

**i** CANADIAN  
**ndex**  
OF WELLBEING

Measuring what matters  
Making measures matter

# A PROFILE OF WELLBEING IN WATERLOO REGION

JANUARY 2018



Wellbeing Waterloo Region



UNIVERSITY OF WATERLOO  
FACULTY OF APPLIED HEALTH SCIENCES

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Canadian Index of Wellbeing  
Faculty of Applied Health Sciences  
University of Waterloo  
Waterloo, Ontario  
Canada N2L 3G1

For more information: [www.ciw.ca](http://www.ciw.ca)



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# EXECUTIVE SUMMARY

What is the ultimate purpose of a community, a province, or a country? Does it exist only for the sake of commerce and economy? Or is it founded on a broader vision of a place where families and communities can prosper?

In preparing a profile of people's quality of life, the Canadian Index of Wellbeing (CIW) focuses on those things that Canadians have identified as being most important to them – thriving and vital communities; opportunities for lifelong learning and to engage in the democratic process; a sustainable environment; good health; economic security; leisure and cultural opportunities; and work-life balance. The interplay of these domains, the ways in which they interact and reinforce one another, define and influence our overall wellbeing as individuals and communities.

In this report, indicators of wellbeing for the eight domains of the CIW have been gathered from the most recently available national and provincial sources and combined with measures from local sources to provide a profile of Waterloo Region and its residents. This portrait of wellbeing provides a population-level view of the Region and reflects its position relative to other regions – the Central Region of Ontario, the province overall, and Canada. By doing so, we see where Waterloo Region is doing well and where it could be doing better.

## Overall, here are some of the main findings from this profile of wellbeing in Waterloo Region:

-  **DEMOGRAPHICALLY** – Waterloo Region is one of the fastest growing regions over the past five years and is also one of the youngest with an average age of 39.1 years.
-  **STRONGER, MORE VITAL COMMUNITIES** – residents volunteer more, fewer people live alone than in the province and country overall, and somewhat fewer experience discrimination – all of which contributes to stronger feelings of belonging to the community in Waterloo Region.
-  **CHALLENGES FOR DEMOCRATIC ENGAGEMENT** – only about one-third of residents have confidence in our federal Parliament, and even though voter turnout in federal elections is up to over two-thirds of residents, just less than one-third vote regionally.
-  **LOWER MARKS FOR EDUCATION** – Waterloo Region has lower rates of both high school graduation and people with a university degree, less access to licensed child care, and a much higher percentage of young children are vulnerable in their early development.
-  **POSITIVE ENVIRONMENTAL SIGNS** – more so than any other region, residents are diverting more waste through recycling and are using less water.
-  **HEALTH CHALLENGES AHEAD** – a smaller percentage of Waterloo Region residents rate their mental health as very good or excellent, rates of diabetes are higher, fewer people are living without health or activity limitations, and only about a third of the population gets their flu shot each year.
-  **MAKING CONNECTIONS THROUGH LEISURE** – even though residents spend fewer nights away on vacation, they participate more in physical activity, maintain their social leisure activity, and make more visits to public libraries.
-  **MIXED MESSAGES IN LIVING STANDARDS** – Waterloo Region has one of the highest rates of employment, a lower percentage of residents paying over 30% of their household income on shelter, and one of the highest median incomes in Ontario, but it also has a higher percentage of people reporting high levels of work-related stress.
-  **TRYING TO FIND WORK-LIFE BALANCE** – Waterloo Region workers have much shorter commute times and a greater percentage of them have more access to flexible work schedules, but they are working longer hours, spending less time with friends, and getting significantly less sleep. And 1 in 5 residents are reporting high levels of “time crunch”.

Overall, a slightly greater percentage of residents in Waterloo Region report a higher level of overall life satisfaction (87.3%) than residents of Central Region (86.9%), Ontario (85.6%), and Canada (87.1%). Despite some of the challenges to wellbeing described in this report, residents appear to be celebrating in the Region's strengths and managing the challenges. This level of satisfaction reflects the ways in which the domains are connected and influence one another – as one aspect of our lives presents a challenge, another aspect provides support. Collectively, all of the domains define our wellbeing.

