



THE CANADIAN  
GEOTECHNICAL SOCIETY

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LA SOCIÉTÉ CANADIENNE  
DE GÉOTECHNIQUE

2019

## Member Data and Survey Report

CGS Membership Committee

August 2019

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# **1 Introduction**

The mandate of the Membership Committee is to promote the CGS to current and future members, survey and assess members' expectations, explore and analyze new initiatives, increase interest in volunteering and monitor and increase membership renewal.

The Membership Committee (MC) has put forward a two-step strategy to better understand the state and evolution of CGS membership, and to assess member's expectations and preferences towards the CGS. The first step was to analyze the existing membership data that the CGS has collected throughout the years, which is presented in Section 2 of this report. The second step involved the development of an on-line membership survey and analyzing the responses of the survey which was sent to members and non-members at the beginning of 2019 and the results are presented in Section 3. The analysis results will be used to plan the MC's next initiatives to enhance member's experience and increase membership.

# **2 Membership Data Analysis**

In order to improve the membership experience and targeting member-specific initiatives, the MC wanted to better understand the demographics, the geographical distribution and the behaviour of members with regards to their membership habits.

The methodology used is discussed below along with the membership's evolution in time for each local section and by type of membership. The discussion includes the evolution of demographics in time, more specifically by age and gender.

## **2.1 Methodology**

For the purposes of this analysis, membership data from 2008 to 2018 was provided by CGS National to the MC. It included salutation, year of birth, member's local CGS section, joining

date and Member ID. Member's name were taken out of the data by CGS National, in order to preserve the anonymity of the members.

In order to carry out this report, several validations have been made to ensure the quality of the data. The committee noted that in the salutation column, several women members had selected the Mr. salutation, the default data in the system. Also, some members indicated the title of doctor or professor in the salutation entry, leaving their gender unknown. In order to obtain the number of women members for each year, the MC had to validate the list of names.

The age of the members was obtained with the year of birth. Some members had 1900-01-01 as their birth date and were not included in the age calculation. The assumption that members entered their real birth date was made.

The type of member has also been analyzed: regular, retired, international, student, complimentary student, 2nd Society (CSCE, IAH, NAGS) and Honorary Life member.

To assess whether or not a student eventually became a regular member, the Member ID was examined throughout the years with an automated tool to facilitate this task.

The annual reports of local CGS sections, available since 2010, were also analyzed to extract the number of local members for each local section.

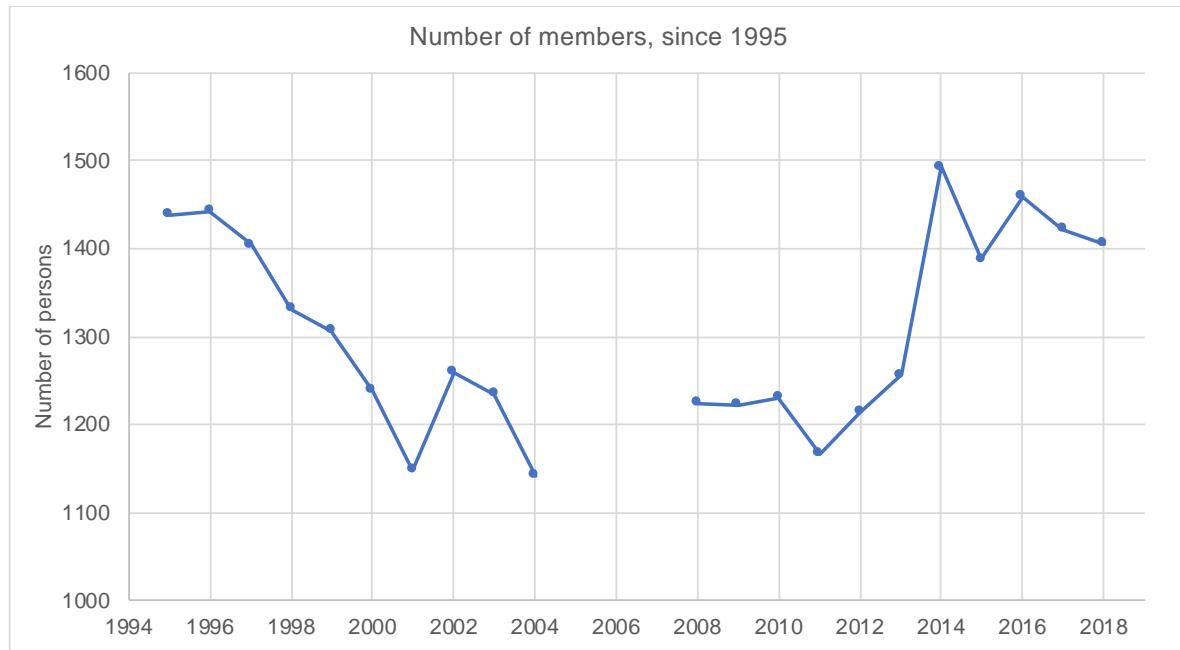
## 2.2 Membership

### 2.2.1 Type and behaviour of membership

In order to improve the membership experience and targeting member-specific initiatives, the membership committee wanted to better understand the distribution of the types of members and also, the behaviour of members in regard to their membership habits.

CGS membership varied greatly from 1995 to 2018, as shown in Figure 1. From 1996 to 2001, a steady decrease in membership is observed (from 1440 members in 1996, down to

1150 in 2001). There is unfortunately no data available from 2005 to 2007. From 2011 to 2014, membership was on the rise.

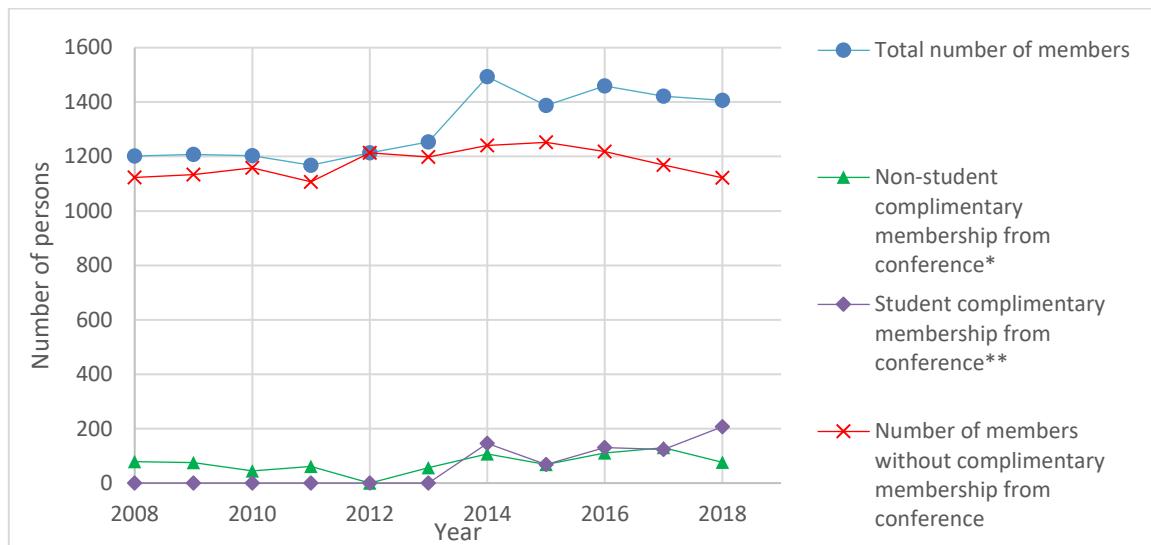


**Figure 1. Number of CGS members from 1995 to 2018 (no data from 2005 to 2007) (ref. 3)**

A detailed representation of the number of members from 2008 to 2018 is presented in Figure 2 and the specific numbers are given in Table 1. It shows that the number of members increased from 1200 members in 2008 to 1400 members in 2018, with a peak of 1500 in 2014. The number of members is influenced by conference registration since non-members can receive a complimentary membership for the next year upon conference registration. The number of students and non-students who received such complimentary registration is presented in Figure 2. It should be noted that the student complimentary membership program started at the 2013 conference (i.e. complimentary membership given for 2014).

Since 2008, an average of 6 % of the total number of members (minimum 0 % and maximum 17 %) came from Non-student/Non-members conference registration. Since 2014, an average of 18 % (minimum 10 % and maximum 25 %) of the total number of members came from Student and Non-Student conference registration. The evolution of the number of members without the complimentary membership is shown in red on Figure 2 and shows that the

number of members increased by about 100 between 2012 and 2015, and since 2016, it is decreasing and is now back down to the initial 2008 numbers (about 1100 members).



**Figure 2 : Number of members from 2008 to 2018**

**Table 1 : Number of membership and complimentary membership from conferences**

Year for membership	Total number of members	Non-student complimentary membership from conference*	Student complimentary membership from conference**	Number of members without complimentary membership from conference	Non student complimentary members (%)	Student complimentary members (%)	Student and Non-student complimentary members (%)
2008	1202	79	0	1123	7		
2009	1208	75	0	1133	6		
2010	1203	45	0	1158	4		
2011	1168	61	0	1107	5		
2012	1214	0	0	1214	0		
2013	1254	56	0	1198	4		
2014	1493	107	146	1240	7	10	17
2015	1388	68	68	1252	5	5	10
2016	1459	111	130	1218	8	9	17
2017	1422	130	123	1169	9	9	18
2018	1406	77	207	1122	5	15	20
Average	1311	74	135	1176	6	9	16
Maximum	1493	130	207	1252	9	15	20
Minimum	1168	0	68	1107	0	5	10

\* 2011 was a combined CGS and ISSMGE Pan-American Conference so there was not a higher non-member price for non-CGS member participation

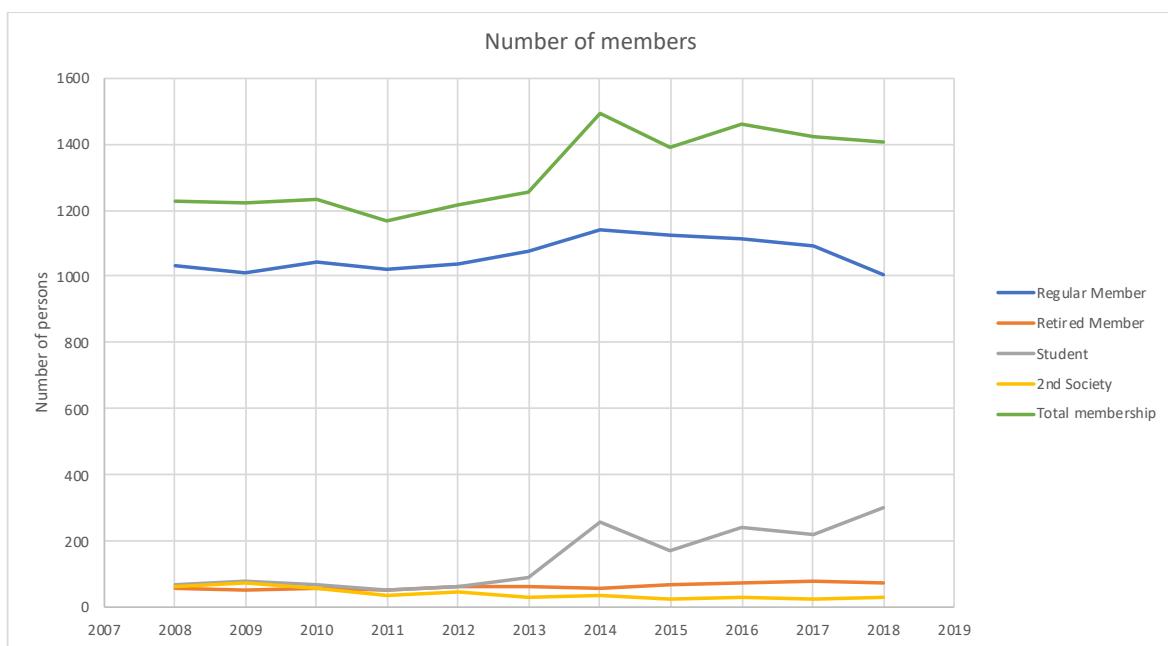
\*\* The average, minimum and maximum values were calculated after 2014, when the CGS started to offer complimentary membership to student registering to the conference

Note that non-member's and non-student's pay a higher fee to register to the conference, thus paying for the complimentary CGS membership he/she receives upon registration. So, on a financial level, there is no difference if a member registers on the website or through his/her conference registration.

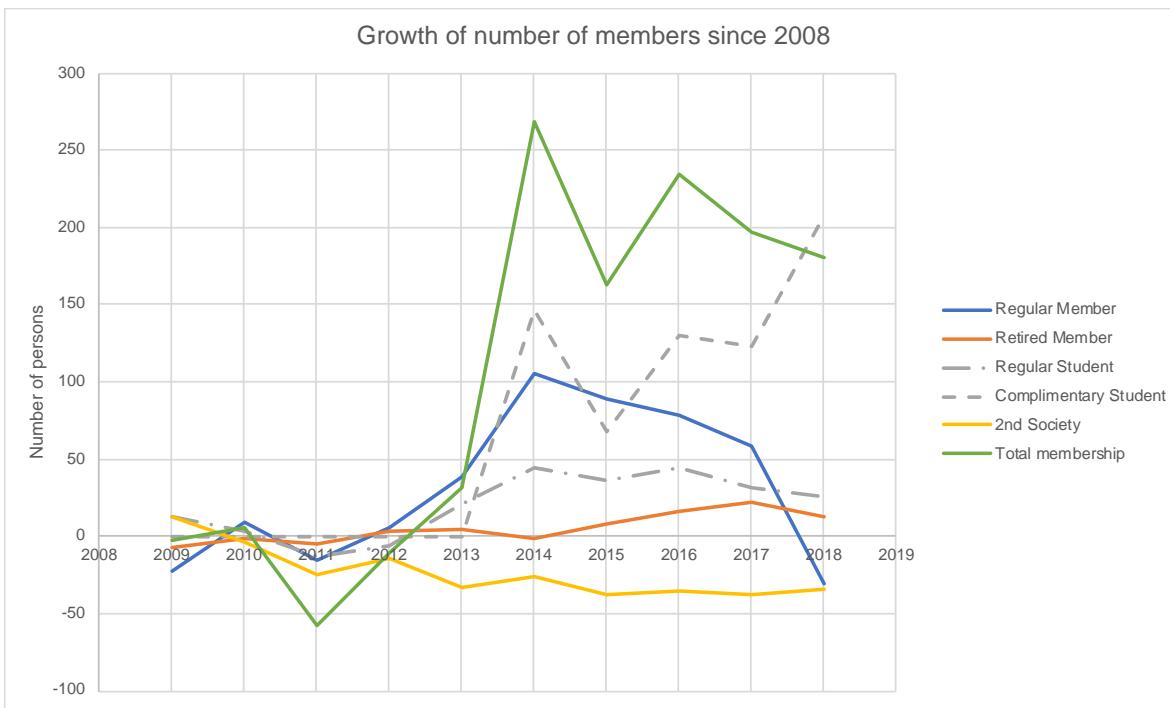
Thus, the analysis that follows was done with the total number of members including complimentary registration.

CGS offers three types of membership: the regular membership, which is full price and aimed towards working members (\$220), the student membership (\$45) and retired professional membership (\$70). It is important to understand the evolution of these 3 types in time to foresee finances. Figure 3 presents the evolution of the different membership type in time.

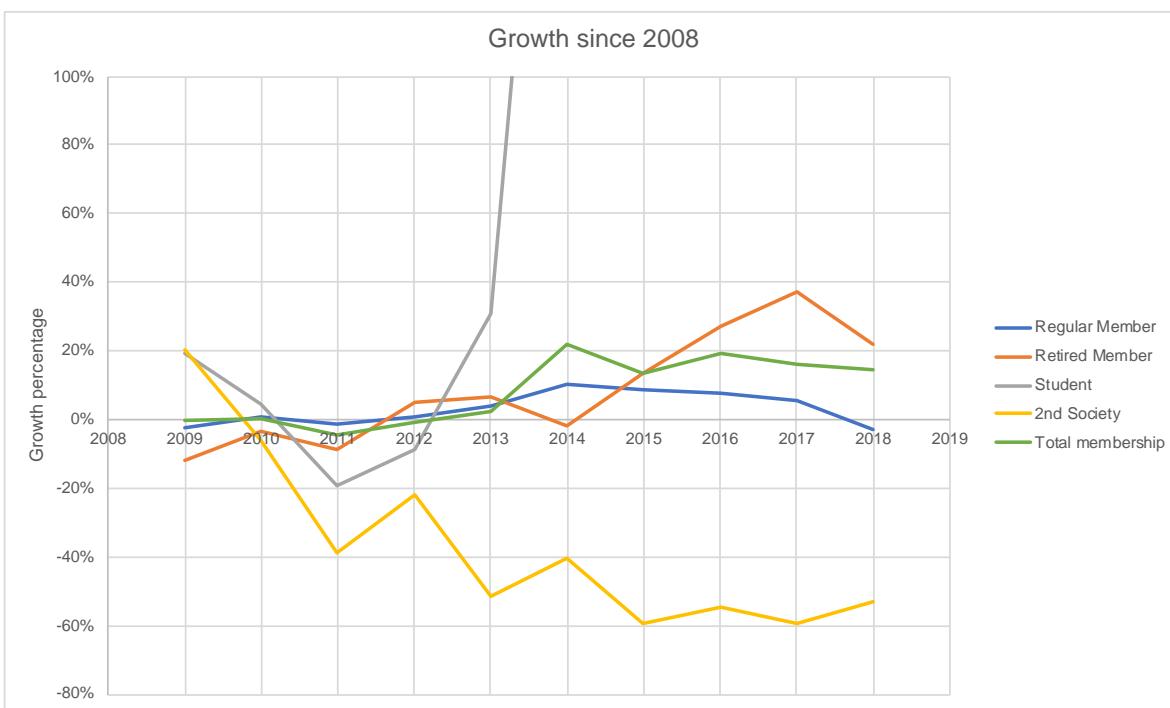
The growth of the types of membership since 2008 was analyzed and is presented below in numbers (Figure 4), in percentage (Figure 5).



