



**CAOS • ACÉO**

Canadian Association of Optometry Students

Association Canadienne des Étudiants en Optométrie

# **2020 CAOS SEE Survey Report**

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## Table of Contents

1.0 Abstract.....	3
2.0 Introduction & Purpose.....	3
2.1 Methods.....	4
2.2 Demographics.....	5
3.0 Location Ambition.....	6
3.1 Location preference upon graduation & after 15 years.....	6
3.2 Location influencing factors.....	7
4.0 Scope of Practice Expansion.....	7
4.1 Expansions of Interest.....	7
4.2 Progress in obtaining expansions.....	8
5.0 Challenges of the Profession.....	9
5.1 Top 3 challenges needing more awareness.....	9
5.2 Progress in increasing awareness.....	9
5.3 Students' perspective on importance of optometry.....	10
5.4 Students' perspective on public view of optometry.....	10
6.0 Student Future Involvement.....	11
7.0 Limitations and Future Considerations.....	11
8.0 Conclusion & References.....	12



## Abstract

The Canadian Association of Optometry Students (CAOS) conducted a survey that was sent out to Canadian optometry students at University of Waterloo, University of Montreal, and US optometry schools to better understand student perspectives on the current state of the optometry. This year, we used the survey to better understand students' expectations and opinions regarding location ambition, possible scope of practice expansions, and current and future challenges and actions in the optometric profession.

Our results revealed the following:

- A large proportion of students want to work in middle-sized cities, both immediately after graduation and 15 years after graduation. Rural optometry is less popular, and students consider many factors, such as location, salary, lifestyle and proximity to friends and family.
- Scope of practice expansion is of great interest to current optometry students, and many show enthusiasm in embracing such expansions, particularly those related to diagnostics and therapeutics.
- Students identify the need to address challenges faced by the profession, be it the public, optometrists, associations or regulatory bodies who are the active participants. Leading votes pertained to the importance of optometry and regular eye exams as well as regulation of online sales.
- The role of associations, colleges and the government in the future of optometry is unfamiliar to many students and may influence students' perspectives of these groups.

The goal of this survey is to provide data to fuel the efforts of our student, provincial and national associations, regulatory bodies and our other stakeholders in the advancement of our profession.

## Introduction & Purpose

The Canadian Association of Optometry Students/Association Canadienne des Étudiants en Optométrie 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 optometrists and prepare students by creating awareness of challenges affecting the optometric profession. Additionally, we want to increase the public's awareness of optometry's role as the primary vision care provider. By unifying optometry students, we can collaborate and deal with current and future challenges affecting the profession. More information about CAOS can be found at our website: <http://caostudents.ca>.

The University of Waterloo (UW) CAOS executive committee conducts an annual Student Experience and Expectation (SEE) survey. This year, we focused on students' perspectives of location ambition, scope of practice expansion, and upcoming challenges and action students can take to move the profession forward; we hope to gauge the students' understanding of the profession and directions they intend to take.

Beyond the walls of optometry education, optometry as a profession is evolving and growing. Students are aware of this on a macro level; however, at the micro level, details may be lacking as their main priority is often successfully obtaining their optometric degrees. This disconnect may manifest itself



as students graduate and become active, practicing optometrists who work within this changing profession.

Data from this survey may prove insightful for optometric organizations and stakeholders in the best way that they may serve incoming graduates and what problems students are focused on. We also hope that gathering this information while students are still learning about the profession will allow us as a student organization to educate and better prepare our colleagues for the future of our profession.

## **Methods**

A Google form was created to collect answers to our survey questions. The form consisted of 15 questions, which were inspired by the continued efforts of members of our profession to move optometry forward. Questions to obtain information such as location ambition, areas of scope expansion, and upcoming challenges were asked for students to answer.

To encourage participation, students, who filled out the survey, were given the option to be entered into weekly draws during the survey live period for a chance to win gift cards and limited time prizes, such as a popular board game. Winners were contacted via email which students provided as their entry into the draws.

