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# From Personal Development to Social Change

*Investigating the Long-Term Impact of an Adapted Physical Activity Service-Learning Program*

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## From Personal Development to Social Change

### *Investigating the Long-Term Impact of an Adapted Physical Activity Service-Learning Program*

Nikki Matthews, Mary Sweatman, Roxanne Seaman, and Emily Bremer

#### **Abstract**

Service-learning initiatives provide an experiential learning environment shown to foster academic attitudes, social skills, and future career aspirations. Service-learning also has been effective within adapted physical activity; however, given the lack of research, the magnitude and the long-term impact of programming are not adequately understood. The purpose of this study was to investigate the long-term impact of service-learning within an adapted physical activity setting. Using the Acadia University Sensory Motor Instructional Leadership Experience S.M.I.L.E.<sup>®</sup> program as the subject of a case study, participants were sent an online survey containing questions on demographic information, disability attitudes, and their S.M.I.L.E. experience. Results from this study presented five themes: (a) Relationship Development, (b) Empathy, (c) Attitude, (d) Accountability, and (e) Knowledge & Skill Development. Results demonstrated that service-learning programming within adapted physical activity can foster positive attitudes toward individuals with disabilities, promoting future civic responsibility, and continuing its influence postgraduation.

**Keywords:** *Experiential learning, Service-based learning, Postsecondary education, Adaptive physical activity, Community development*

## Del desarrollo personal al cambio social

### *Investigación del impacto a largo plazo de un programa de aprendizaje-servicio de actividad física adaptada*

Nikki Matthews, Mary Sweatman, Roxanne Seaman y Emily Bremer

#### **Resumen**

Se ha demostrado que las iniciativas de aprendizaje y servicio brindan un entorno de aprendizaje experiencial que fomenta las actitudes académicas, habilidades sociales y las aspiraciones profesionales futuras. El aprendizaje y servicio también ha sido eficaz dentro del campo de la actividad física adaptada; sin embargo, dada la falta de investigación, no se comprende adecuadamente la magnitud y el impacto a largo plazo de la programación de aprendizaje y servicio en este campo. El propósito de este estudio fue investigar el impacto a largo plazo del aprendizaje y servicio dentro de un entorno de actividad física adaptado. Utilizando el programa S.M.I.L.E.<sup>®</sup> (Experiencia Instruccional de Liderazgo Sensorial Motriz) de la Universidad de Acadia como tema de un estudio de caso, se les envió a los participantes una encuesta en línea que contenía preguntas sobre información demográfica, actitudes sobre la discapacidad y su experiencia S.M.I.L.E. Los resultados de este estudio presentaron cinco temas: (a) Desarrollo de relaciones, (b) Empatía, (c) Actitud, (d) Responsabilidad y (e) Desarrollo de conocimientos y habilidades. Los resultados demostraron que la implementación de aprendizaje y servicio dentro de la actividad física adaptada puede fomentar actitudes positivas hacia las personas con discapacidades, promover la responsabilidad cívica a futuro y además mantener esta influencia positiva después de la graduación.

**Palabras clave:** *Aprendizaje experiencial, Aprendizaje basado en el servicio, Educación postsecundaria, Actividad física adaptada, Desarrollo comunitario*

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Service-learning is a pedagogical concept built upon the foundations of John Dewey's (1938) theoretical view of experience and education, presenting learning as an active process of experiencing, reflecting, and acting, in contrast to a sharing or telling of information (Pacho, 2015). A term initially used by Sigmon and Ramsey out of the Southern Regional Education Board (Giles & Eyler, 1994; Sigmon, 1979; Southern Regional Education Board, 1973), service-learning has evolved as a concept over the past several decades, becoming relatively common throughout institutions of higher learning. Currently, service-learning experiences can be found in numerous institutions and communities to allow for both learning and community engagement (Wilson et al., 2021). The outcomes of a service-learning program are unique to other experiential or active learning processes, as they serve both the learners within the program and the community for which it is designed (Wilson et al., 2021).

Many studies and reviews of the community service-learning literature have shown that these initiatives can foster student learning (Astin et al., 2000; Breunig, 2014; Carrington & Selva, 2010; Chambers, 2009; Choo et al., 2019; Lewis, 2004; Ngai, 2009). Studies have also found that students develop new understandings of self and classmates (Breunig, 2014), structural understandings that can be translated into social change action later in their careers (Lewis, 2004), and enhanced understanding of diversity and inclusion in their society (Carrington & Selva, 2010). Additionally, service-learning has been shown to support the development of empathy (Gordon et al., 2022), social or emotional connections, and ultimately encourage community engagement (Domangue & Carson, 2008).

In their meta-analysis of service-learning outcomes, Celio et al. (2011) found that service-learning showed significant positive results for personal and academic attitudes, social skills and behavior, and academic achievements. The benefits of service-learning were further supported by Yorio and Ye (2012), where service-learning was shown to increase personal and social issue awareness, as well as cognitive development. Within their paper, Wurr and Hamilton (2012) explained that, regardless of the level of course connection, service-learning provided students with the opportunity to develop leadership skills. Furthermore, service-learning has been shown to support students in learning, deciding, and pursuing future career pathways (Mitchell & Rost-Banik, 2019). An essential component of positive service-learning is establishing opportunities for student reflection (Mitchell et al., 2015). Student reflection can include reflecting upon the needs of the program recipients, actions, and feelings, as well as working through problems, collaborating with diverse populations, and assuming a role of responsibility within the program, which can be further explored when coupled with course and campus engagement (Choi et al., 2023).

Throughout the literature, longitudinal impacts of service-learning outcomes are scarce; however, the few studies available suggest that service-learning can continue to influence past students' sense of civic responsibility and an interest in future service engagement (Mitchell & Rost-Banik, 2019). These findings were supported by Lake et al. (2021), when investigating student experiences in service-learning and their influence on careers and future service-learning opportunities. Research suggests that time spent in service-learning environments can positively influence service careers in the future (Mitchell & Rost-Banik, 2019). These findings were supported by Lake et al. (2021), who, when looking into student experiences within service-learning, had students express their interest in future opportunities within service-learning. Past students explained that the hands-on experience within real-world situations both created the most challenging experiences for learning as well as the most impactful outcomes longitudinally (Lake et al., 2021). Interestingly, while students expressed their perceived value in their participation, personal and professional commitments were explained to be barriers to civic engagement through service-learning programs (Lake et al., 2021). While the research suggests service-learning participation can encourage future service work or action, the lack of recent research surrounding this topic presents a need for further investigation to better understand the longitudinal impact and barriers of service-learning (Lake et al., 2021; Mitchell & Rost-Banik, 2019).

