



CAOS • ACÉO

Canadian Association of Optometry Students

Association canadienne des étudiants en optométrie

2018 CAOS SURVEY REPORT

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Abstract

The Canadian Association of Optometry Students (CAOS) conducted a survey that was sent out to all Canadian OD students from University of Waterloo, University of Montreal, and US optometry schools to better understand student perspectives about the state of the optometric profession. This year, we decided to use the survey to better understand students and their total financial debt after graduation, to ask them about the types of optometry practice modalities they would be interested in, to understand what kind of factors would influence the locations they would prefer to practice in, and what kind of residencies (if any) they would be interested in pursuing. Our results revealed that there is a large difference in average student debt between students studying in a Canadian optometry school compared to an American optometry school. The three most popular optometry practice modalities were partnered/group private practice, individual owner private practice, and large group practice. The three most influential factors in determining the students' preferred location to practice were: family, income potential, and their significant other. Lastly, the top three residences students were interested in were: ocular disease, cornea & contact lens, and vision therapy & binocular vision. Overall, this survey can provide a better perspective on students' financial challenges, and their ambitions for practicing optometry.

Introduction

The Canadian Association of Optometry Students/Association Canadienne des Étudiants en Optométrie (CAOS-ACEO) is a North American wide organization that represents Canadian optometry students studying in Canada, USA and Puerto Rico. Our mission is to enhance the professional and clinical development of the next generation of ODs, and create awareness of challenges affecting the optometric profession. In addition we would like to increase the public's awareness of optometrist's role as the primary vision care provider. By unifying optometry students together, we can collaborate and deal with current and futures challenges affecting the profession. If you are interested in learning more about our organization, please visit our website at: <http://caostudents.ca>

Purpose of the survey

In 2016-2017, we conducted our first survey to learn about the student perspective to aid in communicating this to our fellow peers, faculty, professional associations, and other colleagues. The focus of this survey was to investigate the student perspective on current challenges that face Canadian optometry. We wanted to make the CAOS survey a tradition by conducting another survey for 2017-2018, but with a slightly different focus.



This year, we wanted to target three main areas: to better understand the financial concerns of graduating students in today's age, to investigate the factors of where and how they would like to practice, and to learn about their interests in residency programs.

The purpose of this survey is to better understand the goals, financial concerns and practice ambitions of student optometrists as they think about their careers. We have found that doctors and students alike have experienced a disconnect when it comes to demand for positions. In some cases, doctors are having difficulty finding suitable candidates and students are having trouble finding their ideal job.

The CAOS executive committee conducted this survey to foster better understanding between optometry leaders and the new grads that they are welcoming. We hope that this report will serve as a means of eliciting positive reform on both ends.

Methods

With the success of our 2017 student survey, we decided to use the SurveyMonkey platform once again. The survey consisted of 11 questions, which were used to obtain data on: the demographics of the Canadian optometry students that participated in the survey, how much debt students are graduating with and how financially burdened they feel from them, the top three factors that students find most significant when it comes to deciding where they would like to practice post-graduation, the mode of practice they are interested in and the areas of study that students are interested in completing a residency.

To encourage participation, students were entered into a draw for a chance to win a \$25 gift card to a business of their choice.

The survey was emailed out to all University of Waterloo optometry students, as well as distributed to the presidents of each of our CAOS chapters (ie. University of Montreal, US chapters) to encourage student participation at each of their respective institutions. We further encouraged participation through in-class announcements, posts on social media including our Facebook and Instagram posts, as well as word of mouth.

We made the survey available to the students for 2 weeks (from the end of December 2017 to mid-January 2018). The results were then analyzed by the UW CAOS executive team and compiled into this report. The survey received a total of 232 responses from the aforementioned Canadian optometry students.



Survey Results & Analysis

Question 1: Are you male or female?

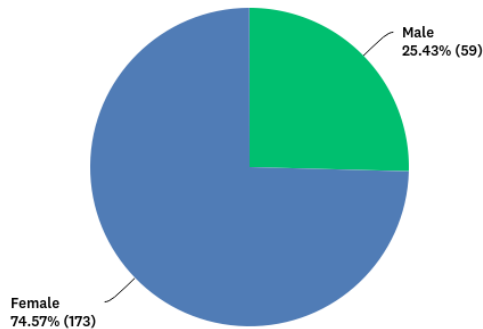


Figure 1: Represents the demographics of the responses by gender.

Question 2: Which optometry school are you currently attending?

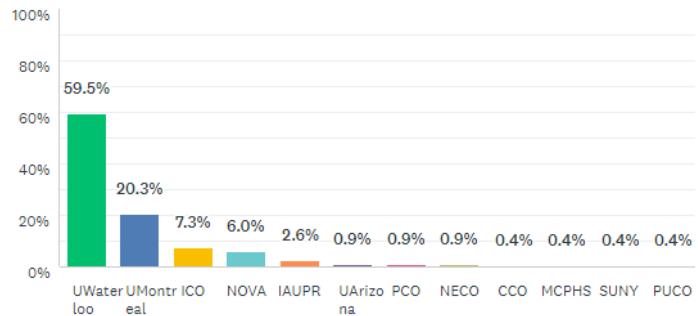


Figure 2: Represents the demographics of the responses by optometry school attended.

