

Who is Climbing

Understanding Participants Within Climbing Escalade Canada

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Background Information

Over the last 10 years, climbing has surged in popularity across Canada. This surge is expected to continue in the coming years as the sport makes its Olympic Games debut in Tokyo in 2021. The rise in climbing's popularity has coincided with significant growth in the number of commercial climbing gyms in Canada. Currently, there are over 115 commercial climbing gyms across Canada, which is three times the number of commercial gyms that existed 10 years ago.¹

Climbing Escalade Canada (CEC) is the national governing body for climbing. Most of CEC's history has seen the organization responsible for identifying high-performance climbers for the national team and organizing elite level competitions. However, due to the rapid rise in popularity of climbing, CEC is researching potential partnership and collaboration opportunities with commercial climbing gyms. Establishing community-based programs as members allows CEC to better track participation in the sport as it continues to rise quickly, standardize programming across the country, and improve the sharing of resources in the Canadian climbing community.² To ensure that effective programming and partnerships are established, CEC has sought to develop a better understanding of the characteristics of those who make up the Canadian climbing community. Specifically, this survey project was designed to offer insights into the demographics of the Canadian climbing community as well as the perceived constraints and facilitators to participating in climbing.

This report outlines the findings of the survey project. The findings of this study can help inform the implementation of CEC's strategic plan. Specific attention will be paid to the survey results that provide insight on what motivates women and other marginalized groups to participate in climbing, as well as any specific constraints to participation these groups may face. These results can also be used to support the work of CEC's newly formed Diversity and Inclusion Committee (DIC). The DIC is focused on establishing policies and programming that will make climbing more inclusive of women and other marginalized groups. Overall, the project described here was designed with the intention of informing and strengthening CEC's operations and enhancing stakeholders' experiences.

Methodology

Method

An anonymous online survey was created using Qualtrics Survey Software. The survey consisted of five parts, including:

- Climber characteristics (i.e., preferred discipline, years of experience)
- Motivations for climbing
- Constraints to participating in climbing
- Perceptions of equity, diversity, and inclusion in the climbing community
- Demographic information

The survey consisted of mostly multiple-choice questions and a small number of open-ended text boxes in which participants could type comments. Questions were made available in both English and French.

The survey was advertised via online posts, social media, and email between March 1st and April 7th, 2021. All members of the Canadian climbing community who were 13 years of age or older were invited to complete the survey. Participants did not receive compensation for completing the survey.

This study was reviewed by and received ethics clearance from the University of Waterloo Research Ethics Committee (ORE#42271).

Data Analysis

Survey responses were downloaded from the Qualtrics web platform and cleaned to remove any blank or incomplete responses. Climber characteristics; constraints to participating in climbing; perceptions of equity, diversity, and inclusion in the climbing community; and demographic information were summarized using descriptive statistics (i.e., frequencies). Motivations for climbing were compiled by computing means for each subscale in the Rock Climbing Motivation Scale.³ Inferential statistics (i.e., independent [i.e., two-sample] t-tests for two groups or two-way analyses of variance [ANOVAs] for three or more groups) were used to compare motivations, constraints, and perceptions of equity, diversity, and inclusion by gender (women, men, and gender minorities) and race / ethnicity (racialized, white). The use of a two-way ANOVA also allowed for an understanding of any interactions between gender and race / ethnicity. Findings were considered significant at $p < .05$. All statistical analyses were performed using JASP statistical software (<https://jasp-stats.org/>).

Findings

A total of 1,015 responses were received, of which 844 were fully completed and deemed valid for analysis. The remaining 171 incomplete responses were removed from the study. Of the 844 responses, 638 (76%) were in English and 206 (24%) were in French. The overall response rate was not possible to calculate due to the survey being advertised through a variety of online communication mediums; therefore, it is not known how many eligible respondents received or saw the link that allowed participants to access the survey. The following subsections offer insights and potential implications from the five sections of the survey.

Demographics of Climbers

Gender

Most survey respondents identified as women (52%), while 45% identified as men. Five percent (5%) of respondents belonged to a gender minority, including gender non-binary, gender fluid, genderqueer, transgender, two-spirit (as it relates to gender identity), and not sure or questioning. Please note that some respondents identified with more than one gender identity. Appendix A provides a detailed overview of the gender identities represented in the sample.

Racial and Ethnic Background

The racial and ethnic identities of survey respondents consisted of 74% white and 26% racialized. Of those who were racialized, most respondents identified as East Asian (11%) and Southeast Asian (4%). Please note that each category also includes people who identified as being of a mixed race (i.e., the race / ethnicity reported, plus one or more other racial / ethnic categories). Appendix B provides a detailed overview of the racial /ethnic identities represented in the sample.

Age

Survey respondents were relatively young, between 26-29 (23%) or 30-34 (20%) years of age. However, the age of respondents ranged from being under 16 years old (4%) to being over 50 years of age (5%). Please note that respondents were asked to report their age as of January 1st, 2021.



Persons with a Disability

Five percent (5%) of respondents reported having a disability. The specific classification of disabilities that respondents reported were:

- Cognitive or mental (3%)
- Physical (1%)
- Sensory (<1%).

Sexual Orientation

Seventy-nine percent (79%) of respondents identified as heterosexual (i.e., straight). Nineteen percent (19%) of respondents identified with one or more other sexual orientations, including asexual / non-sexual, bisexual, gay, lesbian, queer, pansexual, two-spirit (as it relates to sexual orientation), and not sure or questioning.

Household Dynamics

Most survey respondents described that they live in one of three types of households:

- Couple, no children (38%)
- Single, no children (32%)
- Couple, with children (19%).

Education and Employment Status

Survey respondents were highly educated, with 33% reporting a Bachelor's degree and 21% reporting a graduate degree (e.g., Master's, PhD) as their highest level of educational attainment. The majority (58%) of respondents were employed full-time at the time of survey completion; for most (63%), this was their primary source of income.

Socioeconomic Status

The survey sample was of a high socioeconomic status, with 31% of participants reporting a household income of \$100,000 or greater. The remaining survey respondents were fairly evenly distributed across the various income categories below this threshold:

- \$0 - \$24,999 (10%)
- \$25,000 - \$49,999 (18%)
- \$50,000 - \$74,999 (16%)
- \$75,000 - \$99,999 (15%).

Location and Primary Language

All Canadian provinces and territories were represented in the sample; however, the majority came from Québec (48%), Ontario (21%), and British Columbia (17%). Appendix C details the number of respondents from each province or territory. Due to the location of most respondents, it was unsurprising that participants spoke mostly English (46%), French (32%), or both (16%). However, respondents also reported speaking over a dozen other primary languages, with Spanish, Russian, and Cantonese being among the top three.

Climbing-Specific Characteristics

This section describes respondents' involvement and participation in the climbing community.

Role Within the Climbing Community

Most respondents were recreational climbers (89%). Most of the remaining types of involvement within the climbing community that respondents reported were competitive climbers (15%), routesetters (11%), and gym staff / owners (11%). Table 1 offers a complete breakdown of respondents' involvement within the climbing community. Please note that respondents were asked to select all the roles and types of involvement that applied to them at the time of completing the survey.

Years of Experience

Survey respondents were relatively experienced climbers, with most reporting that they had been climbing for between 3 and 5 years (34%). An additional 28% of respondents reported climbing for over 10 years. Table 2 details the ranges in years of climbing experience for respondents.