Within the field of adapted physical activity, service-learning programs have increased in popularity over the past few decades and are a relatively common practice (Case et al., 2021). Effectively used as practicums supporting adapted physical activity course content (Marsh Naturkach & Goodwin, 2019)

service-learning has been shown to support university students' learning about disability and becoming more comfortable around individuals with disability, as well as promote self-efficacy (Lee et al., 2020). Hands-on experience working within the field of study and working with individuals with disabilities has shown to be more influential for student learning outcomes and attitudes toward disabilities than course-focused learning (Lee et al., 2020). These results were supported by Case et al. (2021) who found that service-learning programs showed small positive effects on the growth and development of students regarding attitudes toward disability, with programs rooted in volunteer and community work, less focused on course content, and operating on shared goals and values demonstrating the highest student impacts. Despite the positive impacts on student learning and attitudes toward disability, the lack of research surrounding adapted physical activity-based service-learning programs present a gap in current knowledge. Within the Case et al. (2021) meta-analysis, the effect size of positive influence on volunteer attitudes toward disability was smaller than anticipated, demonstrating the need for further investigation.

### **Service-Learning Program: The Acadia University Sensory Motor Instructional Leadership Experience (S.M.I.L.E.®) Program**

The S.M.I.L.E. program is a longstanding adapted physical activity program, organized, and facilitated through student leadership, to create a positive environment to promote physical literacy and motor, cognitive, and social skill development for individuals with disabilities. Established at Acadia University in 1982 as an aquatic program for a local special education class and perceptual-motor practicum for university students, S.M.I.L.E. has evolved into one of the largest volunteer programs at Acadia, offering 4-weekly programs and supporting 400 student volunteers and nearly 250 participants each semester in the 2024/2025 academic year.

Of the four programs, two are aquatic-based programs offered to local schools, and two are public programs where programming is facilitated in the pool, as well as in the gymnasium, ice rink, dance studio, and other rooms within the athletic complex. Each program is organized by age (school-aged, 2–12 years, and 13+ years), has no cost to participate, and does not have a formal diagnosis or disability screening requirement, and thus overall, S.M.I.L.E. has a participant population varying in age (2–61 years), disability (developmental, intellectual, physical, and/or sensory), and socioeconomic backgrounds.

The S.M.I.L.E. volunteer population is also age-diverse and interdisciplinary, with volunteers ranging from first-year students to graduate students across numerous faculties of study. S.M.I.L.E. has three different types of volunteer positions to support programming: (a) Instructors, (b) Leaders, and (c) Student Directors. Every S.M.I.L.E. volunteer begins in the Instructor role. An Instructor is a student volunteer paired either on a 1:1 or 2:1 basis with a participant (i.e., buddy) to support them through programming guided by the physical, cognitive, and social goals they set for their buddy each week. Each program also has a Leader team, comprised of 12–18 student Leaders who are responsible for creating, facilitating, and supervising each program session as well as overseeing Instructor goal setting, and problem solving. Each program day also has two to three Student Directors, chosen by the Program Coordinator and Program Director (Professor in Kinesiology) who oversee all Leaders, Instructors, participants, and programming on a given program day (Arbour-Nicitopoulos et al., 2018).

To volunteer with S.M.I.L.E., students are asked to come to an information session at the beginning of the semester to understand each program day, commitment, responsibilities, and expectations of a volunteer. Each role in this program is voluntary and up to the student whether they choose to volunteer. A small portion of the students within this program volunteer to use S.M.I.L.E. as their course practicum, given that S.M.I.L.E. is academically connected to two courses within the School of Kinesiology; however, a student can choose another adapted physical activity opportunity if they do not wish to participate in S.M.I.L.E. Once a student decides they would like to volunteer with S.M.I.L.E., they attend a training session held by the leadership team. This training reviews program structure and design, foundational concepts and program goals, volunteer expectations, and program policies, as well as important disability, safety, and activity information to support volunteers in working within an adapted physical activity setting. Volunteers are also encouraged, after training, to reach out to the leadership team should they have any

questions or concerns. As well, at the start of each program day, volunteers attend group meetings to prepare for the program day and are then supported by the leadership team, as they work with their participants. To be selected as a volunteer, students must attend training and have a valid Criminal Record Check completed. As the program holds a new information session each semester, volunteers can join the program for a minimum of one semester (8 weeks of programming), or a maximum of each semester for the entirety of their degree at Acadia University. To be a S.M.I.L.E. Leader, a volunteer must undergo an application and interview process, and teams are chosen based on the applicant pool. At the end of an academic term, while proceeding with the interview process to create Leader teams, the Program Director and Program Coordinator choose Student Directors for the following academic year based on current Leader performance and availability.

Throughout design and implementation, the S.M.I.L.E. program has foundations in reflection, reciprocity, collaboration, and diversity seen through program values and facilitation. Although S.M.I.L.E. volunteers come from all programs across the Acadia campus, and thus are not directly learning about S.M.I.L.E. in class, the program lends itself to a community service-learning environment that requires reflections on many levels for student volunteers to process the learning aspects that are effectively presented in this setting. Furthermore, given the physical, cognitive, and social goals of the program for participants, coupled with the adapted physical activity and goal-setting practicum structure for volunteers, both parties involved have the potential to learn and benefit from participation. While the S.M.I.L.E. program design provides services for the community, elements of collaboration and reciprocity can be found both within the collaborative leadership style of the program coordinating staff and student volunteers (Sweatman, 2020), as well as interactions between student volunteers with participants and their families to ensure programming is designed and engaged in a mutually agreeable and beneficial manner. With variation across student programs, educational, and experiential backgrounds, combined with the diversity in participant age, disability, and socioeconomic background, the value of diversity can be seen throughout the foundations of S.M.I.L.E.

Given its service-learning structure, previous research has explored the experiences of a small group of S.M.I.L.E. volunteers through reflective blog posts (Sweatman et al., 2014). These reflective posts indicated that the volunteers were committed and immersed in the social world of S.M.I.L.E. and that S.M.I.L.E. was their core leisure experience at university. Further, many reflected that their S.M.I.L.E. experience was unique and led them to pursue careers that they otherwise would not have pursued without their experience in S.M.I.L.E. (Sweatman et al., 2014). Given the size of the program and four decades of establishing a volunteer base, additional research is needed to observe the long-term impact of volunteering with S.M.I.L.E.

