
CANADIAN ATLAS OF COMMUNITY BELONGING

2005-2014

TRENDS ACROSS CANADA



UNIVERSITY OF TORONTO
DALLA LANA SCHOOL OF PUBLIC HEALTH



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OVERVIEW

This report describes the sense of local community belonging among Canadians aged 12 years and older from 2005 to 2014. Specifically, we aim to describe:

- the reported levels of community belonging across age and over time; and,
- how community belonging varies across regions in Canada and by area-based income level, which is used as a proxy for socioeconomic status.

To report on these trends, we analyzed five pooled cycles of the Canadian Community Health Survey: 2005, 2007/08, 2009/10, 2011/12, 2013/14.

Age trends across province/territory and income levels are described according to four strata defined as:

- (1) Youth (12–17 years old)
- (2) Young adults (18–34 years old)
- (3) Middle-aged adults (35–64 years old)
- (4) Older adults (65 years and older).

EXECUTIVE SUMMARY

Background

Measures of subjective well-being have become increasingly recognized as reliable indicators of social progress and health. One measure of subjective well-being, local community belonging, refers to the degree to which individuals judge themselves to be connected to and engaged with their local community.¹ Given the associations between our social and environmental contexts with both physical and mental health outcomes, belonging at the local community level is an important population health metric to characterize and monitor.²⁻¹²

Drawing from the Canadian Community Health Survey (CCHS), this report aims to characterize the sense of community belonging among Canadians across age (four defined strata: 12 to 17; 18 to 34; 35 to 64; and 65 years and over) and time (2005 to 2013/14), with further stratifications by province/territory and income level.

Key Findings

The majority of Canadians reported a positive level of community belonging: 17.1% reported a very strong sense of local community belonging, 48.1% reported a somewhat strong sense, 25.9% a somewhat weak sense, and 8.8% a very weak sense.

Time: These proportions remained relatively stable over time. The largest increase was observed in the proportion reporting a somewhat strong sense (47.2% in 2005 to 49.3% in 2013/14), and the largest decrease in the proportion reporting a very weak sense (9.6% to 7.8%).

Age: The proportion of Canadians reporting a very strong sense of community belonging was lowest among young adults (11.6%, 18-34 years old) and highest among older adults (26.3%, 65 and older).

Province/Territory: Across all age strata, the lowest proportion of residents reporting very strong community belonging was reported by residents of Quebec. The highest level was reported by residents of the territories for the three younger age strata, and by residents of Newfoundland for the oldest age strata (closely followed by residents of the territories). Comparing provincial estimates within each age stratum, the largest inter-provincial disparity was observed among older adults. Comparing 2005 to 2013/14 estimates, the highest increase was observed among residents of the territories (+4.4%), and the largest decrease among residents of Newfoundland (-6.6%).

Income: Canadians in the lowest income quintile reported the highest proportion of very strong community belonging, though there was little variation in this proportion across income levels. Canadians in the lowest income level also reported the highest proportion of very weak belonging, which was observed across all age strata. Over time, the proportion reporting a very weak sense slightly decreased across all income levels, most significantly in the lowest income quintile.

Implications

This report describes sense of community belonging among Canadians by age group, province/territory, and income level. This information provides an important context for public health evaluation and planning around community well-being. Given the previously established associations between community belonging with physical and mental health, characterizing communities by sense of community belonging may help identify tangible targets for improving population health outcomes.

1 INTRODUCTION

Background

Our social environments and identities have long been considered paramount to our well-being, with the need to belong being conceptualized as a fundamental human motivation.^{13,14}

Community belonging is one measure of our sense of belonging; it refers to the degree to which individuals are (or perceive themselves to be) connected to and engaged with their community.¹

Previous studies have shown an individual's sense of community belonging to be positively associated with a variety of forms of social capital, namely those capturing aspects of neighbourhood network-based social capital (such as how many neighbours a person has that they feel comfortable enough to ask a favour).¹² However, the concept is distinct from smaller personal social networks and even broader than the concept of social capital, as it relates an individual to both their relational social groups within their local community, as well as to the physical characteristics of the geographic space.¹⁵

Community belonging and related social capital measures (such as neighbourhood cohesion) have been shown to be associated with both individual-level physical and mental health outcomes.²⁻¹² Four primary mechanisms have been proposed in an effort to explain how a strong sense of belonging can positively influence individual health^{7,16,17}: (1) stronger relationships with neighbours provide increased social, emotional, and psychological support; (2) a greater sense of community can translate into increased capacity of community members mobilizing participatory processes to advocate for resources and solutions to their problems; (3) larger social networks facilitate increased information sharing about preventive services; and (4) tightly knit social networks can contribute to the maintenance of positive health behaviours and norms through informal social influence. On the other side of the coin, a lack of connectedness is understood to act as a chronic stressor and therefore negatively influence psychological domains through, for example, poorer psychological functioning, increased severity of depression, and increased distress.^{7,18,19}

Purpose

This report describes the sense of local community belonging among Canadians aged 12 years and older using Statistics Canada population-based survey data from 2005 to 2014. Specifically, we aim to determine:

- the reported levels of community belonging across age and over time; and,
- how community belonging varies across regions in Canada and by income level.

The exploration of sociodemographic and provincial trends is a starting point to facilitate health system planning and provide a basis for further study with health outcome data.

Methods

Data Sources

This study used data from five pooled cycles of the Canadian Community Health Survey (CCHS; 2005, 2007/08, 2009/10, 2011/12, 2013/14). Cycles of the CCHS were combined using the pooled approach.²⁰

i. The Canadian Community Health Survey

The CCHS is a cross-sectional national survey administered by Statistics Canada with the objective to gather information related to health status, health care utilization, and health determinants at sub-provincial levels of geography. The first cycle was administered in 2001 and was repeated every two years until 2005. Starting in 2007, data for the CCHS were collected annually instead of every two years. A sample of approximately 130,000 respondents were interviewed during the 2005 reference period; since 2007, the target sample size was changed to 65,000 respondents each year. Methodological changes were applied to the survey design following the 2013/14 cycle. As a result, subsequent cycles were not included in this analysis due to incomparability of estimates.²¹

The CCHS is representative of approximately 98% of Canadians 12 years of age and older living in private dwellings.²¹ People living on Crown lands, residents of Indigenous communities, those living in institutions, full-time members of the Canadian forces, and some remote communities are excluded from the sampling frame. The CCHS uses multistage stratified cluster sampling to collect information concerning health determinants and outcomes. It has a response rate ranging from 66% to 79%. Detailed methodology concerning sampling and survey design is available elsewhere.^{21,22} The sample size and response rates for each survey cycle are shown in Table 1.

Table 1. Overview of selected cycles of the Canadian Community Health Survey.

CCHS	N	Response rates (%)
2005	132,221	79
2007-08	131,061	78; 74
2009-10	124,188	73; 71
2011-12	124,929	70; 67
2013-14	127,462	67; 66
Final sample size*	616,684	

Abbreviations: CCHS, Canadian Community Health Survey; CB, community belonging.

*Final sample size excludes N=23,177 missing community belonging observations (3.6% of total sample).

Measures

i. Local Community Belonging

Across all survey cycles, the item to assess local community belonging remained consistent. Survey respondents were asked, *“How would you describe your sense of belonging to your local community? Would you say it is: very strong, somewhat strong, somewhat weak, or very weak.*

This measure most closely reflects network-based social capital measures at the neighbourhood level, such as number of known neighbours.¹² A construct validity study showed this 1-item question to be a parsimonious measure that describes multidimensional factors related to local social relations, neighbourhood satisfaction (i.e. perceptions of area crime, the built environment), and place attachment (i.e. duration of residence).¹⁵

The majority of CCHS respondents answered this 1-item question (in the pooled samples, 3.6% of respondents had a missing community belonging measure).

ii. Age

For all age-stratified analyses, four age strata were defined to reflect commonly distinguished developmental stages in Canadian adolescence and adulthood, and to ultimately present more meaningful results in the context of policy and programmatic interventions:

- (1) Youth (12–17 years);
- (2) Young adults (18–34 years);
- (3) Middle-aged adults (35–64 years);
- (4) Older adults (65 years and older).

iii. Province & Territory

The CCHS includes respondents in all ten provinces and three territories, and due to sample size, responses from the three territories are grouped together due to small sample sizes.

iv. Income

Income was categorized into five quintiles based on total household income and household size (with quintile one being the lowest, and quintile five being the highest). Income was missing for 11.7% of observations in the pooled CCHS sample. Please see the [Technical Appendix](#) for further details on how the income variable was derived.

Statistical Analyses

In Section 2.1, all four response categories of community belonging (very strong, somewhat strong, somewhat weak, and very weak) are described across age strata and each selected survey cycle (2005 through 2013/14). In the analysis of the association between community belonging with province/territory (Section 2.2), we present estimates of only the strongest response category (very strong) for brevity. We further present both very strong and very weak levels of community belonging by income level (Section 2.3).

We also examined sex-stratified distributions of community belonging by all the variables of interest. There were no meaningful differences in having a strong sense of community belonging by sex across and thus we did not comment on these results in this report; however, sex-stratified distributions of community belonging by province/territory and by income are provided in the [Data Appendix](#) (Appendix Tables 1, 4, 7). Additional sex-stratifications by age strata and time are available upon request. The CCHS includes only questions on self-reported sex and does not capture separate questions related to sex and gender, and therefore, we were not able to present results by sex and gender separately.

In the analyses comparing inter-provincial proportions over time, we report the absolute difference between the proportion reporting the respective level of community belonging in the most recent selected cycle (2013/14) and the earliest cycle (2005). These absolute differences were then plotted for descriptive purposes on a map where *no meaningful difference* was defined as less than half of the standard deviation of the absolute differences.

Complete case analysis was used throughout this report, given the small percentage of overall missing data.

Survey weights provided by Statistics Canada were applied to account for the complex survey designs and produce more generalizable population-based estimates. We used a normalized

weighting procedure, which uses a re-scaled version of the original survey weight whereby the sum of all the normalized weights equals the number of units included in the analysis.^{22,23} Weighted 95% confidence intervals (CIs) were calculated for all estimates. Statistical analyses were performed using SAS version 9.4.

