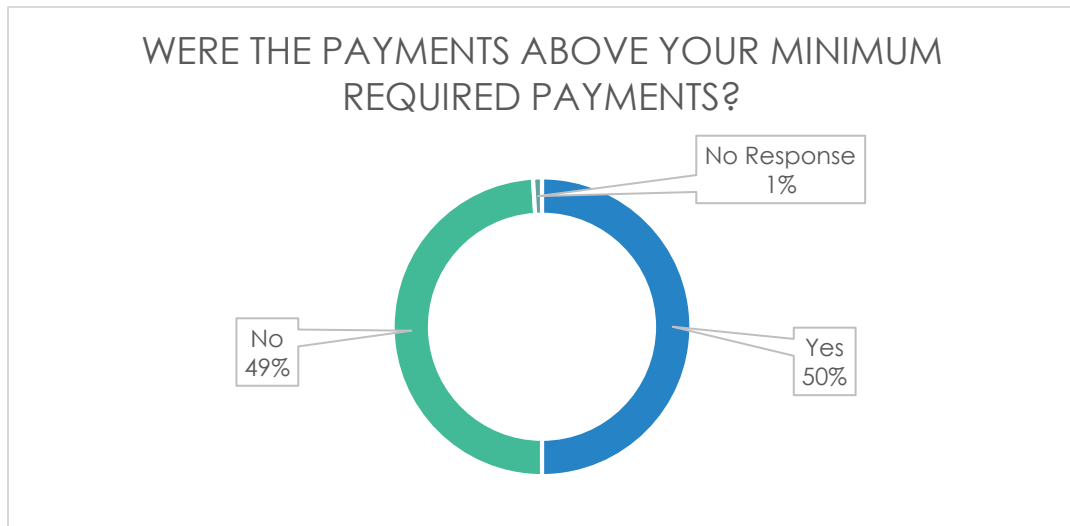
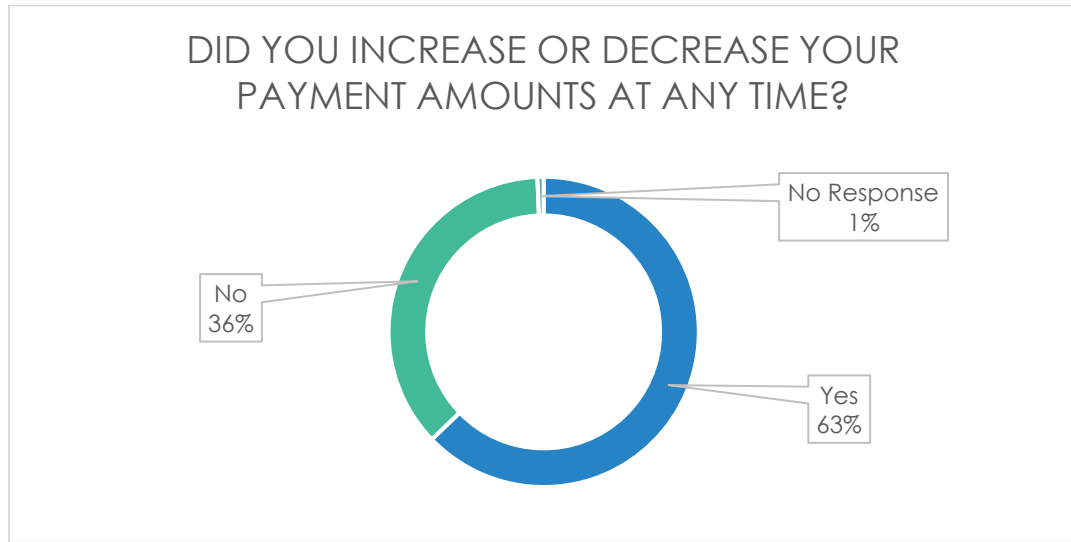
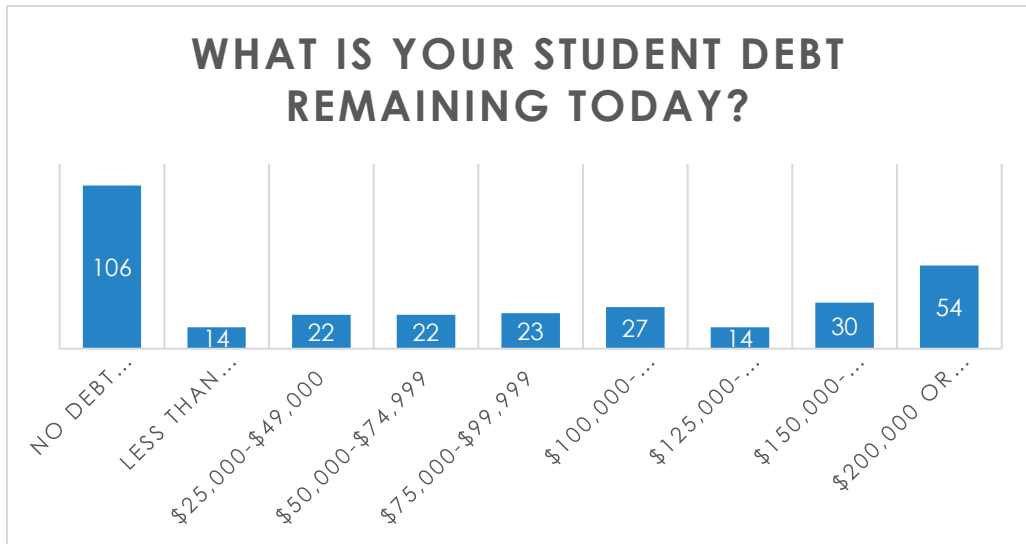


Figure 9 Did You Increase or Decrease Your Payment Amounts At Any Time?



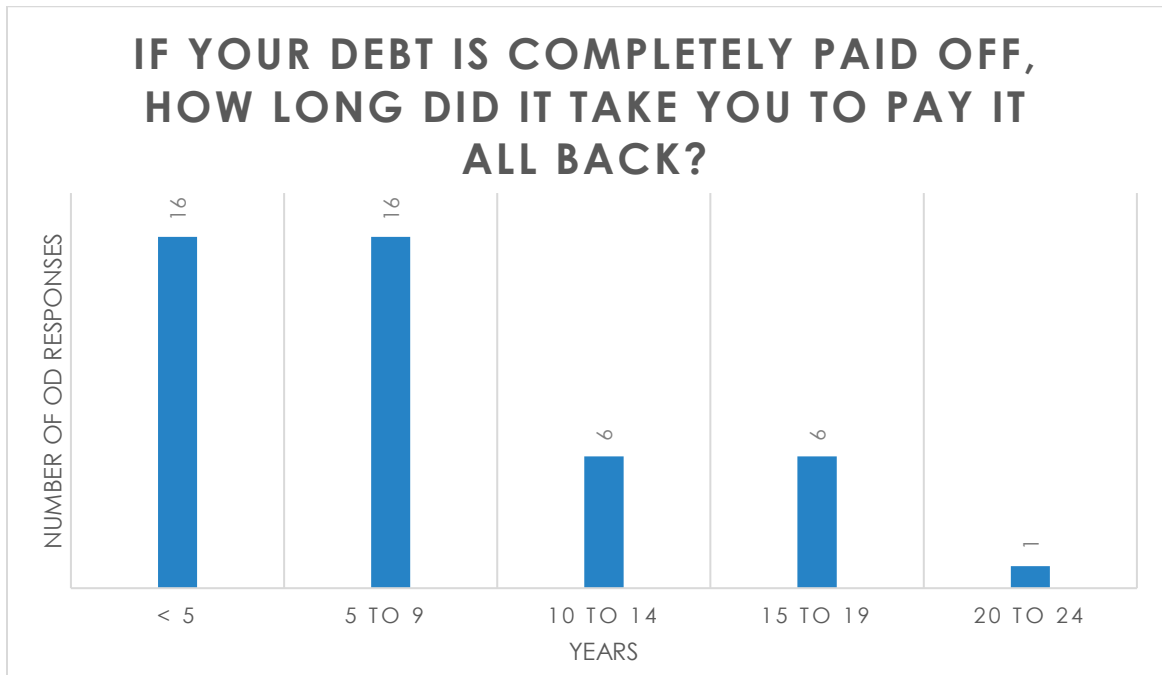
Many of the respondents (n=106) were completely debt free (33.97%). On the other hand, the second largest group (n=54) reported that they are still \$200,000 or more in student loan debt (17.31%). The remaining debt amounts were as follows: 4.49% reported less than \$25,000 (n=14), 7.05% reported \$25,000-\$49,000 (n=22), 7.05% reported \$50,000-\$74,999 (n=22), 7.37% reported \$75,000-\$99,999 (n=23), 8.65% reported \$100,000-\$124,999 (n=27), 4.49% reported \$125,000-\$149,999 (n=14), and 9.62% reported \$150,000-\$199,999 (n=30) (Figure 10).