A total of 232 responses were received. The data showed that 74.5% of the population was female, which coincides with the general current optometry student population across North America (Figure 1). The data revealed that the greatest amount of responses came from students studying at the University of Waterloo (138 respondents, 59.5%), University of Montreal (47 responses, 20.3%), Illinois College of Optometry (17 responses, 7.3%) and Nova Southeastern University (14 responses, 6.0%) (Figure 2). A smaller number of responses were obtained from 8 other Optometry schools in the US and Puerto Rico. Overall, 20% of the responses came from Canadians studying optometry outside of the Canada. Although this is a significant improvement in representation of our Canadian peers studying outside of Canada, compared to our previous survey (which had only 3% participation), we would like to continue working on strengthening our relationships to seek even greater involvement in the near future.

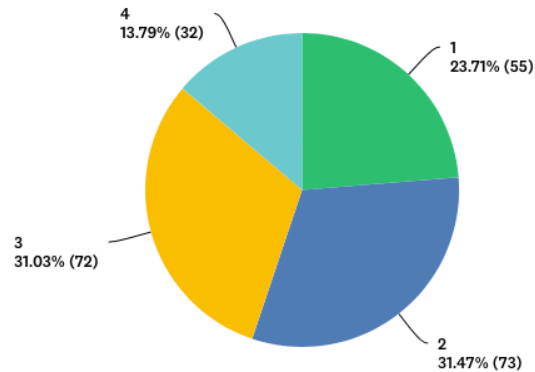
Question 3: What year of optometry are you currently enrolled in?

Figure 3: Distribution of respondents by year of Optometry.

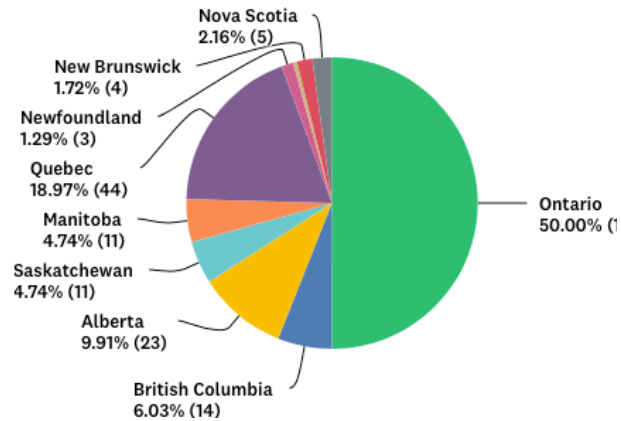
Question 4: What province or territory are you from?

Figure 4: Distribution of respondents by province of origin.

Close to two-thirds of the responses came from students studying in their second and third year of optometry. A slightly smaller proportion were from students in their first year (24%) and fourth year (14%) (Figure 3). We propose the slightly reduced participation from the first year students may be due to the topics being largely focused on aspects associated with post-graduation and practicing. These may not have had as strong of an appeal to them as they are just initiating their optometric education.

The lowest number of responses was once again from the 4th year students. We propose that this is largely due to them being on their externship rotations, which makes it more difficult to effectively reach out and promote the survey to them.

In addition, half of the respondents were originally residents of Ontario. Also, Quebec, Alberta, British Columbia, Manitoba and Saskatchewan were well represented making up 19%, 10%, 6%, 5% and 5% of the responses respectively (Figure 4).

Question 5: If you are a Canadian student attending optometry school in the US, where do you plan to practice after graduation? Otherwise, please skip this question.

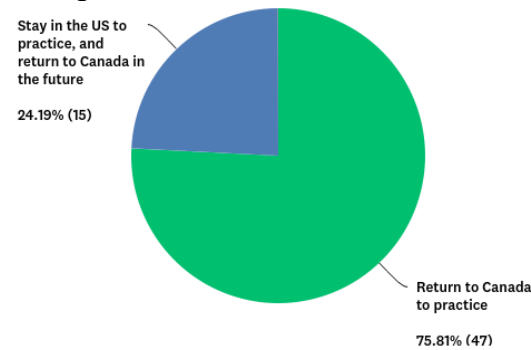


Figure 5: Distribution of respondents by year of Optometry

Question 6: On a scale from 1 to 10, how burdened do you feel about your financial debt towards optometry school?

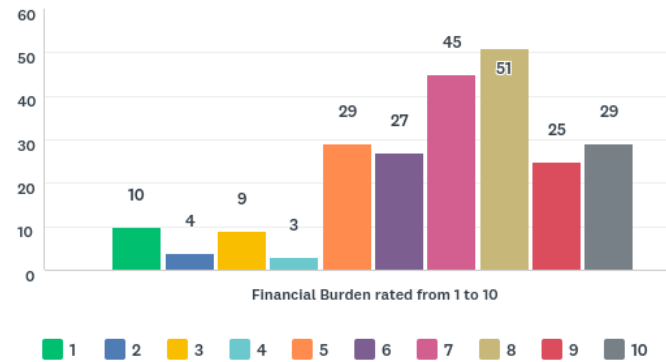


Figure 6: Distribution of financially burdened the respondents feel.