2 RESULTS

Section 2.1 describes the overall distribution of community belonging across age groups, and over time. Section 2.2 describes the proportion reporting a very strong sense of belonging over age and time stratified by province/territory, and Section 2.3 describes the proportions reporting either a very strong or very weak sense of belonging over age and time, stratified by income level.

2.1 Community Belonging

In the overall pooled sample, 17.1% of respondents reported a very strong sense of local community belonging, 48.1% reported a somewhat strong sense, 25.9% a somewhat weak sense, and 8.8% a very weak sense.

Comparing sex-specific estimates, females reported higher proportions of strong community belonging and lower proportions of weak community belonging. These differences were statistically significant, but all sex-specific proportion comparisons were within the same percentage point (i.e. 17.4% of females reported a very strong sense, compared to 16.9% of males) (see Appendix Table 1).

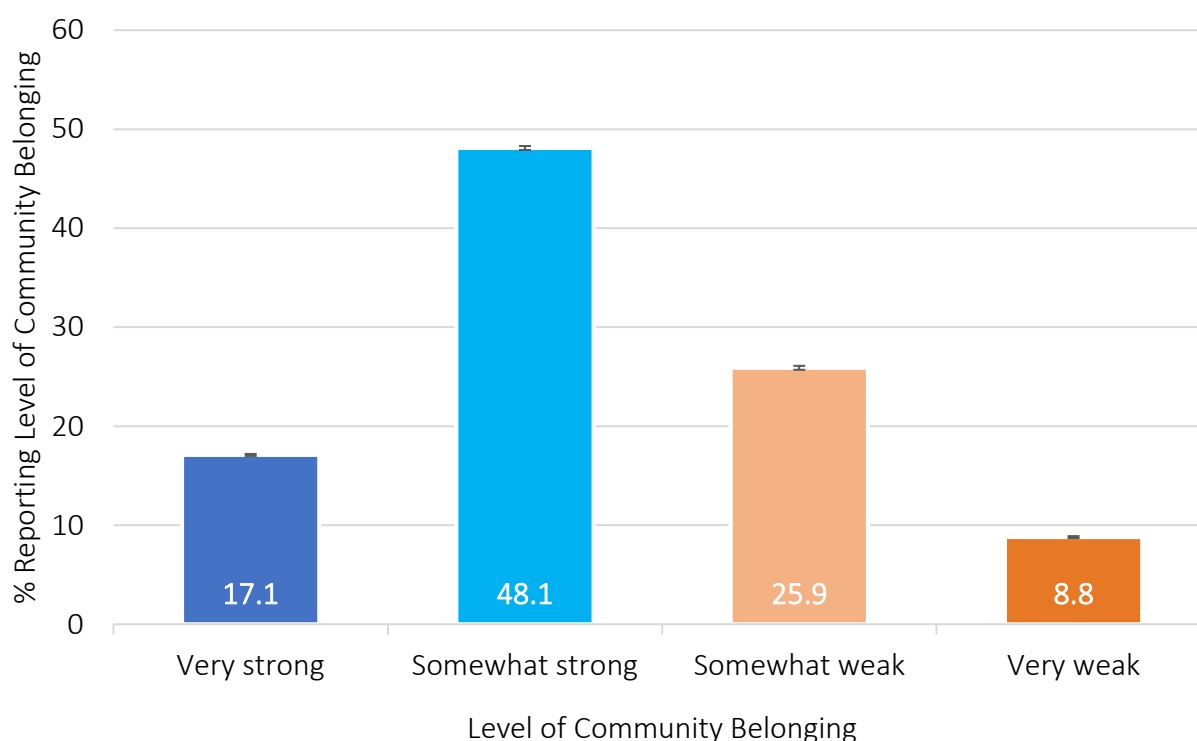


Figure 2.1.1. Pooled distribution of sense of community belonging in Canada (CCHS 2005-2013/14; N=616,684). Estimates are weighted to reflect the national population.

Age-Stratified Analysis

Examining the distribution of community belonging by age strata, the youngest age stratum (youth aged 12 to 17 years) reported the lowest levels of both somewhat weak and very weak community belonging. This group also reported the highest level of somewhat strong community belonging. Young adults aged 18 to 34 years reported the lowest levels of very strong belonging, which then increased with each age stratum to reach the highest levels in the oldest age group; the proportion reporting a very weak sense showed the opposite trend wherein the highest proportions were reported in young adulthood (see Appendix Table 2).

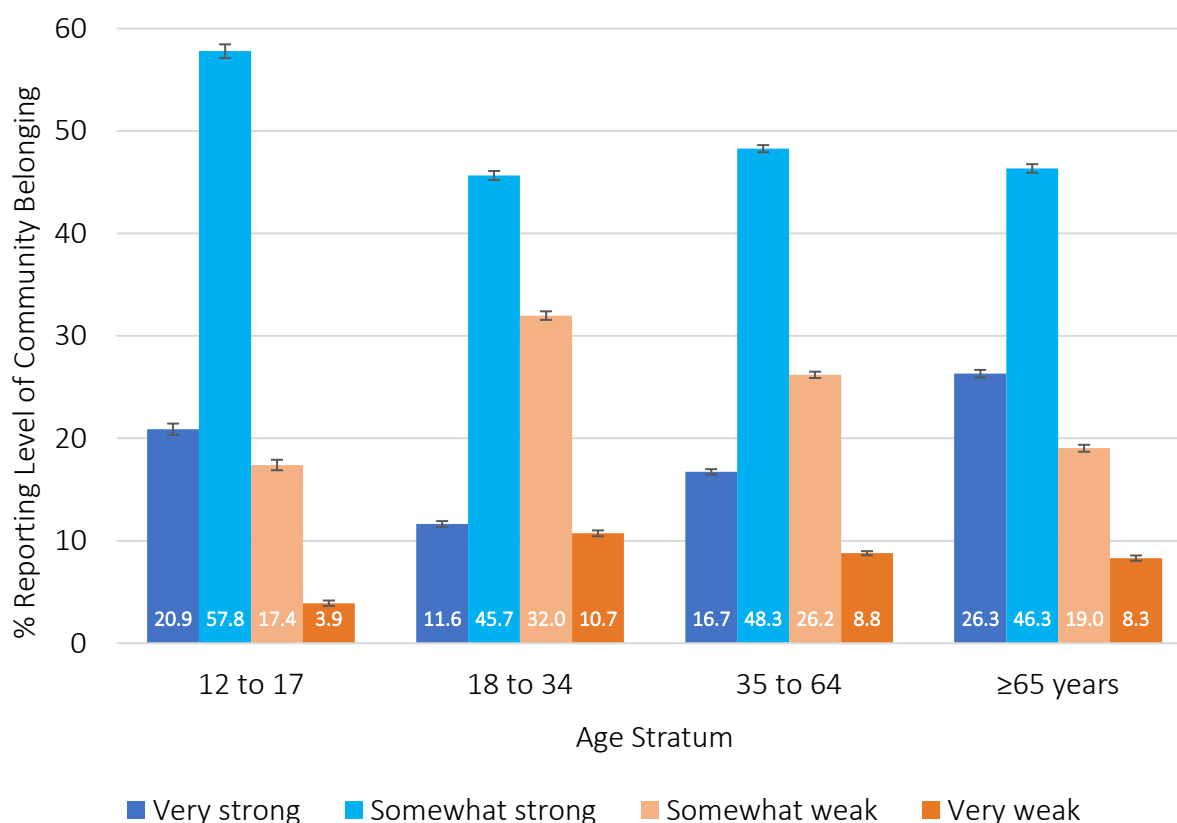


Figure 2.1.2. Distribution of community belonging within age stratum (CCHS 2005-2013/14; N=616,684). Estimates are weighted to reflect the national population.

Time Trend

Examining the study population as a whole, the proportion of Canadians reporting a very strong sense of community belonging remained relatively stable over the study period. The largest difference between 2005 and 2013/14 estimates was for the somewhat strong and very weak response categories. The proportion of Canadians reporting a somewhat strong sense increased from 47.2% (95% CI: 46.8, 47.7) in 2005 to 49.3% (95% CI: 48.7, 49.8) in 2013/14. The proportion of Canadians reporting very weak belonging decreased from 9.6% (95% CI: 9.3, 9.8) in 2005 to 7.8% (95% CI: 7.5, 8.1) in 2013/14 (see Appendix Table 3).