## Conceptual Framework

The purpose of this paper is to understand the long-term impacts of an adapted physical activity service-learning program on its student alumni, and if and how it has impacted their leadership development and professional trajectory. The Social Change Model was used as the study's conceptual framework to understand the influence of S.M.I.L.E. on volunteer leadership development and ability to generate positive change, both internally (e.g., personal development) and externally (e.g., occupation and volunteer development).

Developed in 1994 by the Higher Education Research Institute at UCLA, the Social Change Model depicts the individual, group, and community values associated with leadership, explaining social change to be at the root of effective and beneficial leadership (Astin et al., 1994). Within this model, the individual, group, and society/community values are separated and evaluated to better understand the influences and barriers behind change within a specific area. Within these three spheres lie the "7 C's of leadership development for social change" (Astin et al., 1994, p. 21). Within the individual sphere, consciousness of self, congruence, and commitment are outlined, explaining that, to foster change, an individual must be aware of the qualities and values to motivate action, consistently feel, and act in a way to promote genuine and honest interactions and be emotionally and psychically committed to the

change (Astin et al., 1994). Within the group values, collaboration, common purpose, and controversy with civility are required, explaining that the group must work together with a common effort to work toward a common goal, and be civil when disagreement or conflict arises (Astin et al., 1994). Finally, the society/community sphere requires citizenship, meaning that connection to the community on the individual and group level must occur through leadership (Astin et al., 1994). The Social Change Model will be used as the framework with which to observe the results and frame the discussion portion of this paper.

## **Methodology**

### **Positionality**

The authors of this manuscript have varying levels of involvement within the S.M.I.L.E. program. The first author (N.M.) is the acting Program Coordinator for the S.M.I.L.E. program, serving in this paid role since 2022 and volunteering within the program since 2018. The second author (M.S.) is an Associate Professor within the Department of Community Development at Acadia University. They have conducted previous research with the program, but do not hold a leadership or volunteer role within the program. The third author (R.S.) is a Professor within the School of Kinesiology at Acadia University. They are the acting Program Director (non-paid, service role) for S.M.I.L.E. and have served in this role since 2002. The corresponding author (E.B.) is an Assistant Professor within the School of Kinesiology at Acadia University and a Canada Research Chair in Healthy Inclusive Communities. They are the Research Director for S.M.I.L.E. and have been involved with the program since 2021. At the time of writing, none of the authors identify as individuals experiencing disability; however, all authors have worked closely with individuals experiencing disability throughout their careers.

### **Design**

A cross-sectional, mixed-methodological case-study approach with interpretivist roots was used to explore the impact of volunteering with S.M.I.L.E. on both personal growth as well as career trajectory to better understand the impact on leadership development and positive change. This project is a sub-section of a larger study investigating the impact of service-learning on its volunteers through S.M.I.L.E., thus for the purpose of this study, only survey data were utilized despite a larger data collection process occurring within the original project. The study included a one-time online survey containing both closed and open-ended questions addressing perspectives on disability and life trajectory. The study was approved by the Acadia University Research Ethics Board (REB 22–45) and all participants provided informed consent prior to participation.

### **Participants and Procedure**

Voluntary response sampling was used to recruit participants through a recruitment email sent to the previous S.M.I.L.E. student volunteer database between August and October 2022. The database contained email addresses for 1004 of the approximately 5000 past volunteers. To be recruited, participants must have volunteered in any leadership role with the S.M.I.L.E. program for a minimum of one semester throughout their undergraduate degree at Acadia University. Given the interest in exploring the long-term effects of volunteering, there was no age limit or volunteer year range to participate.

An email was sent to all email addresses on the past S.M.I.L.E. volunteer database. The email contained a study invitation and link to the Acadia University Lime Survey platform to complete informed consent and the online survey, which consisted of closed- and open-ended questions. At the end of the survey, participants were directed to a separate survey where they could be entered in a draw to win one of five, \$100 Amazon e-gift cards.

## Measures

### *Demographic Information*

Demographic and study-specific education information was collected from a series of questions asking participants to report their age (selected within a range), gender identity, visible minority and disability status, current employment status and industry, level of education, and program of study at Acadia University. All demographic and employment industry response options aligned with Statistics Canada census response options. Demographic information was used to describe the sample.

### *Perspectives on Disability*

The attitudes and perspectives toward persons with disabilities (APPD) scale (Myong et al., 2021) was used to assess participants' perspectives on disability. This scale includes 14 questions answered on a five-point scale (1—strongly disagree to 5—strongly agree) that ask participants to reflect on their attitudes and beliefs toward individuals with disabilities. Mean scores for the subcategories of community integration, discomfort, charitability, and sense of burdening, along with a total scale score were calculated with higher scores indicating more negative attitudes toward disability (Myong et al., 2021). The scale has previously demonstrated good internal consistency, model fit, and construct validity (Myong et al., 2021). The internal consistency of the full scale in this study was moderate (Cronbach's  $\alpha = 0.64$ ).

### *Impact of S.M.I.L.E. on Educational, Career, and Life Trajectories*

A series of study-specific questions were used to prompt participants to reflect on their time with S.M.I.L.E. First, participants were asked to rate their agreement with a series of nine statements on scale from 1 (strongly disagree) to 7 (strongly agree). These questions asked whether S.M.I.L.E. influenced their career or educational path; if they remained in contact with other volunteers or program participants; if their current occupation involves working with individuals with a disability; if S.M.I.L.E. was connected to their academic studies; if S.M.I.L.E. was memorable or challenging; if they enjoyed working with others at S.M.I.L.E.; and if they made meaningful connections through S.M.I.L.E. Second, a series of open-ended questions prompted participants to elaborate on these areas by sharing their experiences and perspectives.

## Data Analysis

Demographic information regarding age and career pathway was organized by frequency to provide information about the study sample. Subscale and total scores were calculated for the AAPD scale, and mean scores were calculated for study-specific reflective questions. Open-ended survey questions were coded using reflexive thematic analysis (Braun & Clarke, 2019). Survey data were outlined in a spreadsheet, and a researcher reviewed all survey data, identifying similar concepts or phrases and tagging them with single or few-word "codes". These codes were created to highlight important or poignant aspects of responses. These coded responses were then given to the three senior authors (M.S., R.S., E.B.) for review and allowed for the combination of similar codes or concepts. After reviewing all codes, and grouping similar code groups together, the researchers were able to identify larger "theme" groups, which are concepts or experiences shared throughout the group and are representative of the sample. These themes were then discussed among the research team, before finalizing a set of themes from the data. The coded data were then reviewed again and sorted within those themes to create a final set of themed responses for review and presentation. The quantitative and qualitative data were integrated by first presenting the quantitative descriptive findings and then contextualizing and elaborating on these findings through the qualitative data.