As of today, there are 1104 Canadian students studying optometry in 2017, with 564 in the US (Student data reports 2016-2017, ASCO). In Figure 5, we asked where the Canadian students attending an optometry school in the US planned to practice after graduation. There were a total of 62 responses for this question, presumably all from Canadians studying in the US. The graph shows that a large majority (76%) plan to return to Canada to practice as soon as they can, whereas only 24% planned to stay in the US to practice, and return to Canada in the future. For this question, respondents had the option to stay in the US to practice and settle as well, but this was not selected by any of them.

In Figure 6, we asked respondents to tell us how burdened they feel about their financial debt towards optometry school from a scale of 1 to 10. A rating of 1 represented no burden, 5 represented neutral, and 10 represented heavy burden. We had a wide variety of responses ranging from a minimum of 1, and a maximum of 10. With basic statistics, we found the mean burden (6.91), the median burden (7.00), and standard deviation of 2.26. From these results, we inferred that Canadian students generally felt burdened about their student debt.



Question 7: Approximately how much financial debt (in Canadian Dollars) from student loans will you owe after graduation?

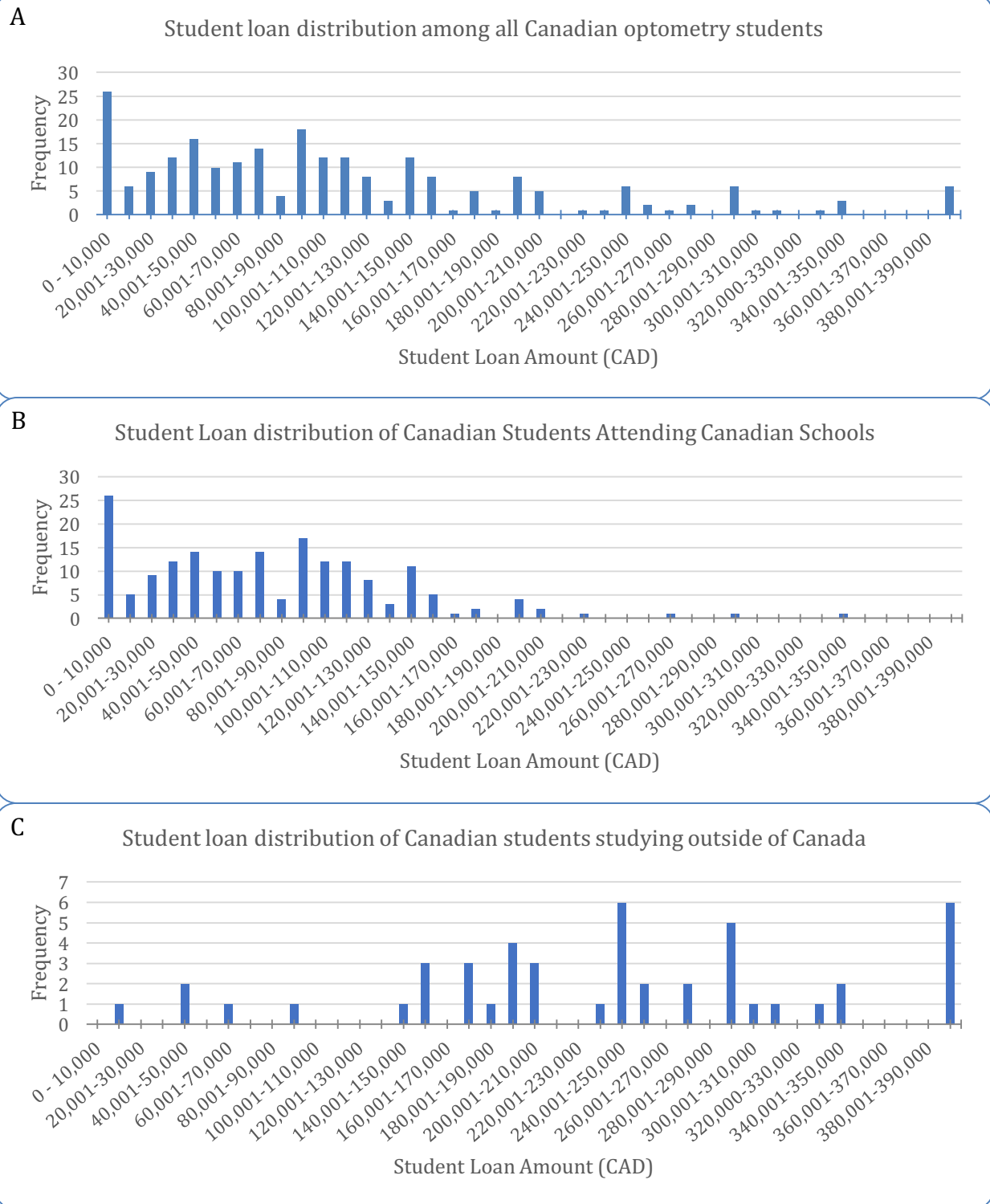


Figure 7: Distribution of financial debt in Canadian dollars of students studying Optometry. (A) All Canadian students. (B) Canadians studying at a Canadian institution. (C) Canadians studying outside of Canada.