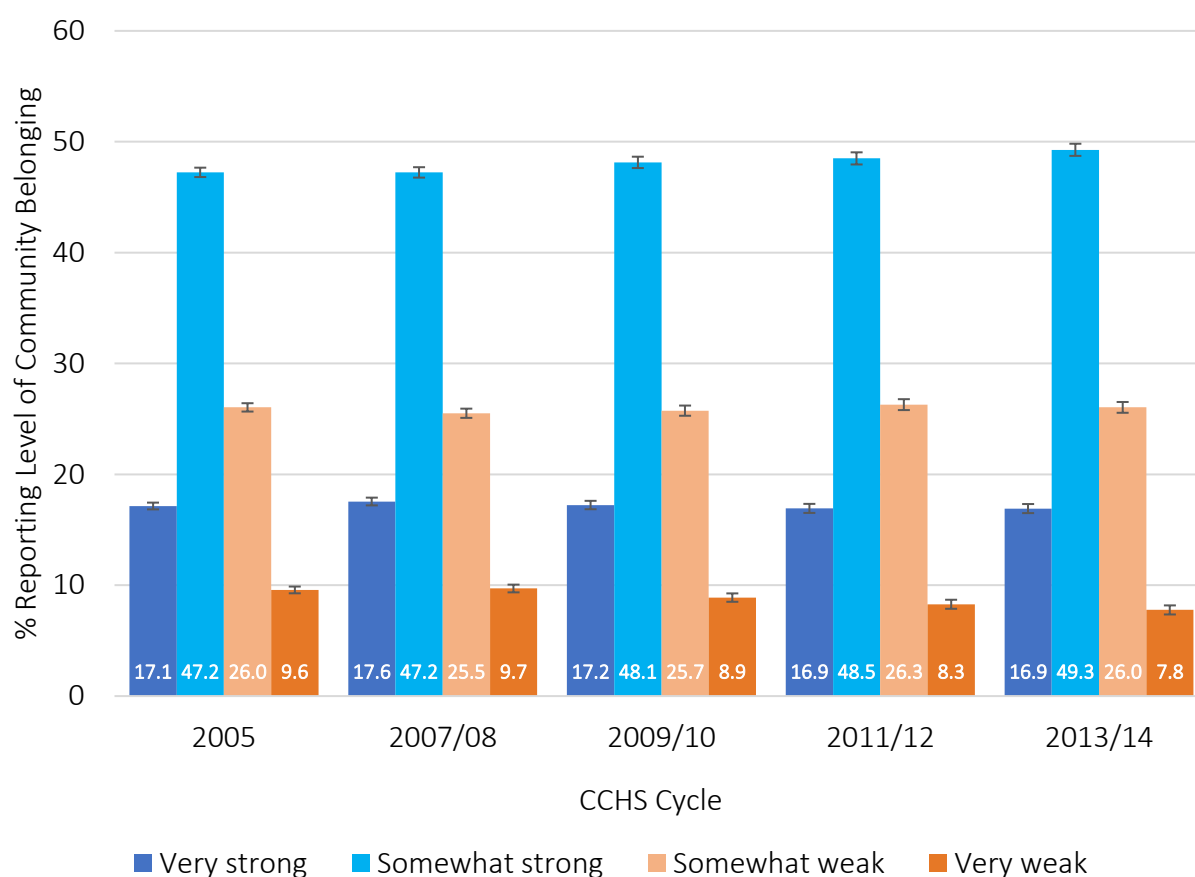


Figure 2.1.3. Proportion of Canadians reporting a very strong sense of community belonging over time (CCHS 2005-2013/14; N=616,684). Estimates are weighted to reflect the national population.

2.2 Community belonging *by province/territory*

The proportion of Canadians reporting a very strong sense of community belonging varied across Canada. Overall, having a very strong sense of belonging was lowest among residents of Quebec (12.8%, 95% CI: 12.5, 13.1). The highest sense of belonging was reported by residents of the three territories, where 29.4% (95% CI: 28.4, 30.3) reported a very strong sense of belonging. Residents of Newfoundland reported the second-highest sense of community belonging at 27.4% (95% CI: 26.4, 28.3), followed by the Atlantic provinces (Prince Edward Island, New Brunswick, and Nova Scotia) (Figure 2.2.1; see Appendix Table 4).

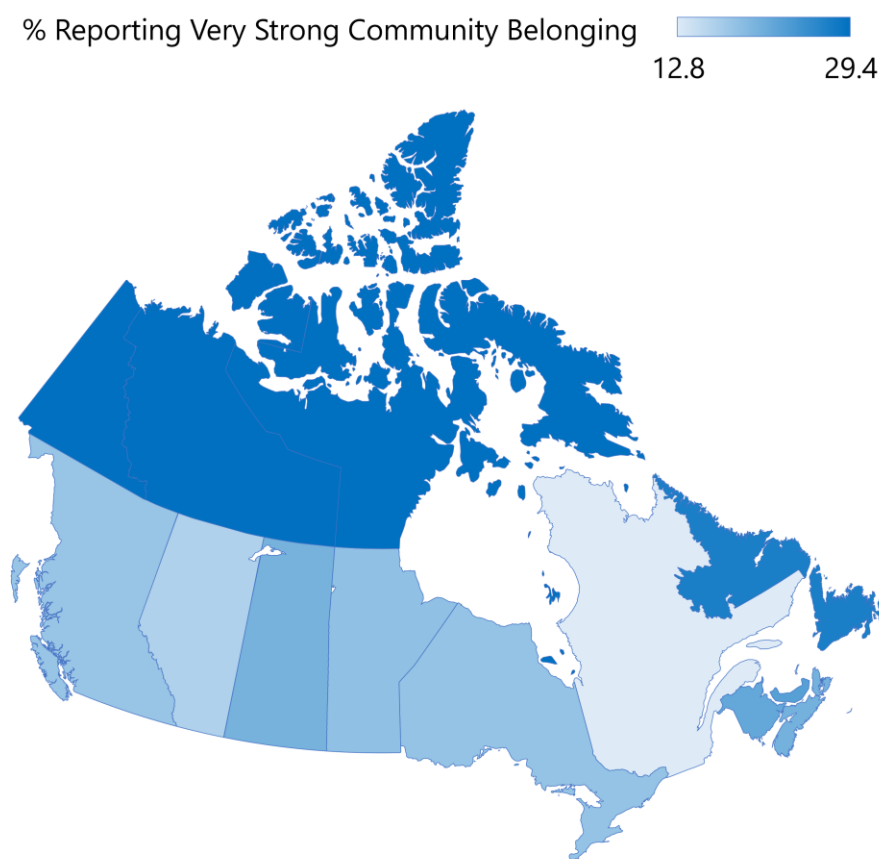


Figure 2.2.1. Proportion of Canadians reporting a very strong sense of community belonging by province and territory (CCHS 2005-2013/14; N=616,684). Estimates are weighted to reflect the national population.

Age-Stratified Analysis

Similar inter-provincial trends were observed across age strata as in the overall pooled sample, in that the strongest sense of belonging was reported by residents of the territories, and on the converse, the weakest sense of belonging was reported by residents of Quebec. Only in the oldest age stratum was this trend slightly different wherein the highest proportion of very strong belonging was reported by residents of Newfoundland at 43.4% (95% CI: 41.5, 45.4), closely followed by residents of the territories at 41.3% (95% CI: 37.7, 44.9).

Further comparing provincial estimates by age stratum, the largest difference in the proportion reporting a very strong sense of belonging was observed in the oldest age group (an absolute difference of 22.4% reporting a very strong sense, compared to 16.3% within the 12 to 17 year old group, 14.9% among 18 to 34 year-olds, and 18.8% among 35-64 year-olds) (see Appendix Table 5).

Time Trends

There were provincial and territorial differences when comparing the proportion of Canadians who reported a very strong sense of community belonging in 2013/14 to 2005. Residents of the territories exhibited the largest increase over the study period, from 25.9% reporting a very strong sense of belonging in 2005 to 30.3% in 2013-14. Those living in Newfoundland exhibited the largest decrease over time, from 30.9% in 2005 to 24.3% in 2013-14 (Figure 2.2.2). While Alberta, Manitoba and Quebec had no change in the proportion reporting very strong community belonging (<0.5 the standard deviation of the absolute differences), Ontario had slightly increased (by 1.4%), and the remaining provinces had decreased between 2005 and 2013/14.

To confirm that these trends were not indicative of variations in age-structures within provinces, we also examined these differences by age strata. Among all four age strata, the largest increase in very strong belonging was observed among residents of the three territories (+5.6% for 12 to 17 year-olds, +6.2% for 18 to 34 year-olds, +2.8% for 35 to 64 year-olds, and +1.8 for those aged 65 and over from 2005 to 2013/14). Similar to estimates in the whole population, Newfoundland residents in the two oldest age strata exhibited the largest decrease in very strong belonging (and these age groups also exhibited a higher magnitude of change compared to the whole population: -9.5% for 35 to 64 year-olds, and -10.4% for those 65 and over). Among 12 to 17 year-olds, the largest decrease in very strong belonging was observed in Nova Scotia (-6.8%). Among 18 to 34 year-olds, residents of New Brunswick exhibited the largest decrease (-5.1%) (see Appendix Table 6).

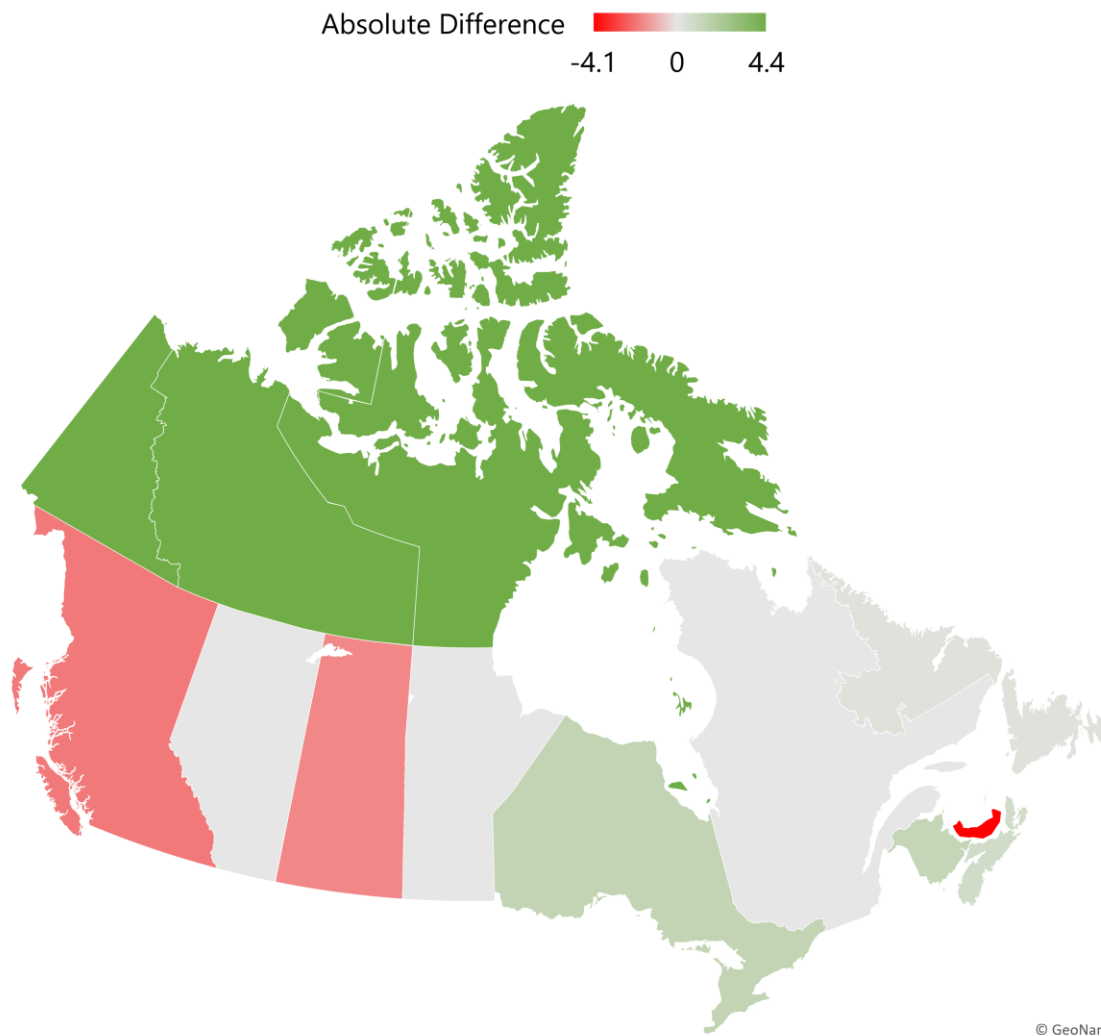


Figure 2.2.2. Absolute difference in proportion of CCHS respondents reporting a very strong sense of community belonging in the 2013-14 cycle, compared to that reported in 2005 (CCHS 2005-2013/14; N=616,684). Estimates are weighted to reflect the national population.