Figure 10 What Is Your Student Debt Remaining Today?



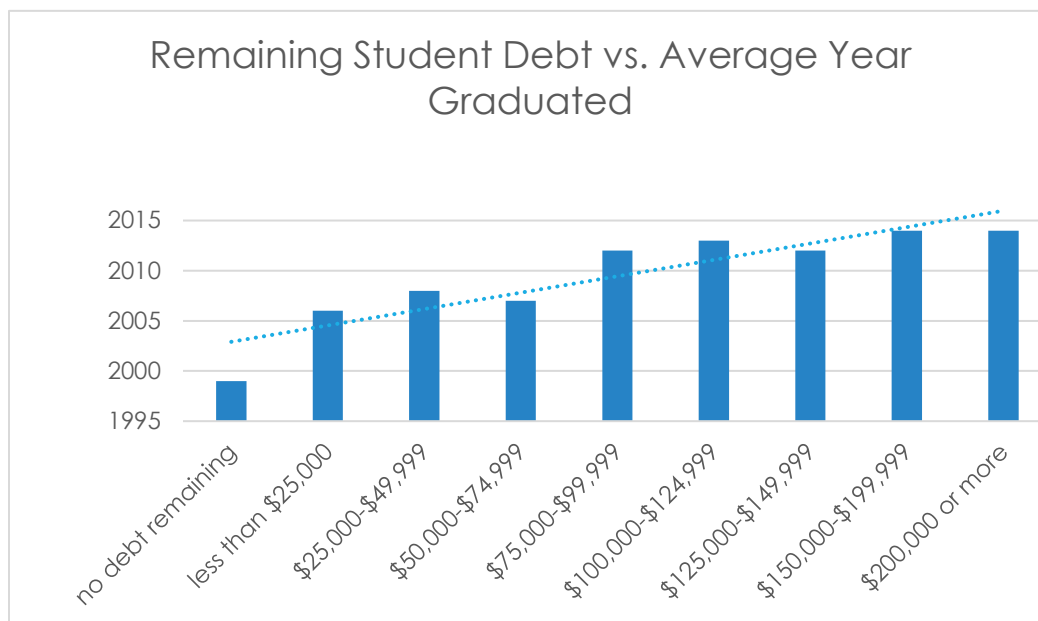
The 106 optometrists that reported their debt being completely paid off were then asked the amount of time that it took to do it. There were 45 total responses to this question with the breakdown as follows: 16 participants reported less than 5 years to pay back their debt (36.56%), an equal number reported it took them 5 to 9 years to complete payments (36.56%), 6 reported taking 10 to 14 years (13.33%), 6 more took 15 to 19 years (13.33%) and one optometrist (2.22%) reported taking 20 to 24 years to pay back their debt. The average length of time that was reported to completely pay off student loan debt was 7.13 years (SD = 5.16) (Figure 11).

Figure 11 If Your Debt Is Completely Paid Off, How Long Did It Take You To Pay It All Back?



Of these 106 individuals, we further divulge into the relationship between estimated amount of time it took them to complete this task in relation to ones' graduation year and the individuals graduation year. The average graduation year of those with no debt remaining was 1999 (SD = 11.56) while the average graduation year of those with \$200,000 or more in student debt remaining was found to be much higher at 2014 (SD = 8.88). Those with less than \$25,000 in debt remaining had an average graduation year of 2006 (SD = 5.58). The remaining results were as follows: \$25,000-\$49,999 = 2008 (SD = 6.39), \$50,000-\$74,999 = 2007 (SD = 5.24), \$75,000-\$99,999 = 2012 (SD = 4.89), \$100,000-\$124,999 = 2013 (SD = 3.69), \$125,000-\$149,999 = 2012 (SD = 3.55), and \$150,000-\$199,999 = 2014 (SD = 3.47). This information can all be seen below in Figure 12.

Figure 12: Remaining Student Debt vs. Average Year Graduated



The next portion of the survey looked at practice modality, average hours worked, and average annual income for three distinct categories: immediately after graduation, 5 years after graduation, and currently. Respondents who graduated within the past five years were not able to respond to the question regarding mode of practice at five years after graduation.

***Mode of Practice***

The following responses were obtained for mode of practice immediately after graduation: 14.40% worked part-time at a private practice (n=56), 25.71% worked full-time at a private practice (n=100), 11.31% worked part-time at a corporate office (n=44), 16.71% worked full-time at a corporate office (n=65), 3.08% were corporate lease holders (n=12), 4.11% were solo private practice owners (n=16), 0.77% were partners in a group practice setting (n=3), 14.65% participated in residency programs (n=57), 1.80% went into academics (n=7), 3.34% worked for the federal government either in a Veterans

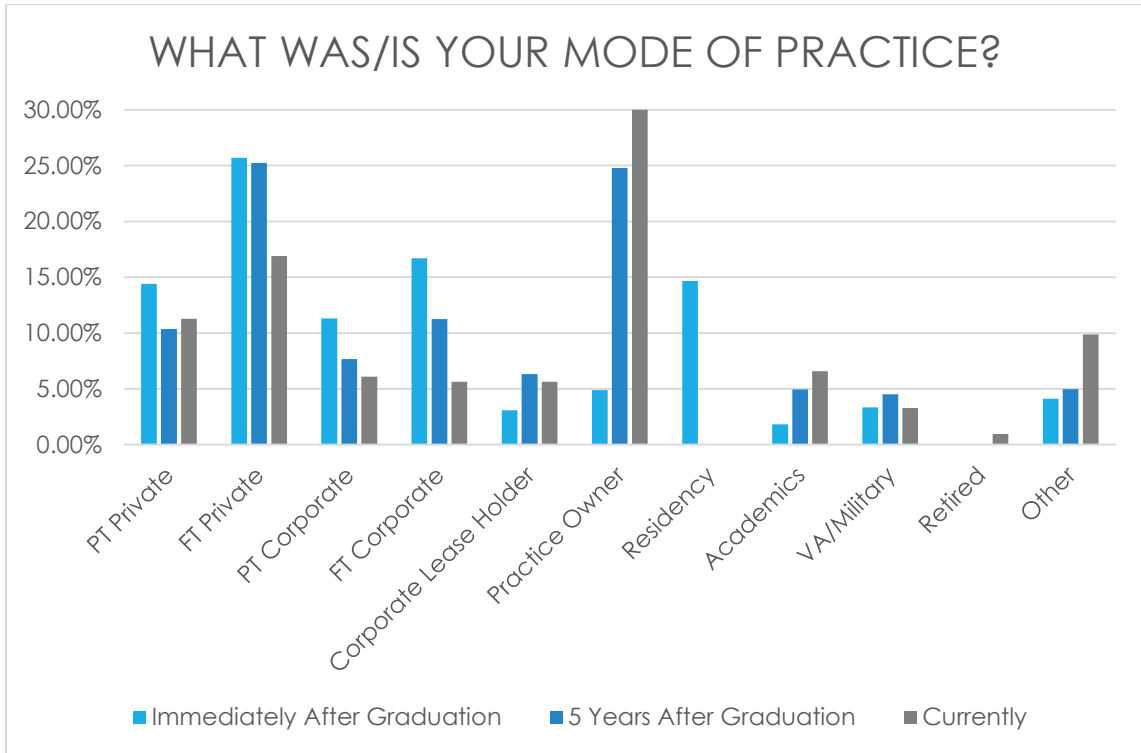
Affairs facility or in some branch of the United States Military (n=13), and 4.11% reported working at other forms of practice modalities including being independent contractors, and working for HMOs, nursing homes, non-profits, hospitals, and Indian Health Services (n=16) (Figure 13).