In Figure 7a, we asked respondents to inform us on the amount of debt, in Canadian dollars, that they expected to graduate with from student loans. We had a wide range of responses ranging from \$0 - \$10,000 to \$390,000 - \$400,000. With basic statistics, we found the mean debt was \$114,948.28, the median debt was \$100,000, and standard deviation was \$94,543. Empirically, we can interpret the standard deviation of our data as a result of the wide spread of responses shown on our graph. However, this graph is limited by representing the distribution of debt only by the students who chose to take the time to fill out our survey. Also, this graph alone does not distinguish debt of students receiving their education in the US from those receiving it in Canada. As a result, we separated the responses according to students attending a Canadian school to students attending an American school and created frequency distribution graphs for each sub-sample.

Figure 7b shows the distribution of debt among students attending a Canadian school with a sample size of 185. Empirically, we can see that the graph is distributed more narrowly towards lower debt amounts compared to Figure 7a, pulling the overall mean lower. Basic statistics show that the mean debt of students receiving their education in Canada is \$82,670.27, the median debt is \$79,000, and standard deviation of \$60,204.58. The standard deviation shows that the spread of the data is narrower compared to the overall data shown in Figure 7a. In contrast, Figure 7c shows the distribution of debt among students receiving their education outside of Canada with a sample size of 47. We can empirically see that the data is much more spread out and skewed heavily towards higher debt amounts. Basic statistics show that the mean debt for this sub-sample is \$242,000, the median debt is \$249,000, and the standard deviation is \$98,515.94. The high standard deviation is consistent with the large spread we observe on our graph.

Although our data could be improved by having a larger sample of Canadian students studying in the US, we believe our data is consistent with our general perception that studying in the US is more costly. Reasons for the large discrepancy in debt include: tuition cost differences between Canadian schools and American schools, variations in costs of living in Canada and the US, and poorer currency conversion rates of the Canadian Dollar to the American Dollar. Overall, these findings can be used to give current and prospective optometrists an insight to how much financial burden a new graduate at this present time could expect.

Question 8: Of the following optometry practice modalities, which ones are you most interested in post-graduation? (Please select at most 3 choices)