**Note: a value of 0 (no change) was defined as <0.5 the standard deviation of the absolute differences.*

2.3 Community belonging *by income*

In general, there was little variation in the proportion of Canadians reporting a very strong sense of community belonging across income quintiles. Respondents in the lowest income quintile (Q1) reported the highest level of very strong community belonging (18.0%, 95% CI: 17.6, 18.4), whereas those in the three highest quintiles (Q3, Q4, Q5) reported the lowest levels (16.7%, 15.9%, and 16.7%, respectively) (Figure 2.3.1).

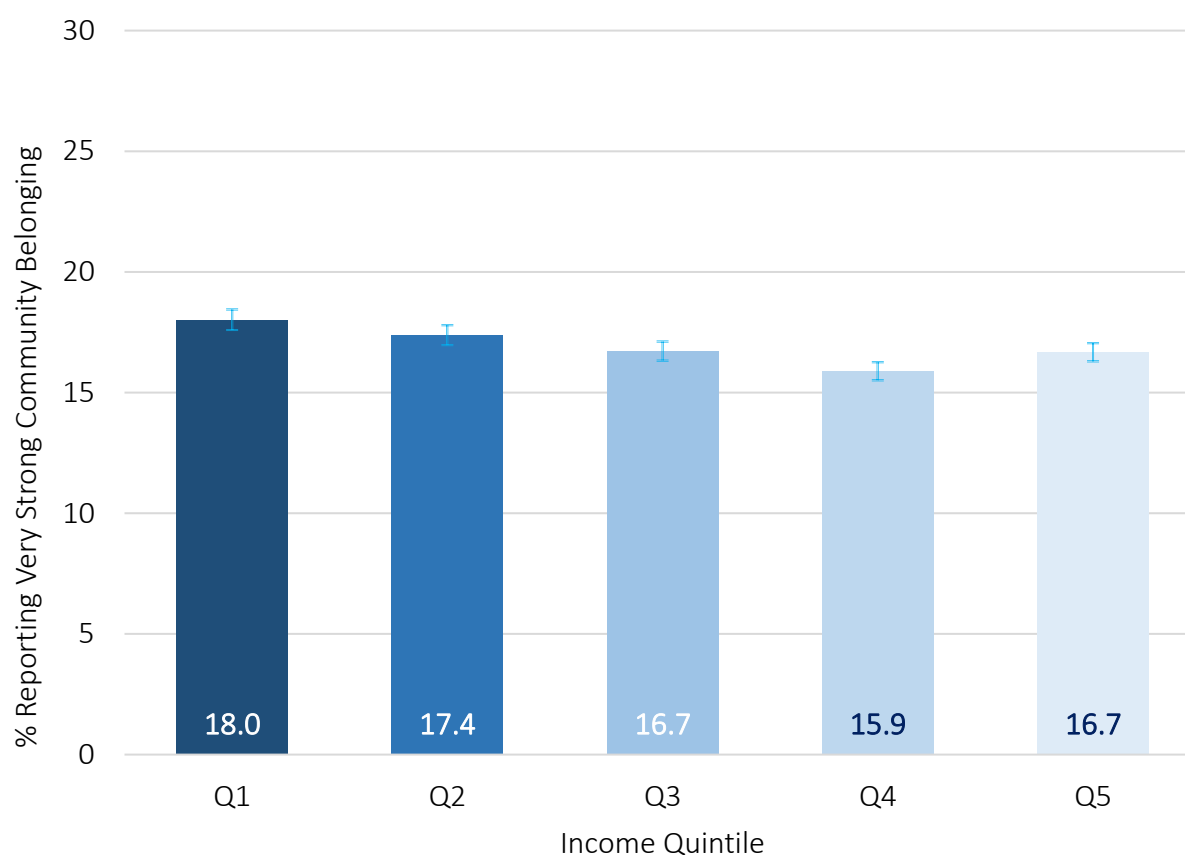


Figure 2.3.1. Proportion of Canadians reporting a very strong sense of community belonging by income quintile (CCHS 2005-2013/14; N=544,495). Estimates are weighted to reflect the national population.

There was greater variation between income quintiles among Canadians who reported a very weak sense of belonging. Those in the lowest income quintile (Q1) reported the weakest sense of community belonging at 12.1% (95% CI: 11.7, 12.5) compared to those in the highest income quintile (Q5), of which 6.7% reported a very weak sense (95% CI: 6.5, 7.0) (Figure 2.3.2).

Thus, respondents in the lowest income group were most likely to report a very strong or very weak sense of belonging, compared to all other quintiles. In other words, lower income appeared to polarize respondents' sense of community belonging (see Appendix Table 7).

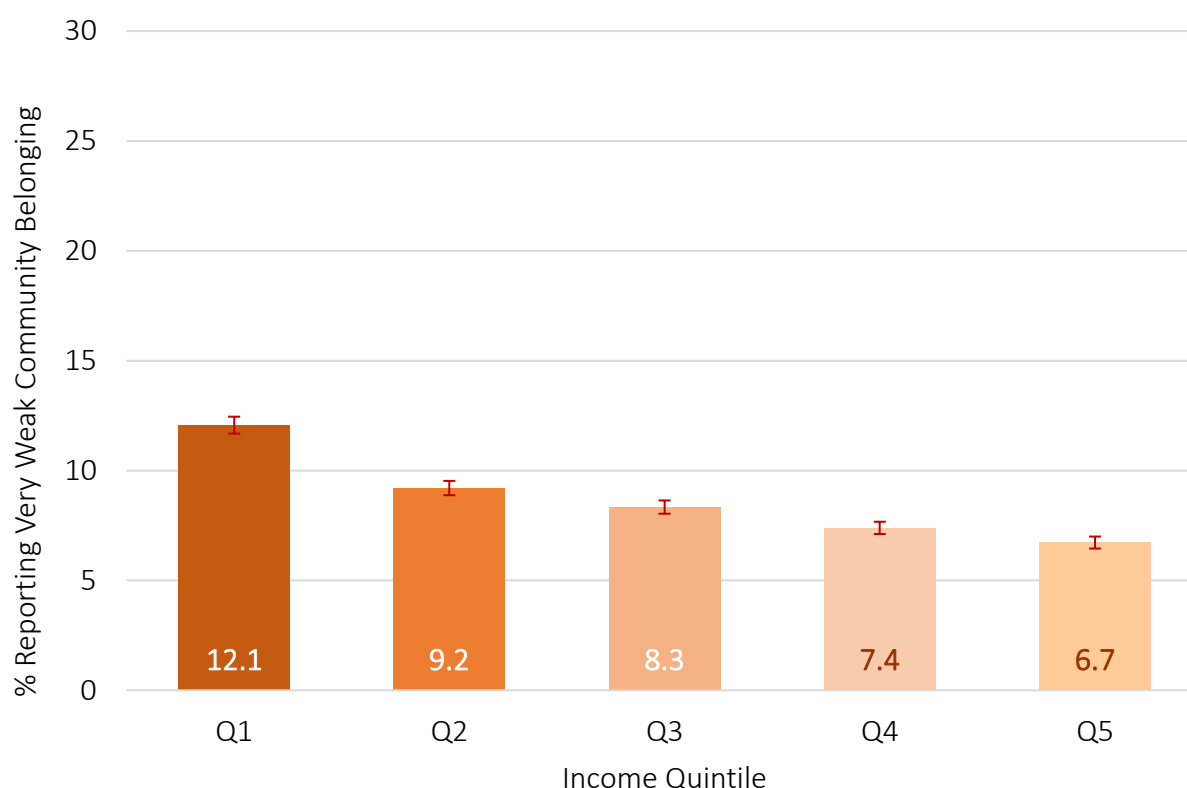


Figure 2.3.2. Proportion of Canadians reporting a very weak sense of community belonging by income quintile (CCHS 2005-2013/14; N=544,495). Estimates are weighted to reflect the national population.

Age-Stratified Analysis

As noted above, there was little variation in the proportion reporting very strong sense of community belonging across income quintiles. Comparing the proportions reported by those in the lowest income quintile to those in the highest, there were no meaningful differences in any of the age strata (Figure 2.3.3).