The following responses were obtained for mode of practice 5 years after graduation: 6.95% worked part-time at a private practice (n=23), 16.92% worked full-time at a private practice (n=56), 5.14% worked part-time at a corporate office (n=17), 7.55% worked full-time at a corporate office (n=25), 4.23% were corporate lease holders (n=14), 9.37% were solo private practice owners (n=31), 7.25% were partners in a group practice setting (n=24), 3.32% went into academics (n=11), 3.02% worked for the federal government via a Veterans Affairs center or some branch of the United States Military (n=10), and 3.32% reported other practice modalities including being independent contractors, and working for HMOs, nursing homes, non-profits, hospitals, and Indian Health Services (n=11). 109 participants had graduated within the last 5 years and were therefore excluded from this question (32.93%) (Figure 13).

The following responses were obtained for current mode of practice: 11.27% worked part-time at a private practice (n=24), 16.90% worked full-time at a private practice (n=36), 6.10% worked part-time at a corporate office (n=13), 5.63% worked full-time at a corporate office (n=12), 5.63% were corporate lease holders (n=12), 22.54% were solo private practice owners (n=48), 11.27% were partners in a group practice setting (n=24), 6.57% went into academics (n=14), 3.29% worked for the federal government via a Veterans Affairs facility or some branch of the United States Military (n=7), and 9.86% reported working at other forms of practice modalities including

independent contractors, HMOs, nursing homes, non-profits, hospitals, and Indian Health Services (n=23). At this time, 2 individuals reported that they were now retired (0.94%) (Figure 13). It should be noted that for each of the following 3 questions participants were able to select multiple responses.

*Figure 13 What Was/Is Your Mode of Practice?*



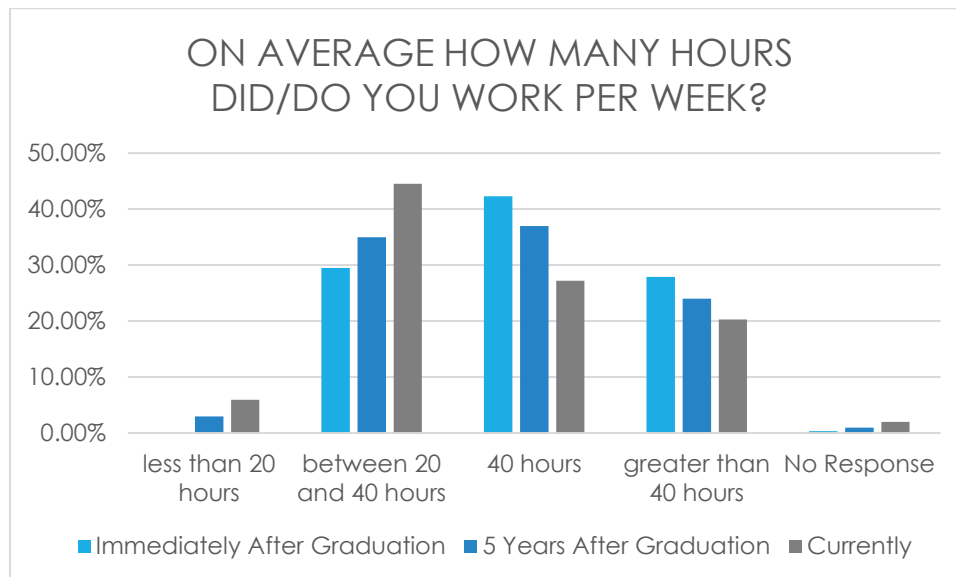
***Average Hours Worked Per Week***

Immediately after graduation, 0.00% of participants recounted working less than 20 hours per week (n=0), 29.49% recounted working between 20 and 40 hours per week (n=92), 42.31% recounted working 40 hours per week (n=132), and 27.88% recounted working greater than 40 hours per week (n=87). One individual did not report average hours worked per week (0.32%).

5 years after graduation, 1.92% of participants recounted working less than 20 hours per week (n=6), 22.44% recounted working between 20 and 40 hours per week (n=70), 23.72% recounted working 40 hours per week (n=74), and 15.38% recounted working greater than 40 hours per week (n=48). Two individuals did not report the average amount of hours they worked per week (0.64%). The remaining 35.90% of survey participants were unable to participate in this question due to graduating less than 5 years ago.

Currently, 5.94% of participants recounted working less than 20 hours per week (n=12), 44.55% recounted working between 20 and 40 hours per week (n=90), 27.23% recounted working 40 hours per week (n=55), and 20.30% recounted working greater than 40 hours per week (n=41). Four individuals did not provide the average amount of hours they worked per week (1.98%) (Figure 14).

*Figure 14 On Average How Many Hours Did/Do You Work Per Week?*



***Average Annual Income***

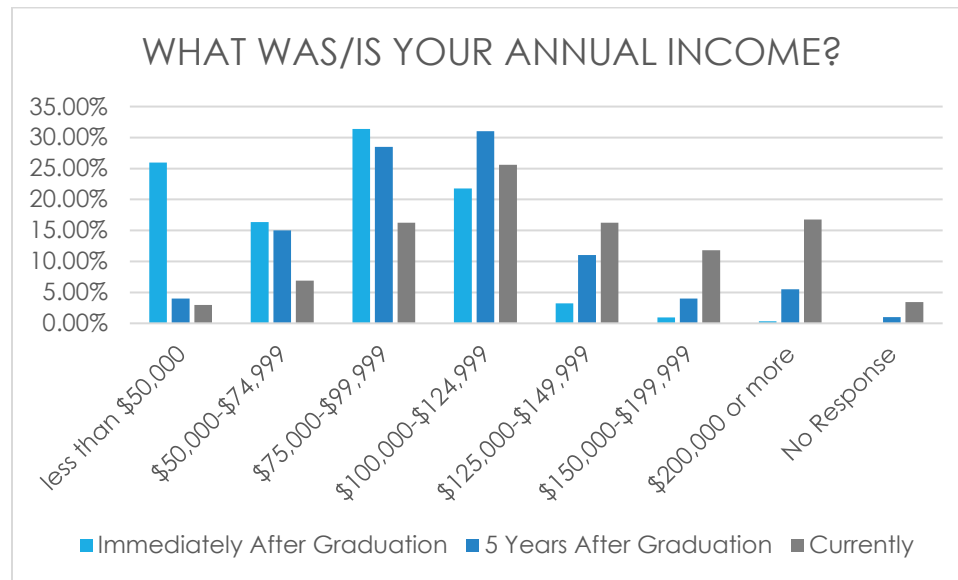


Participants were then asked to disclose their average annual salary for each of the three time periods of employment. The results for immediately after graduation were as follows: 25.96% stated earning less than \$50,000 (n=81), 16.35% stated earning \$50,000-\$74,999 (n=51), 31.41% stated earning \$75,000-\$99,999 (n=98), 21.79% stated earning \$100,000-\$124,999 (n=68), 3.21% stated earning \$125,000-\$149,999 (n=10), 0.96% stated earning \$150,000-\$199,999 (n=3), and 0.32% stated earning \$200,000 or more (n=1).

The results for 5 years after graduation were: 2.56% stated earning less than \$50,000 (n=8), 9.62% stated earning \$50,000-\$74,999 (n=30), 18.27% stated earning \$75,000-\$99,999 (n=57), 19.87% stated earning \$100,000-\$124,999 (n=62), 7.05% stated earning \$125,000-\$149,999 (n=22), 2.56% stated earning \$150,000-\$199,999 (n=8), and 3.53% stated earning \$200,000 or more (n=11). Two participants did not feel comfortable disclosing their average annual income 5 years after graduation (0.64%). The remaining 112 participants were excluded from this question because they had graduated less than 5 years ago (35.90%).