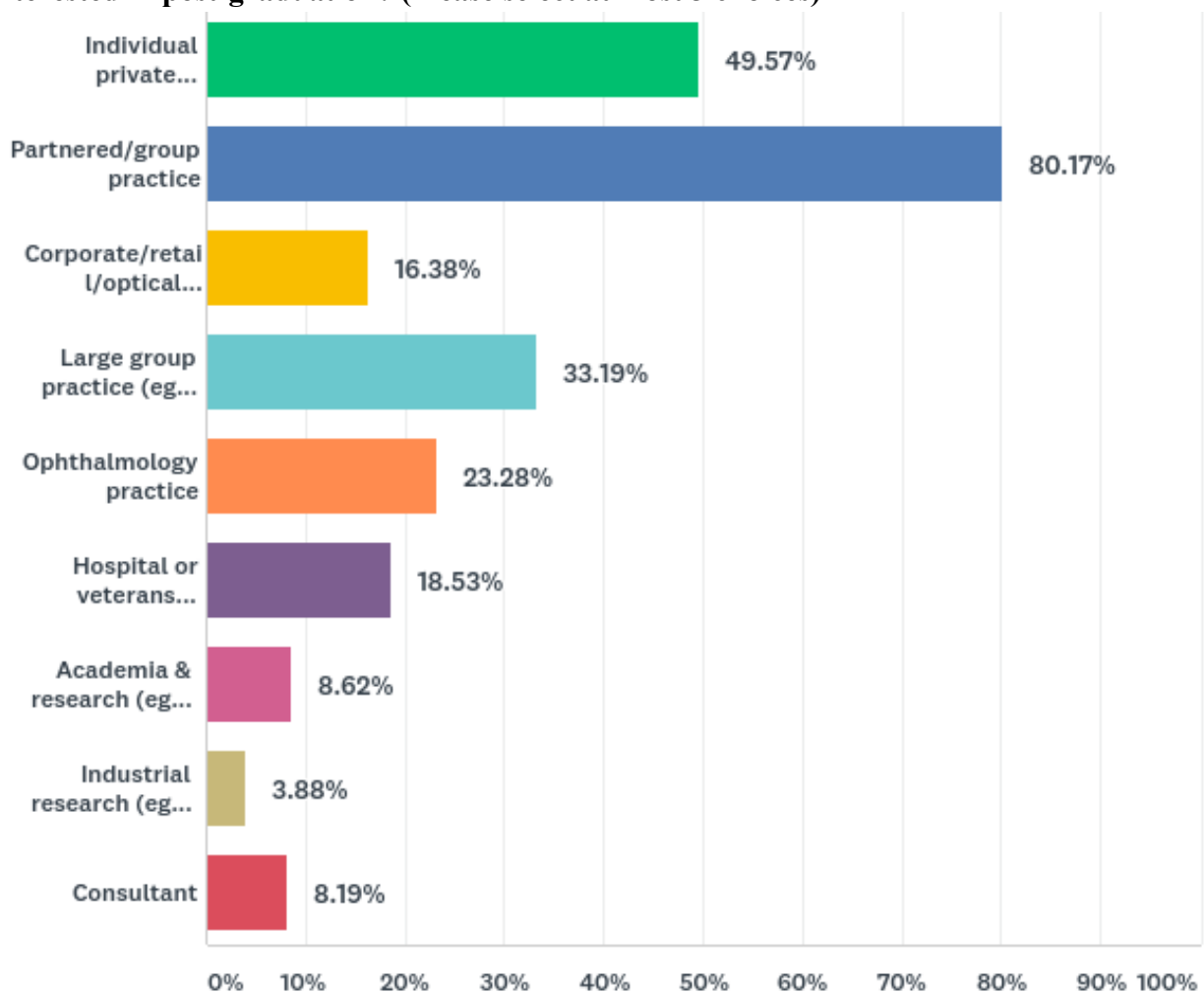


Figure 8: Distribution of the proportion of respondents that selected each practice modality as a preferred mode of practice. Participants were allowed to select up to 3 options from a list of 9 options (from top to bottom): Individual private practice (sole proprietor); Partnered/group practice; Corporate/retail/optical settings (e.g. Costco, Lenscrafters, etc.); Large group practice (e.g. Fyi Doctors); Ophthalmology practice; Hospital or Veterans Affairs institution; Academia & research (e.g. a university setting); Industrial research (e.g. ophthalmic products company developing contact lenses, solutions, drugs); Consultant.

The practice of Optometry is no longer limited to private practice. There are many avenues that a new graduate can get involved with – we wanted to investigate which forms of practice they found most appealing. Out of our list of 9 different modes of practice, we asked students to identify up to 3 modalities which appealed to them. From the 232 individuals that participated in the survey, we received 561 total selections, suggesting that not all students selected 3 modes of practice that appealed to them. These students most likely have a stronger preference towards just 1 or 2 specific practice modalities (Figure 8).



Overall, our findings revealed that partnered/group practice and individual practice were the most popular modes of practice, being selected by 80% and 50% of the respondents respectively. This was followed by interest in large group practices such as FYi, with 33% of the respondents listing it in their top 3, and working as part of an ophthalmology practice which was listed by 23% of the respondents. The least common practice modality to be selected was industrial research, which was listed among the top 3 modes of practice in just under 4% of the participants. Private practice is where most students aspire to end up upon graduation. If we would like to see more graduates getting involved in other modes of practice such as research, or consulting opportunities, additional efforts should be made to make these avenues more enticing to students.

Question 9: Which of the following reasons have the most influence on the location of where you would like to practice optometry? (Please select at most 3 choices).