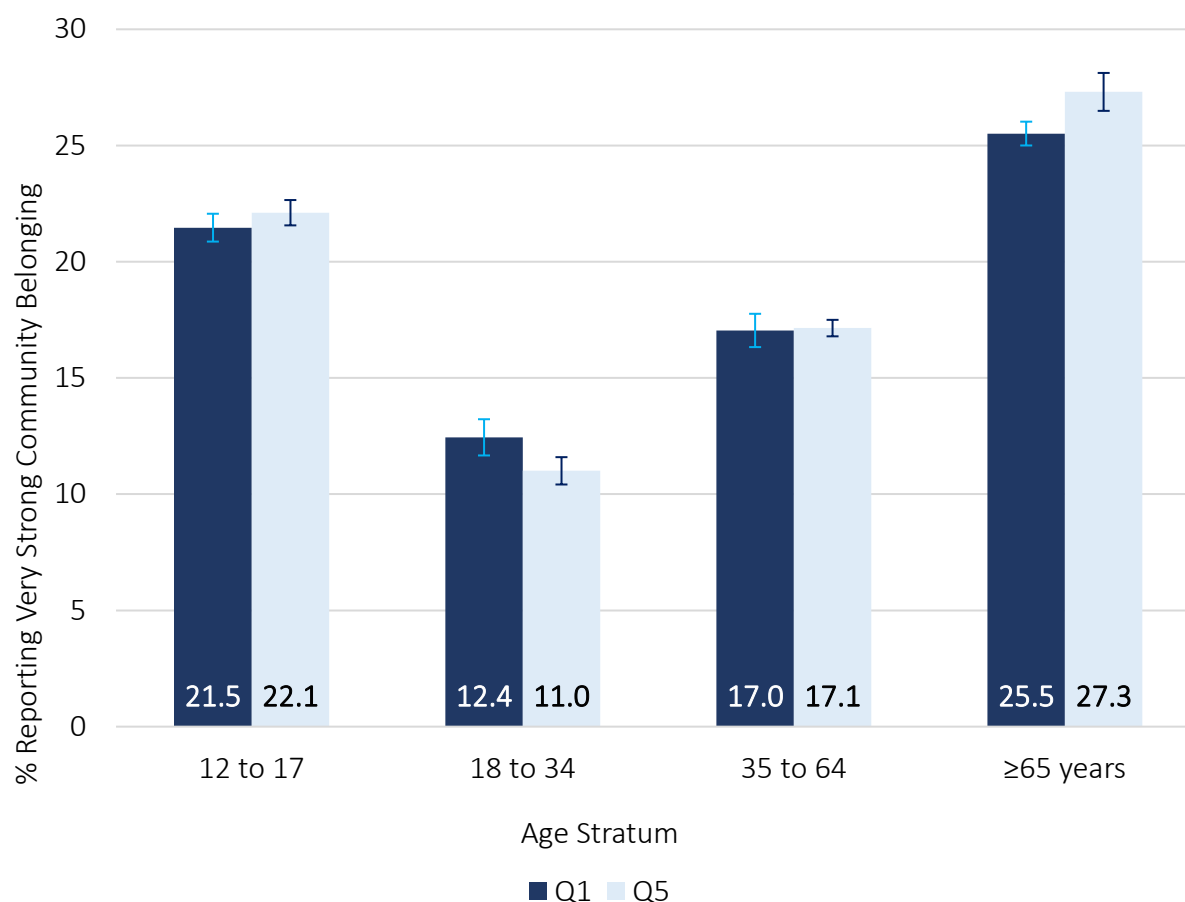


Figure 2.3.3. Proportion of Canadians reporting a very strong sense of community belonging in the lowest (Q1) versus highest (Q5) income quintile, stratified by age (CCHS 2005-2013/14; N=544,495). Estimates are weighted to reflect the national population.

In contrast, among Canadians reporting a very weak sense of community belonging, those in the lowest income quintile reported the largest proportion of very weak belonging, and those in the highest income reported the lowest proportion across all age strata. The largest difference between the lowest and highest income quintiles was observed among middle-aged adults (aged 35 to 64) wherein 14.0% (95% CI: 13.3, 14.8) of respondents in the lowest quintile reported a very weak sense, compared to 6.5% (95% CI: 6.2, 6.9) in the highest quintile (Figure 2.3.4; see Appendix Table 8).

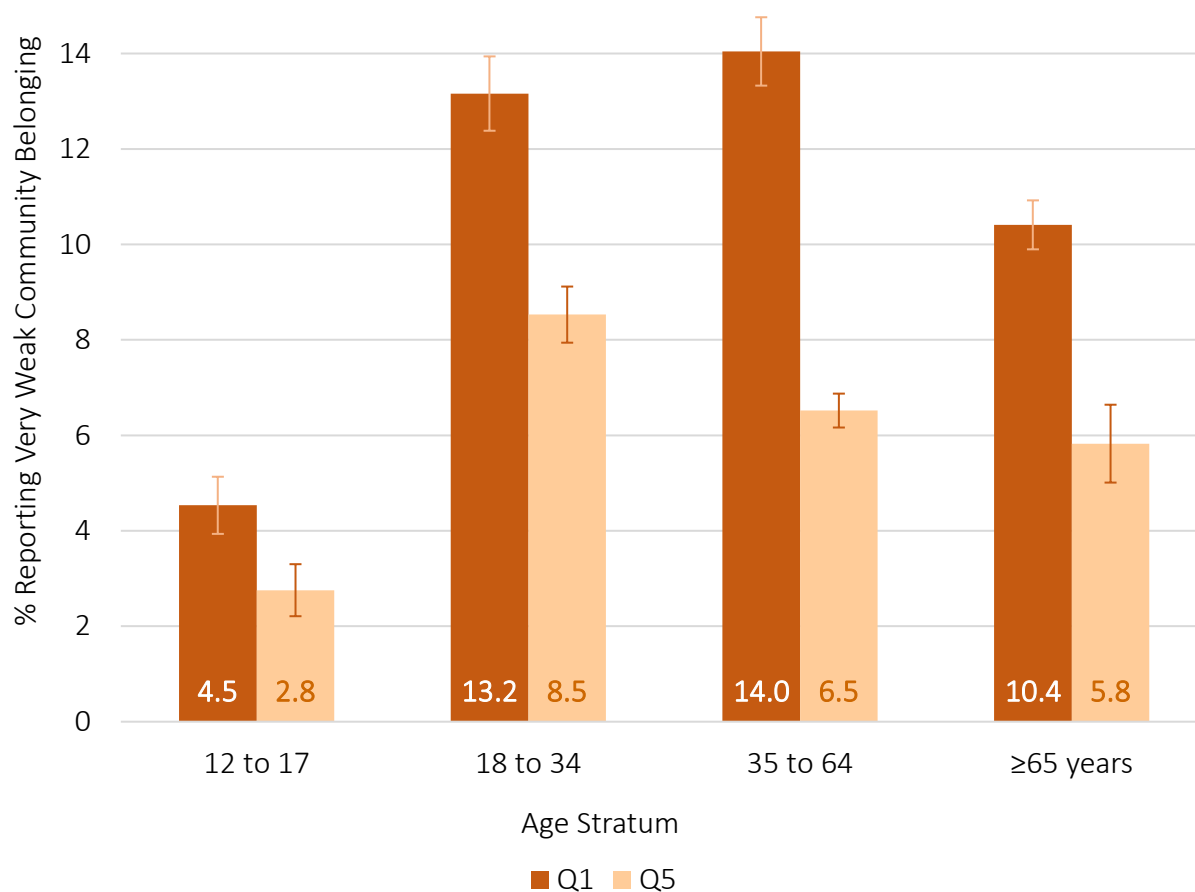


Figure 2.3.4. Proportion of Canadians reporting a very weak sense of community belonging in the lowest (Q1) versus highest (Q5) income quintile, stratified by age (CCHS 2005-2013/14; N=544,495). Estimates are weighted to reflect the national population.

Time Trend

Between 2005 and 2013/14, there was no significant difference in the proportion of Canadians reporting a very strong sense of community belonging within each income quintile (Figure 2.3.5).

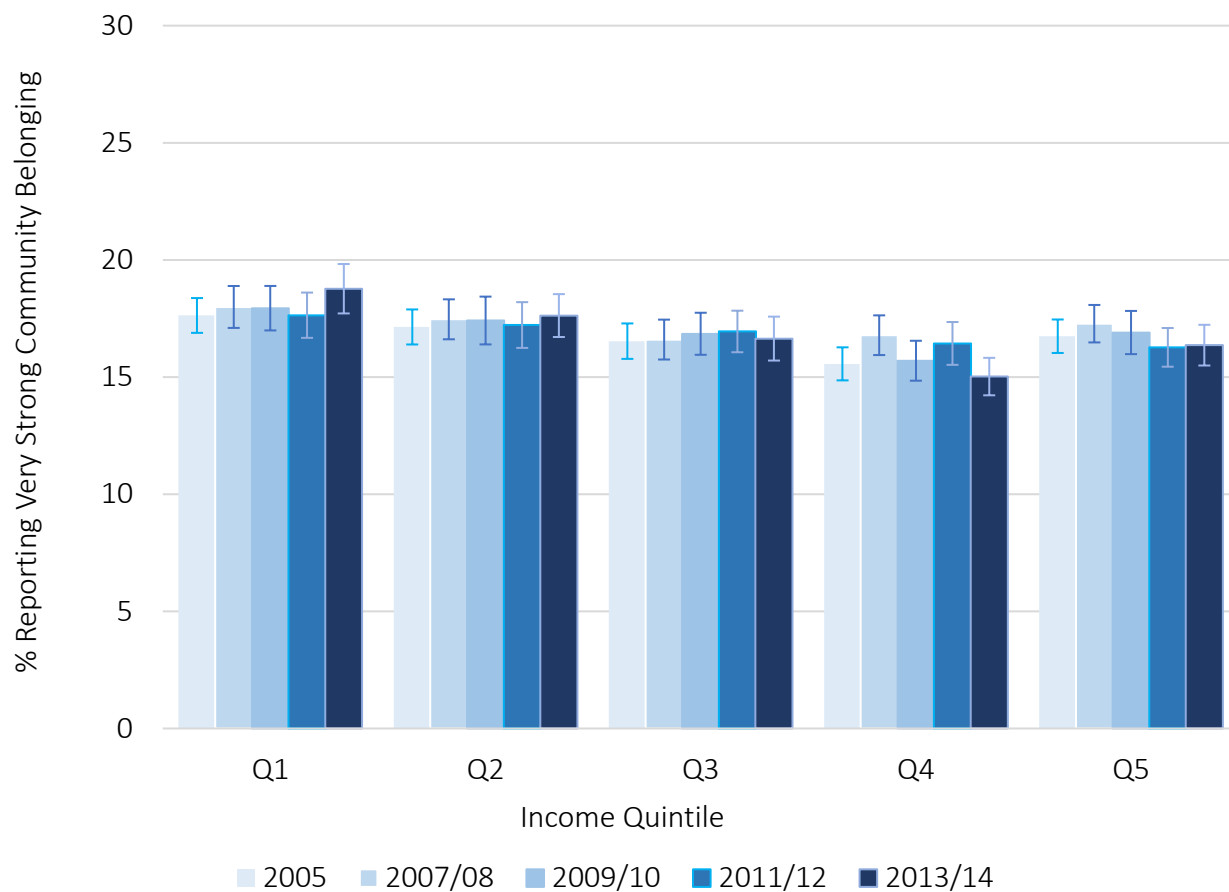


Figure 2.3.5. Proportion of Canadians reporting a very strong sense of community belonging over time, by income quintile (CCHS 2005-2013/14; N=544,495). Estimates are weighted to reflect the national population.