The results for current practice modality were as follows: 2.96% stated earning less than \$50,000 (n=6), 6.90% stated earning \$50,000-\$74,999 (n=14), 16.26% stated earning \$75,000-\$99,999 (n=33), 25.62% stated earning \$100,000-\$124,999 (n=52), 16.26% stated earning \$125,000-\$149,999 (n=33), 11.82% stated earning \$150,000-\$199,999 (n=24), and 16.75% stated earning \$200,000 or more (n=34). Seven participants did not feel comfortable disclosing their current annual income (3.45%) (Figure 15).

Figure 15 What Was/Is Your Annual Income?

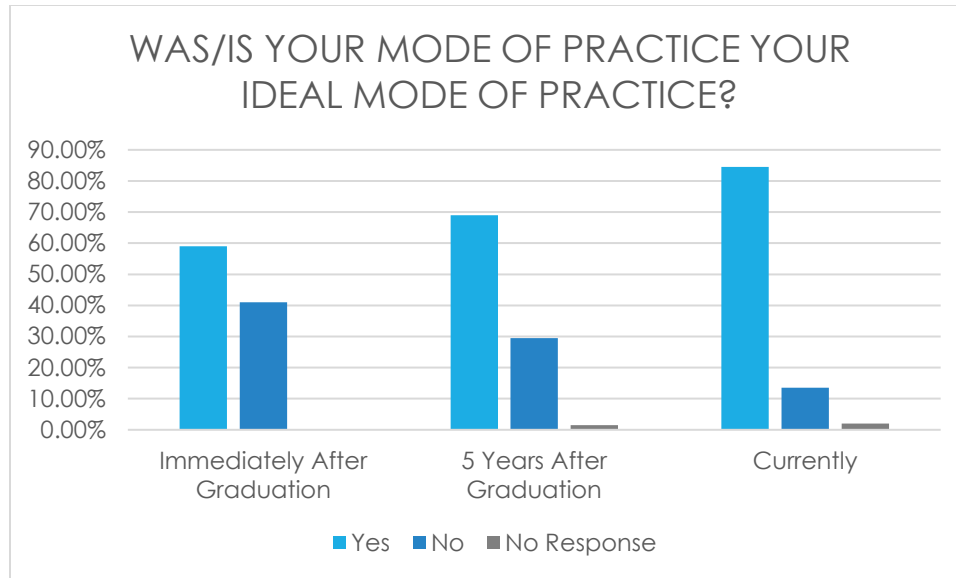


### ***Ideal Mode of Practice***

The final question for this portion of the survey involved the individual’s personal opinions regarding their mode(s) of practice. We were interested in finding out how many respondents felt that they were able to work in their ideal mode of practice immediately after graduation. We also wanted to understand their motivation for changing mode of practice throughout their careers if they had done so. Immediately after graduation, 58.97% of participants felt that they were working in their ideal mode of practice (n=184) while 41.03% did not (n=128). Of the 64.1% of doctors who had graduated more than 5 years ago 70% felt that they were working in their ideal mode of practice 5 years after graduation (n=138), and only 30% did not (n=59), (3 participants did not respond to this question (0.96%)). Of the optometrists who had graduated more than 5 years ago, an even larger majority (84.5%) reported currently working in their ideal mode of practice (n=169). 15.5% of optometrists reported currently not being in their ideal mode of practice despite graduating more than 5 years ago (n=31). Again, 35.90% of respondents

were excluded from this question because they had graduated within the last 5 years (n=112) (4 participants did not respond to this question (1.28%)) (Figure 16).

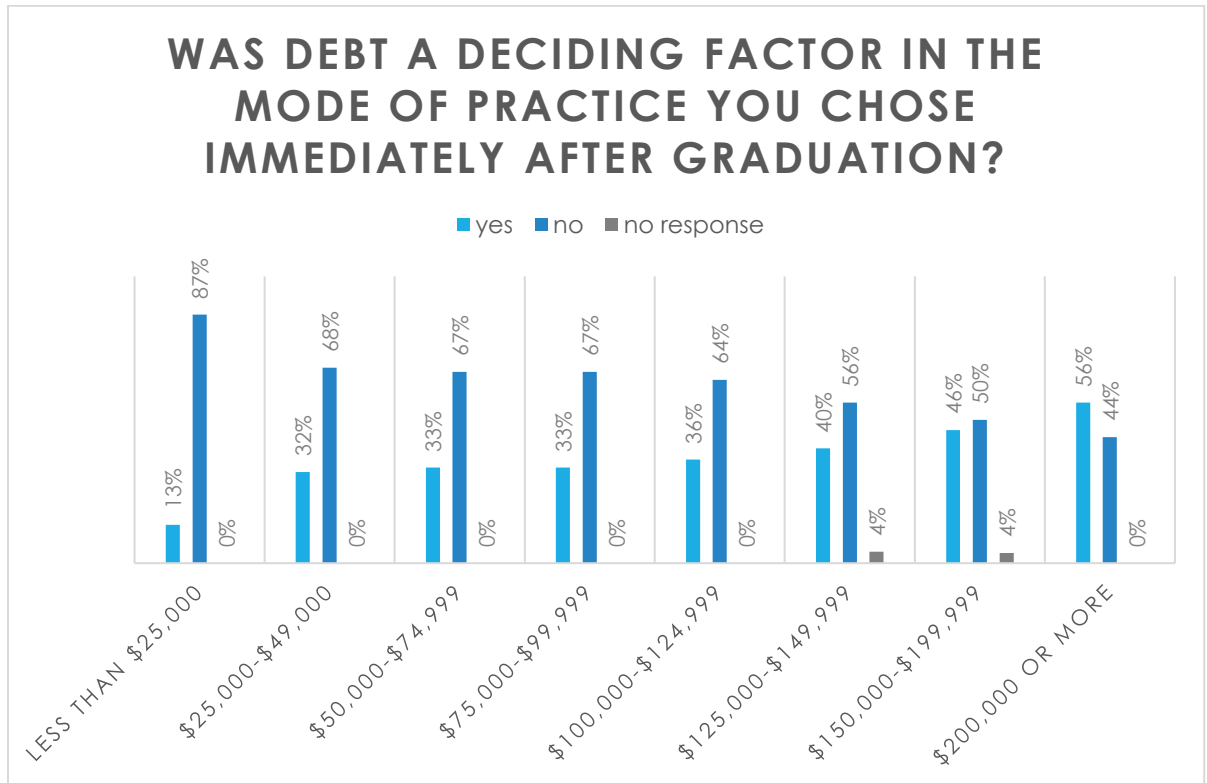
*Figure 16 Was/Is Your Mode of Practice Your Ideal Mode of Practice?*



The final portion of the questionnaire focused on the influence that student loan debt had on one’s life choices including practice modality and quality of life. 41.03% of surveyed individuals reported that debt was a deciding factor in the mode of practice they chose immediately after graduation (n=128). The majority of individuals (58.01%) felt that it was not a crucial factor in their decision making (n=181). Three survey participants were undecided on their feelings regarding this question (0.96%). Responses were then grouped by total amount of student debt to see if a relationship existed between the amount of student debt a person had and whether or not it effected the mode of practice they chose immediately after graduation. A majority (56%) of optometrists who had \$200,000 or more in total student debt reported that debt was a deciding factor in the mode of practice they chose immediately after graduation, while only 13% of ODs with \$25,000 or less in total debt reported the same. This relationship held true across all

groups of total debt reported and was found to be statistically significant ( $p < 0.01$ ) (Figure 17).