**Figure 3 : Number and types of CGS members during the last 10 years**



**Figure 4 : Growth since 2008 in number, for each membership type**



**Figure 5. Growth percentage since 2008, for each membership type**

A few observations can be drawn from Figures 4 and 5:

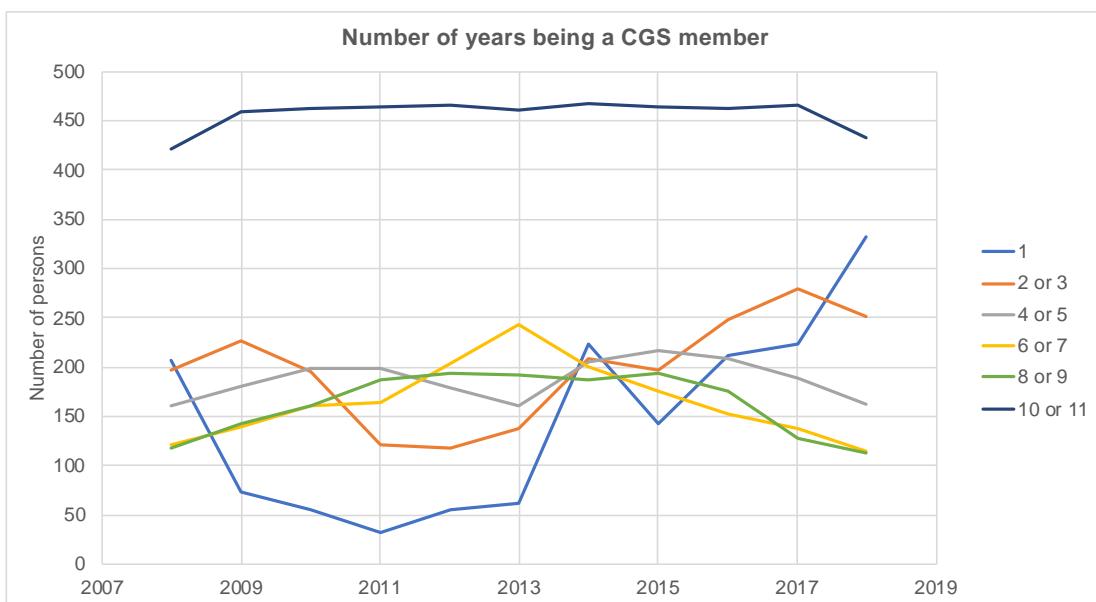
- a. The total membership increased by about 15% since 2008, but is decreasing since 2016 (about 5%);
- b. The number of regular members is a few percent lower today than in 2008 but has decreased by about 10% since 2014;
- c. The number of members who chose CGS as the 2nd choice of society is down by 34 from 2008 (75%).
- d. The number of retirees has been increasing since 2008 (45% in 2017) even though it has decreased by almost 20 % in 2018. This corroborates the age analysis (Figure 12) which shows that the number of members above 60 has increased since 2008.
- e. The number of students has drastically increased since 2008 (343% increase between 2008 and 2018). This increase corresponds to about 233 students. The reason for the large increase is that the CGS started to give complimentary student membership to the students registering to the conference in 2013. As shown in Figure 4, the total membership follows the complimentary student from 2014 to 2017. Note that even though the CGS started to give complimentary student membership in 2013 (effective for 2014 membership), the number of regular student's membership didn't decrease significantly.

The next point the MC wanted to assess was the membership habits of CGS members, namely how often members register. Figure 6 presents for each year, the number of members that were a member for various time periods (1 yr, 2-3 yr, 4-5 yr, 6-7 yr, 8-9 yr and 10-11 yr), over the 2008-2018 time period. Figure 7 presents the same data but as a percentage of total membership for every given year. Here's an example of how these Figures should be understood: if a CGS member has been a member in 2011, 2012 and 2014, he/she would fall into the category '2-3 years' for the years 2011, 2012 and 2014. Likewise, someone who has been a CGS member from 2008 to 2018 would fall into the category '10 or 11 years' for all these years. So for example, in 2011, there were 200 people who had been recurrent CGS members for 4 or 5 years during the 2008-2018 span (from Figure 6), which represented at the time 17% of all membership (from Figure 7). Note that as we get closer to the end of the

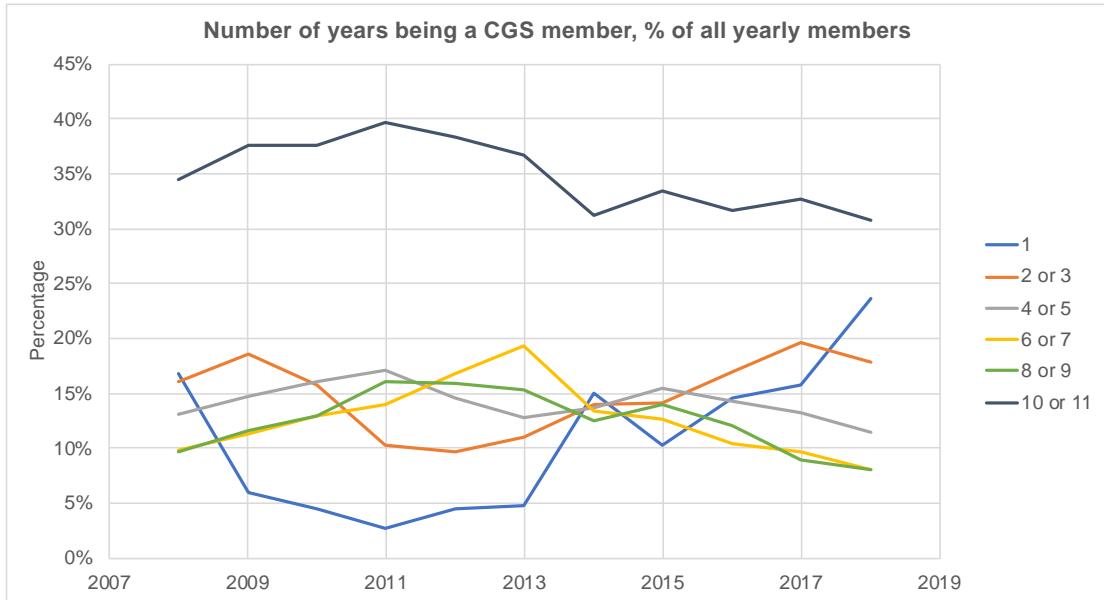
graphs (toward 2017-2018), the data becomes more favorable to lower categories (1 year and 2 or 3 years) because newer CGS members had less years to become recurrent members than their older counterparts. For example, someone who would have been a CGS member in 2017 and 2018 would fall into the ‘2-3 years’ category for these years, signaling that he/she is not a highly recurring member. However, maybe this same member would also be a member in 2019 and 2020, which would bump him/her into the ‘4-5 years’ category, there’s no way to tell. As years go by and the database for such analysis extends, these boundaries will get further apart, easing the MC’s task of analysing the data.

Here are some general conclusions that can be drawn from Figure 7 which presents the data in percentage:

- About 35 % of our members were consistent members (10-11 years) over an 11 year period
- About 10 % were members for 8-9 years over a 11 year period
- About 15 % were members for 6-7 years over a 11 year period
- About 15 % were members for 4-5 years over a 11 year period
- About 15 % were members for 2-3 years over a 11 year period
- About 10 % were members for 1 year over a 11 year period (although it varied a lot depending on the year)



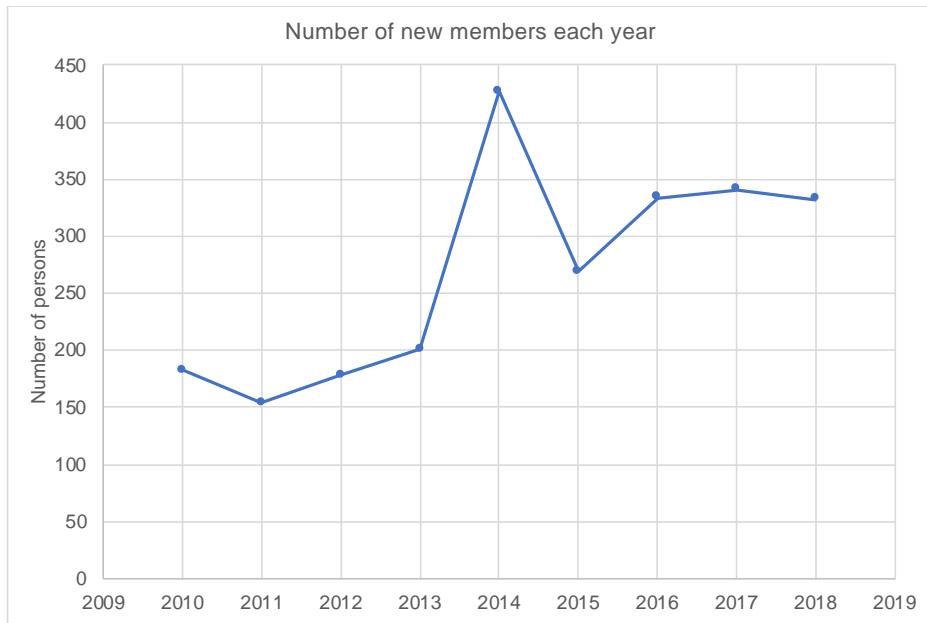
**Figure 6 : Number of years being a CGS Member**



**Figure 7 : Number of years being a CGS Member, % of all yearly members.**

Finally, the number of members registering for the first time each year is shown in Figure 8. Note that these numbers were calculated using the first appearance of each CGS member's unique ID within the database to indicate which year they joined CGS. The database with which the MC worked started in 2008. The years 2008 and 2009 were left out of the analysis to avoid falsely interpreting these new entries as new members (since the database starts in 2008). The MC considered the option of using the 'Joined date' entry of the membership database to correctly consider each member's first year as a CGS member. However, this database is quite incomplete (with over 35% of all entries have their 'Joined data' missing).

Nevertheless, Figure 8 indicates that the number of new members has been increasing from 2011 to 2016 (with a sharp increase in 2014 corresponding to the mass arrival of complimentary students). From 2016 to 2018 the number of new members has been stagnating at about 336 per year (around 23,5% of all CGS members, each year). A very slight decrease is even observed in 2018.



**Figure 8 : Number of new members per year**

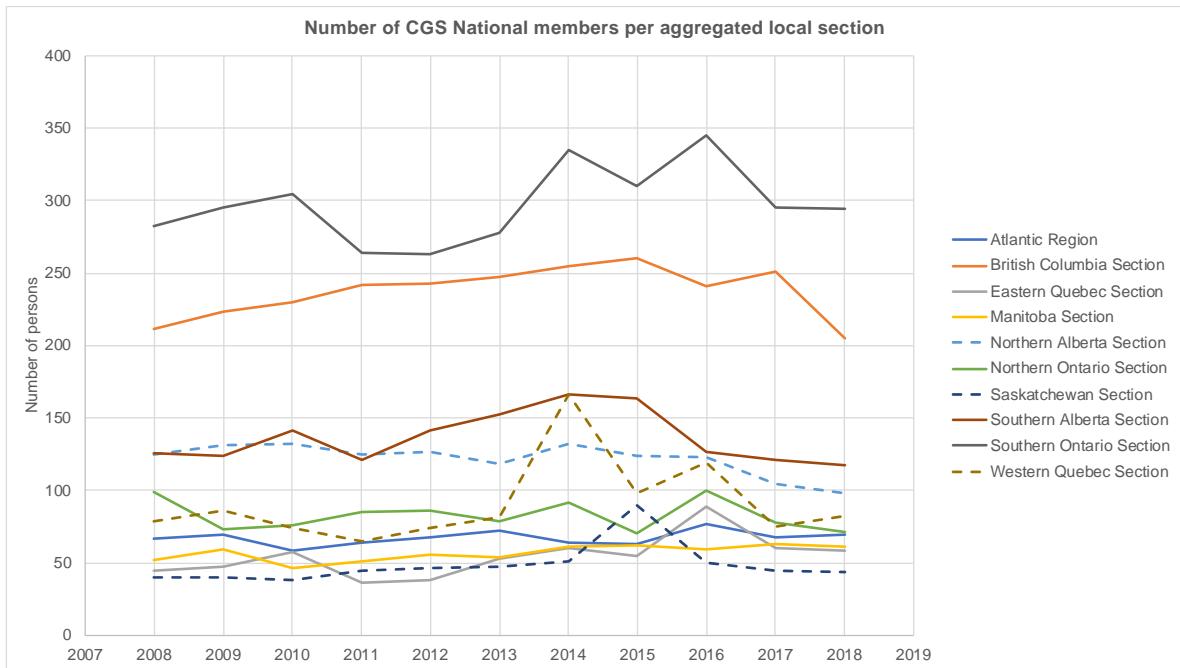
### 2.2.2 Local section membership

In order to have a more accurate portrait of our members, the MC wanted to better understand the geographical distribution of the CGS members by exploring data related to chosen local CGS sections. The number of CGS members per local CGS sections is presented in Figure 9. In 2016, some large local CGS sections were fragmentized into smaller sections in the database, thus representing the real number of sections,. It was decided to present data in Figure 9 using the pre-2016 local CGS sections to ease presentation. The definitions of each so called “harmonized section” are presented in Table 2 as well as the number of CGS members per local sections for the 2016 to 2018 period (using the post-2016 definitions).

Figure 9 shows that many sections seem to have a fairly constant or slightly increasing number of national members, except the Alberta sections which seems to have a decreasing number of members, particularly since 2014. Also, British Columbia and Southern Ontario sections seem to have an overall increasing number of national members since 2008, except in recent years, where it has been decreasing. These two sections, which include Vancouver and Toronto bring the largest number of national numbers. Most of the sections seem to have a decreasing number of national members since 2016.

**Table 2. Number of CGS National members, for each local CGS section, from 2016 to 2018**

Aggregated sections	Local CGS sections	2016	2017	2018
British Columbia	Interior BC (Kelowna)	31	33	29
	Northern BC (Prince George)	16	18	20
	Southern BC (Vancouver)	154	162	122
	Vancouver Island (Victoria)	40	38	34
Southern Alberta	Southern Alberta (Calgary)	127	121	117
Northern Alberta	Northern Alberta & Territories (Edmonton)	123	104	98
Saskatchewan	Northern Saskatchewan (Saskatoon)	27	24	25
	Southern Saskatchewan (Regina)	23	21	19
Manitoba	Manitoba (Winnipeg)	59	63	61
Southern Ontario	Southeastern Ontario (Kingston)	54	41	36
	Southern Ontario (Toronto)	260	231	228
	Southwestern Ontario (London)	31	23	30
Northern Ontario	Eastern Ontario (Ottawa)	73	51	50
	Northeastern Ontario (Sudbury)	19	20	13
	Northwestern Ontario (Thunder Bay)	8	7	8
Western Québec	Ouest-du-Québec (Montréal)	119	75	82
Eastern Québec	Est du Québec (Québec)	89	60	58
Atlantic Region	New Brunswick (Fredericton)	22	18	16
	Nova Scotia (Halifax)	31	27	27
	Newfoundland & Labrador (St. John's)	24	23	26

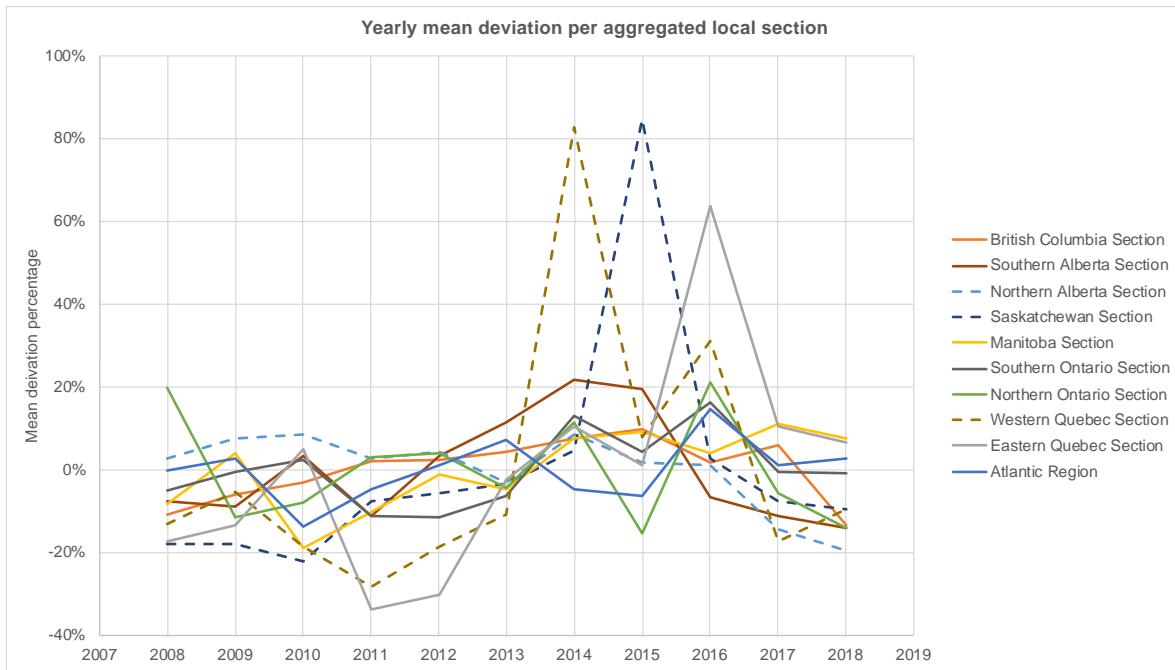


**Figure 9 : Number of CGS National members per local section (aggregated as per Table 2)**

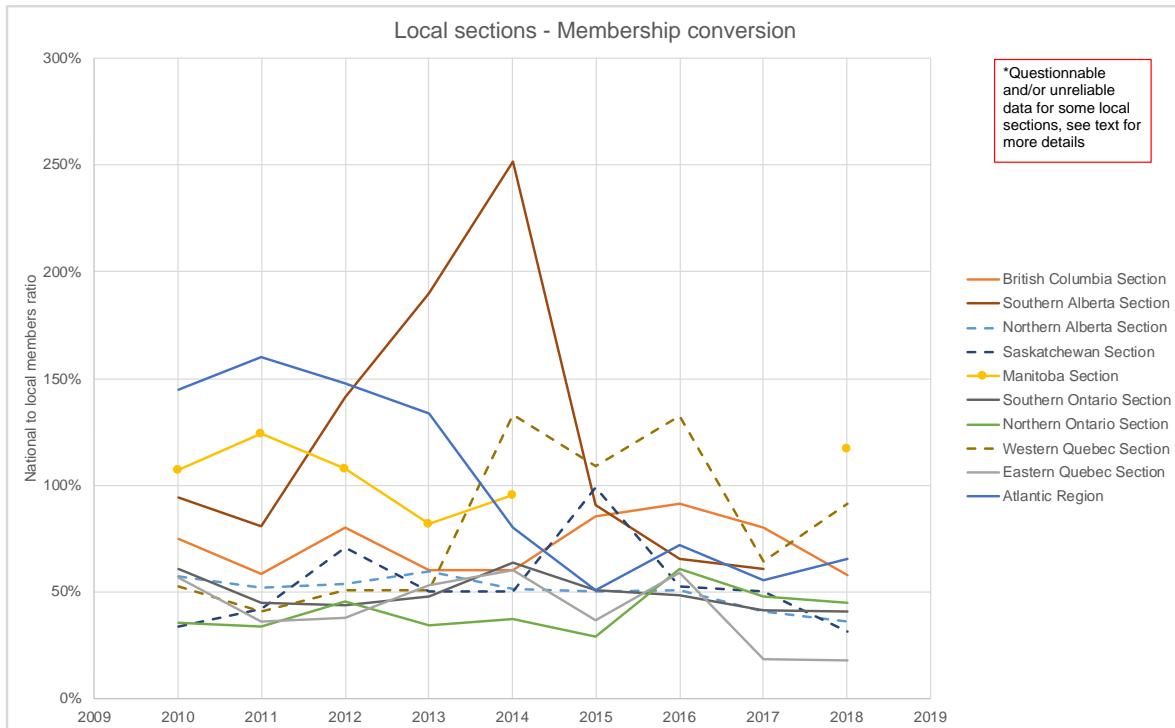
Figure 10 presents yearly mean deviation per section (harmonized). The aftermath effect of hosting the CGS annual conference is easily visible on Figure 10. After GeoMontréal 2013, the Western Québec section experienced an 83% increase in 2014 compared to its average number of members from 2008 to 2018. Similar effects are also evident for the Saskatchewan section (85% increase in 2015 after GeoRegina 2014) and the Eastern Québec section (64% increase in 2016 after GeoQuébec 2015).