Across time, the largest decline in the proportion reporting a very weak sense of belonging was observed among those in the lowest income quintile, from 13.3% (95% CI: 12.5, 14.1) in 2005 to 10.8% in 2013/14 (95% CI: 9.9, 11.7) (Figure 2.3.6; see Appendix Table 9).



Figure 2.3.6. Proportion of Canadians reporting a very weak sense of community belonging over time, by income quintile (CCHS 2005-2013/14; N=544,495). Estimates are weighted to reflect the national population.

3 CONCLUSIONS

Summary of Findings

Age & Time

Reporting a very strong sense of community belonging was lowest among young adults, which increased with each age stratum to reach the highest level among older adults. All response categories remained relatively stable over time, with the largest decrease in the proportion reporting a somewhat strong sense, and largest increase in the proportion reporting a very weak sense.

Province/Territory

The proportion of Canadians reporting a very strong sense of community belonging varied across provinces and territories in Canada. In the age-stratified analysis, inter-provincial disparities between those reporting a very strong sense of belonging were largest among older adults (aged 65 years and older).

Time trends also varied between provinces and territories. Between 2005 and 2013-14, residents of the territories exhibited the largest absolute increase in the proportion reporting very strong community belonging (+4.4%), whereas those of Newfoundland exhibited the largest decrease (-6.6%). An age-stratified time trend analysis confirmed that similar trends occurred within each age stratum and therefore varying age-distributions between provinces and territories do not fully account for the observed differences.

Income

Canadians in the lowest income quintile reported the highest proportions of both very strong and very weak belonging. a very strong or very weak sense of belonging, when compared to those in higher income quintiles.

An age-stratified analysis showed that the largest disparity in the proportion reporting a very weak sense between those in the highest versus lowest income quintiles was observed among middle-aged adults (35 to 64 years old). Examining time trends, those in the lowest income quintile also exhibited the largest decrease in the proportion reporting a very weak sense of belonging.

Discussion

In Canada, there are substantial differences in the distribution of community belonging, which persist across the life course and across provinces.

The finding that community belonging is strengthened in older age groups is consistent with other research that has identified this positive association. Researchers have suggested that as people age, they have more time to participate in community life.¹⁶ Previous literature has also shown that older adults are more likely to experience a loss of work-related social networks, to be widowed, and to live alone compared to their younger counterparts. Thus, the relative importance of an older adult's sense of belonging to their local community likely contributes more profoundly to their social identity. In comparison, a young adult's social network usually consists largely of their ongoing workplace and family life.^{24,25} This larger role that community life plays in an older adult's social life may also help explain why the largest inter-provincial disparities in very strong community belonging were observed within the oldest age stratum.

Additionally, the variation across provinces suggests that sense of community belonging is connected to province/territory. A measure distinguishing urban versus rural communities was not available for these analyses, but previous research has examined differences in social capital between rural and urban Canadian contexts. Turcotte (2005) found that rural residents were more likely to know most of their neighbours, were more willing to trust them, and benefitted from higher levels of community activities and voluntarism.²⁶ The differences in civic engagement found between rural and urban communities may explain the provincial and territorial variation also observed: the Eastern provinces reporting the strongest sense of belonging also have higher rural populations.^{15,26}

Strengths

This report comprehensively documents community belonging in Canada from 2005 to 2014 using data from multiple cycles of a nationally representative survey.

Pooling multiple cycles of the CCHS increased the sample size and improved the generalizability of the findings. This also permitted stratified analyses by multiple components (i.e. by province, age strata, and sex). To the authors' knowledge, this is the first time that sense of local community belonging has been described over this time period in Canada, and explicitly across age strata.

Limitations

This report also has several limitations. First, the study relied on self-reported income data for the majority of CCHS cycles, which is subject to reporting errors.²⁷ It is important to note that sense of community belonging is an inherently subjective measure. There is no objective measure of how people feel about their belonging, and some individuals may interpret their local community as being more geographically defined with less consideration for other communities that they belong to and receive health benefits from (i.e. school, work...etc.). However, as mentioned, previous studies have shown this 1-item measure to reflect neighbourhood social capital and general satisfaction with place.^{12,15}

Lastly, our findings are not directly applicable to sub-populations not included in the survey sampling frames. Populations excluded from the sampling frame of the survey include Indigenous populations living in indigenous communities and other Aboriginal settlements, full-time members of the Canadian Forces, and those living in institutions.

Implications

This report comprehensively described community belonging across Canada and establishes that community belonging varies by age and region in Canada. These findings provide a foundation for those interesting in assessing community belonging across Canada and further research exploring the impact of community belonging on health outcomes.

Given the previously established associations between community belonging with physical and mental health, characterizing belonging these communities could contribute to characterizing population health across Canada above and beyond typically reported measures. This data offered information that is useful for developing new strategies for population health improvement that consider individuals' connection to their community.

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TECHNICAL APPENDIX

Income Measures: Household income groups were derived by calculating the ratio between the self-reported total household income from all sources in the previous 12 months and Statistics Canada's low-income cut-off (LICO) with respect to the size of the house, community, and survey year. These adjusted income ratios were grouped in deciles by Statistics Canada. Canadians residing in the territories were excluded from this derived variable (and in 2013/14 CCHS cycle, the income measure was changed to exclude respondents under the age of 18). Additionally, beginning with the 2011 reference year, missing observations for the household income variable were imputed by Statistics Canada.

The deciles created by Statistics Canada were collapsed into quintiles for analyses, defined as *lowest income* (deciles 1 and 2), *low-middle* (deciles 3 and 4), *middle* (deciles 5 and 6), *high-middle* (deciles 7 and 8) and *highest* (deciles 9 and 10).

ETHICS AND DATA ACCESS

Informed consent was obtained by Statistics Canada for all survey participants. Ethics approval for the use of the data is covered by the publicly available data clause, which does not require review or approval by a research ethics board. This report uses the Public Use Microdata Files (PUMFs) provided by Statistics Canada to institutions and individuals.

DATA APPENDIX¹

Appendix Table 1: Distribution of community belonging overall and by sex.

	Overall			Males			Females		
	%	LCI	UCI	%	LCI	UCI	%	LCI	UCI
VS	17.1	17.0	17.3	16.9	16.6	17.1	17.4	17.2	17.6
SWS	48.1	47.9	48.3	47.7	47.4	48.1	48.5	48.2	48.8
SWW	25.9	25.7	26.1	26.5	26.2	26.8	25.3	25.1	25.6
VW	8.8	8.7	9.0	8.9	8.7	9.1	8.8	8.6	8.9

Appendix Table 2: Age-stratified community belonging.

	12 to 17 years			18 to 34 years			35 to 64 years			≥65 years		
	%	LCI	UCI	%	LCI	UCI	%	LCI	UCI	%	LCI	UCI
VS	20.9	20.3	21.4	11.6	11.3	11.9	16.7	16.5	17.0	26.3	25.9	26.7
SWS	57.8	57.1	58.5	45.7	45.2	46.1	48.3	47.9	48.6	46.3	45.9	46.8
SWW	17.4	16.9	17.9	32.0	31.6	32.4	26.2	25.9	26.5	19.0	18.7	19.4
VW	3.9	3.6	4.2	10.7	10.4	11.0	8.8	8.6	9.0	8.3	8.1	8.6

Appendix Table 3: Community belonging by survey cycle.

	2005			2007/08			2009/10			2011/12			2013/14		
	%	LCI	UCI	%	LCI	UCI	%	LCI	UCI	%	LCI	UCI	%	LCI	UCI
VS	17.1	16.8	17.5	17.6	17.2	17.9	17.2	16.9	17.6	16.9	16.5	17.3	16.9	16.5	17.3
SWS	47.2	46.8	47.7	47.2	46.8	47.7	48.1	47.6	48.7	48.5	48.0	49.0	49.3	48.7	49.8
SWW	26.0	25.7	26.4	25.5	25.1	25.9	25.7	25.3	26.2	26.3	25.8	26.8	26.0	25.6	26.5
VW	9.6	9.3	9.8	9.7	9.4	10.0	8.9	8.6	9.2	8.3	8.0	8.6	7.8	7.5	8.1

¹ Data Appendix Abbreviations:

(1) **Levels of Community Belonging:** VS very strong; SWS somewhat strong; SWW somewhat weak; VW very weak

(2) **Provinces/Territories:** NFL Newfoundland & Labrador; PEI Prince Edward Island; NS Nova Scotia; NB New Brunswick; QC Quebec; ON Ontario; MB Manitoba; SK Saskatchewan; AB Alberta; BC British Columbia; Terr Territories (Northwest Territories + Yukon + Nunavut)

Appendix Table 4: Distribution of community belonging by province/territory and sex.