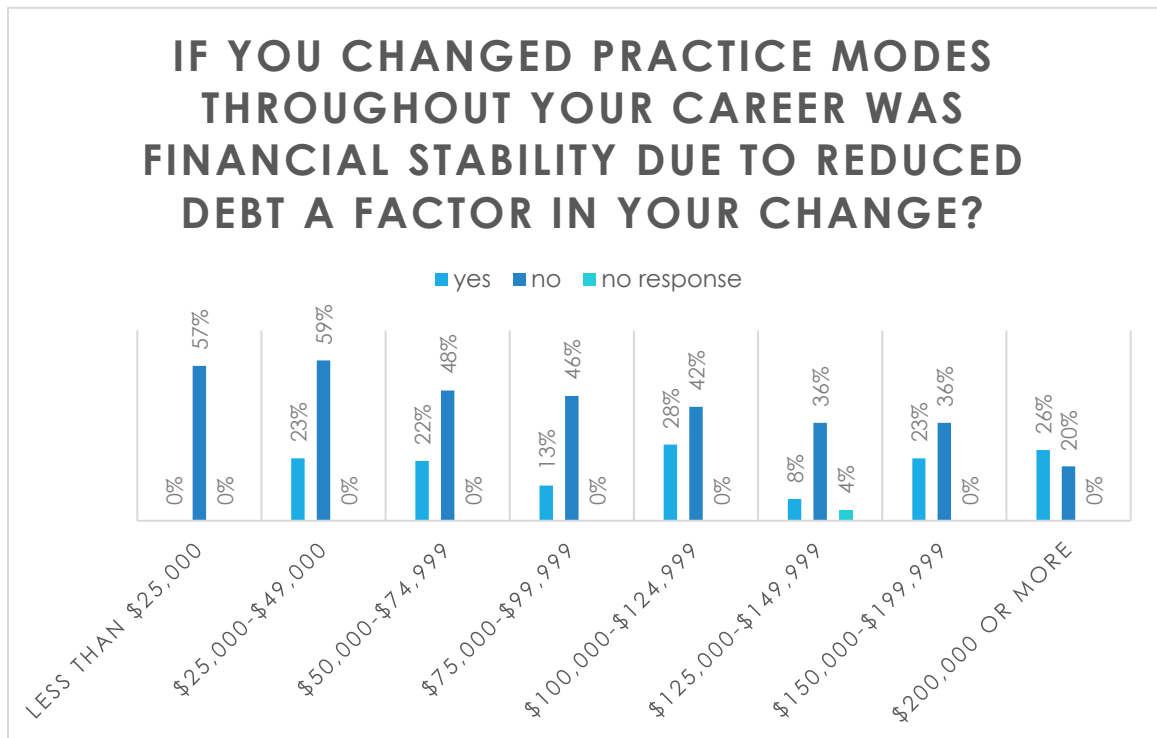
*Figure 17 Was Debt A Deciding Factor In The Mode of Practice You Choose Immediately After Graduation?*



131 of our 312 participants have not changed their practice modality over the course of their professional careers (41.99%). Of the remaining participants (n=180), only 35% of individuals felt that their modality change was associated with improved financial stability after paying off a portion of their student loan debt (n=63). One individual elected to not respond to this question (0.32%). This data was further broken down by total amount of student debt to see if a relationship exists between total amount of debt and changing practice modes due to increased financial stability secondary to reduced debt. Of those doctors who reported \$200,000 or more in total debt 26% of those who

changed practice modes throughout their career reported reduced debt being a factor in their change while no respondents with \$25,000 or less in student loans reported the same. This relationship was also found to be statistically significant ( $p < 0.01$ ) (Figure 18).

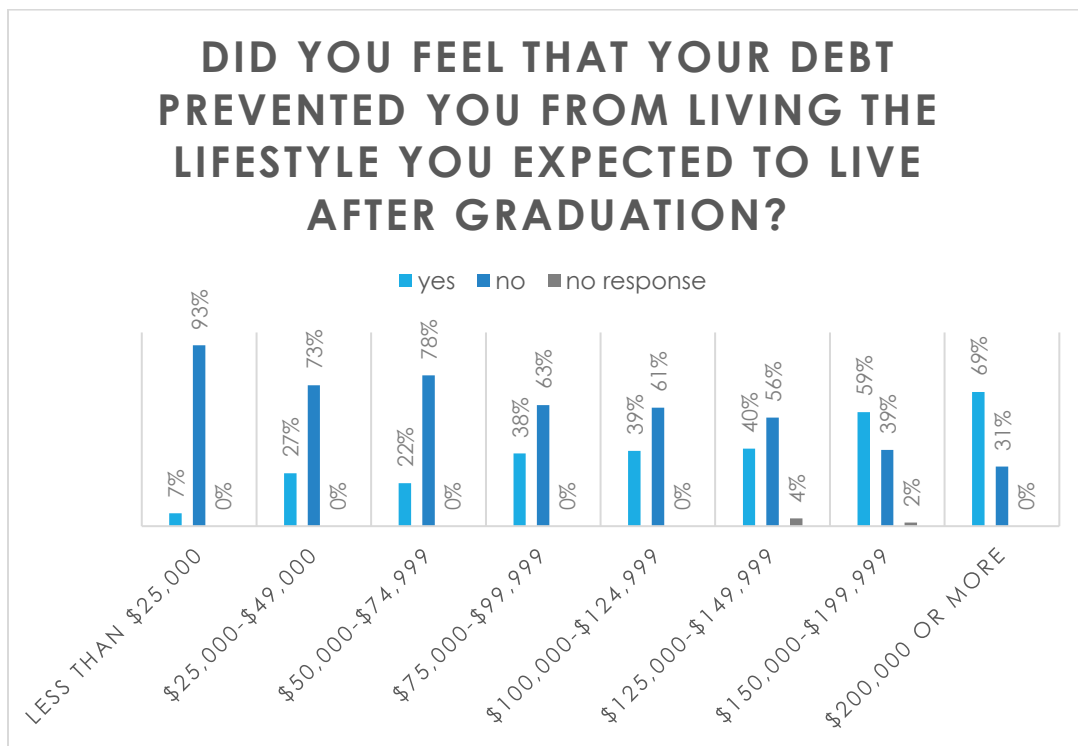
*Figure 18 If You Changed Practice Modes Throughout Your Career, Was Financial Stability Due To Reduced Debt A Factor In Your Mode of Practice?*



Perhaps the question of most interest to those considering optometry as a future career would be the impact that had on participants' lifestyles post-graduation. Fortunately, 53.21% of individuals felt that their debt did not stop them from leading the lifestyle they expected after graduation (n=166). Two individuals did not report their opinions on this topic (0.64%) Again a statistical analysis based on total student debt was run to determine if respondents with higher amounts of student debt were more likely to

report that their debt prevented them from living the lifestyle they expected to live after graduation. Of those with \$200,000 or more in student loans 69% reported feeling their debt prevented them from living the lifestyle they expected after graduation, while only 7% of individuals with \$25,000 or less in debt reported the same feeling. This relationship was found to be statistically significant ( $p < 0.01$ ) (Figure 19).

Figure 19 Did You Feel That Your Debt Prevented You From Living The Lifestyle You Expected To Live After Graduation?



The final two questions on the survey were in regard to how prepared the participants felt upon graduation to manage their debt. When asked if they considered their student debt to be manageable the vast majority of individuals (76.28%) felt that their student loan debt was manageable ( $n=238$ ). One individual did not respond (0.32%) and the remaining 23.40% reported feeling unprepared to manage their student loan debt ( $n=73$ ) Investigators then analyzed responses based on total student loan debt to

determine if a relationship existed between total debt and feeling that debt was manageable. It was found that those with less debt were much more likely than those with more debt to report finding their student debt manageable ( $p < 0.01$ ). 56% of participants with \$200,000 or more in debt reported finding their debt manageable, 62% of those with \$150,000-199,999 found their debt manageable, in all other groups with decreasing debt loads more than 80% of respondents reported considering their debt manageable (Figure 20). Participants were then asked to rate their preparedness to manage their debt on a scale of 1-10 with 1 indicating 'Fully Unprepared' and 10 indicating 'Fully Prepared'. The results were as follows: 3.85% reported 1, 'Fully Unprepared' (n=12), 5.13% reported 2 (n=16), 9.29% reported 3 (n=29), 7.05% reported 4 (n=22), 9.62% reported 5 (n=30), 12.50% reported 6 (n=39), 8.97% reported 7 (n=28), 17.95% reported 8 (n=56), 10.90% reported 9 (n=34), and 14.42% reported 10, 'Fully Prepared' (n=45). One participant did not respond to this question (0.32%) (Figure 21).

Figure 20 Do/Did You Consider Your Debt Manageable?