The survey was promoted to Canadian optometry students mainly via CAOS' official social media platforms (Facebook & Instagram) and particularly to UW optometry students through individual class Facebook groups. It was also distributed to the presidents of each of our CAOS chapters (i.e. University of Montreal, US & Puerto Rico chapters), who spread the word at their respective schools. In-class announcements and social media posts were used to advertise the survey and prizes.

The survey was made available to students for four weeks (from late November 2019 to mid-December 2019). The results were analysed by a few members of the UW CAOS executive team and compiled into this report.



## Demographics

Data was collected from 237 students spanning across seven optometry schools. The greatest number of responses came from students at the University of Waterloo followed by students at the Université de Montréal. American schools made up 15.2% of total responses, which is a 6% increase from last year’s SEE survey<sup>1</sup>. Majority of American school responses came from the Illinois College of Optometry, followed by New England College of Optometry. The greatest number of respondents was from Ontario, followed by Quebec, Alberta, and British Columbia. There were no responses from students from the Northwest Territories, Nunavut, or Yukon. There was reasonable spread of first through fourth year students who participated in this year’s survey, and majority of respondents were female (82.4%) which is slightly higher compared to 78% in the 2019 survey<sup>1</sup>.

School	Number of respondents
University of Waterloo School of Optometry and Vision Science	158 (66.7%)
Université de Montréal - École d'optométrie	43 (18.1%)
Illinois College of Optometry	25 (10.6%)
New England College of Optometry	4 (1.7%)
Pacific University in Portland, Oregon	3 (1.3%)
Interamerican University of Puerto Rico, School of Optometry	2 (0.8%)
Nova Southeastern University	2 (0.8%)

Figure 1. Distribution of respondents by school

Province/territory	Number of respondents
Ontario	128 (54.0%)
Quebec	38 (16.0%)
Alberta	24 (10.1%)
British Columbia	21 (8.9%)
Manitoba	9 (3.8%)
New Brunswick	5 (2.1%)
Nova Scotia	4 (1.7%)
Newfoundland and Labrador	1 (0.4%)
Prince Edward Island	1 (0.4%)
Nunavut, Northwest Territories, Yukon	0