The next thing that was analyzed, was the number of local section members compared to the number of national members per section.

Conversion rates from local CGS members (part of an email distribution list or local membership) to CGS national members are shown in Figure 11. Note that local sections were aggregated per their pre-2016 definition (database) to ease data interpretation through time (aggregated and non-aggregated data is shown in Table 3).



**Figure 10 : Yearly evolution of CGS national membership per local section**



**Figure 11. Ratio of CGS national members over local section participants**

**Table 3. Number of local section participants: a) aggregated sections; b) non-aggregated sections**

A) Local section (west to east)	Number of local section participants								
	2010	2011	2012	2013	2014	2015	2016	2017	2018
British Columbia	306	412	304	412	423	305	264	313	353
Southern Alberta	150	150	100	80	66	180	193	199	
Northern Alberta	231	239	235	198	257	247	242	255	270
Saskatchewan	112	107	65	93	102	91	95	90	140
Manitoba	43	41	52	66	64				52
Southern Ontario	500	590	599	581	524	612	709	710	720
Northern Ontario	212	251	188	229	247	238	125	124	108
Western Québec	141	160	145	160	125	90	90	117	90
Eastern Québec	100	100	100	100	100	150	150	320	321
Atlantic Region	40	40	46	54	80	124	107	123	105

B) Local section (west to east)	Number of local section participants		
	2016	2017	2018
British Columbia	Vancouver Island BC (Victoria)	27	32
	Southern BC (Vancouver)	197	273
	Northern BC (Prince George)	25	25
	Interior BC (Kelowna)	15	15
Southern Alberta	Southern Alberta (Calgary)	193	199
Northern Alberta	Northern Alberta & Territories (Edmonton)	242	255
Saskatchewan	Southern Saskatchewan (Regina)	25	40
	Northern Saskatchewan (Saskatoon)	70	50
Manitoba	Manitoba (Winnipeg)		52
Southern Ontario	Southwestern Ontario (London)	300	300
	Southern Ontario (Toronto)	300	300
	Southeastern Ontario (Kingston)	109	110
Northern Ontario	Northwestern Ontario (Thunder Bay)	8	8
	Northeastern Ontario (Sudbury)	17	16
	Eastern Ontario (Ottawa)	100	100
Western Québec	Ouest du Québec (Montréal)	90	117
Eastern Québec	Est du Québec (Québec)	150	320
Atlantic Region	New Brunswick (Fredericton)	22	45
	Nova Scotia (Halifax)	45	18
	Newfoundland & Labrador (St John's)	40	60

Interpretation of this set of data is difficult because local CGS sections sometimes have varying definition of what their ‘local members’ are. Some local sections would consider each person part of an email distribution list as a ‘local member’, while some other sections charge an annual fee and consider these paying members as ‘local members’. For some local sections, there is important variability in declared local members through the years (i.e. Southern Alberta Section), probably meaning that the definition of a ‘local member’ was changed depending on who was writing the annual report. Also curious is the fact that many local sections have greater than 100% conversion rate, meaning that these sections have more national CGS members than actual local members. The MC suggests standardizing the definition of a ‘local member’ in the annual local section reports to make sure this body of data can be properly monitored in the future. It is to be noted that in 2018, only 4 sections asked for a local membership fee and their local members’ number might correspond to the number of people who paid the local membership. These sections are: Southern BC

(Vancouver), Northern Alberta (Edmonton), Eastern Ontario (Ottawa), Western Québec (Montréal).

Nevertheless, for local CGS sections who declared a fairly constant number of local participants since 2008, it is possible to assess a few trends. The Eastern Québec section performs poorly at 18% of conversion from local participants to National members in 2018. Most local sections experienced a decrease in membership conversion rates from 2016 to 2018. Northern Alberta shows a consistent decrease in National membership conversion, since 2011.

## 2.3 Members

In order to improve the membership experience and targeting member-specific initiatives, the MC wanted to better understand the demographics of the CGS members.

The membership was studied by looking at their age, the number of women and the number of students over the years, and the conversion rate from student membership to regular members. These data show how the membership has evolved throughout the years.

### 2.3.1 Age of Members

To evaluate the evolution of the age of CGS members, the following age groups were established: below 27, between 27 and 35, between 35 and 45, between 45 and 60 and above 60 through the years (2008 to 2018). The results are presented in Figure 12.

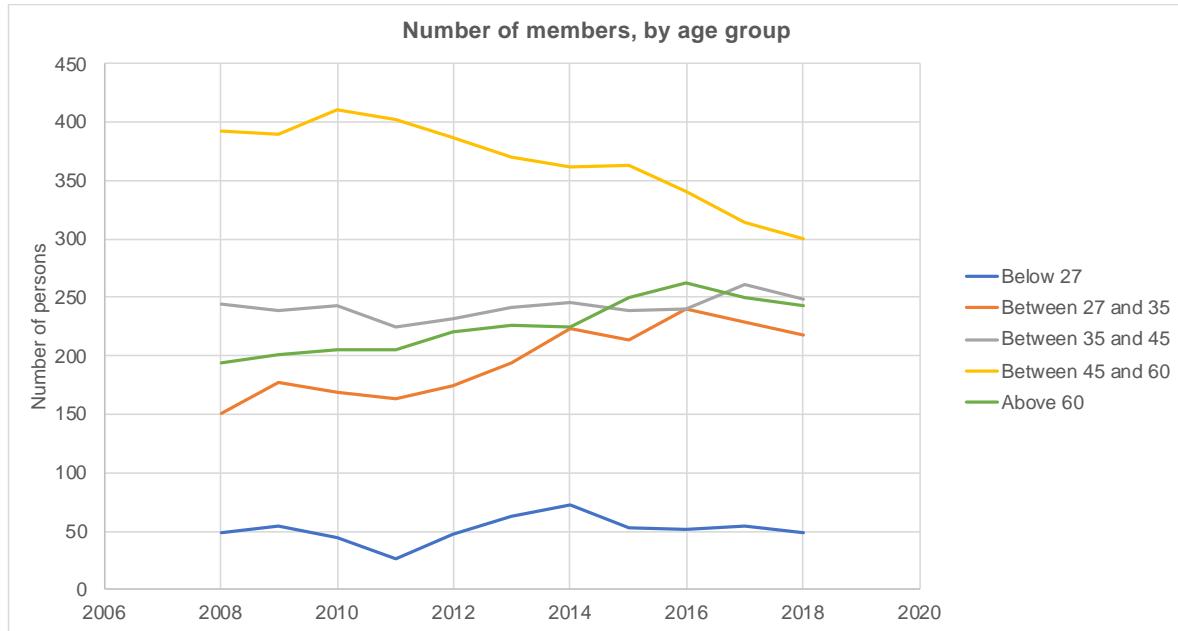
The results show us that the number of members aged below 27 remained fairly stable with time. Figure 12 shows an important increase with the 27 to 35 age group from 2014. The percentage of the members aged between 35 and 45 remained fairly stable. An important decrease of members aged between 45 and 60, coupled to an increase of members aged above 60 is shown in Figure 12 (25% in 10 years). This situation may be a transfer from the group 45 and 60 to the 60 and over. It also shows that the CGS has less members in the 45 to 60 group than it used to (23% decrease since 2008) which could affect membership in the years to come.

Figure 13 shows the evolution of the average age of all members over time (blue line) and the average age without the students (orange line). The average age of members decreases by approximately -0.8 years if students are included. However, this decline was strongly influenced by the massive arrival of student members since 2014. By removing students from the calculation, Figure 13 shows that the average age of CGS Members increased since 2008 by approximately 0.6 years.

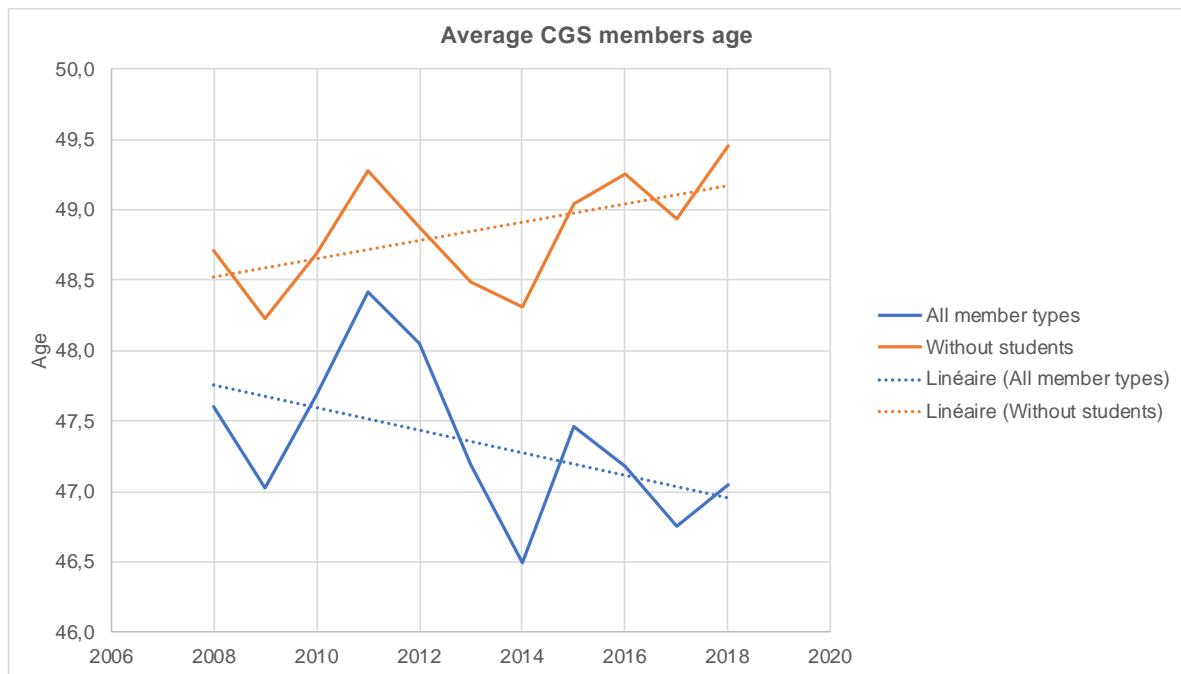
There was however a very important bias within the data made available to the MC that needs to be taken into account for proper interpretation of the CGS membership age distribution. The age of members was calculated using the birth date indicated in each member registration form. Some members did not provide their true age or possibly provided no age at all, these members were removed from the data set when it was obvious the age was not correct (e.g. some members had 1900-01-01 as their birth date). For reasons still unclear to the MC, a significant proportion of members had a birth date of January 1, 1970. All such entries were also left out of the calculations. Leaving out all suspicious age entries means the total number of members taken into account for the age calculation is lower than the total number of members. From 2008 to 2013, around 13% of all entries were left out each year because of the factors identified above or due to a lack of data. However, from 2014 to 2018, approximately 23% of all entries couldn't be taken into account. Unfortunately, such missing entries are not evenly distributed among all CGS members and this spike in missing entries appears to be directly linked to the birth of the *Complimentary Student* registration type. A very important proportion of this registration type had the birth date missing, meaning that the CGS members age distribution calculated above couldn't factor in the massive arrival of younger members from 2014 to 2018. A fair estimate would indicate that at least 200 Complimentary Students are missing from the age group data, yearly.

Hypothetically, assuming that half of these missing 200 registrations are 25 years old (middle of Masters Degree) and the other half are 27 years old (middle of PhD), yields an average CGS members age that is 4 years younger for 2018 than what is currently calculated (43 years old instead of 47 years old). The real average member age is then most probably quite lower than what is calculated and shown in Figure 13, but there is no way to properly estimate

it. The MC suggests fixing the registration process for complimentary students so that in the future we can correctly monitor the age of the CGS members.



**Figure 12. Number of members, by age group.**



**Figure 13. Average CGS member age**

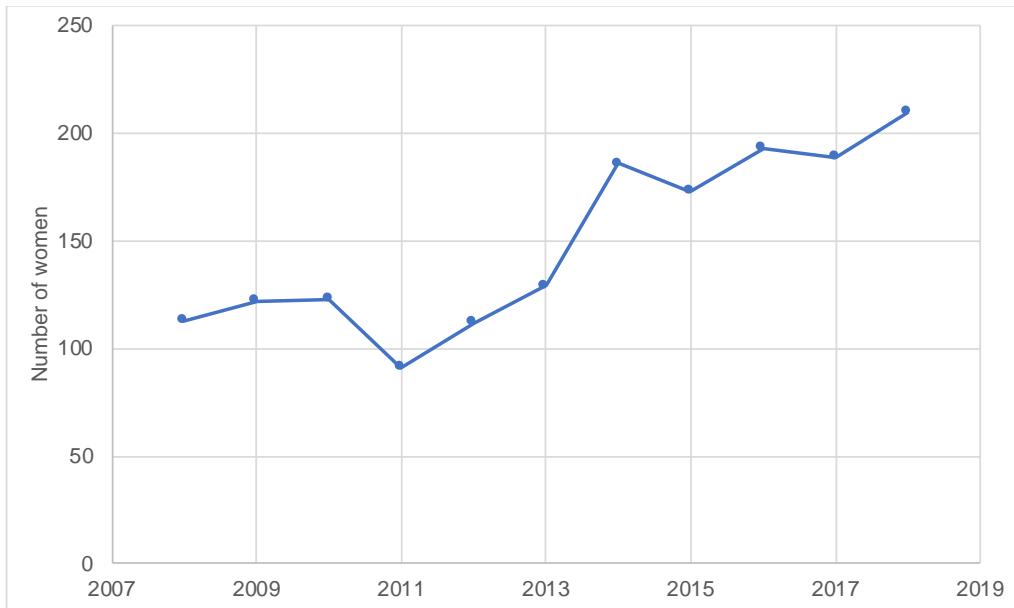
### 2.3.2 Women Members

Figure 14 shows the number of women members from 2008 to 2018. In 2008, the number of women members was 113. This value varied over time but has increased to 210 in 2018.

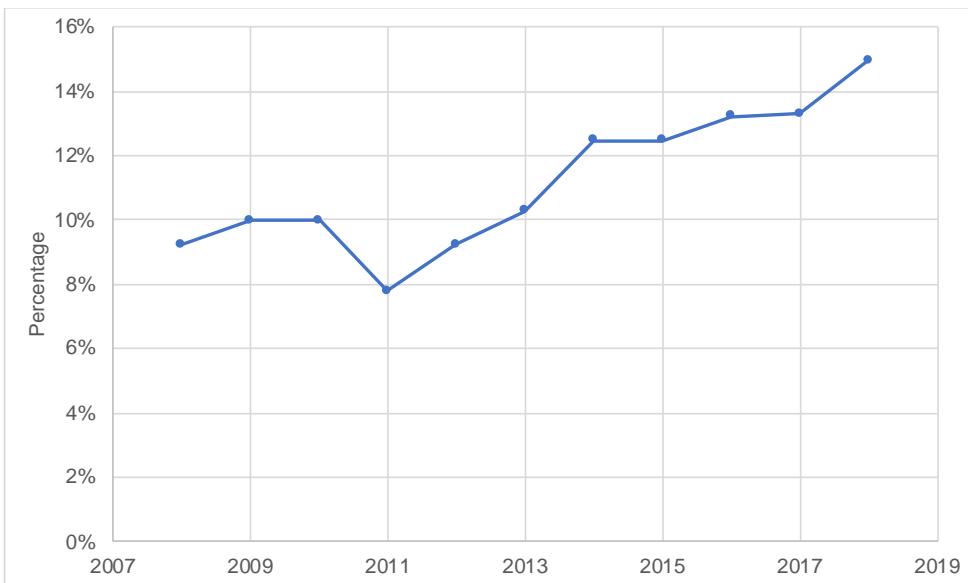
Figure 15 shows the proportion of women members amongst all members since 2008. The number of women members has increased from 6% to 15% in 10 years. In comparison, the total number of members increased by 15% since 2008 (Figure 5) and the total of women members increased by 86% during the same period.