## Results

### Quantitative Findings

Study invitations were sent to 1004 past volunteers. Of these, 204 emails were bounced back or undeliverable. From the 800 delivered emails, 10 volunteers explicitly “opted-out” of participating, six volunteers opened the survey link and then did not answer any questions, and 122 volunteers completed the survey (15.25% response rate from delivered emails). The majority (87.6%) of volunteers who completed the survey were between 30 and 44 years of age and identified as a woman (70.5%). Complete demographic data can be found in Appendix. On average, the volunteers had a favorable attitude toward individuals with disabilities and rated their experiences with S.M.I.L.E. as being influential and memorable (Table 1). Further, when asked whether S.M.I.L.E. influenced their decision to volunteer with other organizations post-university, 36 volunteers (29.5%) indicated that S.M.I.L.E. directly or indirectly influenced their continued civic service.

**Table 1.**

*Perspectives on disability and the influence of S.M.I.L.E.*

| Measure                                                           | Subscale or Item                                                        | <i>n</i> | Mean (SD) |
|-------------------------------------------------------------------|-------------------------------------------------------------------------|----------|-----------|
| Attitudes and Perspectives toward Persons with Disabilities scale | Community Integration                                                   | 104      | 1.3 (.5)  |
|                                                                   | Discomfort                                                              | 110      | 1.3 (.5)  |
|                                                                   | Charitability                                                           | 100      | 2.5 (.8)  |
|                                                                   | Sense of Burdening                                                      | 103      | 1.7 (.7)  |
|                                                                   | Total Score                                                             | 94       | 1.6 (.4)  |
| S.M.I.L.E.-specific questions                                     | S.M.I.L.E. influenced my chosen career or educational path.             | 110      | 4.7 (2.0) |
|                                                                   | I remain in contact with other volunteers.                              | 109      | 3.6 (2.3) |
|                                                                   | I remain in contact with program participants.                          | 107      | 2.1 (1.8) |
|                                                                   | Current occupation involves working with individuals with a disability. | 109      | 5.1 (2.2) |
|                                                                   | S.M.I.L.E. connected to what I was learning in my academic studies.     | 109      | 5.1 (2.2) |
|                                                                   | S.M.I.L.E. was a memorable aspect of my time at university.             | 110      | 6.5 (1.0) |
|                                                                   | S.M.I.L.E. was a challenging aspect of my time at university.           | 110      | 3.6 (2.0) |
|                                                                   | I enjoyed working with others (volunteers, participants) at S.M.I.L.E.  | 110      | 6.7 (0.8) |
|                                                                   | I made meaningful connections through S.M.I.L.E.                        | 109      | 5.7 (1.6) |

*Note.* Attitudes and Perspectives toward Persons with Disabilities scale is scored on a five-point scale, with higher scores indicating more negative attitudes toward disability (Myong et al., 2021). S.M.I.L.E. -specific questions are scored on a seven-point scale with higher scores indicating more favorable outcomes.

### Qualitative Findings

Results from the open-ended survey questions presented five overarching and intersecting themes relating to the experiences or outcomes of student volunteers: (a) relationship development; (b) empathy; (c) attitude; (d) accountability; and (e) knowledge and skill development.

#### *Relationship Development*

Throughout their responses, volunteers addressed the way their time in S.M.I.L.E. impacted their relationships both within the program and to the community. Multiple volunteers spoke about the sense of

community they felt within the program. When asked to comment on their favorite part of their time in S.M.I.L.E. Volunteer 92 said:

The S.M.I.L.E. program built a wonderful community at Acadia. I saw participants and their families for years in the Valley and would always say hello. It was a wonderful way to meet other like-minded students at Acadia as well. Most of my friends did S.M.I.L.E. and we still talk about our experiences with the program. I've met other teachers who went to Acadia and did S.M.I.L.E. and we enjoy comparing our experiences and talking about participants we know and remember.

This sentiment of forming relationships within the program was echoed by another volunteer when reflecting on their most memorable experience:

The impactful connections- with both peers and participants/families. I still connect with my peer S.M.I.L.E. leaders and have some of the closest friendships because of S.M.I.L.E. The connections you make with [your] S.M.I.L.E. participant and families is very strong and it was a very emotional day when we all said good bye. S.M.I.L.E. truly becomes a part of the Acadia experience and for me it was a large impactful part and continues to be (Volunteer 61).

Within the program, volunteers also discussed the strong connections made with their buddies and their families, sharing:

In second year university I was clinically depressed. Some days the only thing keeping me motivated was knowing that [my buddy] was going to be there waiting for me. Her mom took me into their family (as I had no family on the east coast) and invited me to dinner. It exposed me to a family life I had never seen and was overcome by how important it is to volunteer your time back into the community. I have been volunteering regularly since (Volunteer 85).

Volunteer 74 further expanded on the connections with their buddy's family writing:

A little part of me, wasn't sure how her mum felt about having this black college student volunteer with her child. But Christmas time came around and [buddy's] mum gave me a hug and also present me with a Christmas Angel with her name on it (Volunteer 74).

When asked to discuss their favorite aspect of S.M.I.L.E. Volunteer 81 wrote about their connection with their buddy saying it was "[t]he connections made with my S.M.I.L.E. partner(s). I am still in touch with my main partner [...] and her family more than 10 years later." In addition to the relationships formed within the program, some volunteers also discussed the connection to the community fostered through volunteering. When describing their favorite part of S.M.I.L.E., Volunteer 45 wrote that "S.M.I.L.E. was a true gift to the community, and another shared that:

My favourite aspect of S.M.I.L.E. is that students at Acadia are able to give back to the community. It felt so great to support and work with people who were from the Valley and it definitely helped me feel part of the Wolfville and surrounding area community (Volunteer 51).

A similar sentiment was expressed by an out-of-province student when sharing how S.M.I.L.E. helped them connect to the local community:

...it really allowed me to give back to the local community to which I had no connections with. The lessons...have taught me so much and it was an essential/integral part of my Acadia experience. I feel fortunate to have taken part in such a well-organized program that was appreciated by the staff and community alike. On a personal level, it likely has even led to me developing stronger relationships with new family members/in-laws and friends who have special needs or disabilities (Volunteer 17).