Figure 2. Distribution of respondents by province/territory

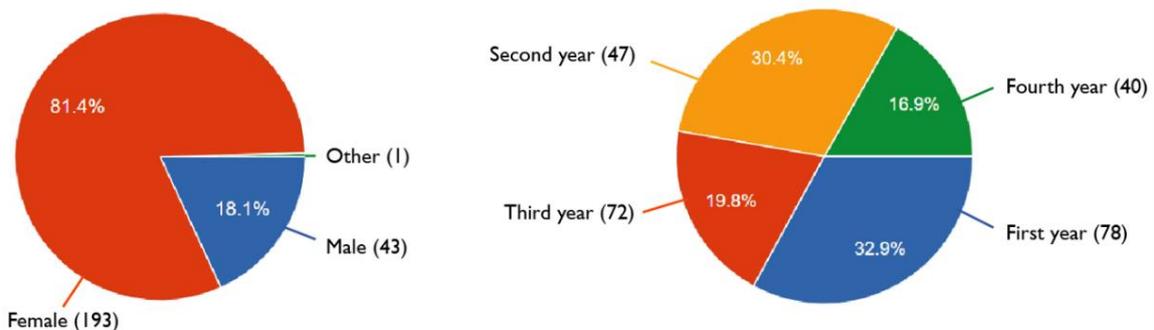


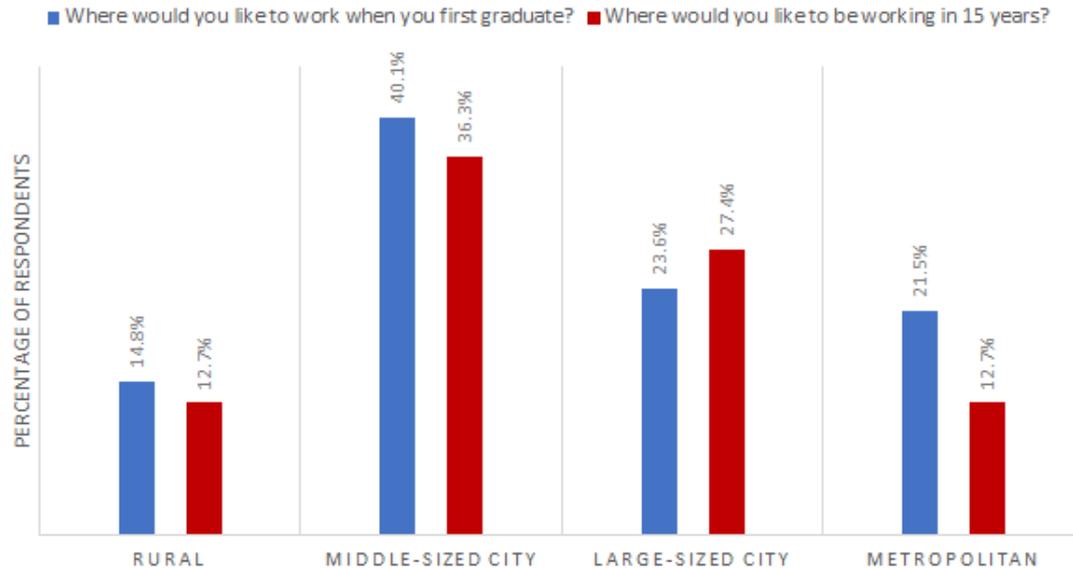
Figure 3. Distribution of respondents by gender and year of study



## Location Ambition

**Q5. Where would you like to work when you first graduate?**

**Q6. Where would you like to be working in 15 years?**



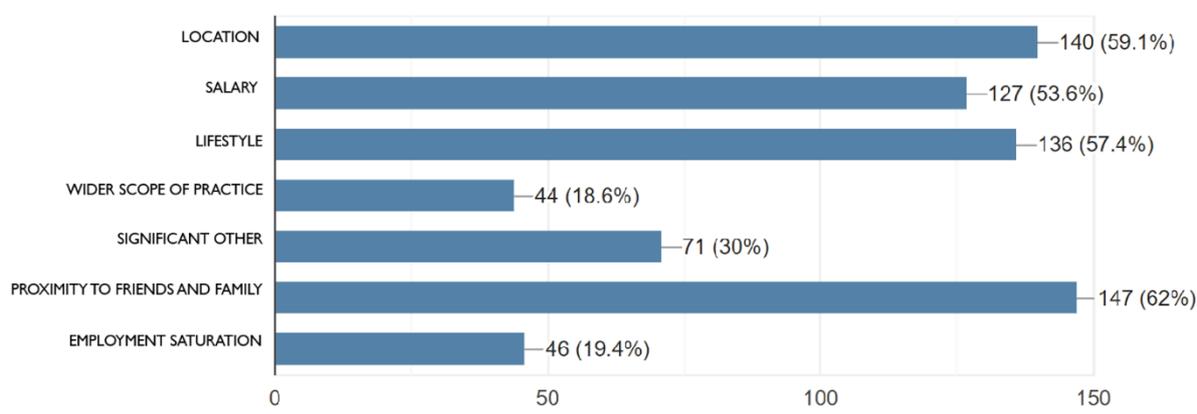
**Figure 4. Comparison of where students wish to practice immediately after graduation vs. in 15 years**

Students were asked where they would like to first work when they graduate and where they see themselves working in 15 years. Locations were defined to students by their populations along with an example. Rural classifies a population of less than 50,000 (eg. Timmins), middle-sized cities classify populations of 50,000 up to 500,000 (eg. Brantford), large-sized cities classify populations of 500,000 up to 1 million (eg. Greater Hamilton Area), and metropolitan cities classify populations greater than 1 million (eg. Greater Toronto Area, Greater Vancouver, Calgary).