All of these values take into account the increase in the number of students in 2014. This probably affected the increase in the number of women members from 129 to 186 between 2013 and 2014 (Figure 14).

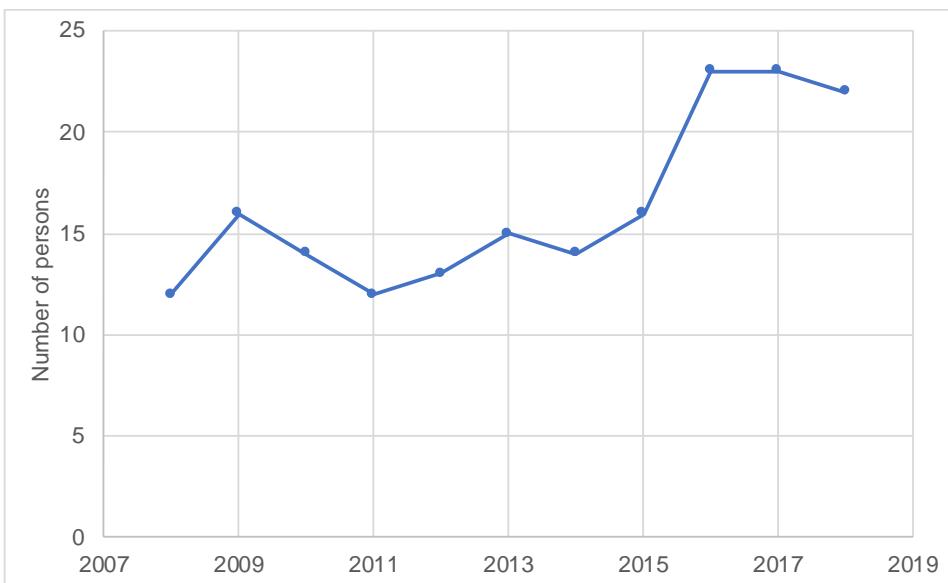
The number of women members with doctorate degrees has also been evaluated from 2008 to 2018 (Figure 16). The number has increased more than doubled (from 10 to 22) in ten years (Figure 16). However, note that some members do not select the Doctor title, but rather Mr. or Ms.



**Figure 14: Evolution of the number of women members with time.**



**Figure 15: Proportion of women members within CGS members**



**Figure 16: Number of women doctors with time**

For comparison, in 2016, 13% of engineers in Canada were women, although the percentage of new women engineers was higher at 17.2%. In Québec, from 2010 to 2017, the percentage of women engineers increased from 12.4% to 14.3 % (ref. 1). For CGS members, the percentage of women members increased from 10 to 13.3 % for the same time period.

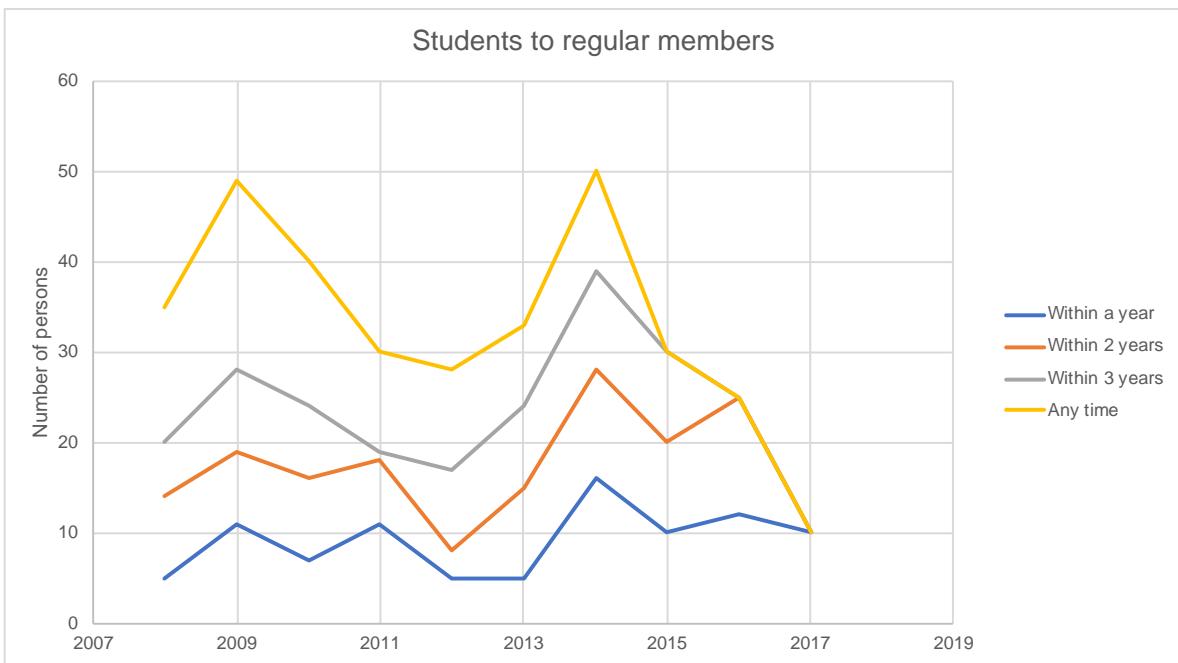
According to the Québec's Engineers professional association (Ordre des Ingénieur du Québec), in 2019, there were 179 women working in Geotechnics in Québec, which represents 19.56 % of all members working in that field within this province. In 2019, 15.27 % of all professional engineers in Québec were women (ref 2). This comparison shows that the CGS membership numbers for women are a little below the proportion of women in the engineering practice.

### 2.3.3 Students

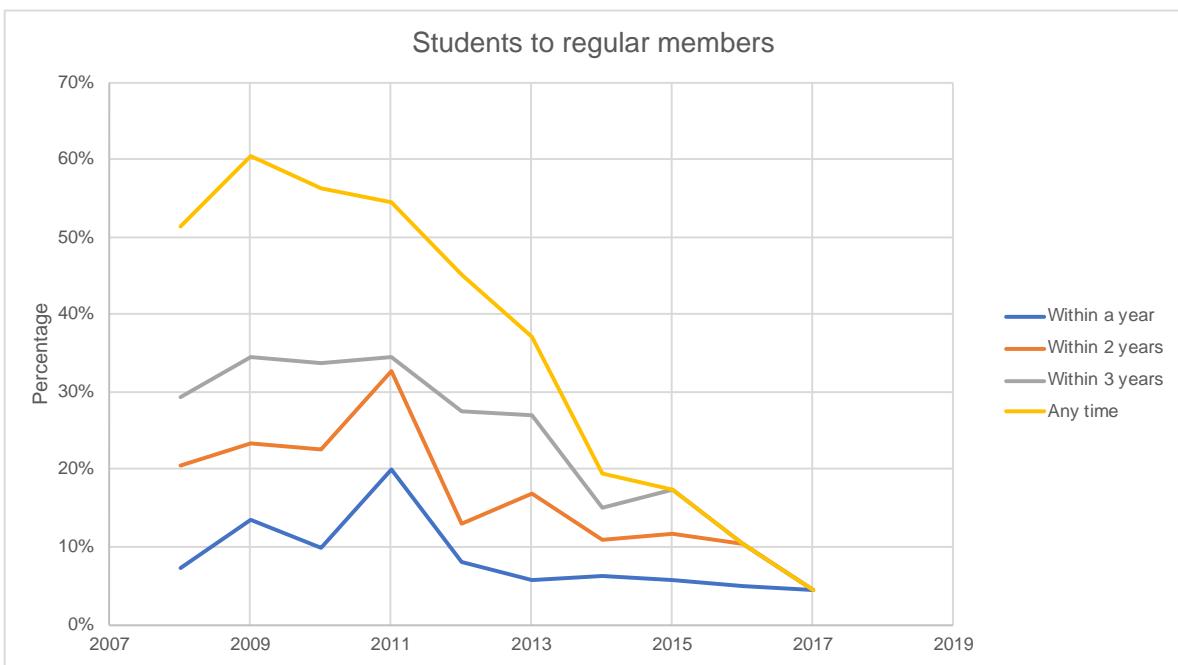
The membership habits of students were analyzed in order to determine if students become regular members after they graduate and join the workforce.

Figures 17 and 18 show the number and percentage of students who become regular members, on different time frames after graduation. No dramatic conclusions should be drawn from these two figures since a portion of the student members in recent years are probably still students. Nevertheless, some general conclusions can be drawn from these figures:

- The fact that the CGS gave complimentary memberships to students registering to the CGS national conferences since 2013 has increased the number of students moving to regular membership (around 25 members within 3 years).
- In general, Figure 18 indicates that 50 % of the student members will eventually become a regular member, but we lose around half of them for a few years after graduation, before they become a regular member.
- Figure 18 shows that the “within 3-years” is decreasing from 2011 until 2014, which is the last year when the data is significant. From 2011 to 2014, students lost 20% of their conversion rate into regular members. On the other hand, Figure 17 shows that for the same period the numbers of students becoming regular members has increased. Thus, again, the considerable effect of the sudden increase in the number of student members in 2014 due to complimentary membership upon conference registration must be taken into account.



**Figure 17. Number of students becoming regular members, within different time periods**



**Figure 18. Percentage of students becoming regular members, within different time periods**

## 2.4 Conclusions

Data analysis has helped to better understand CGS membership and its evolution in time. In general, the membership is relatively constant since 2008, if we don't consider the complementary student memberships provided with registration to the CGS National Conference, but nevertheless, a small decrease has been observed in the last few years.

Around 35 % of our members were consistent members over an 11-year period, and 10% of our members were a member only for one year, which might indicate that they had registered to the National conference. The data analysis shows that the CGS National members increases for a local CGS section when the conference is hosted close to it.

If we don't consider the student members, the average age of our members is increasing, even though the number of members in the 45-60 age group is decreasing significantly since 2008. This might announce a decrease in membership in the years to come.

Fortunately, the number of student members has increased dramatically in the last 10 years (343%). The membership data analysis shows that half of the students eventually become regular members, although it may take a few years before they join as regular members. Some will remain non-members for many years before signing up again.

We have found that there is a large potential for new members in the local sections Eastern Québec, Northern Saskatchewan, Southwestern Ontario since they have a large number of local members compared to their number of national members. The two local sections of Alberta have been the ones with the greatest decrease in membership (especially since 2014).

The last conclusion is that female members increased by 85 % in the last ten years but only represented 15 % of members in 2018. The comparison made with statistics from professional engineering associations shows that the number of female members in the CGS is around 5% below the proportion of women seen in the geotechnical field.

## **3 Member Survey Analysis**

The MC prepared the CGS Member Survey during the summer of 2018 and accepted responses from December 2018 to April 2019. This survey was created to understand how the CGS can encourage memberships, bring greater value to our existing members, and encourage participation in CGS at local and national levels. Results will be used to inform decisions for membership and other areas of CGS.

### **3.1 Methodology**

The motivation behind the survey was to reconnect with CGS members and non-members. The survey included 16 questions that were targeted to understand: the demographics of the survey participants, why they are or are not members of CGS, participation in CGS by volunteering to assist with CGS activities, if current CGS news is provided in a desirable format, what CGS membership resources are valuable and what changes could CGS make to enhance the value of being a CGS member. A copy of the survey questionnaire is attached in Appendix A. The survey was made available online in English and French using Google Form platforms.

A total of 217 people answered the survey, around 70% (152) of the responses were submitted through the English survey and 30% (65) through the French version. The information was collected confidentially, unless the survey participant elected at the end of the survey to provide their contact information.

### **3.2 Data Analysis**

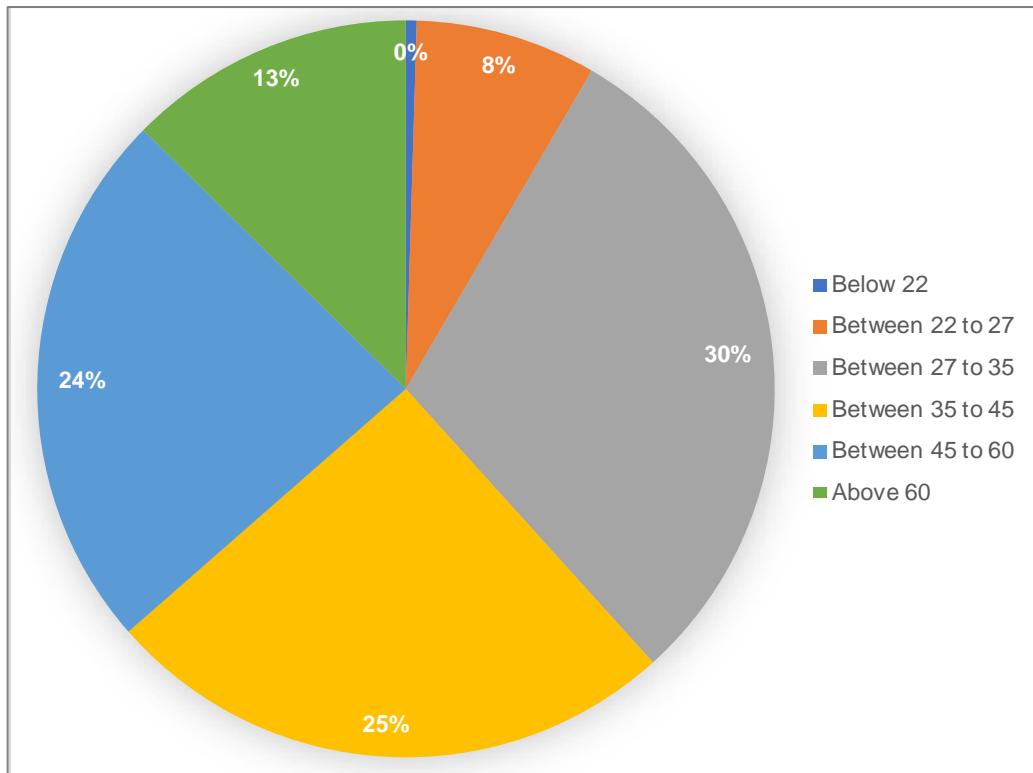
The data gathered for the survey can be broken down into five main categories: respondent general information, CGS membership, volunteering, CGS news and actuality, and written comments.

### **3.3 Respondent General Information**

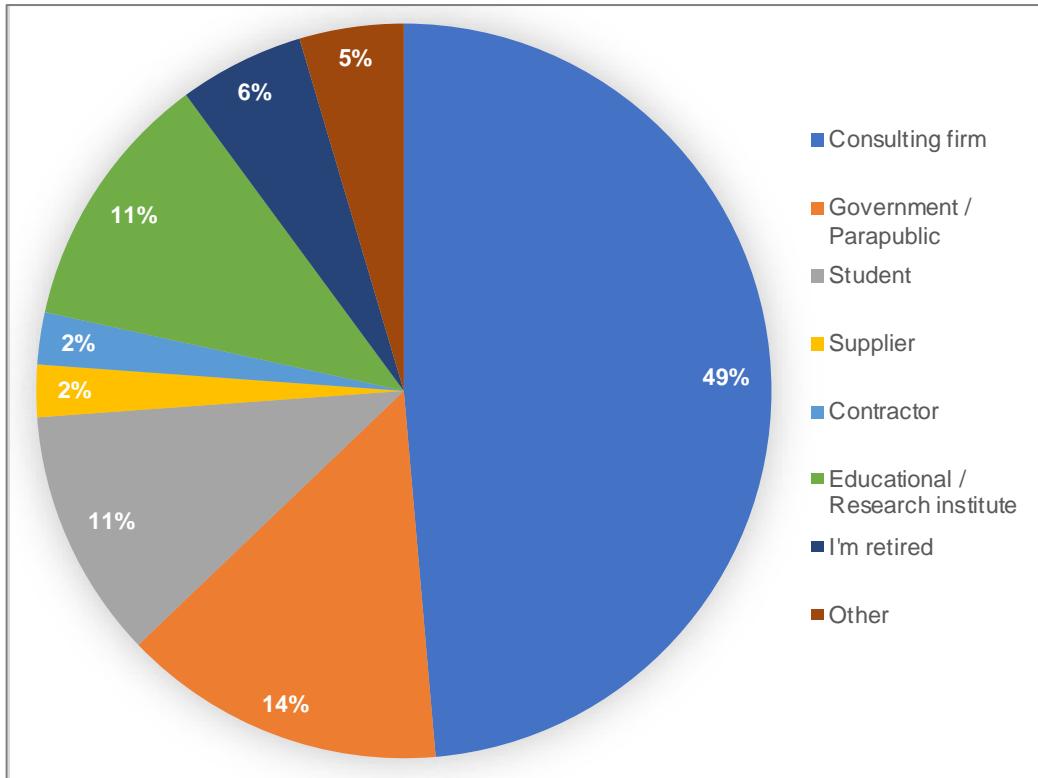
Questions 1, 2 and 3 of the survey were developed to understand the demographics of the respondents. 93 % of respondents currently live in Canada. Figure 19 illustrates the age repartition.

Age is fairly well distributed, with approximately  $\frac{1}{4}$  of respondents for each of the following ranges: below 27, between 27 and 35, between 35 and 45, between 45 and 60 and above 60.

Figure 20 illustrates the job types. Half of respondents work in consulting firms; other dominating jobs are Government / Parapublic (14 %), Educational / Research Institute (11 %), Students (11 %) and Retired (6%).