		Overall			Male			Female		
		%	LCI	UCI	%	LCI	UCI	%	LCI	UCI
NFL	VS	27.3	26.4	28.2	28.0	26.6	29.4	26.8	25.6	27.9
	SWS	51.4	50.4	52.4	50.6	49.0	52.2	52.1	50.8	53.5
	SWW	16.4	15.6	17.2	16.5	15.3	17.8	16.2	15.2	17.3
	VW	4.9	4.4	5.3	4.8	4.1	5.6	4.9	4.2	5.5
PEI	VS	22.9	21.7	24.1	24.6	22.8	26.4	21.3	19.9	22.8
	SWS	51.1	49.7	52.5	51.1	49.0	53.2	51.1	49.3	53.0
	SWW	19.2	18.0	20.3	17.7	16.1	19.4	20.5	19.0	22.1
	VW	6.8	6.1	7.5	6.6	5.5	7.7	7.0	6.0	8.0
NS	VS	20.7	19.9	21.4	20.3	19.1	21.4	21.0	20.1	22.0
	SWS	51.3	50.3	52.2	52.4	50.9	53.8	50.3	49.0	51.5
	SWW	21.4	20.6	22.2	21.8	20.6	23.0	21.0	20.0	22.0
	VW	6.6	6.2	7.1	5.6	4.9	6.2	7.7	6.9	8.4
NB	VS	21.9	21.2	22.6	21.8	20.8	22.9	22.0	21.0	22.9
	SWS	49.4	48.5	50.3	49.6	48.2	51.0	49.2	48.0	50.4
	SWW	21.0	20.2	21.8	20.9	19.8	22.1	21.1	20.0	22.1
	VW	7.7	7.2	8.1	7.6	6.9	8.4	7.7	7.1	8.3
QC	VS	12.8	12.5	13.1	12.9	12.5	13.4	12.7	12.2	13.1
	SWS	44.1	43.6	44.6	43.8	43.1	44.5	44.4	43.7	45.0
	SWW	32.5	32.1	33.0	32.5	31.8	33.1	32.6	32.0	33.2
	VW	10.6	10.3	10.9	10.8	10.4	11.3	10.4	10.0	10.8
ON	VS	18.2	17.9	18.5	18.0	17.5	18.4	18.5	18.1	18.9
	SWS	48.8	48.4	49.2	48.2	47.7	48.8	49.3	48.8	49.8
	SWW	24.1	23.7	24.4	24.9	24.4	25.3	23.3	22.9	23.7
	VW	8.9	8.7	9.2	8.9	8.6	9.3	8.9	8.6	9.3
MB	VS	18.7	17.9	19.4	18.4	17.3	19.4	18.9	17.9	19.9
	SWS	49.6	48.7	50.6	49.9	48.4	51.3	49.4	48.1	50.8
	SWW	24.0	23.1	24.9	24.2	23.0	25.5	23.8	22.5	25.0
	VW	7.7	7.2	8.2	7.5	6.7	8.3	7.9	7.2	8.6
SK	VS	20.5	19.8	21.2	20.3	19.3	21.3	20.7	19.8	21.6
	SWS	51.6	50.8	52.4	51.5	50.3	52.8	51.7	50.5	52.8
	SWW	21.5	20.7	22.2	21.6	20.6	22.6	21.3	20.3	22.3
	VW	6.4	6.0	6.9	6.6	5.9	7.2	6.3	5.7	6.9
AB	VS	16.3	15.8	16.8	15.6	14.9	16.3	17.0	16.2	17.8
	SWS	47.7	46.9	48.4	47.1	46.1	48.2	48.2	47.2	49.2
	SWW	26.5	25.9	27.2	27.6	26.6	28.5	25.5	24.6	26.4
	VW	9.5	9.1	9.9	9.7	9.1	10.3	9.4	8.8	10.0
BC	VS	16.3	15.8	16.8	17.1	16.5	17.8	17.0	16.2	17.8
	SWS	47.7	46.9	48.4	50.6	49.7	51.5	48.2	47.2	49.2
	SWW	26.5	25.9	27.2	25.3	24.5	26.1	25.5	24.6	26.4
	VW	9.5	9.1	9.9	7.0	6.5	7.4	9.4	8.8	10.0
Terr	VS	29.4	28.4	30.3	29.3	27.9	30.7	29.4	28.1	30.8
	SWS	48.9	47.8	50.0	48.4	46.8	49.9	49.4	48.0	50.9
	SWW	17.3	16.5	18.1	17.7	16.6	18.9	16.8	15.7	17.9
	VW	4.5	4.1	4.9	4.6	4.0	5.2	4.3	3.8	4.9

Appendix Table 5: Age-stratified community belonging by province/territory.

		12 to 17 years			18 to 34 years			35 to 64 years			≥65 years		
		%	LCI	UCI	%	LCI	UCI	%	LCI	UCI	%	LCI	UCI
NFL	VS	29.7	26.9	32.5	16.6	15.0	18.3	26.9	25.6	28.2	43.4	41.5	45.4
	SWS	55.0	51.9	58.1	52.6	50.3	54.8	53.0	51.4	54.5	42.5	40.6	44.5
	SWW	12.4	10.2	14.7	24.4	22.5	26.4	15.5	14.4	16.7	9.5	8.4	10.7
	VW	2.8	1.8	3.8	6.3	5.2	7.5	4.6	3.9	5.3	4.5	3.6	5.5
PEI	VS	26.8	23.3	30.3	13.8	11.6	15.9	22.3	20.5	24.1	35.6	33.3	38.0
	SWS	55.7	51.6	59.8	50.3	47.4	53.3	52.0	49.9	54.2	46.5	44.0	49.0
	SWW	13.4	10.6	16.1	26.4	23.8	29.0	18.9	17.2	20.6	13.1	11.3	14.8
	VW	4.1	2.1	6.1	9.5	7.7	11.3	6.7	5.7	7.8	4.8	3.8	5.9
NS	VS	20.0	17.7	22.2	13.6	12.1	15.0	19.8	18.7	21.0	33.6	32.1	35.1
	SWS	60.8	57.9	63.6	48.9	46.9	51.0	52.5	51.1	53.9	46.2	44.6	47.8
	SWW	15.8	13.6	18.0	29.4	27.6	31.3	21.0	19.8	22.1	14.1	13.0	15.2
	VW	3.4	2.4	4.5	8.1	7.0	9.2	6.7	6.0	7.4	6.1	5.3	6.9
NB	VS	26.9	24.3	29.6	13.5	12.3	14.7	21.3	20.2	22.4	33.5	32.0	35.0
	SWS	56.4	53.4	59.3	50.4	48.4	52.3	49.5	48.1	50.8	44.5	42.9	46.1
	SWW	13.1	11.0	15.1	27.0	25.3	28.8	21.6	20.4	22.8	14.4	13.3	15.6
	VW	3.6	2.5	4.8	9.1	7.9	10.2	7.7	7.0	8.3	7.6	6.7	8.5
QC	VS	16.6	15.5	17.7	9.0	8.4	9.5	11.6	11.1	12.1	21.0	20.2	21.7
	SWS	58.1	56.6	59.6	41.9	40.9	42.8	42.9	42.2	43.7	44.3	43.4	45.2
	SWW	19.9	18.7	21.1	36.9	35.9	37.8	34.6	33.9	35.3	25.0	24.2	25.8
	VW	5.4	4.7	6.1	12.3	11.6	12.9	10.8	10.4	11.3	9.8	9.2	10.3
ON	VS	21.9	21.0	22.9	12.4	11.9	12.9	18.1	17.6	18.6	27.1	26.4	27.8
	SWS	57.5	56.4	58.6	46.5	45.8	47.3	49.1	48.6	49.7	46.3	45.6	47.1
	SWW	17.0	16.2	17.8	30.2	29.5	30.9	23.9	23.4	24.4	17.8	17.2	18.4
	VW	3.6	3.2	4.0	10.9	10.4	11.4	8.9	8.5	9.2	8.8	8.3	9.2
MB	VS	24.5	22.0	26.9	12.6	11.3	13.9	18.4	17.2	19.5	26.8	25.3	28.2
	SWS	55.9	53.2	58.7	47.8	46.0	49.7	49.5	47.9	51.0	49.4	47.7	51.1
	SWW	16.7	14.6	18.8	29.4	27.7	31.1	24.7	23.2	26.1	16.8	15.5	18.1
	VW	2.9	2.0	3.8	10.2	8.9	11.4	7.5	6.7	8.3	7.0	6.1	7.9
SK	VS	23.5	21.3	25.6	14.2	13.1	15.4	20.4	19.4	21.5	30.1	28.8	31.4
	SWS	58.2	55.7	60.6	48.3	46.7	50.0	52.2	50.8	53.5	51.9	50.5	53.3
	SWW	16.0	14.2	17.9	28.6	27.1	30.1	21.0	19.8	22.1	13.4	12.4	14.4
	VW	2.3	1.6	3.0	8.8	7.8	9.8	6.5	5.8	7.1	4.6	4.0	5.2
AB	VS	20.5	18.8	22.2	11.4	10.5	12.2	16.4	15.6	17.2	26.0	24.8	27.2
	SWS	56.0	53.9	58.1	44.0	42.7	45.3	48.6	47.5	49.7	47.0	45.6	48.4
	SWW	19.0	17.3	20.8	33.2	31.9	34.5	25.4	24.4	26.4	19.2	18.0	20.3
	VW	4.4	3.5	5.4	11.5	10.7	12.3	9.6	8.9	10.2	7.9	7.1	8.7
BC	VS	21.1	19.6	22.6	11.9	11.0	12.7	17.8	17.1	18.4	27.5	26.5	28.4
	SWS	60.4	58.6	62.2	47.8	46.5	49.1	52.0	51.1	52.9	48.5	47.4	49.5
	SWW	15.5	14.2	16.8	31.5	30.3	32.7	23.8	23.1	24.6	17.0	16.2	17.7
	VW	3.0	2.4	3.5	8.9	8.1	9.6	6.4	5.9	6.8	7.1	6.5	7.8
Terr	VS	32.9	30.1	35.7	23.9	22.3	25.4	30.4	29.0	31.9	41.3	37.7	44.9
	SWS	53.4	50.4	56.3	49.3	47.5	51.0	48.7	47.0	50.3	41.5	38.0	45.0
	SWW	11.9	10.0	13.9	21.8	20.4	23.3	16.3	15.1	17.4	11.5	9.4	13.5
	VW	1.8	1.1	2.5	5.0	4.3	5.8	4.6	4.0	5.2	5.7	4.3	7.1

Appendix Table 6: Community belonging by province/territory: 2005 vs. 2013/14 cycle estimates.