Based on the responses, a large number of students (40.1%) would like to practice in a middle-sized city when they first graduate, followed by large-sized, metropolitan and rural areas. This trend was also found in where the students would like to work 15 years after graduation. These numbers reflect last year's<sup>1</sup> as the trend is similar, with middle-sized cities being students' location of choice for both immediately and 15 years after graduation. However, a difference noted in comparison to last year's numbers<sup>1</sup> is the decrease from 28% to 12.7% in interest of practicing in metropolitan areas 15 years after graduation.



**Q7. Which of the following are the top 3 factors which influence (for/against) your decision to practice rural optometry?**



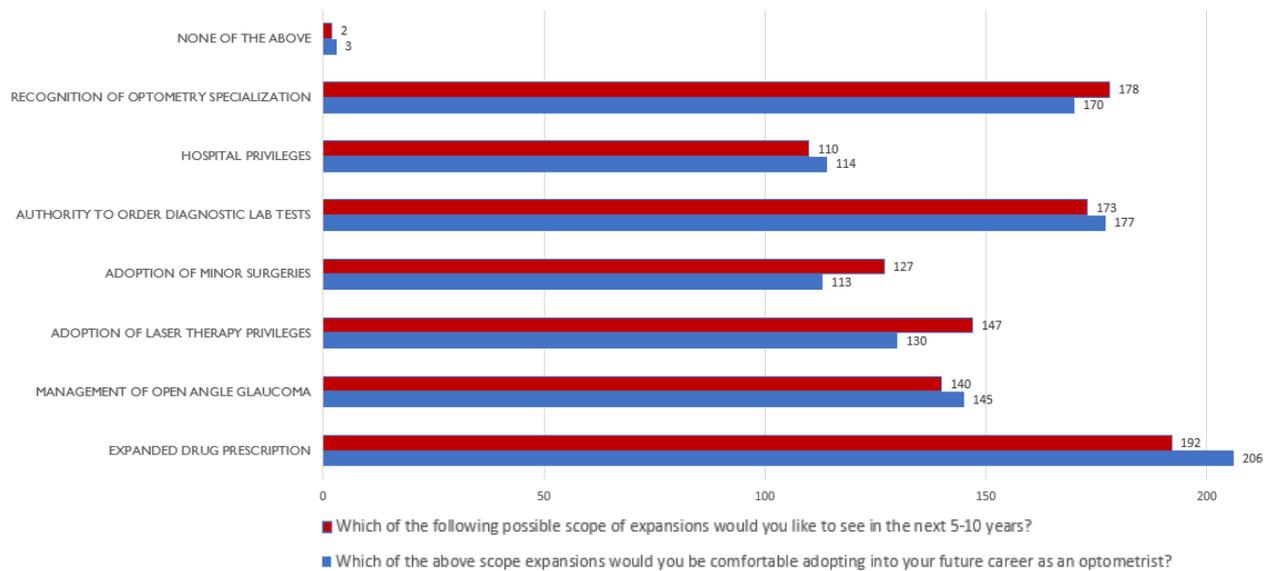
**Figure 5. Distribution of factors influencing decision for or against practicing rural optometry**

With growing demands for optometrists in rural areas, students were asked to identify the top three factors which would influence their decision for or against practicing rural optometry. The top three factors for the students were proximity to family and friends (62%), location (59.1%), and lifestyle (57.4%). Following closely to those factors was salary, and then significant other, employment saturation, and wider scope of practice.

### Scope of Expansion

**Q8. Which of the following possible scope of practice expansions would you like to see in the next 5-10 years? Select all that apply.**

**Q9. Which of the above scope expansions would you be comfortable adopting into your future career as an optometrist? Select all that apply.**