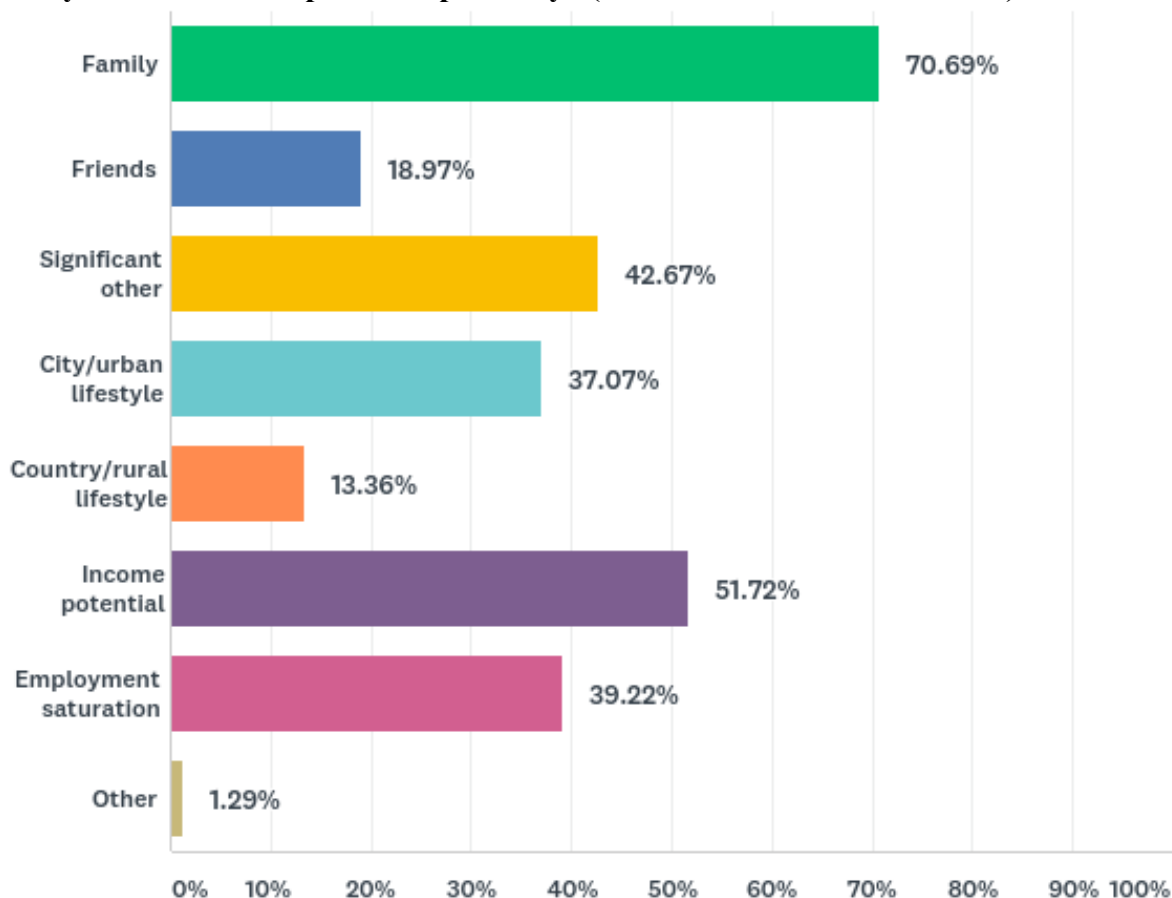


Figure 9: The percentage of respondents who picked each element as one of their top three factors influencing where they practice.



It has been generally believed that city/urban lifestyle is the strongest factor attracting new grads to a practice. This may even be evident in the distribution table of ODs in the 2014-2015 CAOS handbook, which finds that over 40% of all ODs in Ontario practice in the GTA (city of Toronto and the municipalities of Halton, Durham, Peel, York). This, however can also be attributed to the population of the GTA being 44% of Ontario's total population (Canada 2016 census).

From our experiences hosting the annual CAOS Interview Day for 4th year students and doctors practicing in locations across the country, we find that doctors in rural areas are having trouble finding an ideal candidate. We noticed that some clinics have offered a lucrative starting salary in an attempt to attract new graduates to underrepresented areas, yet they still lose candidates to clinics in saturated GTA that offer a sparser patient schedule, for only a few days a week. Doctors are puzzled with why new graduates would trade full patient schedules for part-time weeks just to practice in a metropolitan area.

To investigate the motivation behind these decisions, we surveyed our students. We listed 8 factors that could influence a student's decision on where they will want to practice optometry, and had students select their top 3 factors.

We found that city/urban lifestyle (37%) and concerns of employment saturation (39%) are less important factors when it comes to selecting practice locations. New graduates are willing to uptake the challenges associated with practicing in a saturated city so long as they can be close to family (71%) and their significant other (43%). The least popular factors for selecting practice location within our sample included friends, country/rural lifestyle and other, which were selected by 19%, 13% and 1% of the respondents respectively. The "other" category consisted of reasons such as climate and having the opportunity to return to Canada to practice.

We found that family is overwhelmingly the most important factor influencing location decisions. At 71%, it beats any other factor by far. Significant other is the third most important factor. New graduates are not only weighing best factors for a successful career - they are weighing factors that will let them build an all-around happy and healthy future. A major part of that is building a family. Further, with the number of years that it takes to complete an optometry education, new graduates often have partners who have already started their careers. This means the easiest route will take them to a location near the significant other. That choice gives them the option to start a flourishing career, while simultaneously building happy family life. This may explain why almost half of our respondents felt that this would dictate where they practice.

Income potential was still a high priority with 51% of our respondents placing this in their top 3 influencers. This suggests that for clinics offering a high starting salary or a high-income potential, this is undeniably still an effective attractor. However, while income potential is still a great attraction, distance from family may turn this incentive into a deal breaker. These results imply that continually increasing salary as an incentive for rural locations may not be the most effective direction when used alone. For practices that cannot afford to raise their offers anymore, or for those with already high offers, there are other methods of attracting new graduates.



We propose that rural practices adopt a cyclic schedule when employing new graduates. Perhaps hiring 1 new graduate to work 3 weeks in a month and have 1 week to return home to visit family would be the key to attracting them to an underrepresented area.

As we learned in our question regarding practice modalities, the majority of students would like to eventually own their own practice. We believe that - if available - partnership or ownership potential should be advertised to garner interest. Otherwise, for understaffed practices, we propose a type of contract. This way, new graduates don't feel committed to staying at a location they hadn't planned on living permanently - this may help gather increased interest in moving to remote locations. More importantly, it allows both parties to understand exactly what sort of agreement they are entering. Understaffed practices get the help they need and new graduates get the experience and full patient schedules that they desire, with the comfort of knowing they will return to their family and significant other.

Question 10: How many different practice locations do you expect to work at after graduation in your desired area?