Volunteer 2 responded to the prompt similarly saying: "The connection to something bigger than yourself. It connects people all over the place and gets you thinking about something bigger." When describing their favorite part of S.M.I.L.E., five volunteers all used the term "community" to describe S.M.I.L.E., with

Volunteer 107 sharing that their favorite part was “being a part of a group of people all working together for a common goal.” Through the open-ended survey questions, 45 respondents spoke to the importance of relationships, whether between peers, buddies and their families, as well as within the local community.

### *Empathy*

In addition to discussing the sense of community and relationships developed through S.M.I.L.E., volunteers indirectly highlighted the impact of S.M.I.L.E. on their empathy toward their participant, those experiencing disability, and its application to their lives outside of S.M.I.L.E. This empathy often manifested in volunteers describing the feeling of shared joy toward their participant when achieving a goal or accomplishing a milestone. When describing their most memorable moments related to S.M.I.L.E., seven volunteers described the joy and excitement they felt when spending time with their buddy and watching them participate in programming, with Volunteer 29 recounting “I remember spending two semesters working with one child on walking down a set of stairs. The first time it happened was amazing,” and another writing:

The girl I was paired with was non-verbal and she would light up and shriek with excitement when we were in the pool. After more than 10 years I can still feel the joy radiating from her as we bobbed around the water with her arms locked around my neck (Volunteer 69).

Volunteer 63 expressed their feelings of empathy throughout their time volunteering through sharing their experience with their buddy with autism at the pool:

My favourite of all was that I spent a season of being paired with a child with autism. He was nonverbal and didn't like to get in the water so we spent a lot of time on the deck of the pool, playing with toys, or splashing in the puddles. The environment was sensory overload for him so we often went out to the hallway to play in the quiet. He was really difficult to work with- had some aggressive and self harming behaviors and I felt like the hour was spent with me being in overdrive trying to make sure he had an at least pleasurable experience. His EAs [Educational Assistants] told me that he doesn't like physical touch and so it was also hard to re-direct him to different areas or places when I saw him get overstimulated. Then one day it was all worth it because he was leaving to go to school and without being prompted, he turned around and gave me the biggest hug. It is still the best hug I have ever received to this day. I spent the walk back to residence crying tears of joy- knowing how important the work, the connections and the program was.

Volunteer 23 further demonstrated empathy experienced during the program when describing their most difficult moment:

I vividly remember a few challenging experiences. One of them was this same boy with CHARGE syndrome. He had broken his glasses and got very upset and physically violent with myself and the other student who worked with him. We were so upset to see him so upset.

Throughout the survey, volunteers also spoke to how the empathy and emotional connections within the program have translated to their current careers. When asked to explain how S.M.I.L.E. relates to their current occupation, one volunteer spoke to their developed interest in working closely with participants, saying:

I originally planned to pursue medicine, but through my involvement with S.M.I.L.E. I changed course due to the experience of working with various children learning to communicate and my desire to be closely involved with the people I worked with as a clinician. I landed in Speech Language Pathology (Volunteer 81).

Another echoed this statement by describing their perspective on how S.M.I.L.E. has influence within their career, writing:

I'm currently working through my residency as an emergency physician. My time in S.M.I.L.E. allowed me to gain invaluable experience working with individuals with disability. It allowed me to gain an appreciation for the difficulties individuals with disability have to deal with on a daily basis that perhaps would otherwise not have been appreciate[d]. I deal with patient[s] on a daily basis that a large proportion have some form of disability. The skills I learned while in S.M.I.L.E. have helped extensively in me being able to relate and develop a good rapport with my patients that is so important when treating sick individuals (Volunteer 50).

The empathy developed through S.M.I.L.E. also translated to other occupations, with one volunteer saying, "I currently work in HR. My role is not directly working with individuals with a disability, however in my role I am helping others, creating an inclusive environment, and demonstrating empathy toward my internal customers" (Volunteer 104). While another HR professional stated that while it "...sounds as though it [occupation] does not overlap however I really learned about empathy during my time with S.M.I.L.E. which is crucial every day in my role currently" (Volunteer 128).

Volunteer 125 further shared the importance of connection learned in S.M.I.L.E. that translates to their current work as an entrepreneur:

I am the owner and head coach of [Fitness Centre]. S.M.I.L.E. (in my opinion) is all about building relationships, helping others, connecting with people, and giving the kids the best hour of their day. This is exactly what I do now for a living.

Throughout the responses, volunteers spoke to the emotional connection and empathy between them and their buddy, and how that has translated into their current career.

### *Attitude*

Volunteers also addressed the impact of S.M.I.L.E. on their attitudes toward individuals with disability. For example, Volunteer 23 stated "I loved my time at S.M.I.L.E. [and it] equipped me with experiences that would forever influence my perspective on disability." Volunteer 93 wrote that their time in S.M.I.L.E. impacted them as "[...] even though someone has a 'disability' they are still capable of more than they are usually given credit for." Further, Volunteer 63 broadly spoke to S.M.I.L.E.'s impact on their attitude toward disability writing "[...] It is the best program I have ever been a part of and I can honestly say it has been a program that has had a huge impact on the way I interact, support and encourage individuals with disabilities.

In addition to writing about the impact of S.M.I.L.E. on their attitude toward disability, volunteers also spoke about the way S.M.I.L.E. opened their eyes to the barriers and challenges that are associated with disability. One spoke about the way that S.M.I.L.E. supported their understanding of accessibility saying:

I was able to obtain summer employment through a S.M.I.L.E. grant to support children with disabilities at [local] Summer Camps. This experience really opened my eyes to the importance of accessibility and how even when we think we are being accessible we aren't (Volunteer 46).

Furthermore, multiple volunteers spoke to the way S.M.I.L.E. influenced their perspective of socioeconomic barriers with one writing that S.M.I.L.E.:

[...] is such a valuable experience for a young university student—as I mentioned, it opened my eyes to so many things. Differing levels of abilities, differing socio-economic statuses, the importance of having empathy, of setting boundaries, of weekly note taking and goal setting, being responsible enough to get to bed on Friday night and wake up for the Saturday session! It was so important to my development as a young adult (Volunteer 128).

They continued this thought by saying that:

This isn't a happy memory, but it was an important one for me—the child I was instructing came from a much lower socio-economic status than I was used to seeing. As in, the shower she got before and after getting into the pool was helpful for her hygiene. S.M.I.L.E. opened my eyes to a lot of things, including poverty and the impact that has on a child's ability to get the help and resources they needed. As a privileged kid from Bedford, who didn't even know yet that I was privileged, this program literally changed what I understood about life and the world around me (Volunteer 128).