**Figure 6. Scope of practice expansions which students would like to see or would embrace in the next 5-10 years**

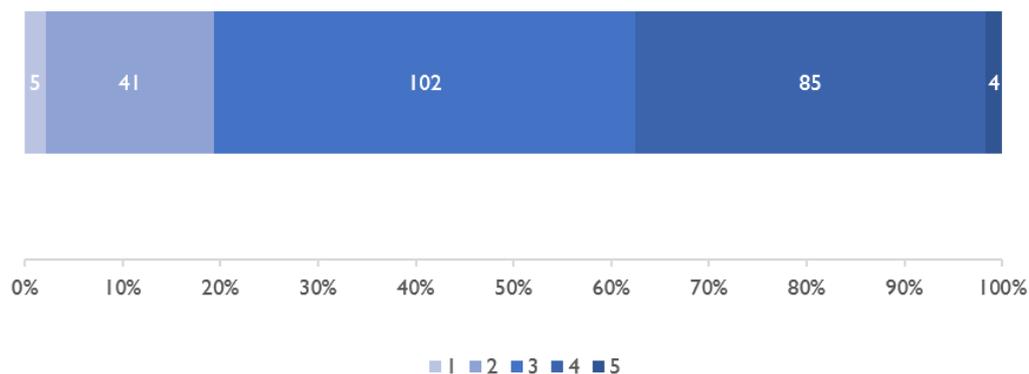


Students were asked what expansions within optometry’s scope they would like to see and adopt within the next five to ten years, including but not limited to, drug prescription privileges, laser and surgical interventions, diagnostic imaging requisitions and optometry specializations. In addition, students were gauged on how involved their representative bodies, including colleges, associations and the government, were in obtaining these scope expansions.

When asked about potential opportunities for scope of practice expansion in the next five to ten years, majority of students showed interest in expanding drug prescription privileges (81%), recognition of optometry specializations (75.5%), and the authority to order diagnostic lab tests (73%). Interest in these areas align with a therapeutic and diagnostic focus on optometry, as opposed to other areas of scope expansion. Adoption of laser therapy privileges, independent management of open angle glaucoma, and adoption of minor surgeries were looked upon favourably (53.6% - 62%). Hospital privileges were looked upon less favourably at 46.4%. Student interest was directed towards expanding diagnostic capabilities and drug therapies, and less immediately for direct interventions, like laser therapies and minor surgeries. On a similar thread, there is high interest for a recognition of optometry specializations. This data reveals that many optometry students prefer to diagnose and provide therapeutic treatment for patients more so than direct interventions commonly performed in ophthalmology. In addition, the recognition of extra training in certain specialties are desirable to be recognized by the public and other healthcare professionals.

The above responses are similarly mirrored when students were asked how comfortable they would be adopting these scope expansions in their future practices. Responses showed interest in embracing expanded drug prescription privileges, authority to order diagnostic tests, and recognized optometry specialties. Similarly, direct treatment therapies including laser therapy, independent management of open angle glaucoma, and adoption of minor surgeries were deemed as less comfortable for students. These results demonstrate optometry students’ stance for expanding the profession’s scope of practice.

**Q10. Do you think our associations, colleges, and government are making significant strides in obtaining these scope expansions?**



**Figure 7. Distribution of students’ perspectives of action in obtaining scope expansion**

Students were then asked to rate the progress of obtaining these expansions. A scale from 1 to 5 was used with the following number assignments: 1 as strongly disagree, 2 as disagree, 3 as neither agree nor disagree, 4 as agree, 5 as strongly agree. About a third (37.3%) of students agreed that optometric associations, colleges, and government are making significant strides in obtaining these scope expansions. Many (43.2%) respondents neither agreed nor disagreed, and 19.5% selected disagree or

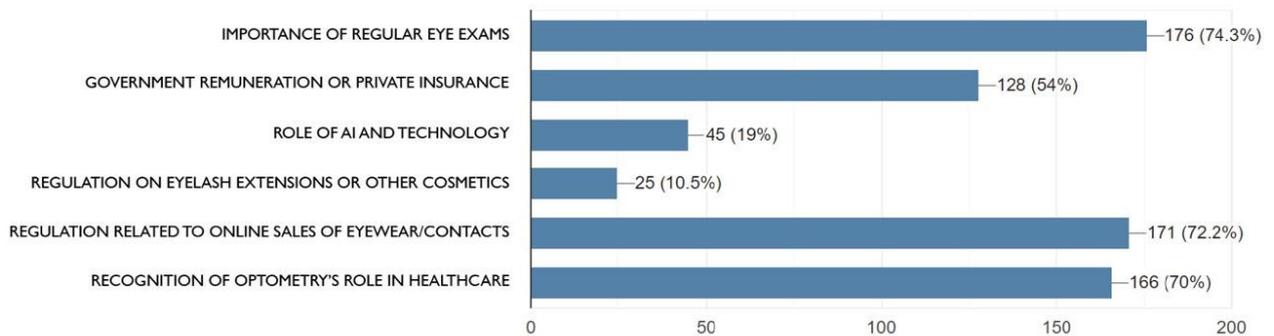


strongly disagree, demonstrating that there may still be room for improvement in expanding scope of practice.