Role in the climbing community	Percent (# of respondents)
Recreational	89 (750)
Competitive	15 (125)
Routesetter	11 (91)
Gym staff/owner	11 (91)
Climbing coach	7 (63)
Parent	4 (33)
Manager	2 (16)
Official	2 (14)
Other	4 (36)

Table 1: Role Within the Climbing Community

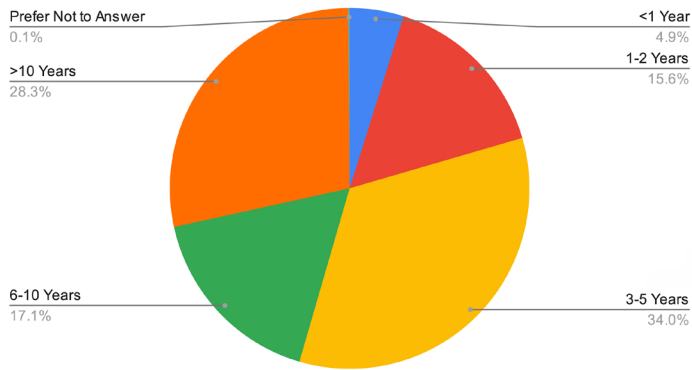


Figure 2: Years of Climbing Experience

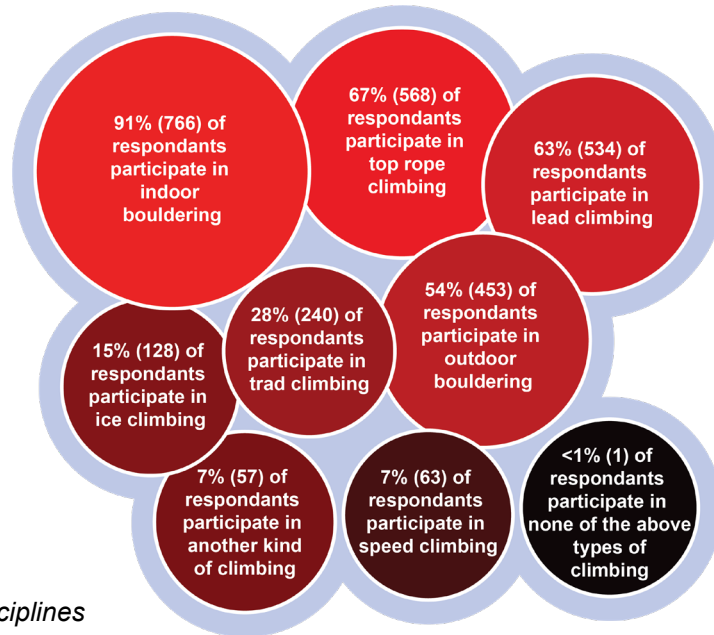


Figure 3: Preferred Climbing Disciplines

Preferred Climbing Disciplines

Most respondents reported participating in indoor bouldering (91%). The next most reported disciplines were top rope (67%) and lead (63%). Figure 3 offers details on all the climbing disciplines reported by respondents. Please note that respondents were asked to select all the climbing disciplines in which they participated at the time of completing the survey.

Time Spent Climbing

Outside of pandemic restrictions, respondents typically climbed at an indoor facility 2 to 3 times per week for between 1 and 3 hours per visit. Figure 4 details the average amount of time respondents reported spending at a climbing gym per visit. Respondents spent the least amount of time climbing at indoor facilities during the summer months (i.e., June to August). Appendix D offers a complete breakdown of the average number of times respondents climb at an indoor facility per season.

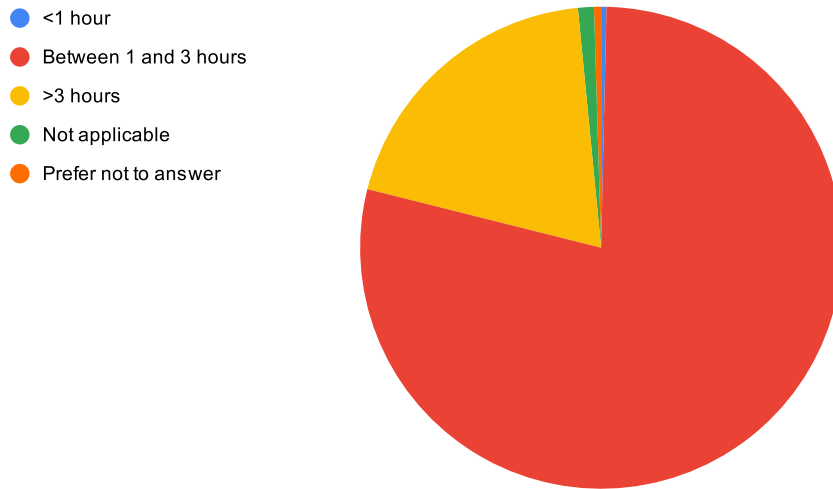


Figure 4: Average Time Spent at a Climbing Gym Per Visit

Climbing Gym Memberships

Nearly three-quarters of respondents (71%) reported having a yearly or monthly membership to a climbing gym. Interestingly, several respondents (13%) noted that they were employees of their local gym and received a free membership as a benefit of their employment (this accounted for a large proportion of the respondents who answered “Other”). Figure 5 details the variety of climbing gyms memberships respondents held.

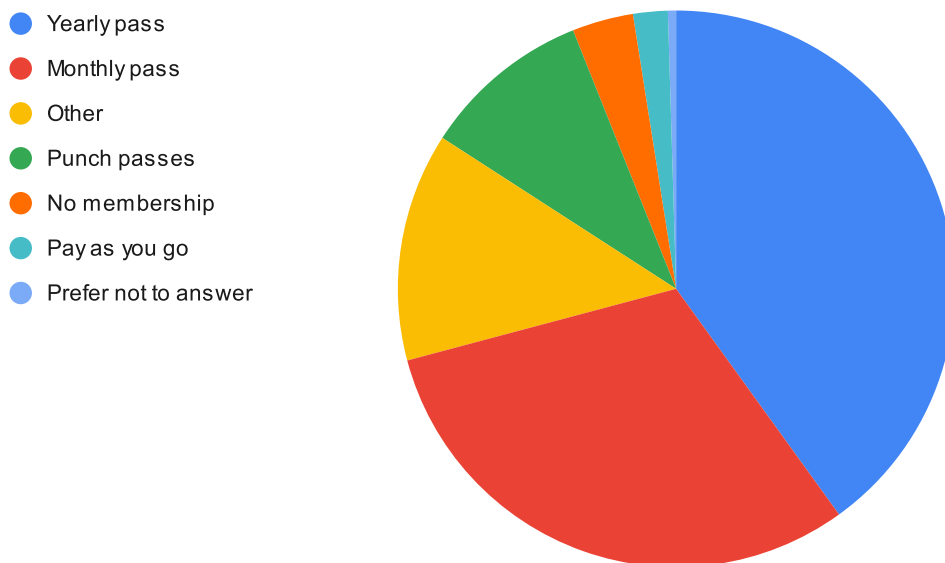


Figure 5: Climbing Gym Membership Types

Adaptive and Paraclimbing Participation

Four percent (4%) of respondents reported having tried an adaptive climbing method or paraclimbing (see Figure 6), and 2% of respondents reported using these methods regularly (see Figure 7).