**Figure 19. Age repartition**

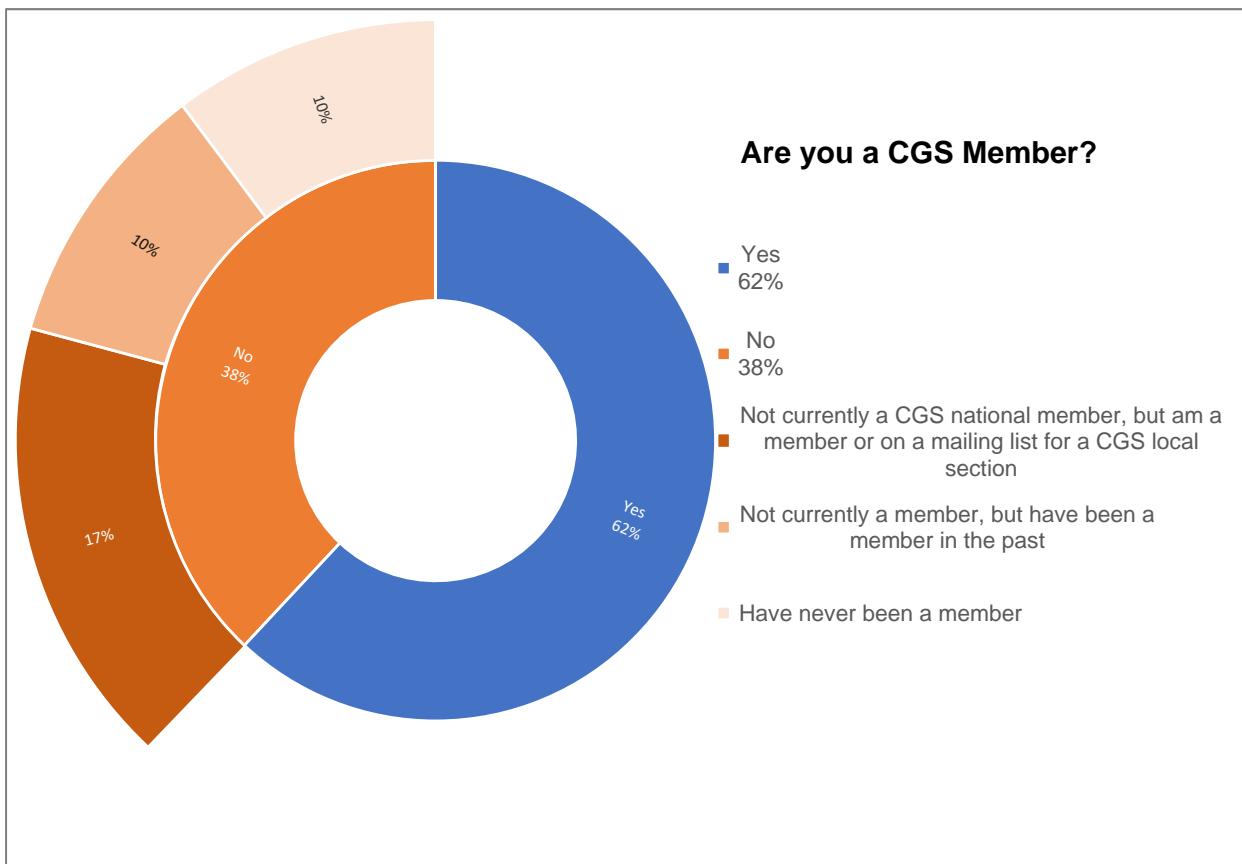


**Figure 20. Job types**

### 3.4 CGS Membership

Questions 4, 5 and 6 of the survey were developed to understand if the respondents are CGS members or not and what motivates them to be or not to be a member. Figure 21 illustrates the results of Question 4 “Are you currently a member of CGS”?

- 62 % of respondents are CGS members
- 38 % are not CGS member
- Only 10 % have never been a member



**Figure 21. Are you a CGS member?**

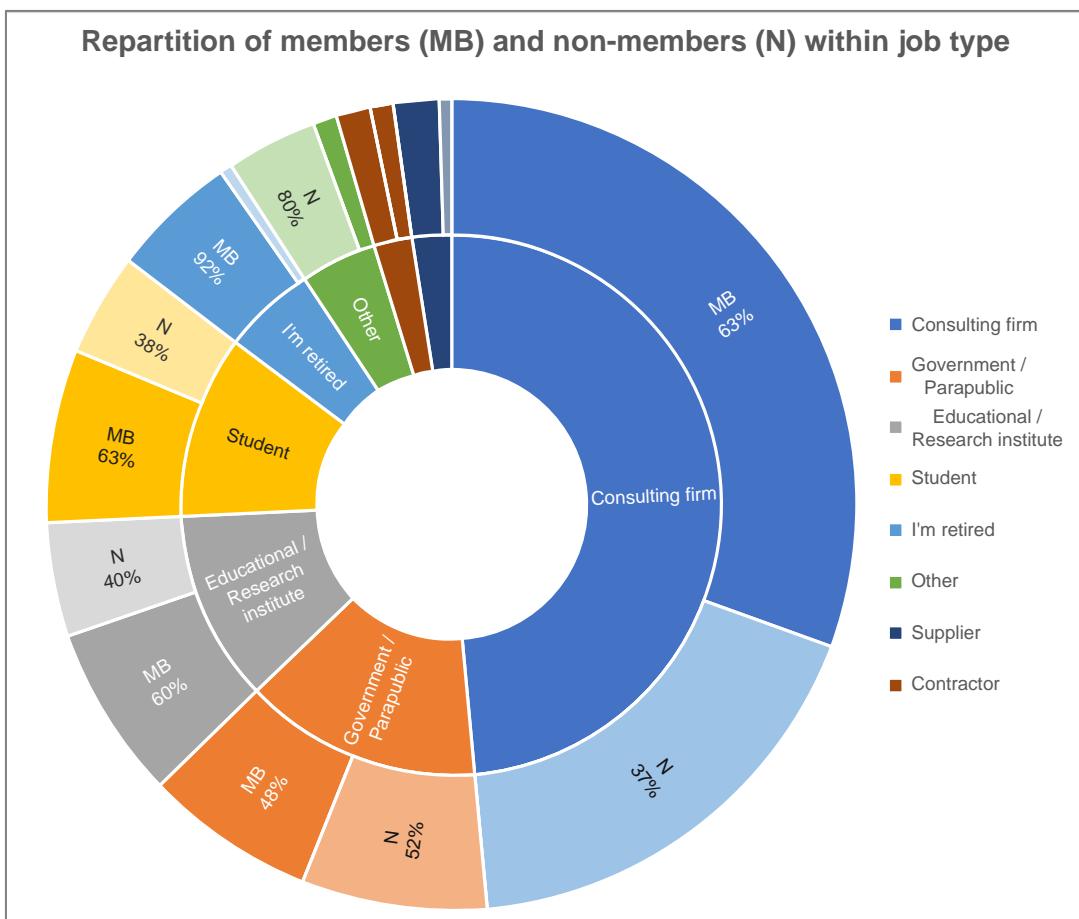
Figure 22 illustrates the percentage of respondent who are a member of the CGS, by age group. The highest percentage (approximately 80%) is for members above age 60 and the lowest percentage (approximately 50%) is for members between 45 and 60.

Figure 23 illustrates the respondents' repartition within each job type:

- Consulting firms: 63 % are members;
- Government / Parapublic: approximately 50 / 50 split;
- Educational and Research: 60 % are members;
- Students: 63 % are members;
- Retired: 92 % are members;
- Other: 80 % are non-members.

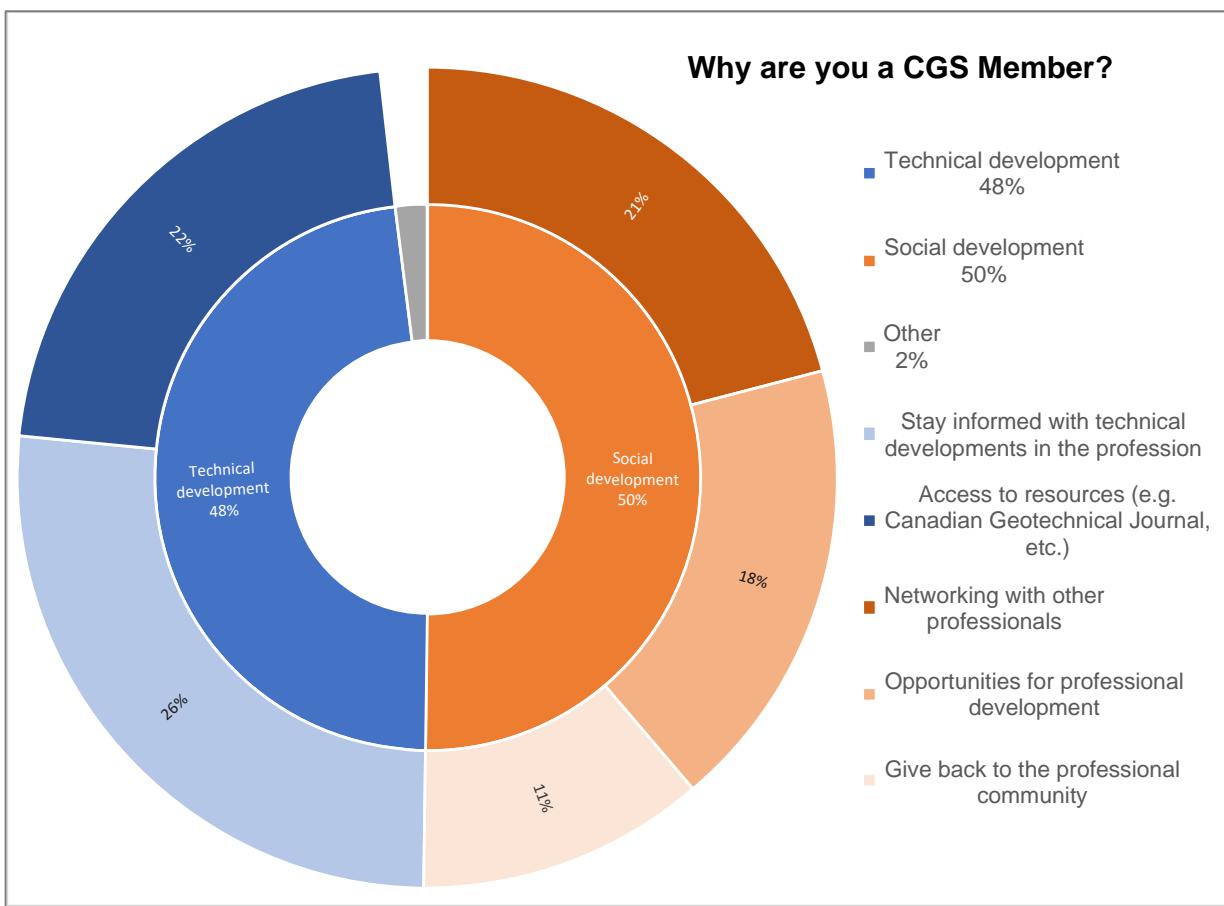


**Figure 22. Membership % of the respondent by age group**



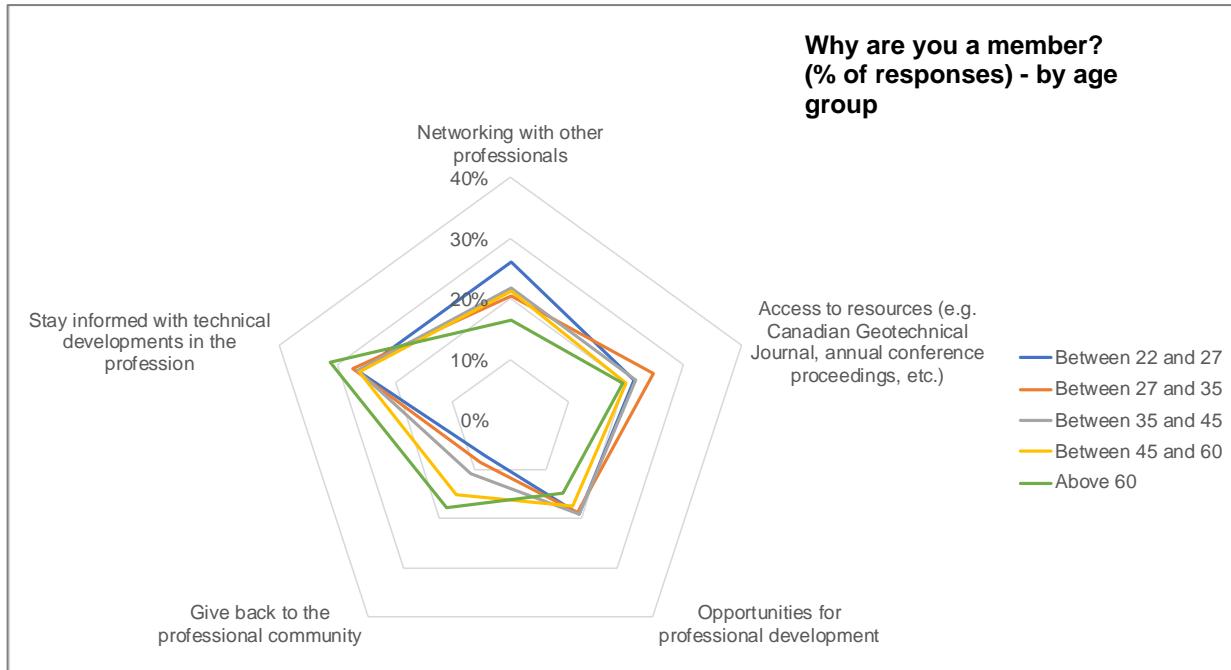
**Figure 23. Repartition of members (MB) and non-members (N) within each job type**

Figure 24 illustrates the responses to question 5 of the questionnaire “What motivates you to be a member”? Reasons to be a member are roughly split in half between technical and social development. The most popular response (26%) was to stay informed with technical developments within the profession. Three categories each had approximately 20% of the responses including access to resources, networking with other professionals and opportunities for professional development. The least popular response (11%) was to give back to the professional community.



**Figure 24. Why are you a CGS member?**

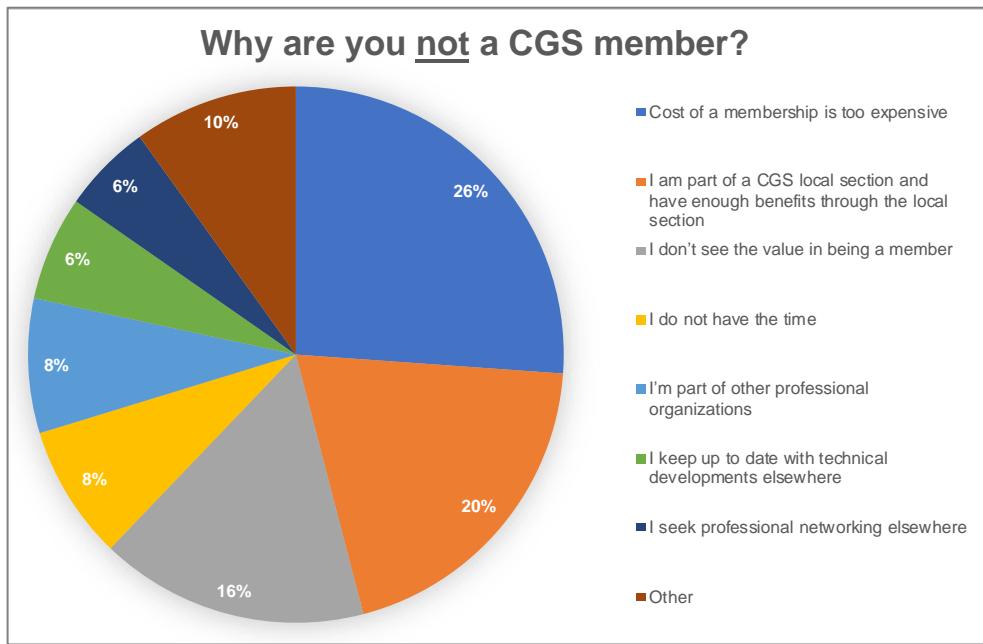
Figure 25 illustrates the responses to question 5 of the questionnaire “What motivates you to be a member?”, by age group. There does not appear to be any significant difference amongst the age groups. The above 60 age group has the strongest response for staying informed with technical developments while the youngest age group (22 to 27) has the strongest response for networking with other professionals.



**Figure 25. Why are you a CGS member, by age group**

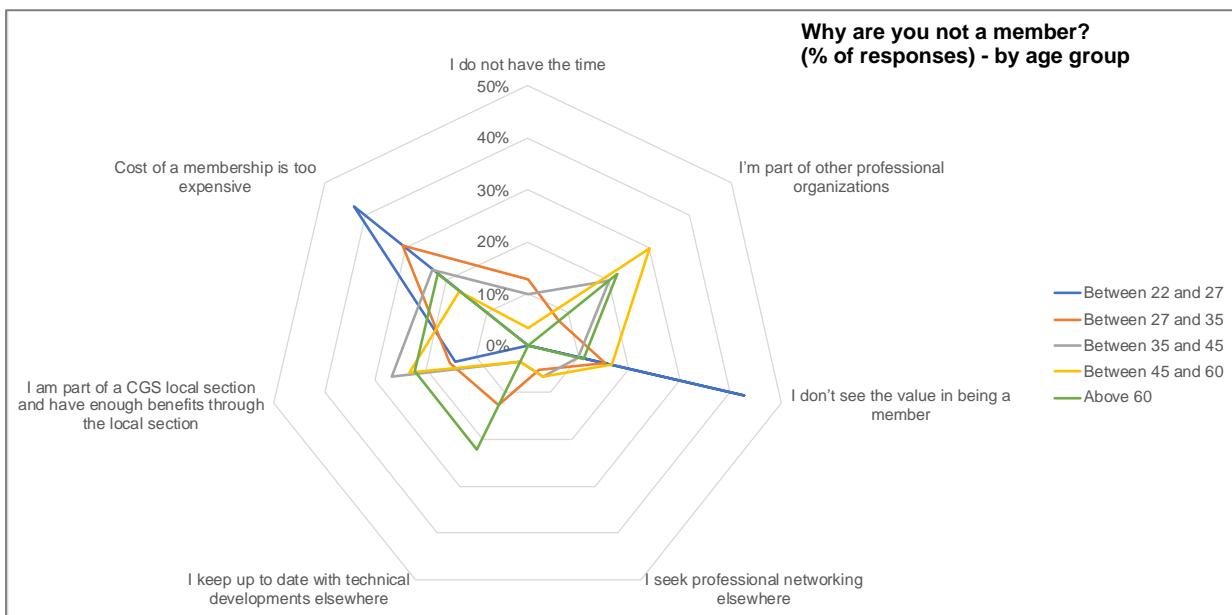
Figure 26 illustrates the responses to question 6 of the survey “Why are you not a member”? Reasons invoked to explain non-membership are diverse;

- 26 % of non-members find the membership price too expensive;
- 20 % find their adhesion to a local CGS section to be enough;
- 16 % don't see the value of being a member;
- 8% don't have the time; a similar percentage of responses were for being part of other professional organizations, keeping up to date with technical developments elsewhere, seek professional networking elsewhere and other reasons.