It is evident there are areas within optometry that students are hoping will expand, but students do not believe that governing bodies are advancing in these areas. This may largely be due to a lack of student awareness of the behind-the-scenes and development in our profession. Hopefully, with continued work and more student involvement, students will see these efforts, and future and current stakeholders of optometry may be motivated and driven to push further for the changes and advancement.

### Challenges in Optometry

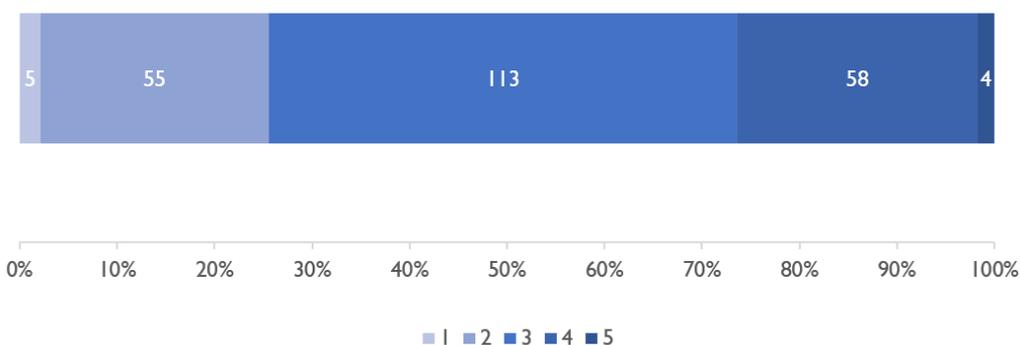
**Q11. Which are the top 3 optometry challenges that you think students, optometrists, organizations, and associations should be bringing more awareness?**



**Figure 8. Challenges in optometry which students identify as needing more awareness**

Students were asked to select the top three optometry challenges that need to be addressed and/or recognized by optometry professionals, organizations, and associations. The three major issues are first, the importance of regular eye exams, second, regulation related to online sales of eyewear and contact lenses, and third, recognition of optometry’s role among healthcare professionals. Government remuneration or private insurance coverage for vision care came in fourth place of the vote. Respondents also recognized the role of artificial intelligence and technology as a concern, and some selected regulation on eyelash extensions and other cosmetics as another challenge that needs more public awareness.

**Q12. Do you think that our associations, colleges, and government are making significant strides in educating the public regarding these challenges?**