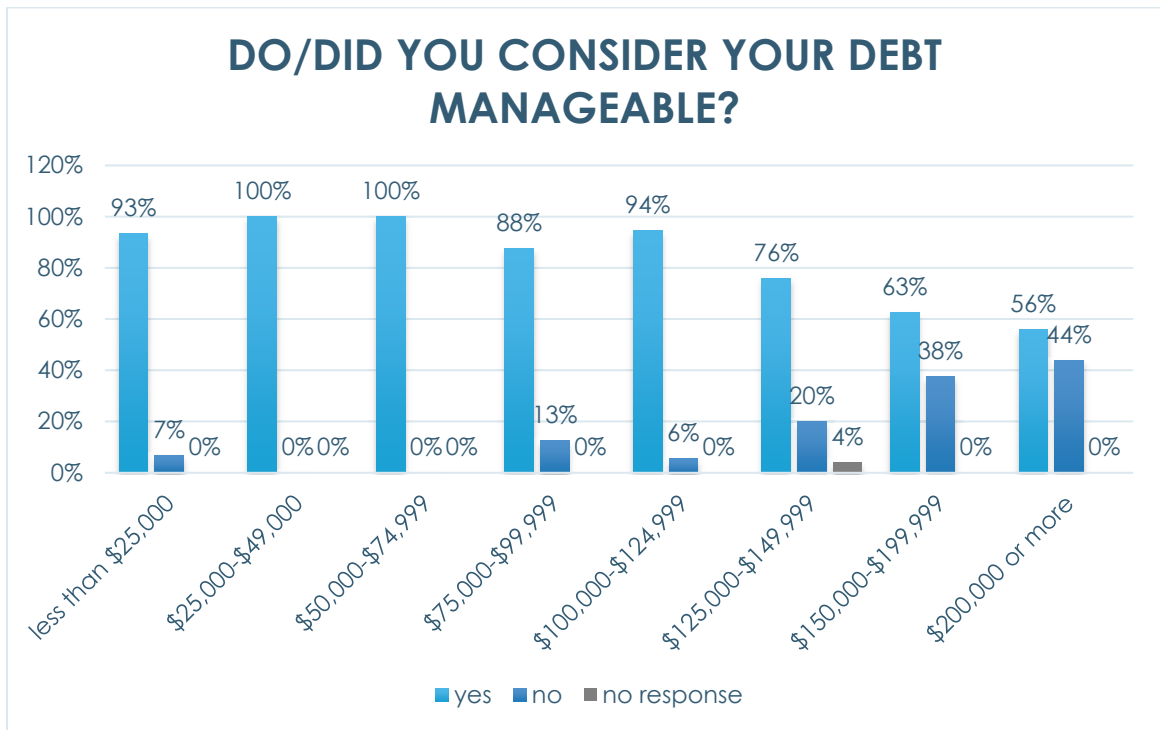
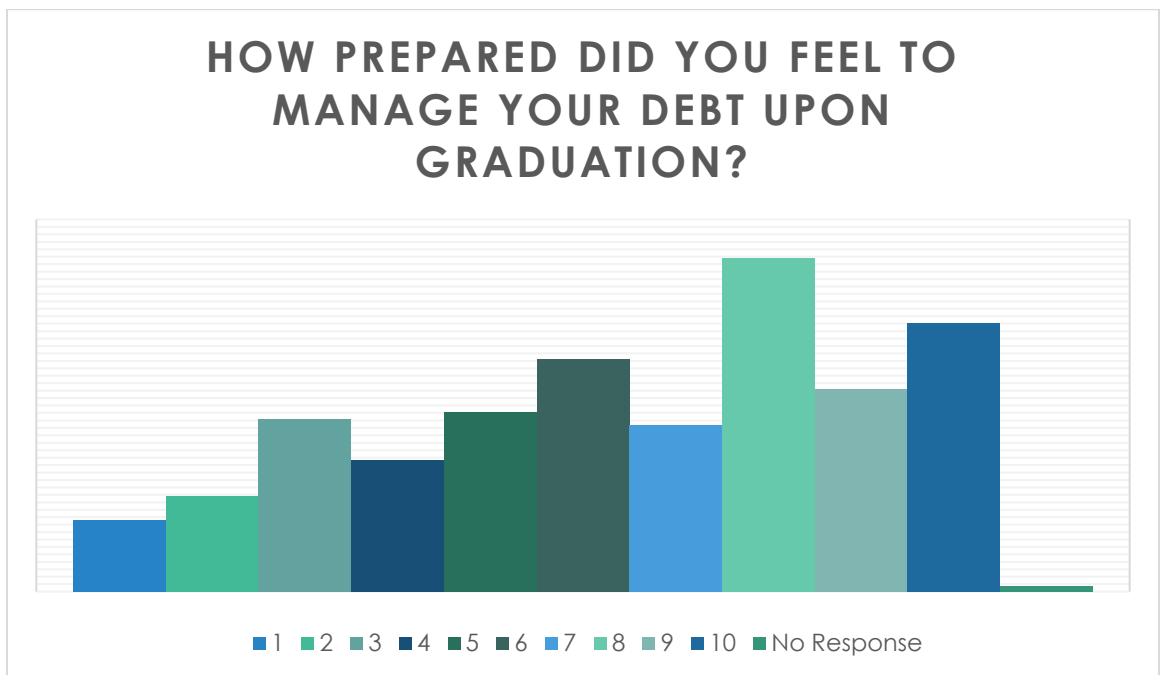


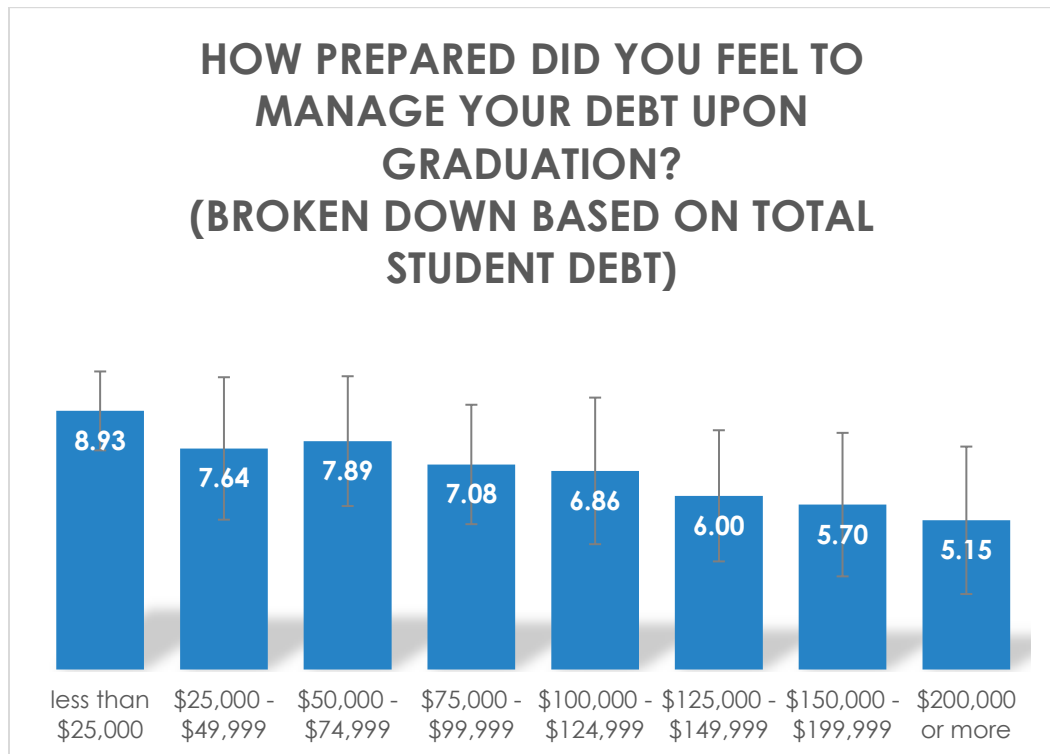
Figure 21 How Prepared Did You Feel To Manage Your Debt Upon Graduation?