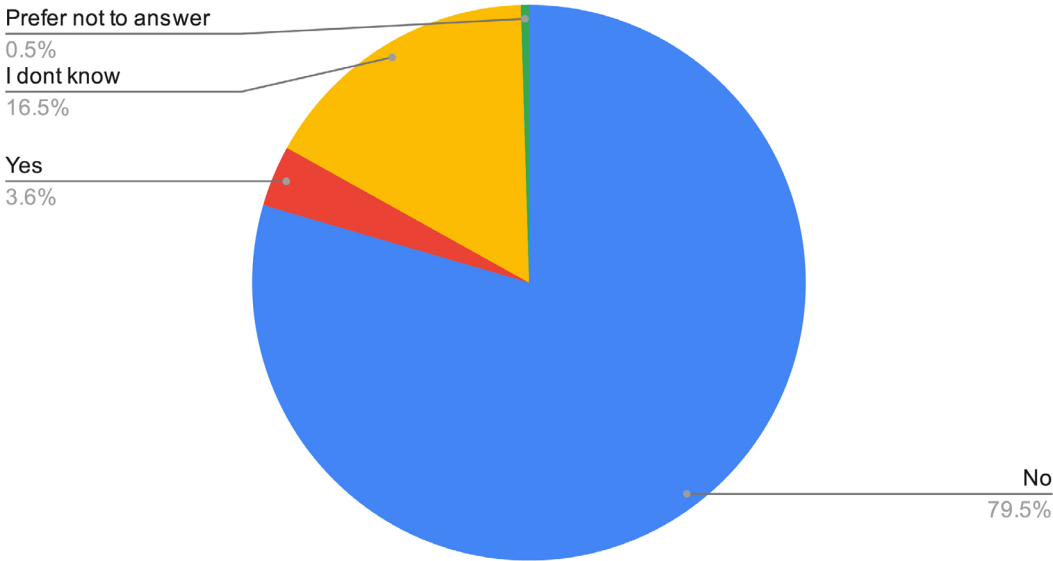


Figure 6: Participation in Adaptive or Paraclimbing

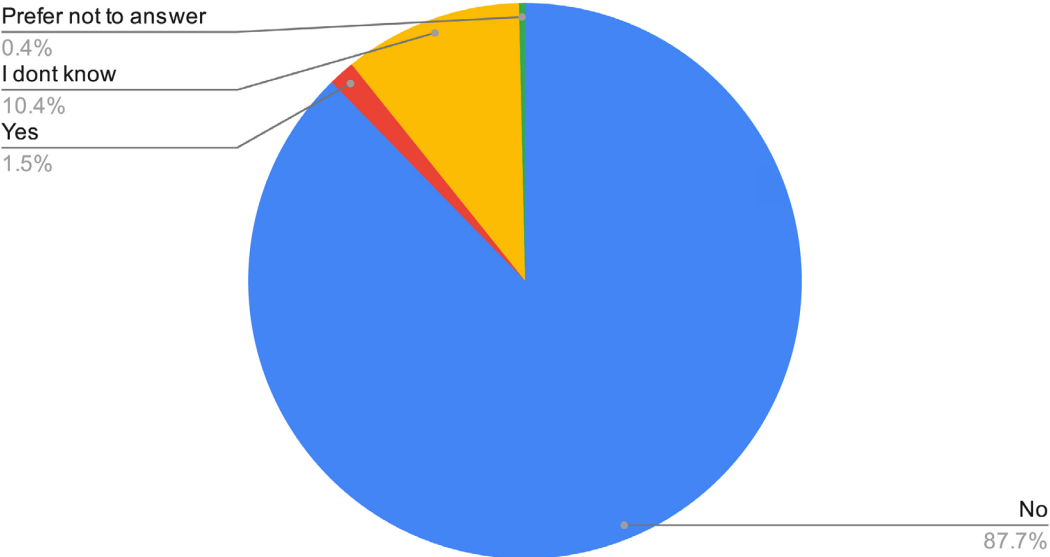


Figure 7: Regular Participation in Adaptive or Paraclimbing

It is important to note that the demographics and climbing profiles reported here reflect those who responded to the survey, which may not exactly match the characteristics of the climbing community itself. For the remainder of this report, gender and race / ethnicity were the focus of analysis for this study because they are typically the most visible and salient demographic variables. Furthermore, with gender and race / ethnicity the focus for analysis it allowed the project to align with the specifications of SIRC's Match Grant Program, which funded the study. Going forward, future research can use the additional demographic variables collected here (i.e., age, sexual orientation, income, education) to further enhance the understanding of Canadian climbers and their experiences.

Motivations for Climbing

Respondents' motivations for participating in climbing were assessed using the Rock-Climbing Motivation Scale.³ In accordance with this scale, motivations were assessed using five factors: control, escape, social influences, sensation seeking, and competition. Overall, the most prominent motivation for respondents was control, followed by escape and social influences. Table 8 presents the results for the statistical analysis of respondents' motivations for climbing. Please note that respondents were provided an open-ended question to expand on their responses to what motivates them to participate in climbing. Many of the comments shared by respondents are reflective of the factors in the Rock-Climbing Motivation Scale and some are shared below.



Motivation	Mean (SD)
Control (2 items, such as being in control of oneself and mastering a challenge)	6.09 (0.84)
Escape (3 items, such as being relaxed and at peace)	5.75 (1.04)
Social Influences (6 items, such as being with friends and having fun)	5.72 (0.90)
Sensation Seeking (3 items, such as pushing the limits and taking physical risks)	5.31 (1.06)
Competition (4 items, such as actively competing with others)	3.34 (1.70)

On a scale of 7 = A lot like me to 1 = Not at all like me...
 Full scale is presented and described in Ackerman.³
 SD = standard deviation.

Table 8: Motivations for Climbing

Control

Control was the motivator with which participants identified the most. This is consistent with previous research conducted with climbers as control has long been known as a main motivation for participating in climbing. Specifically, climbers often seek a sense of mastery or personal control resulting from meeting the challenges set by their physical surroundings.^{4,5} In the present study, control as a motivator was assessed using two items: “being in control of oneself” and “mastering a challenge.” Several respondents offered greater detail as to how control motivates them to climb:

“[I climb] for both the physical and mental challenge. To surpass myself. It’s also a sport where one starts where they are, with their current abilities.”

“[Climbing is] all about confronting things head on. You can shy away from something challenging, and it sticks with you to go back to try again and again, until you make progress.”

“I participate in climbing because it forces me to confront my fears (heights) and weaknesses (strength, mental toughness). I like that it involves problem solving.”

Escape

Respondents identified escape as the second most common motivator for climbing. Like control, escape has been considered a longstanding motivator for climbers. Specifically, climbing has been equated to providing a sense of calm, peace, and overall release of tension for participants.^{4,5,6} In the present study, escape as a motivator was assessed using three items: “being at peace,” “being relaxed,” and “escaping for a while.” Some of the ways respondents described climbing as an escape included:

“Climbing is a really important stress reliever and escape for me. It helps a lot with my mental health over time and I absolutely love it!”

“I love climbing because when I climb, I don’t think about anything else, I empty myself, it’s just pure concentration on the rock and the body.”

“I utilize climbing to combat addiction and depression. It also gives me goals to achieve as well as personal physical and mental growth.”

Social Influences

Social influences were identified as the third most common motivating factor for respondents. Social benefits are often noted as drivers for participation in most recreational pursuits. In climbing, the social dynamic of climbing partners and groups have been deemed essential to maintaining a climber’s motivation to participate in the sport.^{4,7} In this study, social influences as a motivator were assessed using six items: “being with friends,” “having fun,” “being part of a group,” “being with people I know,” “having a partner who motivates me,” and “to meet new people.” Several respondents offered insight into how and why social influences motivated them to climb:

“Climbing is about having fun and hanging out with friends.”

“Personally, I had my fair share of sports that I participated in; climbing is the only one that really stuck. The sport itself is super addicting. Being able to knock off problem after problem or finish that project you were working on for weeks, is very rewarding. I think a big part of what makes climbing fun is the community, it’s nothing but stoke and support for each other. I come in to climb and I have strangers who share beta and cheer me on when I’m climbing, I honestly wouldn’t be able to find that experience anywhere else.”

“It’s you against the wall, not the person next to you ... I didn’t know many climbers coming in, but you don’t even need to know a person’s name to tell them they did a good job or ask for beta. There’s no room for negativity in the gym and it radiates. Climbing rocks!”