		2005			2013/14			Abs. diff.
		%	LCI	UCI	%	LCI	UCI	
NFL	VS	30.9	29.0	32.8	24.3	22.2	26.3	-6.6
	SWS	48.3	46.2	50.4	52.7	50.3	55.1	4.4
	SWW	16.0	14.4	17.7	18.6	16.5	20.6	2.6
	VW	4.8	4.0	5.6	4.4	3.5	5.4	-0.4
PEI	VS	25.6	23.2	28.1	21.4	18.7	24.0	-4.3
	SWS	49.5	46.5	52.4	52.5	49.3	55.7	3.0
	SWW	17.9	15.5	20.3	20.1	17.3	22.9	2.2
	VW	7.0	5.4	8.6	6.0	4.6	7.5	-1.0
NS	VS	23.2	21.6	24.9	20.4	18.7	22.1	-2.9
	SWS	49.3	47.4	51.2	52.5	50.4	54.6	3.2
	SWW	20.5	19.0	22.0	21.1	19.3	22.8	0.6
	VW	6.9	6.1	7.8	6.1	5.0	7.1	-0.9
NB	VS	26.4	24.8	27.9	20.0	18.4	21.7	-6.3
	SWS	46.9	45.0	48.7	50.8	48.7	52.9	4.0
	SWW	18.8	17.3	20.2	21.7	19.9	23.5	2.9
	VW	8.0	7.1	9.0	7.5	6.3	8.7	-0.5
QC	VS	12.5	11.9	13.0	12.3	11.5	13.0	-0.2
	SWS	42.2	41.4	43.1	45.7	44.6	46.9	3.5
	SWW	32.7	31.9	33.5	33.6	32.5	34.7	1.0
	VW	12.6	12.0	13.2	8.4	7.7	9.0	-4.3
ON	VS	17.2	16.6	17.7	18.6	17.8	19.3	1.4
	SWS	48.3	47.6	49.1	49.4	48.5	50.4	1.1
	SWW	24.8	24.2	25.5	23.9	23.1	24.7	-0.9
	VW	9.6	9.2	10.1	8.1	7.6	8.6	-1.5
MB	VS	19.4	18.0	20.7	18.8	17.2	20.5	-0.6
	SWS	49.1	47.3	51.0	50.6	48.4	52.8	1.5
	SWW	24.0	22.3	25.6	23.4	21.4	25.4	-0.6
	VW	7.5	6.6	8.4	7.2	6.1	8.3	-0.4
SK	VS	21.3	20.0	22.6	19.6	18.0	21.2	-1.7
	SWS	50.9	49.2	52.5	53.5	51.5	55.5	2.7
	SWW	21.5	20.1	22.9	20.7	19.0	22.4	-0.8
	VW	6.3	5.5	7.1	6.1	5.2	7.1	-0.2
AB	VS	16.2	15.2	17.2	15.8	14.6	17.1	-0.4
	SWS	48.6	47.2	49.9	49.3	47.5	51.0	0.7
	SWW	25.9	24.7	27.1	26.3	24.7	27.9	0.4
	VW	9.4	8.6	10.1	8.6	7.5	9.6	-0.8
BC	VS	19.5	18.7	20.4	17.6	16.5	18.7	-2.0
	SWS	50.1	49.0	51.2	52.3	50.8	53.9	2.3
	SWW	23.5	22.5	24.4	23.5	22.3	24.8	0.0
	VW	6.9	6.4	7.4	6.6	5.7	7.4	-0.3
Terr	VS	25.9	23.8	28.1	30.3	28.1	32.5	4.4
	SWS	48.7	46.2	51.2	48.8	46.5	51.1	0.1
	SWW	18.5	16.6	20.4	17.6	15.8	19.4	-0.9
	VW	6.8	5.6	8.1	3.3	2.5	4.1	-3.6

Appendix Table 7: Community belonging by income quintile and sex.

		Overall			Males			Females		
		%	LCI	UCI	%	LCI	UCI	%	LCI	UCI
Q1	VS	18.0	17.6	18.4	17.9	17.2	18.7	18.1	17.5	18.6
	SWS	44.4	43.8	45.0	43.3	42.4	44.2	45.2	44.5	45.9
	SWW	25.5	25.0	26.0	25.9	25.2	26.7	25.2	24.6	25.8
	VW	12.1	11.7	12.5	12.8	12.2	13.5	11.5	11.0	12.0
Q2	VS	17.4	17.0	17.8	17.3	16.7	17.9	17.5	16.9	18.0
	SWS	48.0	47.4	48.5	47.5	46.7	48.4	48.4	47.6	49.1
	SWW	25.4	25.0	25.9	25.9	25.2	26.6	25.0	24.4	25.7
	VW	9.2	8.9	9.5	9.3	8.8	9.8	9.1	8.7	9.6
Q3	VS	16.7	16.3	17.1	16.5	15.9	17.1	16.9	16.4	17.5
	SWS	48.7	48.1	49.2	48.0	47.2	48.7	49.4	48.7	50.1
	SWW	26.3	25.8	26.7	26.9	26.2	27.6	25.6	25.0	26.3
	VW	8.3	8.0	8.6	8.6	8.2	9.1	8.1	7.7	8.4
Q4	VS	15.9	15.5	16.3	15.6	15.1	16.1	16.2	15.7	16.8
	SWS	49.6	49.1	50.2	49.2	48.4	49.9	50.2	49.4	50.9
	SWW	27.1	26.6	27.6	27.9	27.2	28.6	26.2	25.5	26.8
	VW	7.4	7.1	7.7	7.4	7.0	7.8	7.4	7.0	7.8
Q5	VS	16.7	16.3	17.0	16.2	15.7	16.7	17.2	16.6	17.8
	SWS	50.1	49.5	50.6	49.9	49.2	50.6	50.3	49.5	51.0
	SWW	26.5	26.1	27.0	27.1	26.4	27.7	25.9	25.2	26.5
	VW	6.7	6.5	7.0	6.8	6.4	7.2	6.6	6.2	7.1

Appendix Table 8: Age-stratified community belonging by income quintile.

		12 to 17 years			18 to 34 years			35 to 64 years			≥65 years		
		%	LCI	UCI	%	LCI	UCI	%	LCI	UCI	%	LCI	UCI
Q1	VS	21.5	20.1	22.9	12.4	11.7	13.2	17.0	16.3	17.8	25.5	24.8	26.3
	SWS	56.4	54.7	58.0	43.2	42.1	44.3	42.8	41.8	43.8	43.4	42.5	44.2
	SWW	17.6	16.3	18.9	31.2	30.2	32.2	26.1	25.2	27.0	20.7	20.0	21.4
	VW	4.5	3.9	5.1	13.2	12.4	13.9	14.0	13.3	14.8	10.4	9.9	10.9
Q2	VS	20.3	18.9	21.6	11.3	10.6	12.0	16.4	15.7	17.1	26.0	25.2	26.7
	SWS	57.7	56.1	59.3	45.1	44.0	46.2	48.4	47.5	49.4	46.8	46.0	47.6
	SWW	17.8	16.5	19.0	32.4	31.4	33.5	25.7	24.9	26.5	19.2	18.5	19.9
	VW	4.3	3.6	4.9	11.2	10.5	11.9	9.5	9.0	10.0	8.0	7.5	8.5
Q3	VS	20.9	19.6	22.1	11.2	10.5	11.9	16.3	15.7	17.0	26.2	25.3	27.1
	SWS	58.7	57.3	60.2	45.4	44.4	46.4	48.8	48.0	49.6	48.4	47.4	49.4
	SWW	17.1	16.0	18.3	32.4	31.5	33.4	26.7	26.0	27.5	18.3	17.5	19.0
	VW	3.2	2.7	3.8	10.9	10.3	11.6	8.2	7.7	8.6	7.1	6.5	7.8
Q4	VS	21.2	19.9	22.5	10.6	10.0	11.3	15.8	15.3	16.3	27.5	26.4	28.5
	SWS	58.2	56.6	59.8	46.2	45.2	47.2	50.2	49.5	50.9	49.6	48.4	50.9
	SWW	17.2	15.9	18.4	33.6	32.6	34.6	27.0	26.3	27.7	16.5	15.6	17.4
	VW	3.4	2.8	4.1	9.6	9.0	10.2	7.0	6.6	7.4	6.4	5.7	7.1
Q5	VS	22.1	20.7	23.5	11.0	10.4	11.6	17.1	16.6	17.7	27.3	25.9	28.7
	SWS	59.3	57.7	61.0	47.9	46.9	49.0	50.2	49.5	50.9	47.7	46.1	49.3
	SWW	15.8	14.6	17.0	32.5	31.5	33.5	26.1	25.5	26.7	19.2	17.8	20.6
	VW	2.8	2.2	3.3	8.5	7.9	9.1	6.5	6.2	6.9	5.8	5.0	6.6

Appendix Table 9: Community belonging by income quintile: 2005 vs. 2013/14 cycle estimates.

		2005			2013/14		
		%	LCI	UCI	%	LCI	UCI
Q1	VS	17.6	16.9	18.4	18.8	17.7	19.8
	SWS	43.2	42.2	44.2	45.0	43.6	46.3
	SWW	25.9	25.0	26.8	25.5	24.3	26.6
	VW	13.3	12.5	14.0	10.8	9.9	11.7
Q2	VS	17.1	16.4	17.9	17.6	16.7	18.5
	SWS	47.2	46.2	48.3	48.8	47.6	50.1
	SWW	25.4	24.5	26.3	25.4	24.3	26.4
	VW	10.2	9.6	10.9	8.2	7.5	8.9
Q3	VS	16.5	15.8	17.3	16.6	15.7	17.6
	SWS	48.1	47.1	49.1	49.5	48.3	50.7
	SWW	26.4	25.5	27.4	26.5	25.3	27.6
	VW	8.9	8.3	9.5	7.4	6.8	8.0
Q4	VS	15.6	14.9	16.3	15.0	14.2	15.8
	SWS	49.7	48.6	50.7	51.4	50.2	52.6
	SWW	26.4	25.5	27.4	27.2	26.1	28.3
	VW	8.3	7.7	8.9	6.4	5.9	7.0
Q5	VS	16.7	16.0	17.5	16.4	15.5	17.2
	SWS	48.3	47.2	49.3	51.6	50.5	52.8
	SWW	27.9	26.9	28.8	25.8	24.8	26.9
	VW	7.1	6.6	7.7	6.2	5.5	6.8