Volunteer 45 also spoke to the awareness of socioeconomic barriers when speaking about their Saturday S.M.I.L.E. experience, saying:

We had a little girl that didn't come from much of a supportive environment. She always came every Saturday morning, filthy and hungry. We managed to do her laundry while she swam and ensured she was clean and fed, yes with those timbits, and ready to go home a little happier than when she came.

Throughout the survey responses, volunteers wrote about the influence the program had on their perception of disability, focusing on both individuals with disabilities, as well as the barriers they may face. In addition to their attitude toward disability, Volunteer 37 spoke to the way S.M.I.L.E. highlighted varying ability levels and the impact of physical activity saying:

I remember the feeling of early mornings, not being a big “pool person” but as soon as I arrived and saw my buddy, it was the biggest most positive shift. It opened my eyes to all individuals' abilities and the power and importance of activity and play for children and adults.

While demonstrating the impact of S.M.I.L.E. on their attitude to adapted programming, it also demonstrates the program's impact on volunteer accountability and understanding of the impact of their actions, as discussed in the next theme.

### *Accountability*

Throughout the survey, volunteers spoke about the way that S.M.I.L.E. allowed them to better understand the impact of their actions, take accountability for their actions, and develop their sense of responsibility. When speaking about their most difficult moments within S.M.I.L.E., four volunteers spoke to the difficulties of time management. For example, Volunteer 4 spoke to the difficulty of getting up early to make their aquatic S.M.I.L.E. commitment, writing:

I don't remember any challenges related to S.M.I.L.E. I remember my first few years I volunteered with individuals in the pool, and some of those mornings were tough to get up for and get in the pool- but always worth it.

Three volunteers furthered this concept by highlighting the challenges of balancing their social life and professional commitments. Volunteer 16 described managing their social life and early morning S.M.I.L.E. commitments, writing their biggest challenge was “waking up hungover on Saturday morning and getting to the athletic complex on time.” Volunteer 28 furthered this discussion by explaining “honestly, my biggest challenge was to manage my time to be sure to prioritize [Saturday] mornings for S.M.I.L.E. and minimize socializing on [Friday] evening.” Another expanded on balancing their schedule, writing that their biggest challenge was with “time management/balancing school work and my time at S.M.I.L.E. and other hobbies and activities” (Volunteer 73).

Volunteers also spoke about their accountability within the program by describing their feelings of responsibility and understanding the weight of their actions. This concept was articulated by Volunteer 59 when they described their least favorite aspect of S.M.I.L.E. being:

The terrifying amount of decision making we were entrusted with, which was also a great learning experience. At that age I had been used to more direction and oversight when making decisions that affected others, and S.M.I.L.E. was a departure from that.

Volunteer 39 spoke to the accountability of their actions by explaining they felt as if it gave them a chance to prove themselves which is why they believed S.M.I.L.E. was the “best experience of my life. Without S.M.I.L.E. I would not be where I am today.” Volunteer 18 further spoke to their accountability by writing about understanding the impact of their actions, saying:

On my last S.M.I.L.E. session before I graduated, I received hugs from my buddy, his parents and his grandparents. In the moment, I don’t think you truly realize how much of an impact you are making being involved with the program.

Volunteer 52 echoed this statement when writing that their most memorable part of S.M.I.L.E. was “seeing progress with the kids and also how it made such a big impact to become their friend and how it made each of my kids feel.”

While some volunteers spoke to the impact of S.M.I.L.E. on their accountability and responsibility, others spoke to the way these soft skills impacted their class participation and understanding. Volunteer 28 explained:

I always knew that I wanted to get into education so during my undergrad I was focusing on classes that would lead me to my education degree down the road. The S.M.I.L.E. program aligned with a lot of my goals even if the content of my courses were not directed related to the program. I did learn more about responsibility, commitment and managing my priorities through the program which also helped me with my classes.

Through describing S.M.I.L.E.’s impact on their emotional development, they also present the concept of S.M.I.L.E. benefiting them in their classes and impacting their knowledge development in the area, which leads into the next theme.

### *Knowledge & Skill Development*

In addition to the emotional development and impact of S.M.I.L.E., volunteers also described the knowledge or skill development S.M.I.L.E. offered. Some volunteers wrote about the method of knowledge translation, writing: “I really enjoyed learning the science from the S.M.I.L.E. directors” (Volunteer 74). This was further discussed by Volunteer 23 when indicating they liked receiving training from the leaders, which also speaks to the student-led structure of the instruction and support.

Outside of the structure of the program, volunteers also spoke to the disability education they feel they received within the program. Volunteer 54 broadly spoke to the foundational learning with which they engaged, writing that “it’s a great introduction for uni[versity] students to working in mentorship, with persons with disabilities, and with vulnerable persons.” Volunteer 13 also addressed the disability education offered through S.M.I.L.E., explaining that their favorite aspect within S.M.I.L.E. was “the variety of people gaining the experience (across majors, etc.) because it means that many more people not in the disability sector have real experience interacting with a person with a disability.” Another volunteer spoke to the skills they developed for supporting their buddy, writing “I was matched with the same little girl for multiple years, so I got to know her and her abilities very well and use that to identify the areas to work on” (Volunteer 126).

Many volunteers spoke about communication skills. Some volunteers spoke to the understanding of how to communicate effectively with individuals who are non-verbal. Volunteer 107 wrote: “I will never forget when my S.M.I.L.E. partner (child) gave me her first smile and sound that meant she was enjoying herself. She was non-verbal but I learned to communicate with her in other ways.” Learning how to communicate nonverbally was highlighted by another volunteer who wrote, “my most challenging experience would have been during my first year where I was working with a student who was non-verbal and in a wheelchair. Learning how to connect and find ways to build a relationship with him was a great

learning experience” (Volunteer 51). In addition to learning non-verbal communication, many volunteers highlighted the value they placed on collaboration with their participant’s family. When describing goal setting for their participant, 14 volunteers explained that it was done through collaborating with their participant’s family.

In addition to the program structure and communication, many volunteers also spoke to the skills they took from S.M.I.L.E. and how they impact their current role. Volunteer 54, a lawyer, explained that knowing how to work with individuals with disabilities and understand them is an important part of serving clients. Career-specific skills were further described, outlining benefits within various sectors, such as human resources, law, and teaching:

As a Grade 2 teacher in an Ontario classroom, I work with children with varying abilities and with all sorts of special needs every day. I work with various professionals to set goals, develop programming, and acquire resources to meet the needs of these children. I work in close contact with their families; I am so grateful for the weekly parent contact that we had at drop off and pickup at S.M.I.L.E. This helped to develop my skills in collaboration and communication with parents (Volunteer 23).

or occupational therapy:

I became an occupational therapist and specifically have only worked with children with special needs. I would say the experience of working 1:1 with children, seeing engagement and progress over time was one of the main reasons I went on to pursue becoming an OT (Volunteer 37).