“Climbing is one of my main forms of social time, it [allows me to] build upon pre-existing trust with others.”

Sensation Seeking

Sensation seeking was identified as the second-least prominent motivating factor for participating in climbing. Sensation seeking is the pursuit of a novel or complex sensation(s) or experience(s) through a willingness to take physical and social risks.⁸ In this survey, sensation seeking was assessed as a motivator using three items: “feeling a rush of adrenaline,” “taking a physical risk,” and “pushing the limits.” Consistent with previous climbing research, sensation seeking has a limited influence in motivating climbers who participated in this study; however, some respondents did comment on the thrills and sensations they experience from climbing:

“One of the things that motivates me is getting to be in places where you can’t get to unless you climb.”

“I like rock climbing as it offers a different type of physical challenge compared to other types of sport. It offers a different challenge to complement the other sport that I do.”

“I would qualify myself as a risk-taker, but not as reckless. There has to be some risk for me to enjoy an activity. I feel most alive when pushing myself to the edge of fear, but controlling the response.”

Competition

Lastly, competition was scored as the least motivating factor for respondents. Within the climbing community, competition is often reserved for “sport” climbers or those focused on training for climbing competitions.^{3,4} Here, competition as a motivating factor was assessed using four items: “to be highly competitive,” “to actively compete with others,” “to participate in competition,” and “to seek out competition.” The results presented here are consistent with previous research on climbers as competition scored well below the other four motivating factors; however, several respondents still identified competition as being a key motivator of their participation in the sport. For example, respondents noted:

“The competitive community of climbing is incredibly strong and friendly; we push even our rivals to exceed their limits both in training and in competition. I’ve never seen any other sport that is so supportive of each other’s’ successes. I do have very big goals competitively, so while it may feel weird and sometimes that I may not match up ability-wise, I’m very appreciative of the amount of support and friendly rivalry that is involved in climbing.”

“I like participating in competition, but I would definitely still climb and not compete... When projecting with friends with a similar skill level I feel a competitive drive.”

“I live to compete all the time! I climb beachside, I live it and its super fun! I have met so many amazing people in the climbing community and have made lots of friends it allows me to do something I love, compete, and be with friends so it’s always a win-win situation!”



Other Motivators

Respondents detailing their motivations to participate in climbing revealed additional motivators not covered by the Rock Climbing Motivation Scale. Specifically, several respondents noted a commitment to fitness as a key motivator for their participation in climbing. For example, one respondent stated:

“I climb for fitness ... I don’t care for team sports or standard gym workouts so climbing serves a particular niche in this way.”

Additionally, respondents highlighted climbing's ability to provide life-long participation regardless of skill or ability as a central motivator for taking part in the sport. For example, a respondent detailed:

“As a coach and father of competitive climbers, but not a great or experienced climber myself, what I love the most about climbing is its capacity to be a sport for life.”

Motivations for Climbing Based on Gender and Race /Ethnicity

Respondents' motivations for climbing were further analyzed to determine whether a climber's gender or race / ethnicity significantly impacted their motives for participating in the sport. For the purposes of analyses involving gender, respondents who identified as both women and a gender minority or both men and a gender minority were grouped in the gender minority category, as it was hypothesized that their experiences would be different from those of respondents who identified as only women or only men. The implications for both gender and race / ethnicity on climbers' motivations for participation are described below.

Gender

Respondents' gender was found to have a significant influence on competition, control, and social influences as motivating factors for participating in climbing.

First, the extent to which competition was perceived as a motivator differed significantly by gender, $F(2,837) = 4.40$, $p = .01$. Men were more likely than women and gender minorities to perceive competition as a motivator; however, only the difference between men and women was statistically significant ($p = .03$).

Second, the extent to which control was perceived as a motivator differed significantly by gender, $F(2,837) = 4.33$, $p = .01$. Men were more likely than women and gender minorities to perceive control as a motivator; however, only the difference between men and gender minorities was statistically significant ($p = .02$).

Third, the extent to which social influences were perceived as a motivator differed significantly by gender, $F(2,839) = 5.49, p < .01$. Women were significantly more likely than men ($p = .02$) and gender minorities ($p = .04$) to perceive social factors as a motivator.

Lastly, the extent to which escape, and sensation seeking were perceived as motivators were not found to differ significantly by gender. Table 9 details the results of the statistical analyses on how respondents' gender influences motivations to climb.

On a scale of 7 = A lot like me to 1 = Not at all like me...

Motivation	Women Mean (SEM)	Men Mean (SEM)	Gender Minorities (SEM)	ANOVA Results
Escape	5.73 (0.05)	5.78 (0.06)	5.64 (0.20)	$F(2,836) = 0.46, p = .63$ (n.s.)
Competition	3.22 (0.08)*	3.52 (0.09)	2.92 (0.29)	$F(2,837) = 4.40, p = .01$ (sig)
Control	6.06 (0.04)	6.17 (0.04)	5.80 (0.19)*	$F(2,837) = 4.33, p = .01$ (sig)
Sensation Seeking	5.25 (0.05)	5.39 (0.05)	5.14 (0.20)	$F(2,838) = 2.45, p = .09$ (n.s.)
Social Factors	5.81 (0.04)**	5.64 (0.05)	5.45 (0.18)	$F(2,839) = 5.49, p < .01$ (sig)

Table 9: Motivations for Climbing Based on Gender

** significantly different from men; ** significantly different from men and gender minorities.*

SEM = standard error of the mean. Sig. = statistically significant; N.s. = not significant.

Race / Ethnicity

None of the motivators were found to differ significantly by race / ethnicity. See Table 10 for the results of the statistical analyses for racial / ethnic influences on motivations to climb.



Motivation	Racialized Mean (SEM)	White Mean (SEM)	T-Test Results
Escape	5.74 (0.04)	5.72 (0.07)	F(1,837) = 0.14, p = .71 (n.s.)
Competition	3.39 (0.07)	3.21 (0.11)	F(1,838) = 1.88, p = .17 (n.s.)
Control	6.11 (0.03)	6.05 (0.06)	F(1,838) = 0.71, p = .40 (n.s.)
Sensation Seeking	5.32 (0.04)	5.27 (0.08)	F(1,839) = 0.35, p = .56 (n.s.)
Social Factors	5.72 (0.03)	5.71 (0.07)	F(1,840) = 0.05, p = .82 (n.s.)

Table 10: Motivations for Climbing Based on Race / Ethnicity
On a scale of 7 = A lot like me to 1 = Not at all like me...

SEM = standard error of the mean. Sig. = statistically significant; N.s. = not significant.

Constraints to Participation

Respondents' constraints to participating in climbing were assessed using a list of commonly noted constraints to participation in recreational pursuits (e.g., lack of time, limited skills, financial requirements).⁹ Respondents were asked to select all the constraints that impact their participation in climbing from a list of 22 items, which are shown in Appendix E. Overall, six constraints were most mentioned by respondents:

- Lack of time (50%)
- Gym membership / access fees (34%)
- Lack of energy or being too tired (31%)
- No one to participate with (28%)
- Transportation issues (24%)
- Time spent on other interests (24%).

Additional constraints to participation that were selected by a smaller number of respondents are presented in Appendix E. Respondents were also allotted the opportunity to expand on the challenges they face to participating in climbing. Many of experiences they shared are reflective of the constraints noted above. For example:

“[My time] climbing is impacted by injuries, school, work commitments, and stress. Plus, a lack of a consistent, well-structured national youth development plan.”

“Gym memberships are very expensive. I have a medical condition that make[s] it more of a challenge. Climbing outside is harder to do when one is a beginner so there is a need to join more experienced people, which can be hard to find early on.”

“My main point of concern remains the costs of access to the centers which are increasingly exorbitant. I quit my [membership] after two consecutive years with a 15% price increase each time. My new gym is now [name of club] because it’s a LOT cheaper but it has fewer routes.”