**Figure 26. Why are you not a CGS member?**

Figure 27 illustrates the responses to question 6 of the questionnaire “Why are you not a member”, by age group. The above 60 age group has the strongest response for keeping up to date with technical developments elsewhere and being involved with other professional organizations. The two youngest age groups (22 to 27 and 27 to 35) indicate that the cost of a membership is too expensive.

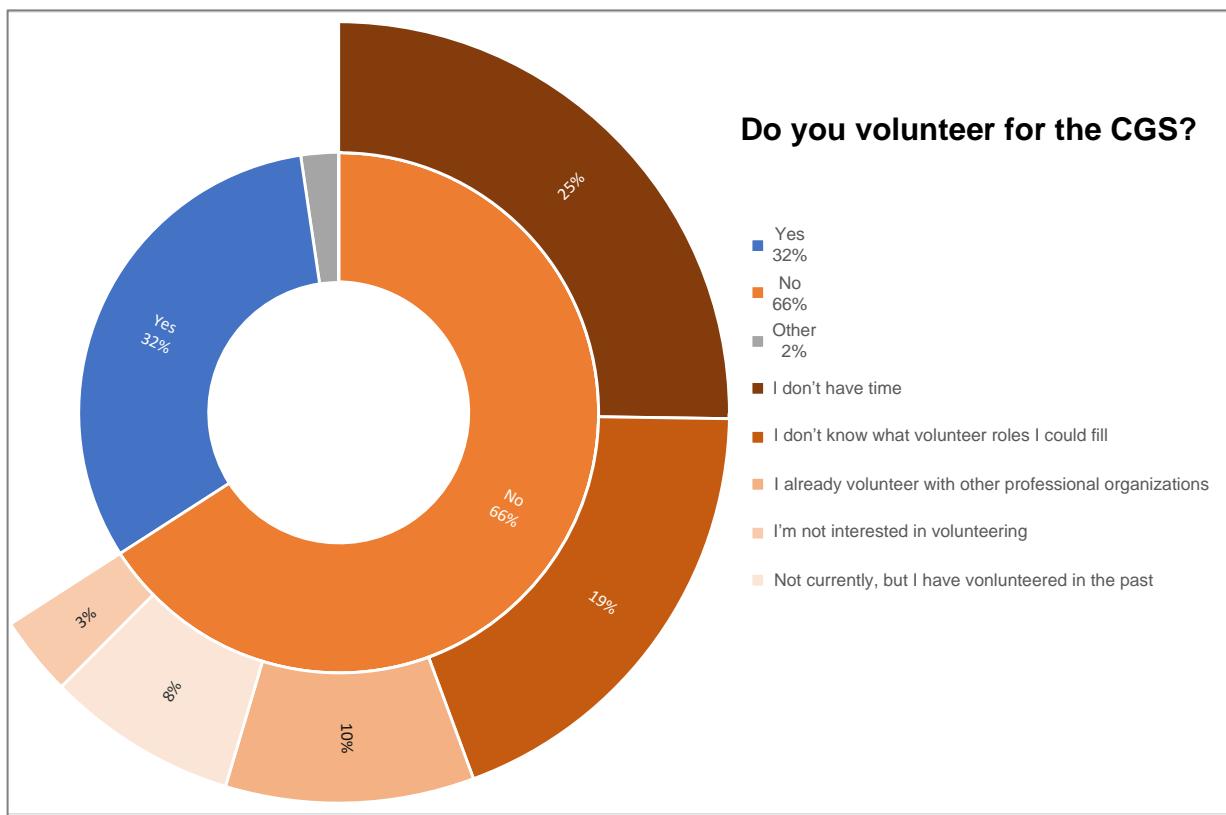


**Figure 27. Why are you not a CGS member, by age group**

### 3.5 Volunteering

Questions 7, 8 and 9 of the survey were developed to understand the interest and participation in volunteering to help CGS with their activities. Figure 28 illustrates the responses to question 7 of the questionnaire “Do you volunteer for the CGS” :

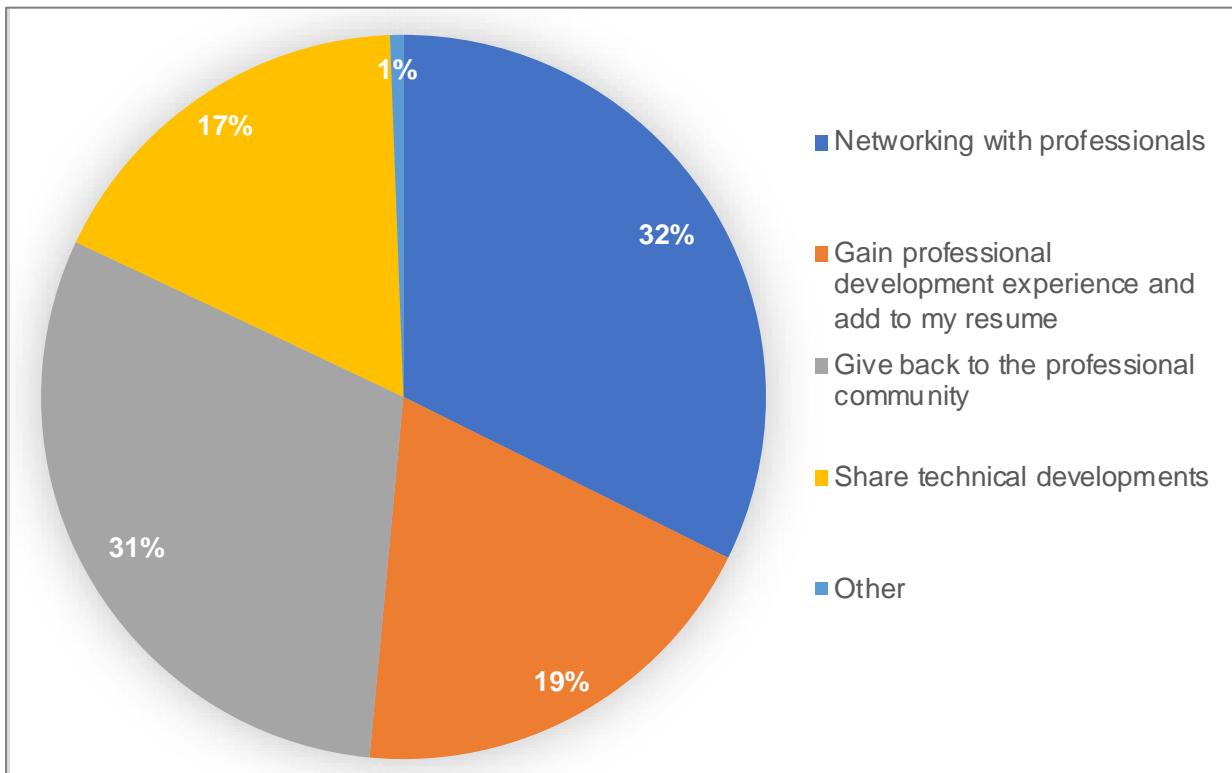
- 32 % of respondents currently volunteer for the CGS and an additional 3 % indicated they have volunteered in the past.
- Of the 66 % that do not volunteer for CGS:
  - 25 % don't have time or already volunteer elsewhere;
  - 19% don't know what role they could fill;
  - 8% are not interested in volunteering.



**Figure 28. Do you volunteer for the CGS?**

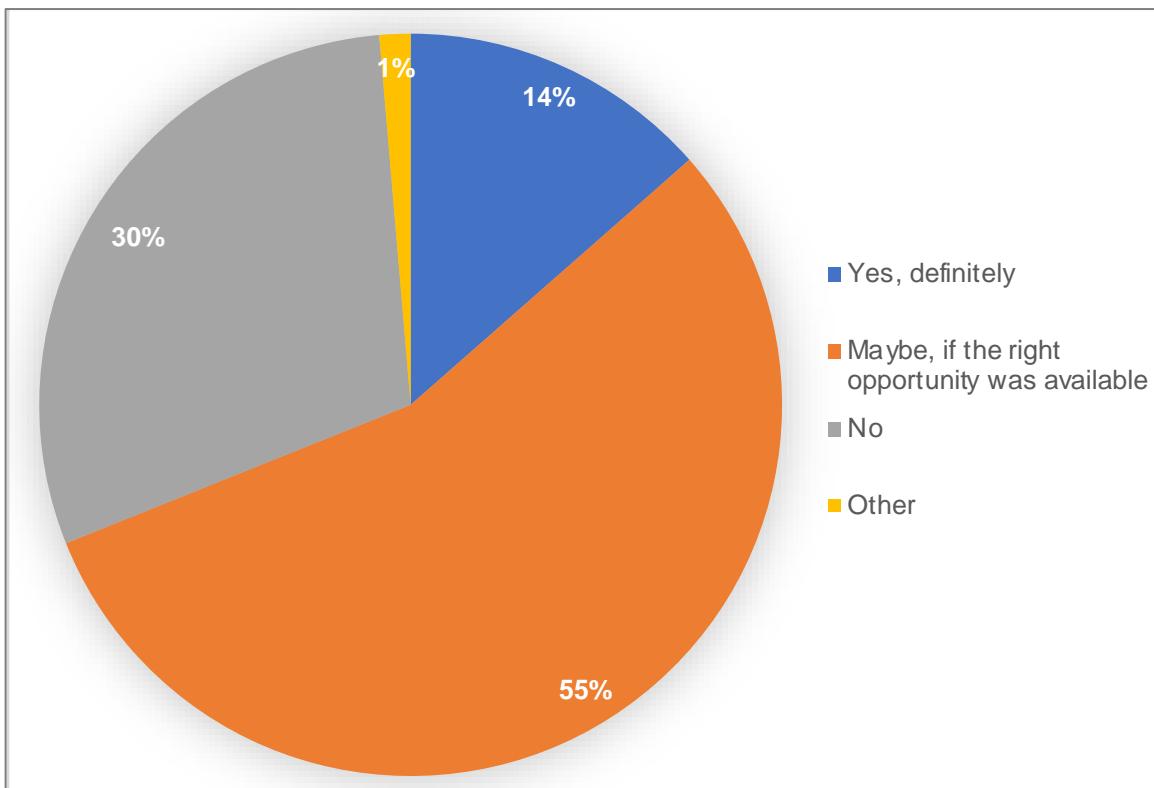
Figure 29 illustrates the responses to question 8 of the questionnaire “What motivates you to volunteer”. Reasons invoked for volunteering are diverse. The most popular answers were

Networking with other professionals (32%) and Give back to the professional community (31%). The least popular answers were Gain professional development, add to my resume (19%) and Share technical developments (17%).



**Figure 29. Why do you volunteer?**

Figure 30 illustrates the responses to question 9 of the questionnaire “Would you consider volunteering for the CGS” : 55 % of respondents would consider volunteering if the right opportunity was given, only 14 % are definitely interested in volunteering and 30 % are not interested in volunteering.



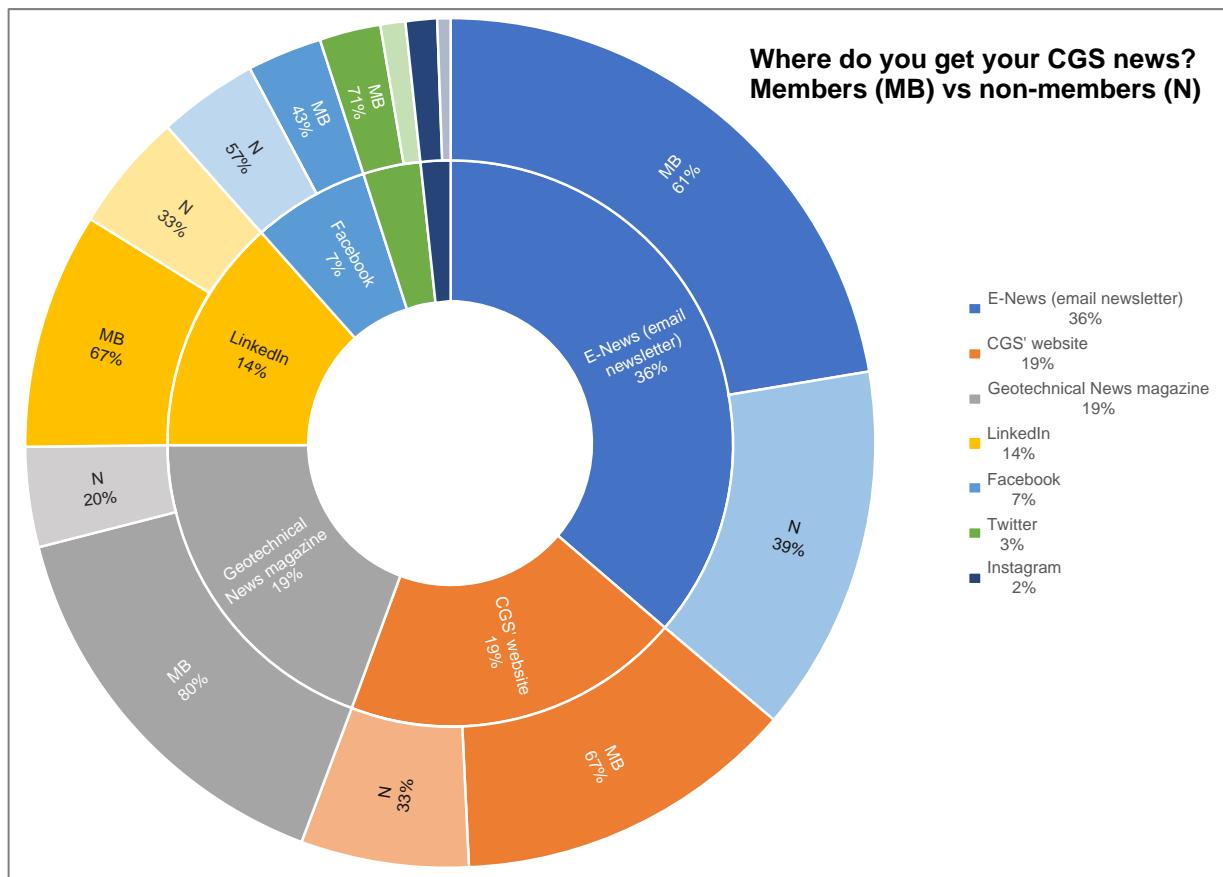
**Figure 30. Would you consider volunteering?**

### 3.6 CGS news, actuality and resources

Questions 10 to 13 of the survey were developed to understand if the news communication by CGS is provided in an appealing manner and what is the preferred mode of news communication.

Figure 31 illustrates the responses to question 11 of the questionnaire “Where would you like to get your news from the CGS” with a breakdown between members and non-members.

- The E-News (email newsletter) is the most popular information platform (36%);
- 19% of the respondents indicated the CGS website is used;
- 19% of the respondents indicated the Geotechnical News magazine is used;
- LinkedIn is as popular (14%) as all the other social media platforms (Facebook, Twitter, Instagram) combined together. Note that social media hadn't been used much at the time of the survey. This would explain such a low percentage.
- The breakdown by members and non-members is similar in all cases and is directly related to the results of Question 4 “Are you currently a member of CGS” (see Figure 3).

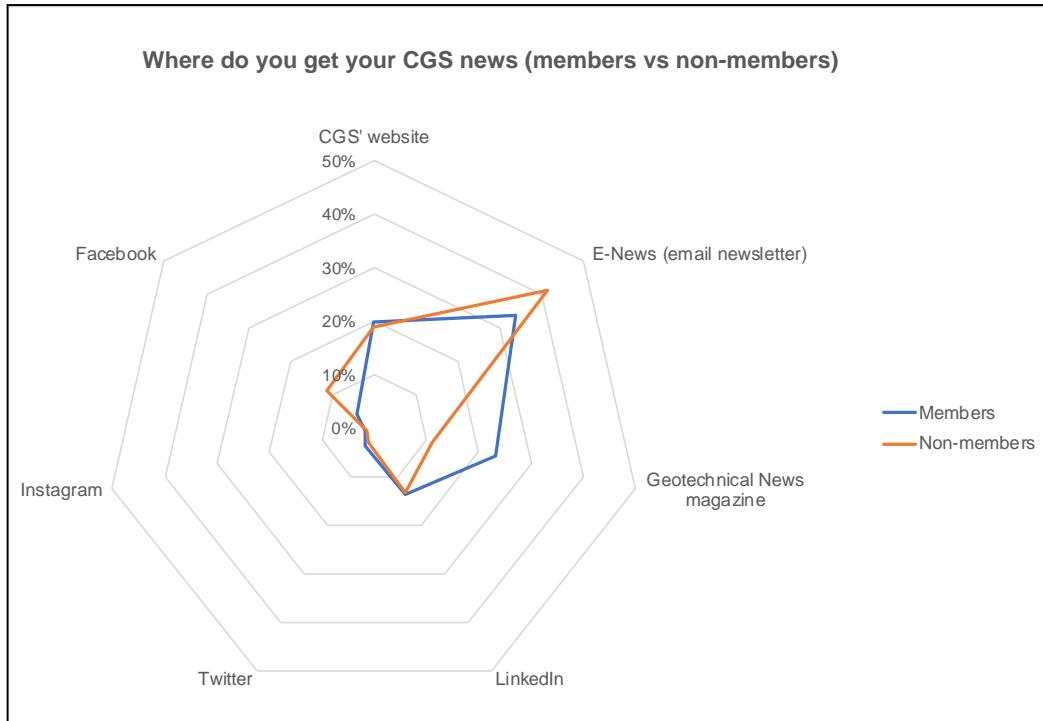


**Figure 31. Where do you get your CGS news – Members (MB) vs non-members (N)**

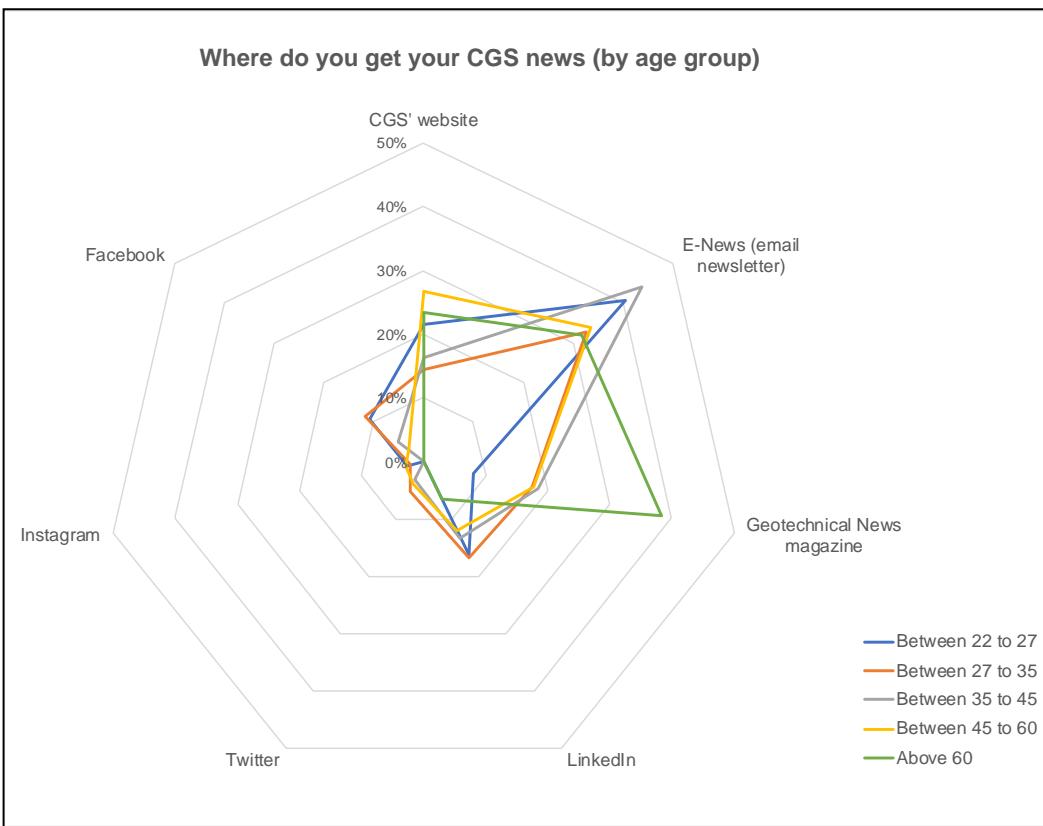
Figure 32 illustrates the results of question 11 by Members and non-members. Both groups prefer to keep informed via the CGS E-News. Similar proportions of members and non-member get their news via the CGS website, LinkedIn, Twitter and Instagram. A greater proportion of non-members get their news via the E-News and Facebook, while a greater proportion of members read the Geotechnical News magazine.