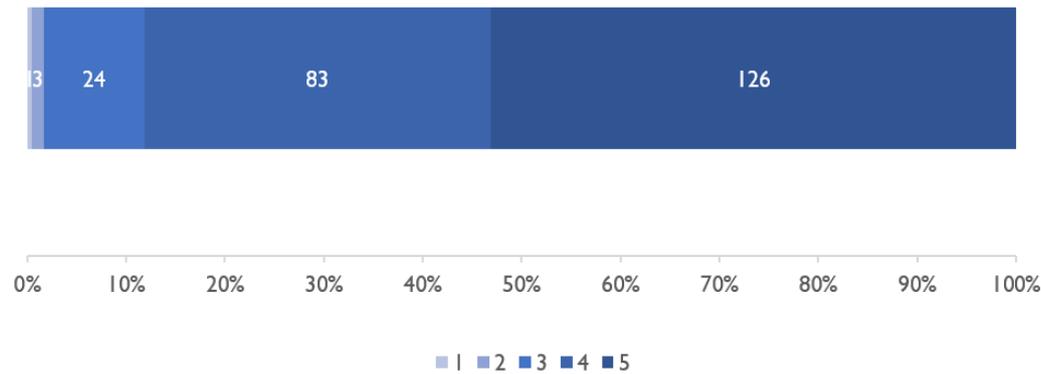


**Figure 9. Distribution of students’ perspectives of action in public education**



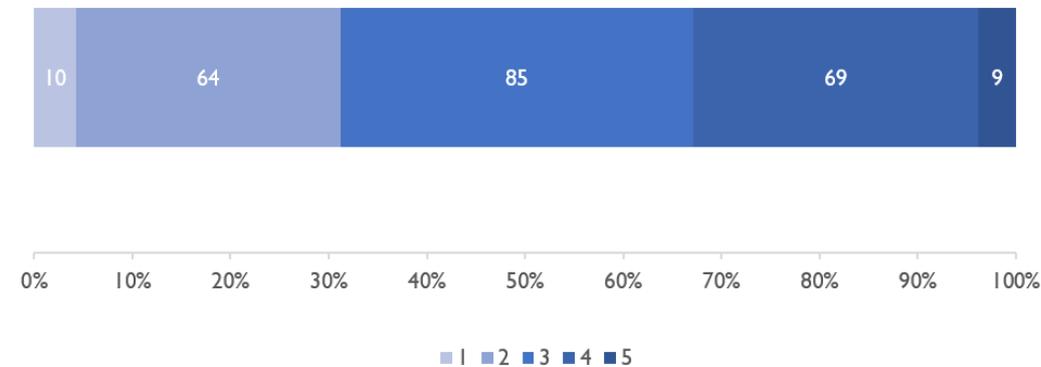
About a quarter of respondents (26.4%) agreed that our associations, colleges, and government are making significant strides in educating the public about these challenges. 48.1% of respondents neither agreed nor disagreed, and 25.5% selected disagree or strongly disagree, reflecting their disappointment in the status quo.

**Q13. Do you believe that you as an optometrist will play an integral role in the patient’s health care team (specifically with MDs, PharmDs, OMDs)?**



**Figure 10. Distribution of students’ perspectives on importance of optometrists in patients’ health care teams**

**Q14. Do you believe that the public views optometrists as playing a meaningful role in their own healthcare?**



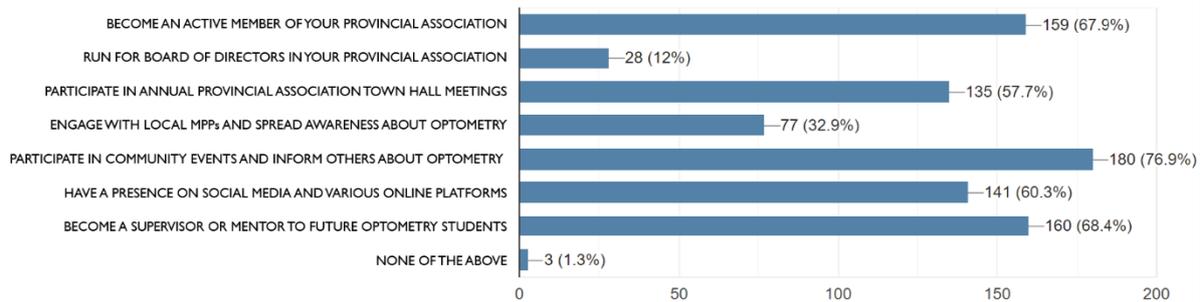
**Figure 11. Distribution of students’ perspectives of public opinion on importance of optometrists in healthcare**

As up and coming optometrists, students were asked to consider the role they play in patients’ overall healthcare. A large majority (88.2%) agree or strongly agree that optometrists play an integral role in providing comprehensive healthcare for patients alongside medical doctors, pharmacists, and ophthalmologists. On the contrary, these numbers largely differ from what students believe members of the public truly value. When students were polled on the public’s perception of optometry, only 32.9% of respondents agree or strongly agree that optometrists play a meaningful role in their own healthcare. The discrepancy between the role played by optometrists in healthcare from the students’ and public’s perspective demonstrates a potential divide in how optometry is defined in society. Further outreach and communication to the general public and other healthcare professionals may alleviate this gap and strengthen the quality of care received by patients.