“[It is] hard to go regularly when closest gym is 30+ minutes away. It’s really tough after work to add in that drive so [climbing] eventually becomes just a weekend thing. But then it’s hard to balance with all the other activities I want to do on the weekend. It’s been an ongoing challenge for the past 3 years to keep climbing as a big part of my life. Miss the days as a kid going four times a week.”



“The majority of the climbing competitions are based around major centres. Given our regional isolation, small town access, and travel (i.e., flights) to a minimum of three events, [it was] difficult to afford qualification for national events. We have since moved to a larger centre and things have changed for us. But it was tough for a few years. I guess that was an us problem, but I am sure that most of the athletes remaining in this region will continue to find it difficult.”

“As an older climber it can be hard to find partners sometimes. Age itself is also an obstacle in staying strong enough to climb at a desired level.”

“Everyone has a different focus on climbing. Some [climbers] are more intense, others casual. Sometimes it can be challenging to find that climbing partner that fits the training goals but you also want to do climbing trips with and build a genuine relationship.”

“My community only has a climbing wall in our public recreation centre. The rec centre management does not really support climbing. Volunteers do all routesetting and equipment care. Access times are very limited.”

Constraints to Participating in Climbing Based on Gender and Race / Ethnicity

The constraints that respondents face with respect to participating in climbing were further analyzed to determine whether a climber’s gender, race / ethnicity, or the interaction of these two identities significantly impacted the constraints they face to participating in the sport. The findings for both gender and race / ethnicity on climbers’ constraints to participation are described below.

Gender

Overall, women and gender minorities reported significantly more constraints to participation than men, $F(2,841) = 17.79, p < .001$. The average number of constraints reported by women and gender minorities was 3.65 (SD = 2.34) and 4.30 (SD = 2.44), respectively, while the average number of constraints reported by men was 2.83 (SD = 2.08). Specifically, climbers’ gender appeared to influence the impact of five types of constraints to participation, including: financial, health-related issues, access to training and skill development programs, fear of discrimination and exclusion, and perceived skill or ability.

First, financial constraints were more prevalent among women and gender minorities than men. For example, gym membership and/or access fees were reported as a constraint by 58% of gender minorities and 40% of women, compared with only 24% of men. A similar pattern was observed for program registration fees, and to a lesser extent, equipment costs.

Second, health-related issues were also more prevalent among women and gender minorities. For example, 23% of gender minorities and 21% of women reported health-related problems as a constraint to participation in climbing, compared with only 14% of men. Similarly, 37% of women and 33% of gender minorities reported a lack of energy / being too tired as a reason for not participating in climbing, compared with only 23% of men.

Third, a lack of access to training / skill development programs and coaching were disproportionately higher for gender minorities than women and men. For example, 25% of gender minorities reported a lack of access to training / skill development programs, compared with 10% of women and 10% of men. The same pattern was observed with respect to coaching but not competitions / competitive teams.

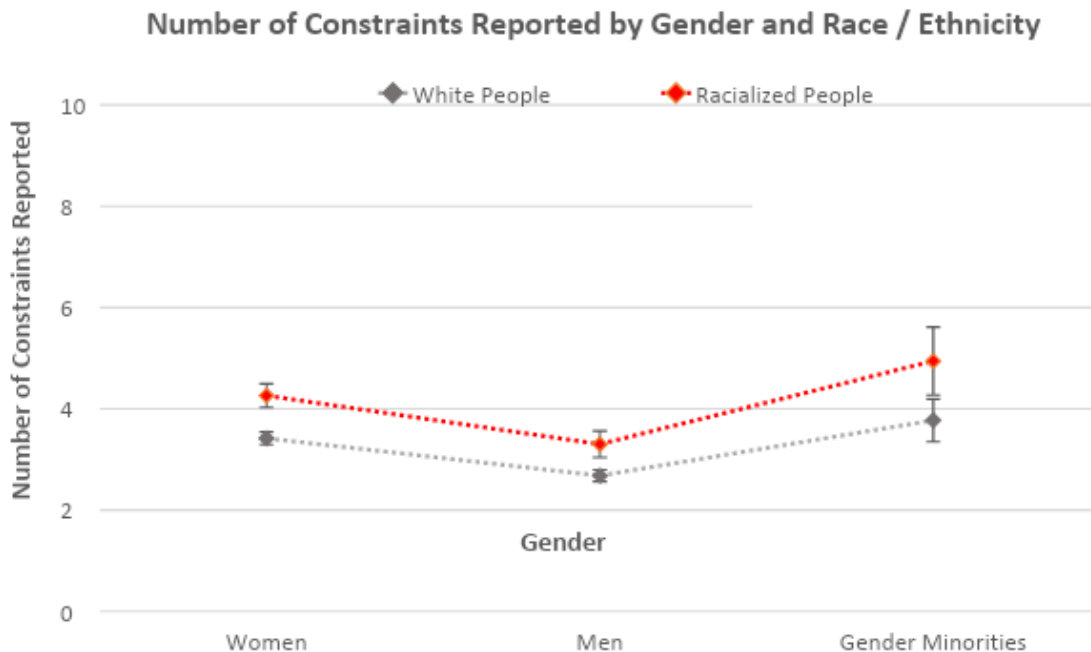
Fourth, the fear of discrimination or exclusion among gender minorities was very high at 40%, compared with 11% for women and 3% for men.

Finally, an interesting pattern was observed with respect to perceptions around a lack of skill / ability. This was reported as a constraint by 20% of gender minorities and 15% of women, compared with only 9% of men. This could indicate gender differences in self-efficacy, perhaps due to stereotype threat.



Race / Ethnicity

Racialized people reported significantly more constraints to participation than white people, $F(1,842) = 23.97, p < .001$. The average number of constraints reported by racialized people was 3.95 (SD = 2.57) while the average number of constraints reported by white people was 3.09 (SD = 2.12). No significant interaction was found between gender and race / ethnicity with respect to the number of constraints reported, $F(2,838) = .36, p = .70$. Overall, racialized people reported more constraints to participation than white people, regardless of their gender (see graph below).



Like gender, a climbers' race/ethnicity appeared to influence the impact of five types of constraints to participation, including: financial, health-related issues, access to training and skill development programs, fear of discrimination and exclusion, and perceived skill or ability.

First, financial constraints were disproportionately higher among racialized people than white people. For example, gym membership and/or access fees were reported as a constraint by 45% of racialized people, compared with only 30% of white people. Similar patterns were observed for program registration fees and equipment costs.

Second, racialized people were more likely to perceive access to training / skill development programs (17%) as a constraint than white people (8%); however, the number of respondents who reported access to coaching as a constraint was similar among both racialized (10%) and white people (8%). The same was true for access to competitions / competitive teams, which was reported as a constraint by 8% of racialized people and 8% of white people.

Third, health-related issues were equally a constraint for both racialized (18%) and white people (18%). However, a lack of energy / being too tired was cited as a constraint for 35% of racialized people compared with 29% of white people.

Fourth, the fear of discrimination or exclusion among racialized people was higher (16%) than among white people (6%).

Lastly, perceptions around a lack of skill / ability were also notable, with 17% of racialized people citing this as a constraint to participation, compared with only 11% of white people.

Perceptions of Equity, Diversity, and Inclusion (EDI) in the Climbing Community

The survey asked respondents to share their perceptions of equity, diversity, and inclusion (EDI) in the climbing community. Overall, respondents somewhat agreed that climbing was a diverse sport. Many positive experiences of EDI in climbing were noted. For example:

“One of the elements of climbing that I love is that both men and women climb at an extremely high level. One might not often see a female athlete [applauded] for her elite skills in other sports but one will definitely see [that happen] for female [climbers].”