Throughout the survey responses, volunteers spoke positively about the peer-learning structure, disability education, and skills developed through S.M.I.L.E., demonstrating the program’s long-term influence.

## Discussion

The study’s purpose was to understand the long-term impact of service-learning initiatives on the personal and professional leadership development of students, through the investigation of an adapted physical activity program. To support the development of an objective understanding of S.M.I.L.E.’s impact, this discussion section will interpret the results using the Social Change Model (Astin et al., 1994). As described above, this framework will allow for a better understanding of the program’s impact through the three intersecting spheres of positive social change, and the 7 C’s: Individual (consciousness of self, congruence, commitment), Group (collaboration, common purpose, controversy), and Society/Community (citizenship).

### Individual

When considering the individual sphere of S.M.I.L.E. on past student volunteers, results demonstrate consciousness of self and congruence through the program’s impact on empathy and attitude; while commitment can be seen through the longstanding relationships within the program, accountability, and the program’s influence on chosen career paths. From this study, volunteers who felt empathy and had or developed a positive attitude toward individuals with disabilities demonstrated congruence. Within this study, volunteers described a commitment to reflection that demonstrated their consciousness of self as students, volunteers, and community members. They described feelings of empathy toward their buddy through their positive milestones, negative experiences, and barriers associated with disability. These results align with the current literature showing that service-learning can be beneficial for fostering empathy leading to social change within its students (Gordon et al., 2022). As empathy is a crucial factor in social participation and actions (Riess, 2017), its occurrence through S.M.I.L.E. is encouraging when considering the goal of promoting longstanding positive change toward inclusion.

Students’ reflections on their career pathway shifts as a result of S.M.I.L.E., their credit to their S.M.I.L.E. experiences to influence positive learning or relationships within their current careers, and a sense of civic responsibility, demonstrates consciousness of self and commitment. These results are

consistent with the literature showing that service-learning can encourage future service roles or volunteering in addition to the promotion of civic responsibility (Mitchell & Rost-Banik, 2019). When directly asked about additional volunteer work, 36 volunteers spoke of their continued volunteer work across various organizations, crediting S.M.I.L.E. for being influential in continuing their civic service to their communities. These results support the findings within previous literature indicating that service-learning programs can promote continued civic responsibility and action. However, within their paper (Lake et al., 2021) discussed that personal and professional barriers have also been shown to impede or prevent continued volunteer work upon completion of service programming. While 36 volunteers spoke to the influence of S.M.I.L.E. on their volunteer work, this only represents approximately 30% of all respondents. As there was not a question further investigating the decision to continue or barriers preventing volunteering, future research could be done to inquire about barriers to continued volunteering to better understand the volunteer pathway after participation in service-learning programming.

## Group

When considering the group sphere of S.M.I.L.E., results demonstrate collaboration through the student-led structure of the program and communication skills fostered, while a sense of a common purpose can be found through attitude toward disability. Collaboration was addressed through volunteers describing their sense of community between student volunteers and describing friend groups that have continued long since graduation. Furthermore, volunteers explained the enjoyment of learning information from student peers and collaborating with parents or students to support their buddy. The S.M.I.L.E. program structure promotes collaboration given the student-led leadership program structure. Positive experiences of learning and working with peers coupled with the value of parental communication and collaboration within the program demonstrate the presence of positive collaboration. As discussed above, the empathy, attitude, and accountability experienced by volunteers throughout the program also demonstrate working toward a common purpose. While not directly spoken to, given the positive interpersonal experiences within the program coupled with the lack of discussion on conflict, there was little information about controversy in the S.M.I.L.E. program. An examination of controversy and conflict resolution as part of cultivating leadership and social change is an area that needs further exploration.

Results from this study also support the development of accountability to a common purpose. Volunteers described understanding the impact of volunteering and being accountable for their role within the program, and being part of something bigger than themselves. Many participants in this study related lessons with time management, early mornings, or difficult moments within programming to understanding the impact of their actions on the program and their participant. These findings are consistent with the literature showing that service-learning has been shown to promote civic responsibility among students (Hébert & Hauf, 2015). Understanding and feeling civic responsibility further encourages action within the community, demonstrating encouraging results for the greater reach of S.M.I.L.E.

Related to this was the influence of S.M.I.L.E. on the attitudes toward disability. Volunteers throughout the study allude to the influence of S.M.I.L.E. on their perceptions of disability. Some participants spoke about their changed perception of disability, while others addressed the way S.M.I.L.E. influenced how they interacted with individuals with disabilities. Literature on adapted physical activity service-learning programs has also shown to positively promote volunteers' attitudes toward disability (Case et al., 2021). While more analysis is needed to understand student volunteers' conceptions of disability, the findings do suggest that adapted physical activity-based service-learning can positively influence attitudes toward disability. Future research should be conducted to understand the mechanisms behind evolving disability attitudes and definitions to allow for them to be implemented and further support social movements surrounding inclusion and disability advocacy.

## **Society/Community**

When considering the citizenship sphere regarding student volunteers, results demonstrate its positive presence through relationship development both within the program and in the community. Within citizenship, it is important to establish a sense of community both within the team enacting change, and the community for which it will benefit (this includes the intersecting communities of the university, the local community, and the community at large all of which students are a part of). As described by volunteers in this study, their time within S.M.I.L.E. helped establish positive relationships between volunteers, between volunteers and participants and their families, and volunteers and the community, thus demonstrating S.M.I.L.E.'s strong influence on cultivating a sense of citizenship and civic responsibility. Results from this study demonstrated that alumni felt a strong sense of community within the S.M.I.L.E. program. Community building or feelings of community have been discussed throughout the literature as being important components for fostering social change or civic responsibility (Hyde & Chavis, 2008), thus these results are promising for supporting volunteers as leaders for social change. Furthermore, for service-learning programming, along with a sense of community, strong relationship development within both the program and the community has been shown to increase the chances of continued service or volunteer work in the future (Harkins et al., 2020). The continued service through connection and community within the S.M.I.L.E. program service-learning opportunity was spoken to throughout the survey responses such as Volunteer 46 speaking to the Summer camp programming opportunities they were able to create through S.M.I.L.E. and their deeper understanding of accessibility, or Volunteer 85 where they spoke to the connection they had with their buddy, and how since their experience in the program, they have been a regular volunteer. Future research should begin to explore the scope of impact as individuals move beyond their service-learning program and into the community as leaders of social change.