While this population-level view of Waterloo Region helps to identify areas to celebrate as well as areas where more work needs to be done, the next step is to dive more deeply into the data to understand if some groups and communities within the Region are at greater risk than others. Are people living in low income feeling less connected and accessing fewer opportunities for employment, nutritious food, and other resources? Are new Canadians moving into the Region facing greater challenges than longer-term residents? Are residents of some municipalities doing better than others?

In each case, by highlighting the challenges, we are better positioned to understand why some residents have higher levels of wellbeing, overall and in particular areas, while others may not. With that knowledge in hand, we can respond more effectively with programs, services, and policies that can lift everyone in Waterloo Region to higher levels of wellbeing.

# WHAT IS WELLBEING?

**There are many definitions of wellbeing. The Canadian Index of Wellbeing (CIW) has adopted the following as its working definition:**

The presence of the highest possible quality of life in its full breadth of expression focused on but not necessarily exclusive to: good living standards, robust health, a sustainable environment, vital communities, an educated populace, balanced time use, high levels of democratic participation, and access to and participation in leisure and culture.

The Canadian Index of Wellbeing adopted this definition after extensive consultations with national leaders and organizations, community groups, research experts, indicator users, and importantly, the Canadian public. In those discussions, they clearly expressed what really matters to their wellbeing. They also re-affirmed the core values they believe are essential for a thriving and welcoming society – fairness, diversity, equity, inclusion, health, safety, economic security, democracy, and sustainability.

## **DOMAINS OF WELLBEING IDENTIFIED BY CANADIANS**

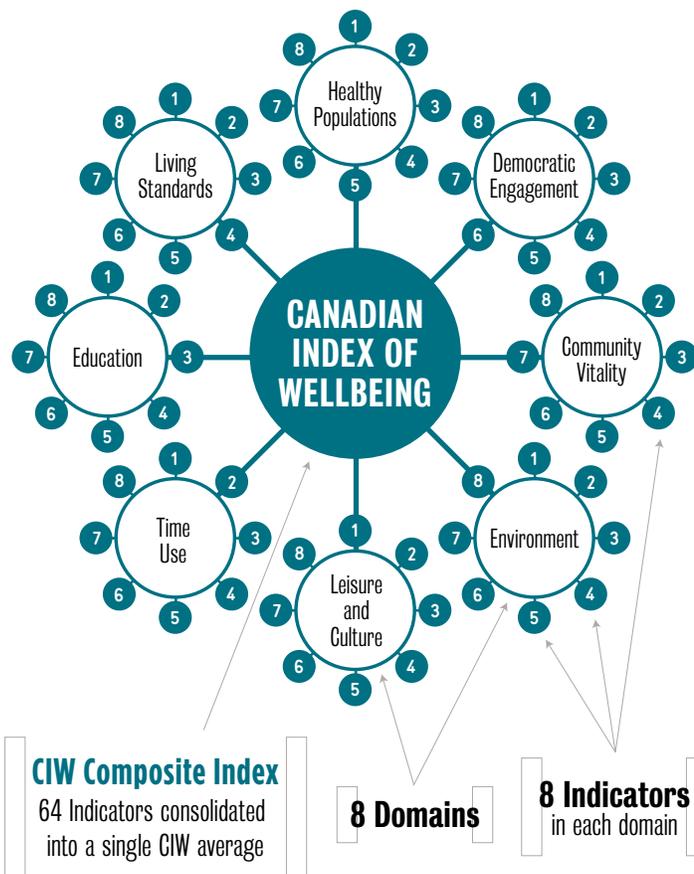
Since its inception and throughout its development, the CIW has been designed to ensure everyday Canadians hear their own voices and see themselves reflected in it. The consultation process culminated in the eight domains of life that contribute to and affect the wellbeing of Canadians: *Community Vitality, Democratic Engagement, Education, Environment, Healthy Populations, Leisure and Culture, Living Standards, and Time Use* (see Figure 1). This framework shifts the focus solely from the economy to other factors that affect the quality of life of Canadians.