Figure 33 illustrates the results of question 11 by age group. Geotechnical News magazine is vastly more popular with people above 60, even more popular for them than the E-News. The E-News is the preferred choice for all other age groups. Older people tend to use CGS' website as a source of information while younger people are more attracted to Facebook and LinkedIn.

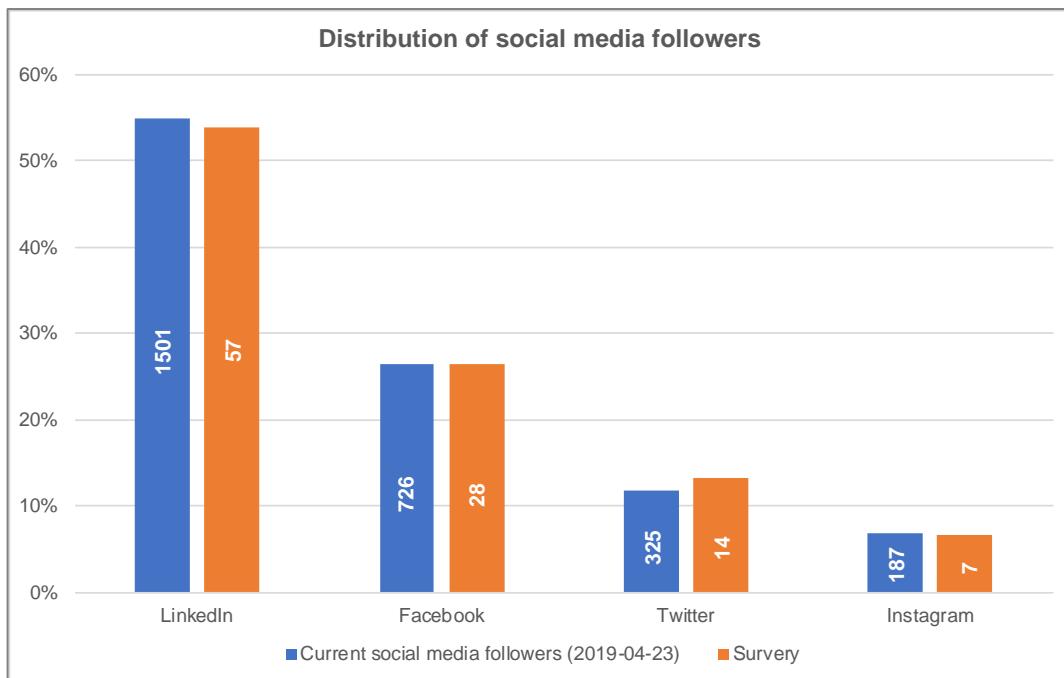
Figure 34 illustrates the results of question 11 for social media sources. The distribution of social media followers from survey data closely matches the measured real distribution of social media followers as of April 23, 2019.



**Figure 32. Where do you get your CGS news (members vs non-members)**

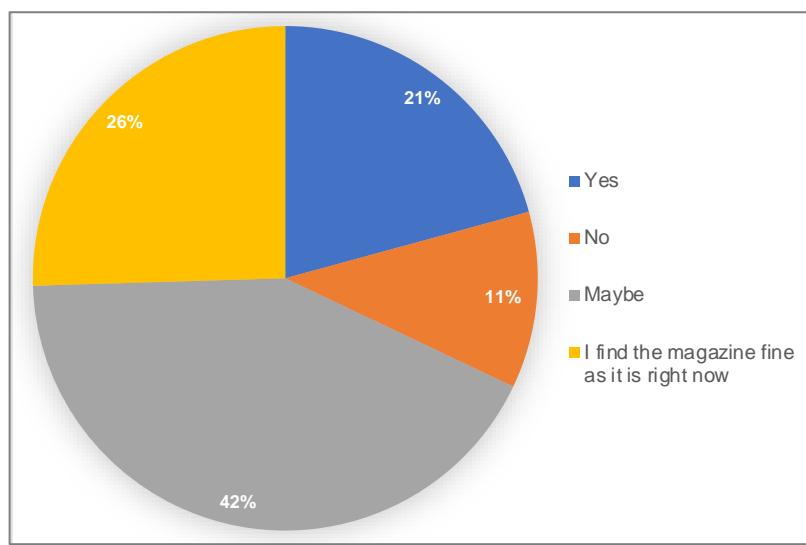


**Figure 33. Where do you get your CGS news (by age group)**



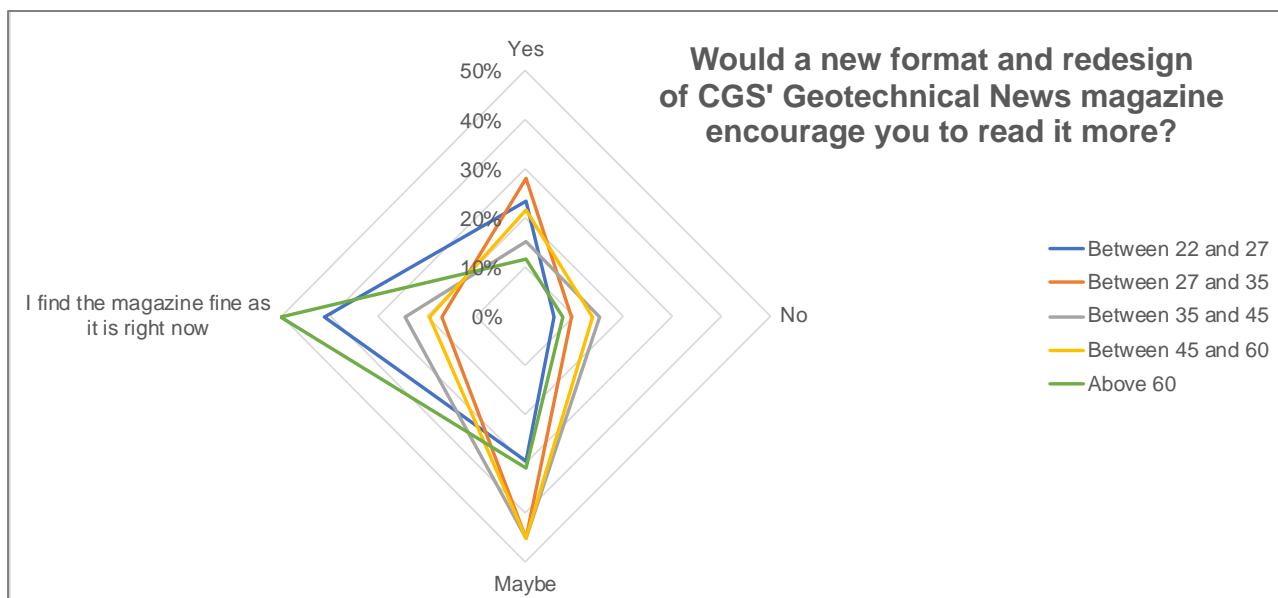
**Figure 34. Distribution of social media followers** (normalized on total followers)

Figure 35 illustrates the results of question 10, regarding the format appeal of the Geotechnical News magazine. A combined proportion (63 %) of respondents would maybe (42 %) or would definitely (21 %) be encouraged to read the Geotechnical News magazine more often if it was redesigned. 26% of respondents find the Geotechnical News magazine fine as it is right now, while 11 % would not read it more.



**Figure 35. Would a CGS Geotechnical News redesign encourage you to read it more?**

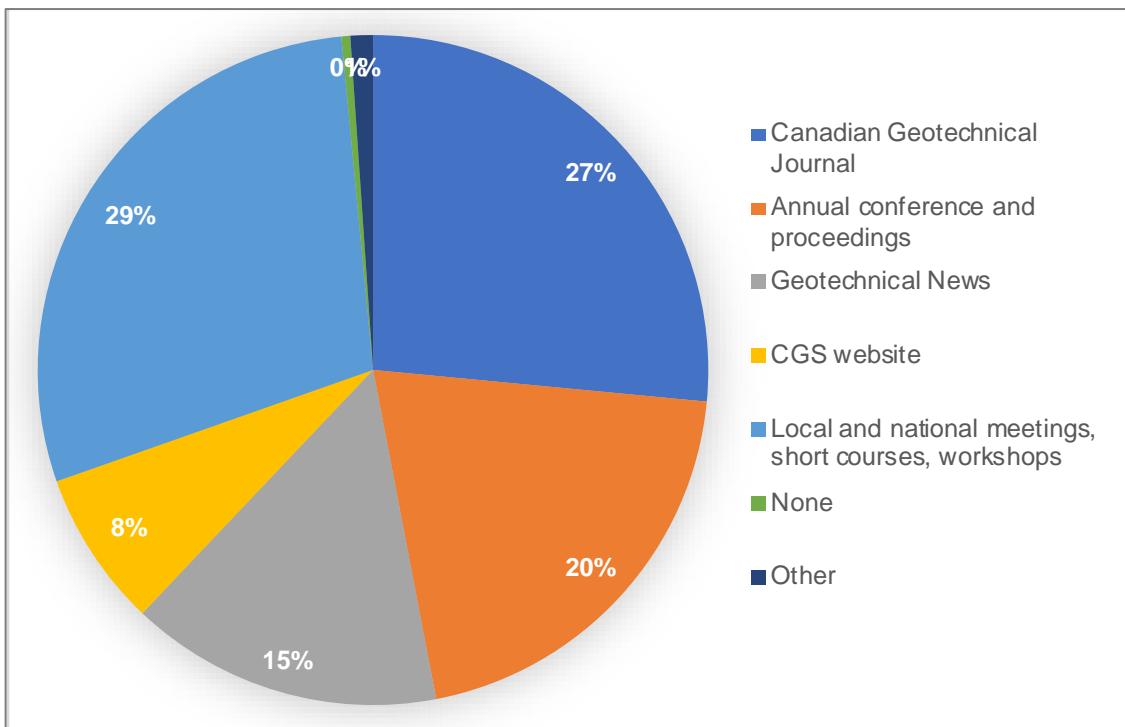
Figure 36 illustrates the results of question 10, regarding format appeal of the Geotechnical News magazine, by age group. Surprisingly, the youngest and oldest age groups indicate that the magazine is fine as it is right now. Other data from the survey suggests the magazine if used more often by the older age groups. The three middle age groups indicate that a new format would or maybe encourage them to read it more often.



**Figure 36. New Geotechnical News format appeal, by age group**

Responses to the question “Would you like to get news from other CGS local sections?” showed that 2/3 of respondents indicated they would be interested in receiving news from other CGS local sections

Figure 37 illustrates the results of question 13, “What is the CGS initiative/event/resource/ that you get the most value from”. The two most useful CGS resources are the local/national meetings (including short courses and workshops) (29%) and the Canadian Geotechnical Journal (27%), 20% of respondents indicated that the annual conference and proceedings were most useful, 15% of respondents indicated that the Geotechnical News is most useful, 8% of respondents indicated that the CGS website is most useful.



**Figure 37. Most useful CGS resources**

### 3.7 Written Comments

Three written questions were posed to the survey respondents (i.e., Questions 14, 15 and 16) as follows:

**Question 14.** If you could change or add one initiative to the CGS, what would it be? Why?

**Question 15.** Would you like to learn about the CGS?

**Question 16.** Is there anything else you would like to share with us?

The general trends, response rate, and comments from all three questions are grouped into these headings below.

#### 3.7.1 General Trends

From reviewing the comments, the top 5 trends where the CGS can act are:

1. To engage members both generally and those not close to sections, this may include offering events through online meeting platforms (6 comments reported the challenges associated with the commute that may be required and expressed interest in online activities).
2. Improve the connection and collaboration between the CGS National and Local Sections (6 comments).
3. More communication could be offered on what other sections are doing and when events across the country are (4 comments).
4. Improved communication on the value of being a member (4 comments).
5. Technology and data science are an emerging area people want to learn more about (3 comments), along with professional practice examples (3 comments).

Four members indicated they were happy with the value of the CGS and said to keep up the good work.

### 3.7.2 Response Rate

Responses to all three questions were reviewed and grouped into topics in order to identify clear trends (Figure 38). The response rate was as follows:

- There were 53 responses to the first written question where responses covered the following topics: Communication (15), Events (11), Young Professional and Students (9), CGS Strategy and Operations (7), the Profession (6), and Membership (5).
- For the second question, there were 26 responses covering the following topics: Communication (16), CGS Strategy and Operations (3), Events (3), Profession (3) and Membership (1).
- For the last written question (Question 3), there were 22 responses covering the following topics: CGS Strategy and Operations (9), Communication (4), Event (4), Membership (3), and Profession (2).
- The responses from all questions by topic are shown below in (Figure 38).



**Figure 38. Written response topics**

### 3.7.3 Responses

#### **Comments related to communication:**

- Generally, more marketing and awareness of the CGS; types of membership and communicate the benefits of being part of the association for both regular members, students, and non-technical members (4 comments);
- To learn what other sections are doing and a central location to learn about all events across all CGS groups (4 comments);
- Improved communication to new members: About diversity of topics discussed (e.g. divisions) and resources saved to CGS Portal (2 comments), specifically conference proceeding;
- Geotechnical News: Add a section about global initiatives outside of Canada, add papers that are not from the CGS Annual conference, add articles about or from local section committee;
- Geotechnical Journal: Improve editing, and provide more practical articles;
- Improve website: Improve navigation to Heritage pages and update it more frequency specifically in regard to contact information;
- Develop a presence on LinkedIn and Twitter;

- Members would like to learn more: Generally about CGS National (one person only connected to section), the history of the CGS, the status of affiliations with other organizations (2 comments), and personal development opportunities
- For volunteering members: To learn the process of CGS Board and Executive Committee selection;
- In Québec, communicate with members in both languages.

### **Comments related to the CGS Strategy and Operations:**

- Create closer relationships and more collaborations between Sections and CGS National; CGS national shall have closer relationship with members (6 comments);
- Re-define the connection between Sections:
  - Remove Local section memberships (2 comments);
  - Reduce cost of meals for CGS National members.
- Share our knowledge for community aid (2 comments); an example is undeveloped countries;
- Executive Committee is composed of same individuals and national is “locked” in the west coast. Would like to see new volunteers;
- More collaboration between other Canadian Professional Associations for preparation of professional guidelines and other resources;
- More opportunities for professional development outside of major urban centre (where local CGS Sections do not exist);
- Create a CGS Division around emerging topics such as “knowledge management” and “data science” ;
- Members were generally happy with the value the CGS provided and said keep up the great work (4 comments);

### **Comments related to events:**

- Use online meetings for section events and for conferences/training sessions (5 comments);
- Conferences/workshops/training session on: geosynthetics (2 comments), technology (2 comments), regional practices, and reduction of materials used in transportation projects;

- For CGS Groups: More local section activities and more meetings in general, book lunch and learns further in advance;
- For the CGS Conference: try different styles of presentations, consider lowering the registration cost;
- More female speakers.

### **Comments related to the Profession:**

- Members want to learn more about professional practice (3 comments) and geotechnical engineer salary vs other disciplines;
- Improve quality of geotechnical work and reports;
- Increase diversity;
- Lobby for the promotion of the profession and a PE style designation for geotechnical engineers throughout Canada;
- Standardize good practice across the country; use the CFEM as code;
- Investigate geotechnical engineer salary.

### **Comments related to Students and Young Professionals:**

- Increase outreach to students about CGS and start student chapters;
- Encourage more student and young professional specific events: career night for students, student competitions;
- Add sponsorship opportunities for students: Travel bursary and attendance to the CGS conference from a division, fund to support student field trips;
- Promote internships and co-op in the profession.

### **Comments related to membership:**

- Re-consider fees: reduced fees for young professionals and for citizens of developed countries (2 comments), and have an affordable student membership;
- Complete online registration payments;
- Include cost of membership in an activity;
- Communicate what membership fees are used for;
- Renew registration throughout the year (do not close it);

- One person who would like to become a member and volunteer.