## **Long-term Impact**

In addition to volunteer comments on the intersecting individual, group, and community/societal impacts of S.M.I.L.E., the range of volunteer ages further emphasizes the long-term impact of the program. Most respondents (87.6%) were between 30–44 years of age, thus, given the average age of bachelor's degree graduates in Canada is 25 years (Statistics Canada, 2017), participants were likely 10–25 years post-graduation from Acadia University and their volunteer role. While the results above speak to the individual development from volunteering with the program, the length of time since graduation for many respondents demonstrates the sustained impact of this type of programming. Participants demonstrate that through volunteering in S.M.I.L.E., they maintain these outcomes upon graduation and are not lost but instead utilized within their adult lives and create the potential for future advocacy and social change through promoting inclusive ideals.

Results from this study suggest that service-learning programs can introduce student volunteers to new systemic barriers, community connection, and overall real-world problems in addition to the contextual learning. This service-learning program demonstrates reach beyond the programming times, potentially suggesting that the use of service-learning programming could be used to promote student learning within the field of disability, or inform and potentially further support the inclusionary agenda throughout society more broadly. Considering the long-term impact on the participants within this study, providing student learning opportunities allows students to both learn and apply their knowledge not just to the program but to their life choices moving forward. While future research is needed to fully understand the impact of service-learning, the results from this study are encouraging for establishing the agents of social change and promoting personal and community action.

## **Limitations**

Given the voluntary nature of responding, data collected was from volunteers who wanted to support the project. These perspectives may not holistically reflect the opinions of all past student volunteers, but instead a sample of volunteers who care enough or are interested in sharing their opinions, presenting

potential bias within the data. Furthermore, given the use of a survey, there is potential for response bias within the data, as volunteers may want to describe experiences differently than they occurred to alter their responses for the researcher. Despite this, these findings are strengthened by the large sample size, anonymized responses, and long-term follow-up, providing insight into the effects of service-learning many years later.

## Conclusion

Results from this study demonstrate that S.M.I.L.E. volunteers are positively influenced through relationship, academic, emotional, and social development in the long term. When investigating results through the Social Change Model, results show that volunteering with S.M.I.L.E. satisfies the intersecting spheres of individual, group, and society/community factors, demonstrating the potential to generate positive social change. Given the composition of the volunteer sample, the impact of S.M.I.L.E. seems to be beneficial long after graduation. The long-term nature of the results, coupled with the spheres of positive social change, demonstrate the potential reach of the program, ultimately establishing a S.M.I.L.E. network of leaders working toward social change.

## Appendix: Demographic Characteristics of the Sample

| Variable                                          | <i>n</i> (%) |
|---------------------------------------------------|--------------|
| <b>Age Category (years)</b>                       |              |
| 15–24                                             | 1 (.8%)      |
| 25–29                                             | 2 (1.6%)     |
| 30–34                                             | 43 (35.2%)   |
| 35–39                                             | 38 (31.1%)   |
| 40–44                                             | 26 (21.3%)   |
| 45–49                                             | 6 (4.9%)     |
| 50–54                                             | 6 (4.9%)     |
| <b>Gender Identity</b>                            |              |
| Man                                               | 36 (29.5%)   |
| Woman                                             | 86 (70.5%)   |
| <b>Identify as a Visible Minority</b>             |              |
| No                                                | 116 (95.1%)  |
| Yes                                               | 6 (4.9%)     |
| <b>Identify as Person Experiencing Disability</b> |              |
| No                                                | 115 (94.3%)  |
| Yes                                               | 7 (5.7%)     |
| <b>Major Program of Study</b>                     |              |
| Applied Sciences (BASc, CAS)                      | 1 (.8 %)     |
| Biology (BSc)                                     | 14 (11.5 %)  |
| Business Administration (BBA)                     | 8 (6.6 %)    |
| Canadian Studies (BA)                             | 1 (.8 %)     |
| Chemistry (BSc)                                   | 2 (1.6 %)    |
| Computer Science (BCS, BACS, BSc)                 | 1 (.8 %)     |
| Economics (BA, BSc)                               | 1 (.8 %)     |
| Education (BEd)                                   | 2 (1.6 %)    |
| English (BA)                                      | 3 (2.5 %)    |
| French (BA)                                       | 1 (.8 %)     |
| Kinesiology (BKIn)                                | 57 (46.7 %)  |
| Mathematics and Statistics (BSc, BA)              | 1 (.8 %)     |
| Music (BM, BAM)                                   | 1 (.8 %)     |
| Music Therapy (BMT, CMT)                          | 1 (.8 %)     |
| Nutrition and Dietetics (BSN)                     | 4 (3.3 %)    |

|                                                  |             |
|--------------------------------------------------|-------------|
| Other                                            | 7 (5.7 %)   |
| Physics (BSc)                                    | 1 (.8 %)    |
| Politics (BA)                                    | 5 (4.1 %)   |
| Psychology (BSc, BA)                             | 5 (4.1 %)   |
| Sociology (BA)                                   | 6 (4.9 %)   |
| <b>Highest Level of Education</b>                |             |
| College diploma                                  | 1 (.8%)     |
| Bachelor's degree                                | 49 (40.2%)  |
| Master's degree                                  | 51 (41.8%)  |
| Professional degree                              | 14 (11.5%)  |
| Doctorate degree                                 | 7 (5.7%)    |
| <b>Current Employment Status</b>                 |             |
| Employed full-time                               | 108 (88.5%) |
| Employed part-time                               | 5 (4.1%)    |
| Other                                            | 9 (7.4%)    |
| <b>Current Industry</b>                          |             |
| Accommodation and food services                  | 1 (.8%)     |
| Agriculture, forestry, fishing, and hunting      | 2 (1.6%)    |
| Arts, entertainment, and recreation              | 2 (1.6%)    |
| Construction                                     | 1 (.8%)     |
| Educational services                             | 39 (32%)    |
| Finance and insurance                            | 6 (4.9%)    |
| Health care and social assistance                | 47 (38.5%)  |
| Management of companies and enterprises          | 1 (.8%)     |
| Manufacturing                                    | 2 (1.6%)    |
| Other                                            | 9 (7.4%)    |
| Other services (except public administration)    | 1 (.8%)     |
| Professional, scientific, and technical services | 6 (4.9%)    |
| Public administration                            | 2 (1.6%)    |
| Real estate and rental and leasing               | 1 (.8%)     |
| Utilities                                        | 2 (1.6%)    |

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