However, climbers acknowledged that there is room for improvement regarding efforts to make climbing more inclusive, enhance the sense of belonging, and limit the feelings of loneliness in the sport. Table 11 offers a summary of the overall findings of the perceptions of EDI in the climbing community.

Statement	Mean (SD)	Interpretation
I perceive climbing to be a diverse sport	4.84 (1.84)	Somewhat agree
I see people of the same gender as me in the climbing community	6.23 (1.11)	Agree
I see people from the same age group as me in the climbing community	6.09 (1.25)	Agree
I see people from the same racial/ethnic background as me in the climbing community	6.07 (1.48)	Agree
I feel accepted and welcomed by fellow climbers	6.15 (1.05)	Agree
I feel accepted and welcomed by the climbing gym company (i.e., gym staff and owners)	6.26 (1.05)	Agree
I believe that greater effort needs to be made to decrease barriers to participating in climbing.	5.39 (1.62)	Somewhat agree
I feel like I belong in the climbing community	5.82 (1.20)	Somewhat agree
I feel alone in the climbing community	2.49 (1.40)	Somewhat disagree

*Table 11: Perceptions of EDI in the Climbing Community
On a scale of 7 = Strongly agree to 1 = Strongly disagree..
SD = standard deviation.*

Perceptions of EDI Based on Gender and Race /Ethnicity

Perceptions of EDI were significantly influenced by a respondents' gender and race / ethnicity. The implications of both gender and race / ethnicity are discussed in the following subsections.

Gender

Women and gender minorities were significantly less likely to perceive climbing as a diverse sport than men. They were also significantly less likely than men to see people of the same gender as them in the climbing community, feel accepted and welcomed by others, and feel a sense of belonging in the sport.

Furthermore, in many cases, gender minorities reported an even more challenging experience than women, particularly with respect to seeing people of the same gender as them in the climbing community and feeling accepted and welcomed by others. Gender minorities were also significantly more likely to report feeling alone in the climbing community than any other gender. Table 12 summarizes the findings of how a respondents' gender influences their perceptions of EDI in the climbing community and provides the results of the statistical analyses.

Table 12: Perceptions of EDI Based on Gender

Statement	Women Mean (SD)	Men Mean (SD)	Gender Minorities Mean (SD)	ANOVA Results
I perceive climbing to be a diverse sport	4.57 (0.09)*	5.24 (0.09)	4.00 (0.28)*	F(2,792) = 17.13, p < .001 (sig)
I see people of the same gender as me in the climbing community	6.03 (0.06)*	6.53 (0.05)	5.19 (0.25)**	F(2,792) = 35.96, p < .001 (sig)
I feel accepted and welcomed by fellow climbers	6.03 (0.05)*	6.36 (0.05)	5.40 (0.22)**	F(2,793) = 19.80, p < .001 (sig)
I feel accepted and welcomed by the climbing gym company (i.e., gym staff and owners)	6.19 (0.06)*	6.41 (0.05)	5.43 (0.23)**	F(2,789) = 16.16, p < .001 (sig)
I believe that greater effort needs to be made to decrease barriers to participating in climbing.	5.58 (0.07)*	5.14 (0.09)	5.97 (0.28)*	F(2,774) = 9.17, p < .001 (sig)
I feel like I belong in the climbing community	5.71 (0.06)*	5.99 (0.06)	5.37 (0.20)*	F(2,791) = 8.25, p < .001 (sig)
I feel alone in the climbing community	2.59 (0.07)*	2.30 (0.08)	3.29 (0.24)**	F(2,790) = 10.25, p < .001 (sig)

Table 12: Perceptions of EDI Based on Gender

On a scale of 7 = Strongly agree to 1 = Strongly disagree...

** significantly different from men; ** significantly different from men and women.*

SEM = standard error of the mean. Sig. = statistically significant; N.s. = not significant.

Several respondents expanded on their perceptions of EDI in the climbing community based on their gender. Specifically, some shared:

“I don’t see many gender non-binary climbers in the Canadian climbing community. There isn’t any representation in news articles and magazines. I only see other gender non-binary and trans climbers when I go out with friends and/or local affinity groups. I see lots of white climbers and climbers who are roughly my age (mid 40s). Climbing equipment and grading systems haven’t been designed/developed with my body shape and size in mind. A lot of 5.8 crack climbs are more like 5.10+ for me given the size of gear needed and the size of my hands. Climbing was developed with certain sized white cisgender men in mind.”

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“As a trans climber, a lack of clear policy and statements of inclusion from sports organizations and competition organizers at ALL LEVELS makes me hesitant to compete. I do not know if I will be welcomed and supported by organizers, fellow competitors, and the wider community.”

Race / Ethnicity

Racialized people were significantly less likely to perceive climbing as a diverse sport than white people. They were also significantly less likely than white people to see people of the same gender as them in the climbing community, feel accepted and welcomed by others, and feel a sense of belonging in the sport. Table 13 summarizes the findings of how a respondents’ racial /ethnic background influences their perceptions of EDI in the climbing community and provides the results of the statistical analyses.



Statement	Racialized Mean (SD)	White Mean (SD)	T-Test Results
I perceive climbing to be a diverse sport	4.55 (0.13)	4.95 (0.08)	t(791) = 2.72, p < .01 (sig)
I see people of the same gender as me in the climbing community	4.88 (0.13)	6.50 (0.04)	t(251) = 11.77, p < .001 (sig)
I feel accepted and welcomed by fellow climbers	5.81 (0.09)	6.27 (0.04)	t(304) = 4.99, p < .001 (sig)
I feel accepted and welcomed by the climbing gym company (i.e., gym staff and owners)	6.03 (0.08)	6.34 (0.04)	t(788) = 3.72, p < .001 (sig)
I believe that greater effort needs to be made to decrease barriers to participating in climbing.	5.43 (0.11)	5.38 (0.07)	t(773) = -0.42, p = .68 (n.s.)
I feel like I belong in the climbing community	5.52 (0.09)	5.93 (0.05)	t(348) = 4.10, p < .001 (sig)
I feel alone in the climbing community	2.92 (0.11)*	2.33 (0.06)	t(330) = -4.98, p < .001 (sig)

Table 13: Perceptions of EDI Based on Race / Ethnicity
On a scale of 7 = Strongly agree to 1 = Strongly disagree...
SEM = standard error of the mean. Sig. = statistically significant; N.s. = not significant.

Several respondents expanded on their perceptions of EDI in the climbing community based on their racial / ethnic background. For example, some shared:

“It’s a very white male dominated sport. And in most climbing gyms, it feels inaccessible for BIPOC folks.”

“As a white male, I am privileged to be where I am [in the sport]. There is a [noticeable] lack of ethnic and racial diversity in this sport, [especially] in competition climbing.”

“I think climbing is still dominated by white men. I see very few people of colour in my gym. Of those that do visit my gym, they are nearly all men. It feels like there’s very little diversity at the grass-roots level. It can also be an elitist sport [and] as a relatively new person to the sport [that] can be intimidating.”

“I started climbing in my 20’s. I come from a poor immigrant family that could not afford to pay fees associated with sports as a child. I had no idea climbing existed while growing up. The sport should be presented to people in poor neighborhoods. [Particularly,] to kids that do not have an opportunity to access a gym because of cost [in order] to show them what exists and light a fire within them [to participate long term].”