Answers to the question “How prepared did you feel to manage your debt upon graduation?” were further examined to see if a relationship existed between total amount of debt and perceived preparedness to manage debt after graduation. The results were as follows: those with \$25,000 or less in total debt on average answered 8.93 (SD = 1.36), \$25,000 - \$49,999 = 7.64 (SD = 2.46), \$50,000 - \$74,999 = 7.89 (SD = 2.24), \$75,000 - \$99,999 = 7.08 (SD = 2.06), \$100,000 - \$124,999 = 6.86 (SD = 2.53), \$125,000 - \$149,999 = 6.00 (SD = 2.27), \$150,000 - \$199,999 = 5.70 (SD = 2.48), and those with \$200,000 or more in total debt on average reported a preparedness to manage their debt of 5.15 (SD = 2.55) (Figure 22).

Figure 22: How Prepared Did You Feel To Manage Your Debt Upon Graduation (Broken Down Based on Total Student Debt)



## CHAPTER 4

### DISCUSSION

A total of 312 responses were received for the survey. As predicted, the largest number of respondents (n=139) were graduates from the Michigan College of Optometry (44.55%). This was to be expected due to our method of survey distribution via the Michigan College of Optometry Alumni Association and the Michigan Optometric Association. The additional placement of our survey on the Facebook groups “ODs on Facebook” and “ODs on Finance” allowed us to receive varied responses from 20 other optometry schools throughout the country. A detailed breakdown of the participant demographics can be seen in Figure 1.

Participants were asked to classify their total student debt into 8 distinct ranges. Interestingly, 29.17% of individuals reported having a total student debt of \$200,000 or more upon graduation from optometry school (n=91). This was the largest percentage of responses and also the highest debt bracket in our survey. We then asked individuals to separate their debt into undergraduate debt amounts and optometry school debt amounts to better understand the overall impact that one’s graduated studies had on total student loan debt. Of that, 82.05% reported that their undergraduate education cost them less than \$25,000 (n=256) and 41.34% reported that their optometric education cost them greater than \$150,000 (n=129) (Figure 3 and Figure 4). According to the Association of Schools and College of Optometry, in the 2017-2018 school year, the average cost for all direct

expenses, including tuition, fees, books, instruments, etc., for first-year resident optometry students was \$31,388 for public schools and \$42,158 for private schools.<sup>1</sup> When multiplied by four professional years, the estimated total cost of optometry school ranges between \$125,552 and \$168,632 for public and private programs, respectively. The total debt reported in this survey aligns with these estimates.

When it came to paying off one's student loans, an average monthly payment among participants was found to be less than \$1,499 for 67.64% of total participants (n=211) (Figure 7). We found an almost equal split between those that made payments above their minimum requirement (n=156) and those that choose to only pay the minimum (n=153) (Figure 8). Of this, 62.82% of participants reported that they increased or decreased their monthly payment during repayment (Figure 9). We did not specifically analyze a relationship between the amount of time it took to pay off student loans and how much one paid above their minimum monthly payment. There is room for further investigation regarding generalized trends in payment patterns and subsequently how quickly student loan debt is paid off.

A majority (67.95%) of participants chose a standard repayment plan with fixed payment amounts (n=212). The second most common form of repayment plan was income-based (20.51%) (Figure 5). Interestingly, 34.94% reported that they changed their repayment plan sometime during their repayment (n=109) (Figure 6). Our survey did not ask participants to divulge what form of repayment plan they switched to and from. Future research may investigate refinancing and/or payment plan changes during the term of loan repayment.

At the time of our survey, a large proportion of participants (33.97%) reported having no student loan debt remaining (n=106) (Figure 10). Of these 106 individuals, we asked them to divulge the estimated amount of time it took them to complete this task. We received a total of 45 responses to this question and calculated an average estimated time period of 7.13 years. An exact breakdown of our respondents' total time in student loan repayment can be found in Figure 11. The average graduation year of those with no debt remaining was 1999 (SD = 11.56) while the average graduation year of those with \$200,000 or more in student debt remaining was found to be much higher at 2014 (SD = 8.88). Our information indicates that optometrists graduating in more recent years have more total debt overall than those of prior. This trend corresponds well to what we know about the ever increasing cost of optometry school tuition rates. Based on this knowledge, we can infer that as the total time it takes for one to pay off their student debts will only increase over time due a large amount of initial loan debt. A summary of this information can be found in Figure 12.

The next portion of the survey dove into the specifics for practice modality, average hours worked per week, average annual income, and overall job satisfaction immediately after graduation, 5 years after graduation, and currently in order to determine trends in optometric careers as doctors manage their student debt. Immediately after graduation, 40.11% were employed by a private practice office (n=156), 28.02% were employed by corporate practice offices (n=87), and 14.65% went into residency programs (n=57). The remaining 17.22% are dispersed throughout private practice ownership and partnership, government programs, academics, and other forms of practice modalities (n=55). Of those that were solo practice owner, nine bought an established

practice (2.31%) and seven started their own practice cold (1.80%) (Figure 13). When asked about their mode of practice at that time, only 58.97% of participants felt that they were working in their ideal practice modality (n=184) (Figure 16).

Five years after graduation, the three most popular job modalities were as follows: 23.97% were employed by private practice offices (n=78), 12.69% were employed by corporate offices (n=42), and 9.37% were solo practice owners (n=31). In general, we can see a shift from private and corporate practice employment towards private practice ownership in only 5 years' time. Additionally, less than half of the individuals previously employed by a corporate practice remained in that form of practice modality indicating a large turnover of optometrist in these types of offices. Overall, 44.23% of participants felt that they were working in their ideal practice modality (n=138). However, 112 of the total 312 respondents had graduated from optometry school within the last 5 years, removing them from this data set. Therefore, 69.00% of the 200 applicable participants felt that they were working in their ideal practice modality within five years of graduation (Figure 16). This is a 10.03% increase in participants expressing overall job satisfaction correlated with modality changes in only 5 years of practice since graduation.

Currently, 54.17% of participants feel that they are in their ideal practice modality. As with the previous classification group, 35.90% of responses were not applicable due to their graduation year being within the past 5 years. Therefore, 169 of the 200 applicable participants are working in their ideal mode of practice (84.50%) (Figure 16). This is a staggering 25.53% increase in individuals who are now expressing overall job satisfaction related to their current practice modality compared to their initial modality immediately upon graduating. The most popular current practice modalities of

the optometrist who responded to our survey are as follows: 28.17% are employed by private practice offices (n=60), 22.54% are solo private practice owners (n=48), and 11.73% are employed by corporate offices (n=25). At this time, 2 individuals have reported that they were now happily retired (0.94%) (Figure 13). Compared to practice modality trends initially and after 5 years of practice, there is an obvious shift from employment by corporate and private practices towards private practice ownership. Additionally, a positive trend has emerged in the data regarding private practice ownership and ideal practice modality. As optometrists have grown more comfortable with the management of their own careers, they have additionally showed an improvement with overall job satisfaction.

Based on this information it can be inferred that there is an increase in overall job satisfaction throughout the course of one's optometric career, specifically when it comes to the type to practice modality one is in. There was an overall increase in job satisfaction from 58.97% at the time of graduation to 84.50% in their current mode of practice. In addition, there is a generalized shift in the type of practice modality one has over the course of one's optometric career. Based on our findings, 68.13% of participants were employed by some form of private or corporate practice at the time of graduation (n=265) whereas only 4.88% were some form of practice owners (n=19). Currently, only 39.90% are employed in various practice settings while 33.81% are practice owners (n=72). One can infer that there is an association between modality of practice and overall job satisfaction with optometrists and that a large proportion prefer to be involved in an ownership role.

The average amount of hours worked weekly did not vary greatly throughout the stages of one's optometric career (Figure 14). Immediately upon graduation, 71.80% of graduates reported that they worked an average of 40 hours or less per week (n=224). Five years after graduation, 48.08% of participants worked an average of 40 hours or less per week (n=150). Currently, 77.72% of participants work an average of 40 hours or less per week (n=157). It is important to note that the sample size of those reporting their average for 5 years after graduation are reduced to a total of 200 responses due to the fact that 112 of the survey participants graduated within the last 5 years and are therefore unable to reply to that question. When we adjust for this factor, 150 of the 200 participants in that category worked an average of 40 hours or less per week (75.00%). In general, the trend of working 40 hours or less per week increased slightly as one advances through their optometric career. According to the Bureau of Labor Statistics, 44 hours per week is the average length of a work week for an American adult.<sup>4</sup> Given this, we can conclude that the participants in our survey, and optometrists in general, spend, on average, 4 hours less per week in the office on average compared to the generalized public.