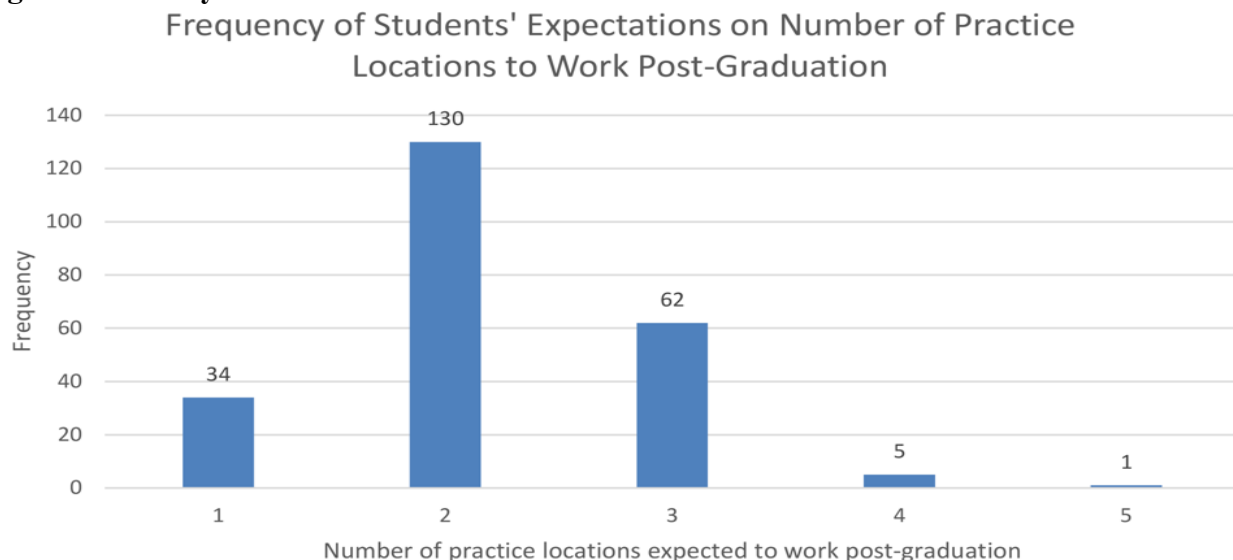


Figure 10: Distribution of how many locations the respondents expect to practice at.

We've had many doctors wonder why new graduates would choose to work part-time at multiple clinics, rather than full-time at one clinic. So, we asked students how many practices they expect to work at after graduation. 56% of students expect to work at 2 practices. 85% expect to work at 2 or more practices. Only 15% of students expect to be working at 1 location after graduation.

This may imply that working at more than 1 clinic is not a deal breaker for students. The majority expect this to be the case. This expectation may stem from the belief that the field is too saturated to find one location. However, some may even prefer it as working at multiple clinics gives new graduates more exposure to different forms of practice early in their career.



Optometry has been growing and changing. The scope is wider than ever before and new graduates have a lot more options. As discussed earlier, there are many different practice modalities for new graduates to consider. There is also a great variety of special focuses that students can choose from. With today's research, these special focuses are becoming more available for new graduates to practice. The opportunity to learn through established doctors can draw them to practice at multiple locations.

Question 11: If you are interested in attending an optometry residency program, which of the following programs interest you? Otherwise, please skip this question. The following list was obtained from ORMATCH 2018.