Additional Perspectives of EDI in the Climbing Community

Several respondents provided additional perspectives of EDI in the climbing community. Specifically, it was common for respondents to note that with young, white males dominating the sport, the culture that has been established can act as a turn-off for participation for climbers of all identifies. For example, one participant explained:

“Routesetting at my local bouldering gyms tends towards a burly bro style. I love going to gyms when I travel to climb routes set more to my strengths with less frustration. I started climbing at 52 and very often feel quite out of place socially. At first climbing seemed different from other sports that I had always avoided because I associate them with alcohol abuse and rape culture. But as I got more into it, I realized that there’s a misogynist bro culture here too. The whole route name thing seriously [makes me angry]. I don’t have to deal with that [expletive] if I go trail running or skiing.”

Furthermore, LGBTQ+ people in climbing highlighted that they were significantly impacted by the often-dominant misogynistic culture within the sport. For example, one climber noted:

“Climbing has a heavy ‘bro’ culture. As a queer person, this [culture] doesn’t always feel safe or welcoming. Additionally, as a queer person I don’t see folks like me represented in the climbing world.”

Respondents also shared that the coverage of climbing in the media may be ineffective in portraying the diversity that exists in the Canadian climbing community. As a result, a perception exists among some that there is one acceptable body image for climbing. As one coach explained this perception of there being only one acceptable body image for climbers may limit the climbing community from becoming more diverse:

“There is one body type that is perceived as being the ‘correct’ one for climbing (i.e., small, light). As a coach I’ve watched kids struggle with body image as they approach puberty in part because of climbing performance. I’ve also had more than one conversation with clients at gyms across the country that I’ve worked at where the person says something like ‘I Googled fat people, queer people, people of my ethnic group, people with disabilities climbing before I came in to make sure I could do it.’”

For climbers in their mid 30s and older, the perceived domination of climbing by young adults in their 20s was commonly shared as a challenge to their acceptance within the sport. For example, two respondents described the challenges of being a middle-aged climber:

“Being over 50 and climbing for 40 years, I don’t always see myself in the community of young climbers.”

“There are a few men 40 and over who climb, but I don’t know any women my age who climb regularly. I feel included in the climbing community because I have an excellent network of climber friends, but I do not feel included when the dynamic is very masculine and centered on competitiveness.”

Lastly, a few respondents who work within the climbing industry noted that the efforts focused on enhancing diversity in the sport should not just be focused on participants. Specifically, one respondent explained:

“From my experience the general climbing community is making leaps and bounds in gender balance, however there is still a LOT of work that needs to be made within the industry. Pay gaps and lack of opportunities runs deep. I am a climber with over 10 years of climbing under my belt and 5 years of working in the industry and have been snubbed from the chance to route set over and over again.”

Implications and Conclusion

The last decade has seen the popularity of climbing increase drastically across Canada. To effectively manage and maintain the rapid rise in popularity of climbing a greater understanding of Canadian climbers and their experiences was needed. This report offers a detailed overview of the types of people who make up the Canadian climbing community and their experiences. To date, no known research on Canadian climbers have used a sample as large as the one used for this study (844 respondents).

This information provides valuable insights for program and policy improvement by CEC as well as its provincial and local partners. Specifically, the findings presented here indicate future work within the sport of climbing should be focused improving the accessibility to climbing as well as the overall sense of inclusion and diversity within the sport. For example, future programming and policy development could focus on addressing some of the key findings from the study, such as:

- Women, gender minorities, and racialized groups all noted climbing experiences being negatively impacted by a fear of discrimination, exclusion, and lower sense of being accepted.
- Women, gender minorities, and racialized groups all noted a lower perceived sense of skill or ability to climb. This pattern could indicate gender and racialized difference in self-efficacy resulting from stereotypes.
- Women, gender minorities, and racialized groups' ability to climb is most impacted by financial constraints within the sport (i.e., membership fees, equipment costs). In general, survey respondents perceived climbing to be a high-cost sport.
- Gender minorities and racialized groups perceived a disproportionately lower access to training / skill development programs. Additionally, gender minorities reported a lower perceived access to coaching.
- With most respondents considering themselves recreational climbers, the social aspects and benefits of the sport are heightened. Therefore, an opportunity exists to highlight and enhance the social benefits of climbing to further increase the number of participants in the sport. Social influences were a particularly salient motivator for women.
- With most respondents not ever trying or not knowing about adaptive climbing methods and paraclimbing, there exists an opportunity to further educate the Canadian climbing community about this type of participation.

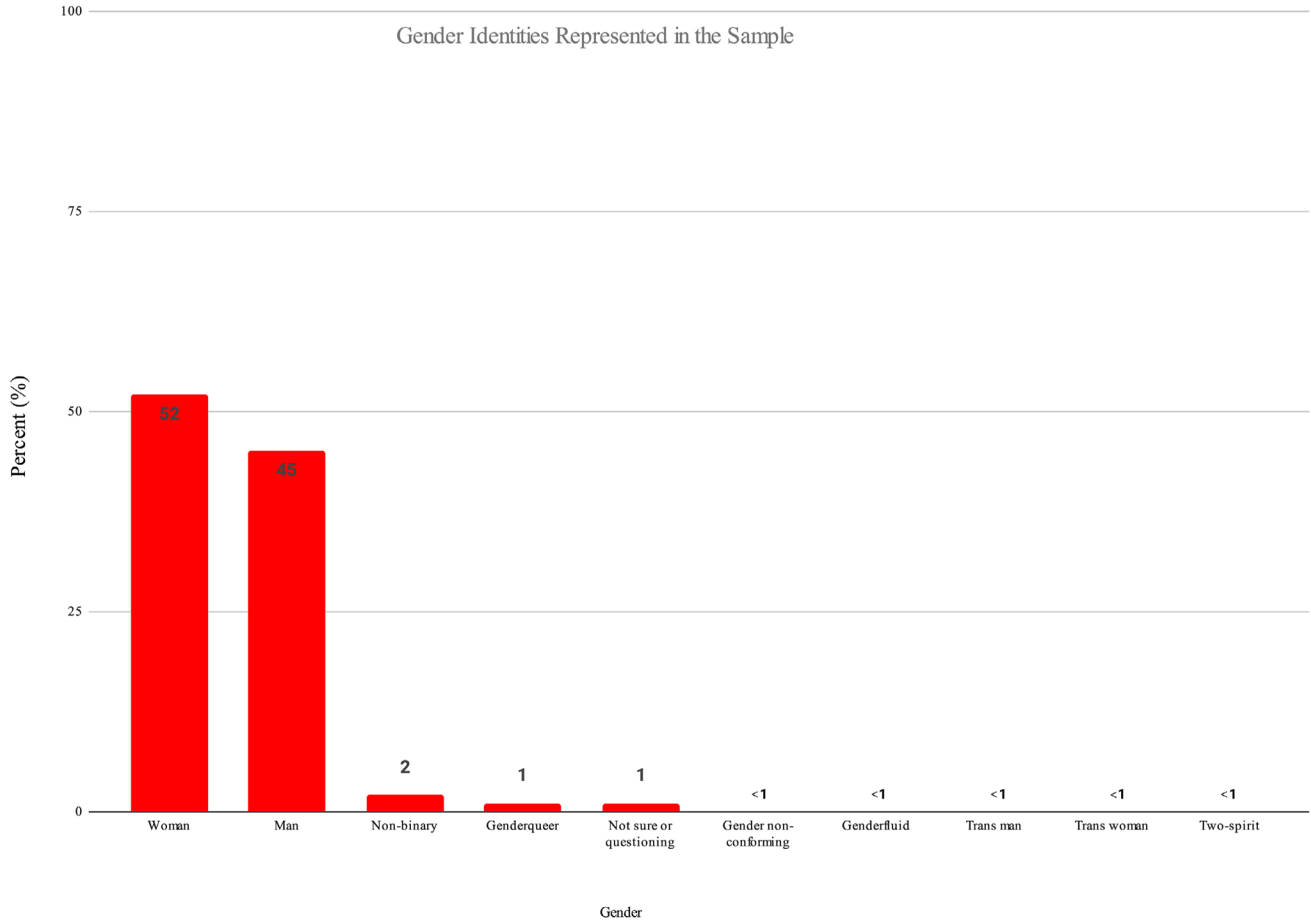
Again, the findings presented here are reflective of those who participated in this study. Therefore, caution should be taken when generalizing these findings.