## Student Future Involvement

**Q15. What are some actions that you will take in the future to move our profession forward? Select all that apply.**



**Figure 13. Actions students can take to participate in advancing optometry**

To address these challenges and move our profession forward, students are willing to take action in various ways. The most popular choice is to participate in community events and inform others about optometry as primary eye care providers (76.9%). The second-most chosen option is to become a supervisor or mentor to future optometry students (68.4%). Regarding participation in optometric associations, students look forward to becoming active members of provincial optometric associations (67.9%) and to attending annual provincial association town hall meetings to be informed about latest updates (57.7%). Many students are also interested in having an online presence via social media platforms in order to be active contributors to pushing optometry forward.

## Limitations and Future Considerations

This survey annually provides interesting information from students; however, we acknowledge there is area for improvement. Student participation continues to be a major limitation of our surveys, and our results favour Canadian trained optometry students. Most respondents of this years' survey (84.5%) were from the University of Waterloo or Université de Montréal. This supermajority limits our interpretation of results, as we are missing many participants from the United States chapters and Puerto Rico chapter. Recent ASCO data suggests that there are over 500 Canadians currently enrolled in over 15 optometry schools in North America<sup>2</sup>. We also acknowledge that there are many Canadian optometrists who have graduated from US optometry schools and have returned to practice in Canada. Therefore, Canadians currently studying in the US may offer a unique perspective regarding the scope of optometry and practice standards that may differ from Canadian trained optometry students.

In the future, we may need to be more resolute in reaching chapters with the survey and potentially entertain working with the Waterloo student chapter of the American Optometric Student Association (AOSA), in order to gain better access to those Canadian students currently studying in the United States or Puerto Rico. We may also better collaborate with American schools to ensure ideal timing of the survey live period (e.g. after exam season) to maximize the number of responses. This would offer a more accurate representation of all Canadian students that hope to practice in Canada after their education.



On the contrary, we also recognize that students studying in the United States may have felt this year's survey topic to be foreign or irrelevant. Canadian optometry may be a later thought for some, and therefore render this survey as uninteresting or even confusing. Future topics will focus on items that all Canadian students will be comfortable exploring.

When considering the student perspective, shortcomings were evident in questions pertaining to rural practice and associations or governing bodies. It was unclear as to which students were for or against practicing rural optometry as they chose their top three influencing factors. Future surveys should take this into consideration when forming questions, ensuring clarity and specificity. As well, students may be limited in their understanding of the importance of being involved with their associations or colleges and contributing their thoughts to these groups. At times, it was also not defined whether associations referred to national or provincial, which may have changed students' understanding and answers. With further tracking of student involvement and student perspective through our survey, our aim will be to continue to compare these results in future years and hopefully see more involvement and student satisfaction.

## Conclusion

The CAOS SEE survey aims to provide insight into optometry students' thoughts, opinions or preferences. The results of this year's survey, focused on location ambition, areas of scope expansion, and upcoming challenges and actions in optometry, are summarized below.

- Many students would prefer to work in middle sized cities, and compared to last year, fewer students want to work in large metropolitan areas.
- Generally, students consider many factors when deciding where to practice.
- Students are interested in scope expansion such as expanded drug privileges and diagnostic capabilities and are comfortable adopting these practices.
- Students are unaware of the advances associations and regulatory bodies make in their interests and expect greater return than may be permissible.
- Students are vested in government remuneration; this is addressed on a provincial level which was not specified in this survey.
- Public education regarding the role of optometrists is a great concern for optometry students; this includes combatting online optical sales, importance of eye exams and recognition in the healthcare field.
- Student involvement to advance the profession includes more engagement with the community rather than involvement with their association.

## References

1. <http://caostudents.ca/2019-caos-survey-series/>
2. <https://optometriceducation.org/wp-content/uploads/2019/11/ASCO-Student-Data-Report-2018-19-updated-11-18-19.pdf>