Our survey results suggest that the average annual salary earned by an optometrist increases over the course of one's career (Figure 15). Immediately after graduation, only 26.28% of our survey participants reported an average annual salary greater than \$100,000 per year with 31.41% reporting their annual income was between \$75,000 and \$99,999 (n=98). This is likely due in part to the fact that 14.65% of participants reported residency as their mode of practice immediately after graduation. Five years after graduation, only 33.01% of participants reported an average annual salary greater than

\$100,000 per year. As stated above, 112 participants (35.90%) in this category were not able to be included in this question due to graduating within the last 5 years. Therefore, 103 out of the remaining 200 participants were making an average annual salary greater than \$100,000 per year (51.50%). Currently, 45.83% of participants make an average annual income of greater than \$100,000 per year with 16.75% reporting average incomes greater than or equal to \$200,000 or more annually. According to the 2014 Census, the average income in America was \$51,939. Therefore, it can be concluded that the average optometrist earns two to four times as much annually than the average American worker.<sup>5</sup>

The final portion of the survey included questions regarding the participants' ability to manage their debt, as well as the impact debt had on their lifestyle choices. In general, 76.28% of participants found that their debt was manageable (n=238) (Figure 19) and 53.21% found that it did not hinder the type of lifestyle they expected to live after graduation (Figure 19). A full breakdown on how the participants felt they were able to manage their debt from 'Fully Unprepared' to 'Fully Prepared' can be found in Figure 20. As stated previously, there is a general shift in practice modality and overall job satisfaction as one advances in their optometric careers. Specifically, a shift from being an employed optometrist at a corporate or private practice towards being an owner of one's own office. Overall, 41.03% of individuals agreed that their debt was a deciding factor in the mode of practice they chose after graduation (n=128) (Figure 17). An astounding 58.01% of total participants in the survey have switched practice modalities thus far over the course of their optometric careers (n=181) (Figure 18). Of these 181 individuals, 34.80% felt that increased financial stability due to reduced debt was a factor in their decision to change modes of practice (n=63). It can be inferred that as one



becomes more financially stable, due in part to decreasing loan debt, one is more comfortable and able to afford the costs associated with practice ownership, one of the ideal practice modalities based on the information gathered.

Based on these findings and the generalized trends we found about type of practice modalities after graduation, we can infer that initial student loan debt may deter many graduates from participating in an ownership role immediately after graduation. However, after one becomes more financially stable, they may feel that they are more able to responsibly take on an ownership role. Nonetheless, there are many factors that go into career decisions and we are unable to fully ascertain the affects that debt may have on such choices.

## CHAPTER 5

### CONCLUSION

The results of the study may aid in current and future optometry students in what can be expected after graduation with regards to their own debt repayment as well as guide practice management educators with their course structure to better prepare students to manage debt post-graduation.

## REFERENCES

1. Annual Student Data Report: Academic Year 2017-2018. Association of Schools and Colleges of Optometry. May 2018. Retrieved March 4 2019. Available at: [www.optometriceducation.org](http://www.optometriceducation.org)
2. Olsen R. It's Impossible To Work Your Way Through College Nowadays. Randal S. Olsen, 22 March 2014. Web. 4 March 2019. Available at: <https://www.randalolsen.com/2014/03/22/its-impossible-to-work-your-way-through-college-nowadays>
3. Bala, J, Miller A, McDowell P. Debt Accumulation of Michigan College of Optometry Students. 2015. Retrieved March 4 2019. Available at: [http://fir.ferris.edu:8080/xmlui/bitstream/handle/2323/5189/2015%20Bala%20and%20Miller\\_Senior%20Project\\_2015.pdf?sequence=1&isAllowed=y](http://fir.ferris.edu:8080/xmlui/bitstream/handle/2323/5189/2015%20Bala%20and%20Miller_Senior%20Project_2015.pdf?sequence=1&isAllowed=y)
4. Ward M. A Brief History Of The 8-Hour Workday, Which Changed How Americans Work. CNBC Make It 3 May 2017. Retrieved March 4 2019. Available at: <https://www.cnbc.com/2017/05/03/how-the-8-hour-workday-changed-how-americans-work.html>
5. Kimberly. Average Income In The USA By Family And Household: Why Incomes Haven't Recovered From The Great Recession. The Balance 28 February 2019. Retrieved March 4 2019. Available at: <https://www.thebalance.com/what-is-average-income-in-usa-family-household-history-3306189>

## APPENDIX A

### ADMINISTERED SURVEY QUESTIONS

1. From what optometry school did you graduate?
2. What was the total amount of debt you graduated with?
3. What amount of your debt was from undergraduate studies?
4. What amount of your debt was from graduate studies/optometry school?
5. What type of repayment plan did you choose after graduation?
6. Did you switch repayment plans or refinance while paying back your loans?
7. What were your average monthly payment amounts?
8. Were the payments in the previous question above your minimum required payments?
9. Did you increase or decrease your payment amounts at any time?
10. What is your student debt remaining today?
11. If your debt is completely paid off, how long did it take you to pay it all back?
12. What was your mode of practice upon graduating?
13. How many hours on average did you work per week? (total between all modes selected above)
14. Was your mode of practice after graduation your ideal mode of practice?
15. What was your annual income right after graduation?

16. What was your mode of practice 5 years after graduation?
17. How many hours on average did you work per week? (total between all modes selected above)
18. Was your mode of practice 5 years after graduation your ideal mode of practice?
19. What was your annual income 5 years after graduation?
20. What is your current mode of practice?
21. How many hours on average did you work per week? (total between all modes selected above)
22. Is your current mode of practice your ideal mode of practice?
23. What is your current annual income?
24. Was debt a deciding factor in the mode of practice you chose immediately after graduation?
25. If you changed practice modes throughout your career was financial stability due to reduced debt a factor in your change?
26. Did you feel that your debt prevented you from living the lifestyle you expected to live after graduation?
27. Do/did you consider your student debt manageable?
28. How prepared did you feel to manage your debt upon graduation?

## APPENDIX B

### IRB APPROVAL LETTER



Date: October 3, 2018

To: Jennifer ~~Schad~~  
From: Gregory Wellman, B.Ph., Ph.D., IRB Chair  
Re: IRB Application *IRB-FY17-18-190 Survey of Optometrists Investigating Student Debt*

The Ferris State University Institutional Review Board (IRB) has reviewed your application for using human subjects in the study, *Survey of Optometrists Investigating Student Debt* (IRB-FY17-18-190) and approved this project under Federal Regulations Exempt Category 2. Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Approval has an expiration date of three years from the date of this letter. As such, you may collect data according to the procedures outlined in your application until October 3, 2021. Should additional time be needed to conduct your approved study, a request for extension must be submitted to the IRB a month prior to its expiration.

Your protocol has been assigned project number IRB-FY17-18-190. Approval mandates that you follow all University policy and procedures, in addition to applicable governmental regulations. Approval applies only to the activities described in the protocol submission; should revisions need to be made, all materials must be approved by the IRB prior to initiation. In addition, the IRB must be made aware of any serious and unexpected and/or unanticipated adverse events as well as complaints and non-compliance issues.

This project has been granted a waiver of consent documentation; signatures of participants need not be collected. Although not documented, informed consent is a process beginning with a description of the study and participant rights, with the assurance of participant understanding. Informed consent must be provided, even when documentation is waived, and continue throughout the study.

As mandated by Title 45 Code of Federal Regulations, Part 46 (45 CFR 46) the IRB requires submission of annual reviews during the life of the research project and a Final Report Form upon study completion. 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.

Regards,

Gregory Wellman, B.Ph., Ph.D., IRB Chair  
Ferris State University Institutional Review Board