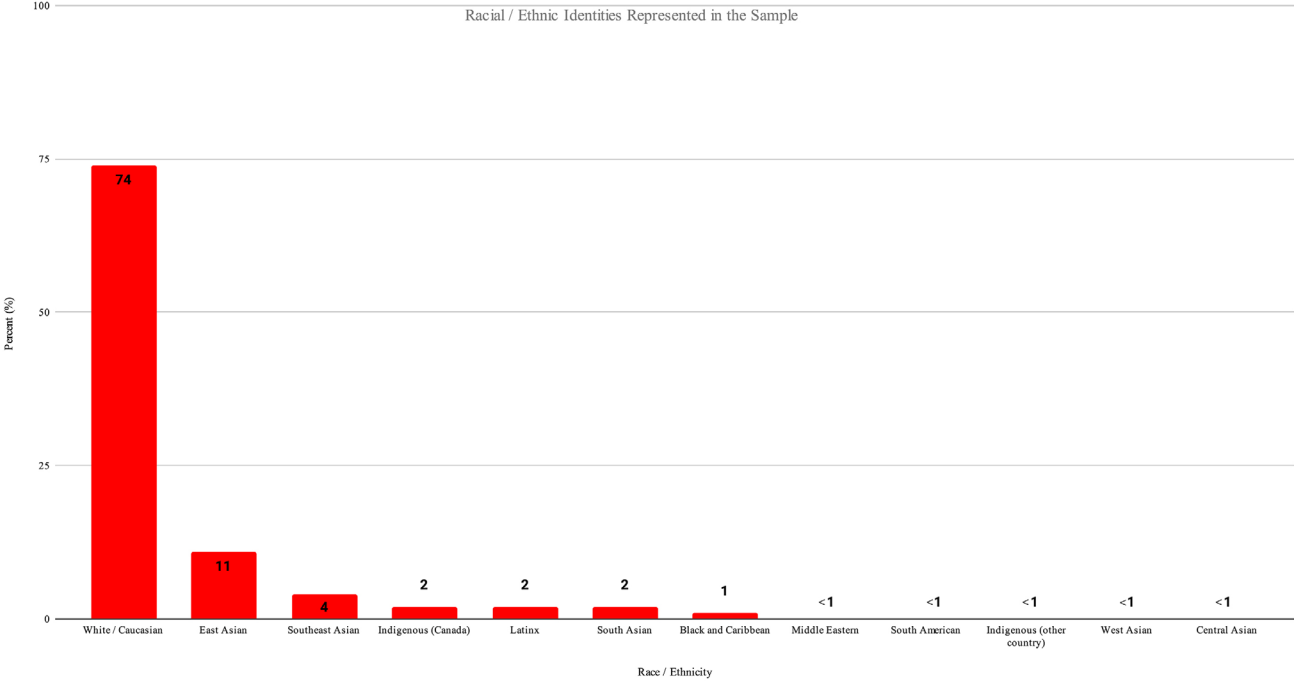
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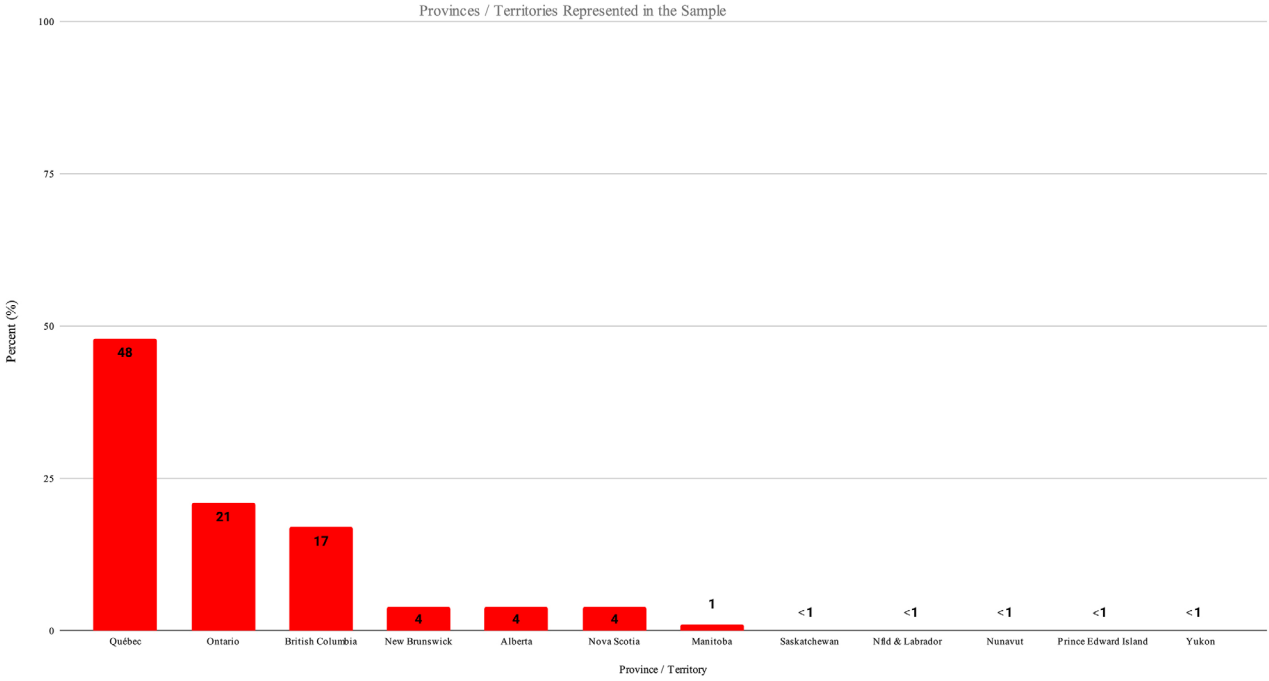
Appendix A



Appendix B



Appendix C



Appendix D

Time Spent Climbing Indoors per Season		
Frequency of Climbing	Number of Respondents	Percent(%)
Spring (April to May)		
None	23	3
1 time	86	10
2-3 times	539	64
4 or more times	190	23
Prefer not to answer	6	1
Summer (June to August)		
None	78	9
1 time	159	19
2-3 times	445	53
4 or more times	155	18
Prefer not to answer	7	1
Fall (September to October)		
None	28	3
1 time	104	12
2-3 times	519	61
4 or more times	186	22
Prefer not to answer	7	1
Winter (December to March)		
None	24	3
1 time	71	8
2-3 times	483	57
4 or more times	260	31
Prefer not to answer	6	1

Appendix E

Time Spent Climbing Indoors per Season		
Barrier	Number of Respondents	Percent(%)
Lack of time	426	50
Gym membership and/or access fees	284	34
Lack of energy/too tired	258	31
No one to participate with	235	28
Transportation problems	206	24
Time spent on other interests	205	24
Equipment costs	154	18
Health-related problems	151	18
Lack of gym/route availability	119	14
Lack of skill/ability	106	13
Competition entry fees	103	12
Lack of access to training/skill development programs	90	11
None of these are barriers to my participation	80	9
Lack of access to coaching	73	9
Other	72	9
Program registration fees	57	7
Lack of access to competitions or competitive teams	49	6
Safety concerns	38	5
Age	33	4
Lack of information	31	4
Disability/disabilities	22	3
No interest	13	2
Prefer not to answer	1	<1

Complete list of barriers to participation is presented and described in Kay and Jackson⁹

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