### 3.8 Survey conclusion

The number of responses received represents 15 % of the total number of CGS members. Respondent's demographics and job types were fairly well spread, thus it is believed that the feedback received in the survey is representative of our members' views. Also, it should be noted that 40% of respondents were non-members, providing feedback from people who are interested to answer the survey, but didn't commit to become a member. Thus, results should be seen as an opportunity to improve and meet the needs of our members or of the people who could consider becoming a member.

The survey identified that people don't join the CGS for three main reasons: they don't see the value of being a member, they believe they get enough from their local section, or the cost of membership is too high. In general, respondents seemed satisfied with the technical content provided by the CGS. Also, the survey indicated three other trends; many of our members would consider volunteering if they were given the right opportunity, that the communication with our members needs to be improved and that the CGS needs to be closer and more open to its members.

## 4 Conclusions and Recommendations

The analysis of the membership data and the survey analysis allowed the MC to identify a few issues about our membership and get feedback from our members.

### **The data analysis showed four issues (A to D) about our membership:**

A- The number of regular members is decreasing since 2014. Also, the average age of CGS members is increasing since 2008 (if we don't consider students) and the number of members in the age group 45-60 is decreasing significantly since 2008 (age gap). These three facts announce a decrease in membership in the years to come. Fortunately, the number of student members has increased dramatically in the last 10 years (343%). The membership data analysis shows that half of the students eventually become regular members, although it may take a few years before they join as regular members. They might remain non-members for a few years

after their graduation. **It is believed by the MC that working on increasing the conversion from students to regular members represents the best opportunity for increasing CGS regular membership.**

The MC joined the webinar of Young professional representatives on May 28 2019 to discuss what they are looking for in the CGS and what would convince them to become regular members. This discussion highlighted that they were not aware of our initiatives and of the benefits of being a member (i.e. the online resources: CGJ, proceedings, etc.). A point they mentioned is that they would like to see more networking activities to meet with experienced engineers.

B- The membership data analysis showed that most local sections experienced a decrease in membership conversion rates (local to national) from 2016 to 2018. In some sections, only 20% of local members are national members. **The MC believes that the second best opportunity to increase CGS membership is to increase conversion of local members to national members**

C- The data showed the effect on membership when the conference is hosted locally. The data indicated that national membership increases in a local section when the conference is hosted in close proximity to that section. Only 35% of our members were consistent members over the 11-year period and around 40% of members were members for less than 5 years over the 11-year period studied. **The third best opportunity to increase CGS membership is to increase membership loyalty.**

D- The number of CGS members registering for the first time has not increased since 2016. **The fourth opportunity to increase CGS membership is to increase the number of new members** (principal potential sources of new members are government employees, members living far from big centers and women).

The survey analysis highlighted various issues regarding the way the CGS works and operates, and also allowed to get important feedback from our members. The survey showed that reasons invoked for being a member (all age groups considered) are roughly split in half between technical

and social development, it appears that there are no significant differences amongst the age groups. Reasons invoked to explain non-membership are diverse but the three principal reasons were that:

- non-members find the membership price too expensive,  
Note: The two youngest age groups (22 to 27 and 27 to 35) were most concerned with the cost of membership.
- their adhesion to a local CGS sections is enough and
- they don't see value in being a member.

The proposed solution for leveraging our opportunities were based on the feedback the members gave in the survey, particularly on the open questions. To increase membership and enhance member experience, the MC proposes to:

- 1. Understand & market the value of being a CGS Member** and promote it with a better communication strategy (social media, E-news)
  - Put together a video on the benefits of being a member – for website, to play at sections;
  - Put together a communication campaign for YP/Students;
  - Give stories of how being a member or volunteer has helped people, on social media (maybe do some social media advertising);
  - Only give Webinar access to national members.
- 2. Promote / Encourage Volunteering:** The survey showed that members don't know what volunteer role they could fill within the CGS, but would fill a role if it was the right opportunity. It is believed that a member who volunteered within the CGS is more likely to be a loyal long-term member.
  - Better promotion of volunteering opportunities (social media, etc.).
- 3. Improve communication and be closer to our members**
  - Respondents of the survey were suggesting initiatives that are already exist. Current and new initiatives need to be communicated better;

- Survey showed that members wanted to know how the CGS operates. This type of information should be communicated better (video, presentation, etc.). Survey answers and discussions done with members suggest that our members want a more open CGS;
- Communication of events: One central platform to record all CGS Event for all groups;
- Geotechnical News is mostly popular with the Above 60 age group. A redesign could increase the popularity of that medium in younger age group;
- E-news is the most popular media source, although it should be noted that Social media had not been used much at the time of the member survey. Redesign of the E-news could allow to better communicate our news (pictures, less text, new design).

#### **4. Encourage Young professionals to become or stay CGS members:**

- Have a lower fee for EITs: The member survey indicates that the cost of membership is an important reason why the YP are not members. This initiative would be put forward to increase the conversion rate from student to regular members and also, decrease the number of student members missing a few years after graduation;
- Host networking events with non-YP members to attract new YP and welcome them in the CGS community;
- Continue the YP program;
- Since YP are considered by the MC as the most significant opportunity to attract new regular members, the communication strategy should be updated towards them. CGS National should be more visible on social media and develop a digital version of the Geotechnical News magazine.
- It is recommended to continue the discussion with students/YP about how to engage them in the future. Many YP have reached out to the CGS because they wanted to get involved and volunteer in the last 6 months, but they couldn't find a position. How can we keep interested volunteers (and members) when there are no position currently open.

**5. Increase conversion of local members to national members:** This opportunity consists in promoting to local members who are not national members how the CGS National is involved in the section activities.

- Abolish local membership registration fee. These are put forward by only 4 of the 20 sections. The Member Survey answers and discussions with members have highlighted the fact that some members think they are part of CGS National when paying the local membership. Paying for local events could still be permitted to allow local sections to cover their costs, to promote and host events, etc. It is suggested to encourage the sections to give discount rates to CGS national members for their events;
- Promote what the CGS provides for the local sections. The Member Survey answers and discussions with members highlighted the fact that some local members think that students sent to the conference each year is solely sponsored by the local sections, even if CGS National provides most of the sponsorship, and that CCLTs are funded by the local sections. It should also be highlighted that the activities of a local section are mainly covered by the conference profits, which is split with the national;
- Foster closer ties with local sections' executive committee which are CGS ambassadors with our members. Implement a CGS Membership Presentation (maybe with a video) on the benefits of being a CGS Member and how the CGS operates for the new volunteers (and even new members);
- Work on CGS National & Local Section connections: The results of the membership data analysis show a great opportunity for CGS Membership in the following local sections: East of Québec (Québec), Northern Saskatchewan (Calgary), Southwestern Ontario (Toronto) and Western Québec (Montréal). It is recommended to reach out to the sections with low conversion rate or a decreasing membership (Alberta) to conduct interviews to better understand the situation.

**6. Increase the number of new members:**

- Joint events with other organizations;
- Leverage technology for chapters: Increase webinars to reach out to members outside of big centers (i.e. use video webcasting/zoom – have a shared licence);

- Webinars content could be used from previous CGS national conferences. One webinar opportunity would be the short courses offered at the annual conferences to reach out to those that can't attend the conferences.

### **Final remark**

It is recommended to pass on the information and recommendations from the CGS Member Survey report to the specific body (i.e. communication to the communication task force, etc.).

It is recommended to have interviews with people who completed the survey to better understand some of the problems identified by the MC. Some survey respondents indicated that they agreed to be contacted.

The MC suggests fixing the registration process for complimentary students so that in the future we can correctly monitor the age of CGS members. Also, it is recommended to continue to feed the membership database and be consistent with the entries so the membership committee can continue to monitor the membership. It is recommended to actualize the Membership Analysis every 5 years.

## **5 References**

- 1- <http://blogue.oiq.qc.ca/femmes-en-genie/les-femmes-en-genie-au-Québec-portrait-et-perspectives/>
- 2- Personal communication with Malika Daoud, Conseillère senior en communication de l'Ordre des Ingénieurs du Québec, dated of the 17 July 2019.
- 3- Membership Committee (chair Charles Kwok) (2004). Membership Report

## **Appendix A: English version of the survey**

# Canadian Geotechnical Society - Survey

This survey was created to understand how the Canadian Geotechnical Society (CGS) can encourage memberships, bring greater value to our existing members, and encourage participation in CGS internal groups. Results will be used to inform decisions for membership, initiatives, and other areas. This information is collected confidentially, unless you elect at the end of the survey to provide contact information. The survey was written by the CGS Membership Committee (information here: [https://www.cgs.ca/committee\\_membership.php](https://www.cgs.ca/committee_membership.php)). If you have questions, contact [membership@cgs.ca](mailto:membership@cgs.ca).

## 1. How old are you?

*Mark only one oval.*

- Below 22
- Between 22 to 27
- Between 27 to 35
- Between 35 to 45
- Between 45 to 60
- Above 60

## 2. What are you currently doing in your career? (Select all that apply)

*Check all that apply.*

- Student (undergraduate, graduate)
- Work for an educational/research institute
- Work for a consulting firm
- Work for a supplier (e.g. software, instrumentation, etc.)
- Work for a contractor
- I'm retired
- Other: \_\_\_\_\_

## 3. Do you reside in Canada?

*Mark only one oval.*

- Yes
- No

**4. Are you currently a member of the CGS?**

*Mark only one oval.*

- Yes      *Skip to question 5.*
- No; have never been a member      *Skip to question 6.*
- No; not currently a member, but have been a member in the past      *Skip to question 6.*
- No; not currently a CGS national member, but am a member or on a mailing list for a CGS local section      *Skip to question 6.*

## **Membership**

**5. What motivates you to be a member? (Select all that apply)**

*Check all that apply.*

- Networking with other professionals
- Access to resources (e.g. Canadian Geotechnical Journal, annual conference proceedings, etc.)
- Opportunities for professional development
- Give back to the professional community
- Stay informed with technical developments in the profession
- Other: \_\_\_\_\_

*Skip to question 7.*

## **Membership**

**6. Why are you not a member? (Select all that apply)**

*Check all that apply.*

- I do not have the time
- I'm part of other professional organizations
- I don't see the value in being a member
- I seek professional networking elsewhere
- I keep up to date with technical developments elsewhere
- I am part of a CGS local section and have enough benefits through the local section
- Cost of a membership is too expensive
- Other: \_\_\_\_\_

## **Volunteering**

**7. Do you volunteer for the CGS?**

*Mark only one oval.*

- Yes      *Skip to question 8.*
- No, because I don't have time      *Skip to question 9.*
- No, because I don't know what volunteer roles I could fill      *Skip to question 9.*
- No, because I'm not interested in volunteering      *Skip to question 9.*
- No, because I already volunteer with other professional organizations      *Skip to question 9.*
- Other: \_\_\_\_\_ *Skip to question 9.*

## Volunteering

**8. What motivates you to volunteer? (Select all that apply)**

*Check all that apply.*

- Networking with professionals
- Gain professional development experience and add to my resume
- Give back to the professional community
- Share technical developments
- Other: \_\_\_\_\_

*Skip to question 10.*

## Volunteering

**9. Would you consider volunteering for the CGS?**

*Mark only one oval.*

- Yes, definitely
- Maybe, if the right opportunity was available
- No
- Other: \_\_\_\_\_

*Skip to question 10.*

## News from the CGS

**10. Would a new format and redesign of CGS' Geotechnical News magazine encourage you to read the it more often?**

*Mark only one oval.*

- Yes
- No
- Maybe
- I find the magazine fine as it is right now

**11. Where would you like to get your news from the CGS?**

*Check all that apply.*

- CGS' website
- E-News (email newsletter)
- CGS Geotechnical News magazine
- LinkedIn
- Twitter
- Instagram
- Facebook
- Other: \_\_\_\_\_

**12. Would you like to get news from other CGS local sections?**

*Mark only one oval.*

- Yes
- No

## The CGS

**13. What is the CGS initiative/event/resource that you get the most value from? (Select all that apply)**

*Check all that apply.*

- Canadian Geotechnical Journal
- Annual conference and proceedings
- Geotechnical News
- CGS website
- Local and national meetings, short courses, workshops
- Other: \_\_\_\_\_

**14. If you could change or add one initiative to the CGS, what would it be? Why?**

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**15. What would you like to learn about the CGS?**

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**16. Is there anything else you would like to share with us?**

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**17. Would you be comfortable with a CGS member contacting you about this survey? We may request a follow-up conversation to further understand how we can add value to our CGS members.**

*Mark only one oval.*

- Yes      *Skip to question 18.*  
 No      *Stop filling out this form.*

## Contact information

Please provide your contact information below.

**18. First name**

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**19. Last name**

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**20. Email address**

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**21. Phone number**

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## **Appendix B: French version of the survey**

# Société canadienne de géotechnique - Sondage

Ce sondage a été créé par la Société canadienne de géotechnique (SCG) afin de mieux comprendre comment elle peut encourager l'adhésion de nouveaux membres, augmenter la valeur ajoutée qu'elle apporte à ses membres existant et encourager la participation à des groupes internes de la SCG. Les résultats qui en découleront guideront les décisions concernant l'adhésion des membres, les nouvelles initiatives de la SCG et bien d'autres. À moins que vous acceptiez de fournir vos informations de contact à la fin du sondage, les résultats recueillis dans ce sondage demeureront confidentiels. Ce sondage a été élaboré par le Comité du membrariat de la SCG (plus d'information ici: [https://www.cgs.ca/committee\\_membership.php](https://www.cgs.ca/committee_membership.php)). Pour toute question, contactez [membership@cgs.ca](mailto:membership@cgs.ca).

## 1. Quel âge avez-vous?

*Marquez un seul ovale.*

- Moins de 22 ans
- Entre 22 et 27 ans
- Entre 27 et 35 ans
- Entre 35 et 45 ans
- Entre 45 et 60 ans
- Plus de 60 ans

## 2. Professionnellement, que faites-vous présentement? (Sélectionnez tous ceux qui s'appliquent)

*Cochez toutes les réponses qui s'appliquent.*

- Je suis étudiant (bacc., maîtrise, doctorat)
- Je travaille pour un institut d'éducation/de recherche
- Je travaille pour une firme de consultants
- Je travaille pour un fournisseur (ex. logiciel, instrumentation, etc.)
- Je travaille pour un entrepreneur
- Je suis retraité
- Autre : \_\_\_\_\_

## 3. Vivez-vous au Canada?

*Marquez un seul ovale.*

- Oui
- Non

**4. Êtes-vous présentement membre de la SCG?**

*Marquez un seul ovale.*

- Oui      *Passez à la question 5.*
- Non, je n'ai jamais été membre      *Passez à la question 6.*
- Non, mais j'ai déjà été membre      *Passez à la question 6.*
- Non, mais je suis sur une liste de distribution d'un section local de la SCG      *Passez à la question 6.*

**5. Qu'est-ce qui vous motive à être membre? (Sélectionnez tous ceux qui s'appliquent)**

*Cochez toutes les réponses qui s'appliquent.*

- Réseauter avec d'autres professionnels
- Accéder à des ressources (ex. Revue canadienne de géotechnique, actes des Conférences canadiennes de géotechnique, etc.)
- Opportunités de développement professionnel
- Redonner à la communauté professionnelle
- Demeurer informer sur les développements techniques dans la profession
- Autre : \_\_\_\_\_

*Passez à la question 7.*

**6. Pourquoi n'êtes-vous pas membre? (Sélectionnez tous ceux qui s'appliquent)**

*Cochez toutes les réponses qui s'appliquent.*

- Je n'ai pas le temps
- Je fais partie d'autres organisations professionnelles
- Je ne vois pas l'avantage d'être membre
- Je recherche des opportunités de réseautage ailleurs
- Je reste à jour des développements techniques dans ma profession autrement
- Je fais partie d'une section locale de la SCG et cela me suffit
- Les coûts d'adhésion sont trop élevés
- Autre : \_\_\_\_\_

**7. Faites-vous du bénévolat pour la SCG? (Sélectionnez tous ceux qui s'appliquent)**

*Marquez un seul ovale.*

- Oui      *Passez à la question 8.*
- Non, je n'ai pas le temps      *Passez à la question 9.*
- Non, je ne sais pas quel rôle je pourrais jouer      *Passez à la question 9.*
- Non, je ne suis pas intéressé à m'impliquer      *Passez à la question 9.*
- Non, je m'implique déjà dans d'autres organisations professionnelles      *Passez à la question 9.*
- Autre : \_\_\_\_\_ *Passez à la question 9.*

**8. Qu'est-ce qui vous motive à faire du bénévolat pour la SCG? (Sélectionnez tous ceux qui s'appliquent)**

*Cochez toutes les réponses qui s'appliquent.*

- Le réseautage avec d'autres professionnels
- Le développement professionnel et son addition à mon CV
- Redonner à la communauté professionnelle
- Partager des développements techniques dans la profession
- Autre : \_\_\_\_\_

*Passez à la question 10.*

**9. Considéreriez-vous faire du bénévolat au sein de la SCG?**

*Marquez un seul ovale.*

- Oui, certainement
- Peut-être, si la bonne opportunité se présente
- Non
- Autre : \_\_\_\_\_

**10. Quel initiative/événement/ressource de la SCG vous apporte le plus? (Sélectionnez tous ceux qui s'appliquent)**

*Cochez toutes les réponses qui s'appliquent.*

- Revue canadienne de géotechnique
- Actes des Conférences canadiennes de géotechnique
- Revue Geotechnical News
- Site web de la SCG
- Événements locaux et nationaux, cours, ateliers
- Autre : \_\_\_\_\_

11. Si vous pouviez changer ou ajouter une initiative au sein de la SCG, que serait-elle?  
Pourquoi?

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12. Qu'aimeriez-vous savoir à propos de la SCG?

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13. Avez-vous autre chose à partager avec la SCG?

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14. Accepteriez-vous d'être contacté par un membre de la SCG au sujet de ce sondage? Nous pourrions vous demander des précisions afin de mieux comprendre comment nous pouvons en donner plus aux membres de la SCG.

Marquez un seul ovale.

- Oui      *Passez à la question 15.*  
 Non     *Arrêtez de remplir ce formulaire.*

## Informations de contact

Merci de fournir vos informations de contact ci-dessous.

15. Prénom

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16. Nom

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**17. Adresse courriel**

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**18. Numéro de téléphone**

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Fourni par