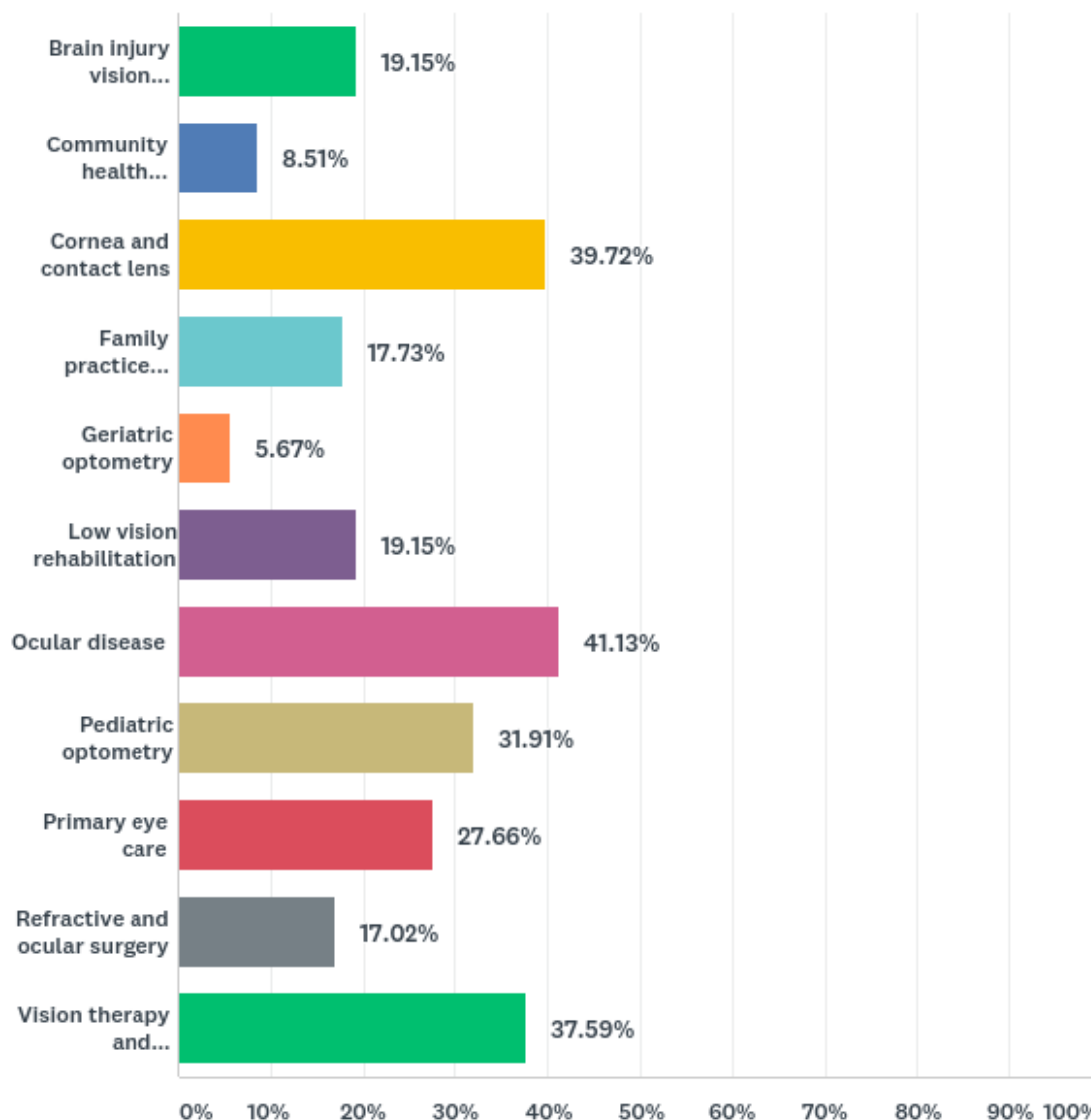


Figure 11: The percentage of respondents who picked each category as one of the areas they would be interested in perusing a residency. Students could select as many options as they wish from 11 residency programs (from top to bottom): brain injury vision rehabilitation; community health optometry; cornea and contact lens; family practice optometry; geriatric optometry; low vision rehabilitation; ocular disease; pediatric optometry; primary eye care; refractive and ocular surgery; and vision therapy and rehabilitation.



In Figure 11, we investigated whether our students were interested in residencies, and if so, which areas were they most interested in. There were 141 individuals who responded to this question, illustrating that 61% of respondents are interested in pursuing a residency after attaining their Doctor of Optometry degree. Out of a list of 11 residency programs that was obtained from ORMATCH 2018, respondents selected all the residency programs that they would be most interested in attending. Students were asked to select all the areas that interested them, rather than limiting their selection to their top choice. This is especially important for students in their earlier years of optometry school who may not have had as much exposure to these areas and may not be able to narrow their interest to a single area.

The 3 residency programs that appealed to most students were ocular disease (41%), cornea and contact lens (40%), and vision therapy and rehabilitation (38%). Following not too far behind are pediatric optometry (32%) and primary eye care (28%). The least number of students (only 6%) were interested in pursuing a residency in geriatric optometry.

As of now, both the University of Waterloo School of Optometry and Vision Sciences and the University of Montreal School of Optometry have four residency programs to offer to students: cornea and contact lens, low vision rehabilitation, pediatric optometry and vision therapy, and ocular disease - glaucoma. It is no surprise that 3 out of the 4 residencies offered were found to be the top 3 residency programs that most respondents were interested in attending. However, it is important to consider that only one resident is usually accepted for each program, and this is correlated to the size of the program and number of supervisors available. This means that out of the 141 students who expressed interest in a residency, only 4-8 (3-6%) students would be accepted in an English trained program in Canada. The massive disparity between positions available and interest amongst students highlights the critical issue of limited spots in Canadian residency programs. One way that students have worked around the problem is to attend a residency program offered in an optometry school in the States. An advantage of this is that there are more choices in residency programs and more spots available; but a disadvantage is that there are visa restrictions for Canadians, and therefore, not all American optometry schools are willing to accept Canadian students. The American school will have to either sponsor a J1-Specialist Exchange visa or H1B VISA, which requires the school or student to pay \$1500 USD. The TN VISA is not available as optometry is not listed under NAFTA. Given these challenges, only 5 American schools out of 19 schools with residencies accept CDNs (86 of 445 positions), which really limits the residency options for Canadians across the border as well.

The survey results indicating that 61% of students are interested in attending a residency, but only 3-6% can be accepted to an English trained program in Canada due to limited spots, is a challenge that Canadian optometry students face. As a way to narrow this gap, we are hoping for a push in the development of more residency programs in Canada to include more options for students that may be more of a fit for them. In addition, we would like to see the establishment of more Canadian residency spots. This can be achieved by expanding individual programs to allow for acceptance of more residents. We believe that increasing residency opportunities within



Canada would be beneficial to students, but more importantly, it will serve to advance the profession.

Conclusion

We hope this survey gave a closer view of today's student perspective. Partnered/group practices are the most popular modality, being preferred by almost all respondents. We have collected data on the approximate debt that optometry students will hold, and compared the debts between students studying in Canada compared to the US. It is commonly known that Canadian students studying in the US will bear larger financial debt compared to studying in Canada, due to higher tuition costs, living costs, and unfavourable currency conversion rates. Hopefully this will give a perspective on how large the differences in debt could be between Canadian and US schools. Family is by far the most important factor that influences a graduate's decision on where they would like to practice. There are over 10 times as many students interested in residency as there are spots available. The goal of this survey is to contribute valuable data that can make your plans and strategies involving students more effective.

Acknowledgments

We would like to thank our CAOS executive team and CAOS advisory board for their support with organizing and promoting our survey. Special thanks to Uyen Nguyen and Dr. Abraham Yuen for presenting these findings at the FORAC and CCPP meeting in Ottawa 2018.