Together, these eight domains provide a more complete picture of wellbeing, incorporating a comprehensive set of the key social, health, economic, and environmental factors contributing to overall quality of life. Teams of nationally and internationally renowned experts then identified eight valid, reliable, and relevant indicators within each domain that are directly related to wellbeing. By integrating the 64 indicators and eight domains and revealing their complex interconnections, the CIW composite index provides a comprehensive portrait of quality of life in Canada.

The CIW composite index tracks all indicators and domains of wellbeing to measure our progress over time, highlighting how we are doing – where we are doing well and where we could be doing better.

The CIW is not a static measure. As new issues emerge and new knowledge, understandings, and data become available, the CIW adapts to strengthen its measure of wellbeing without veering from the values on which it is grounded. Validating and continually improving the CIW is an ongoing process. It ensures that the Index is rooted in Canadian values, grounded in community experience, shaped by technical expertise, and responsive to emerging knowledge. It is a conversation starter about the things that really matter to individuals and communities as we strive to improve our collective quality of life.

**FIGURE 1. THE CANADIAN INDEX OF WELLBEING FRAMEWORK**



The CIW’s call to action is to encourage all sectors to be guided by solid evidence, and to empower Canadians to advocate for change that reflects their needs and values. By putting wellbeing at the heart of policy development, funding decisions, program development, and service delivery, we respond to our desire to know, “How can we do better?”

# WELLBEING IN WATERLOO REGION

In this report, we provide a portrait of wellbeing in Waterloo Region using the most recent data available on selected indicators for each of the domains of wellbeing. By examining indicators of wellbeing within and across the eight domains of the CIW, this portrait can help inform the planning, development, and implementation of programs and services that have greater potential to enhance the wellbeing of residents and of the Region as a whole. Creating portraits based on the CIW also provides an opportunity to learn more about the complexity of wellbeing in people's lives. To that end, other indicators suggested by the Measurement and Monitoring Group that could complement our understanding of wellbeing in Waterloo Region are listed at the end of each domain section.

The report also describes how wellbeing in Waterloo Region varies compared to the Central Region of Ontario, and to Ontario and Canada overall. Based on boundaries used by several Ontario Ministries, the Central Region of Ontario – of which Waterloo is a part – includes Dufferin, Halton, Peel, Simcoe, Wellington, and York.

We begin with a brief demographic profile of the Region, highlighting characteristics that make it unique. In the sections that follow, we present the eight domains of the CIW with descriptions of indicators of wellbeing that reflect how well residents of Waterloo Region are doing and how they compare to other geographic areas. Finally, a summary section highlights the distinctiveness of the Region and points to potential interconnections among the domains. Three appendices provide more detail on the methods and data sources (Appendix A), summary statistics for Waterloo Region, Central Region, Ontario and Canada, when available (Appendix B), and a glossary of terms used throughout the report (Appendix C).

The comparisons of indicators of wellbeing to other areas help us understand how Waterloo Region's residents are doing relative to these other areas and focuses our attention on aspects where we are doing well and where we might choose to direct greater emphasis in planning and allocating resources.



# DEMOGRAPHICS

Recognizing the unique socio-demographic profile of a region is an important first step in understanding the needs and circumstances of its residents. How many people live here? Are the residents generally younger or older than elsewhere in the province? What do their families look like? How diverse is the population? Answers to these questions allow us to make more informed decisions about the types of programs and services that will best contribute to the wellbeing of residents in Waterloo Region.

## POPULATION

According to the 2016 Census of Canada, Waterloo Region is home to 535,154 people, which represents 4.0% of the total population of Ontario. The majority of the Region’s population – 87.5% – lives in one of the Tri-cities (i.e., Cambridge, Kitchener, and Waterloo) with the other 12.5% of residents calling home one of the four Townships – North Dumfries, Wellesley, Wilmot, and Woolwich.

From 2011 to 2016, the total population grew by 5.5% with the highest growth rates in Woolwich (8.0%), Wilmot (6.9%), Kitchener (6.4%), and Waterloo (6.3%). The lowest growth rate was in Cambridge, which grew by 2.5% from 2011 to 2016. The overall growth in population in Waterloo Region (5.5%) is almost a full percentage point greater than in Ontario overall (4.6%) and half a percentage point greater than the average population growth across Canada (5.0%).

## AGE

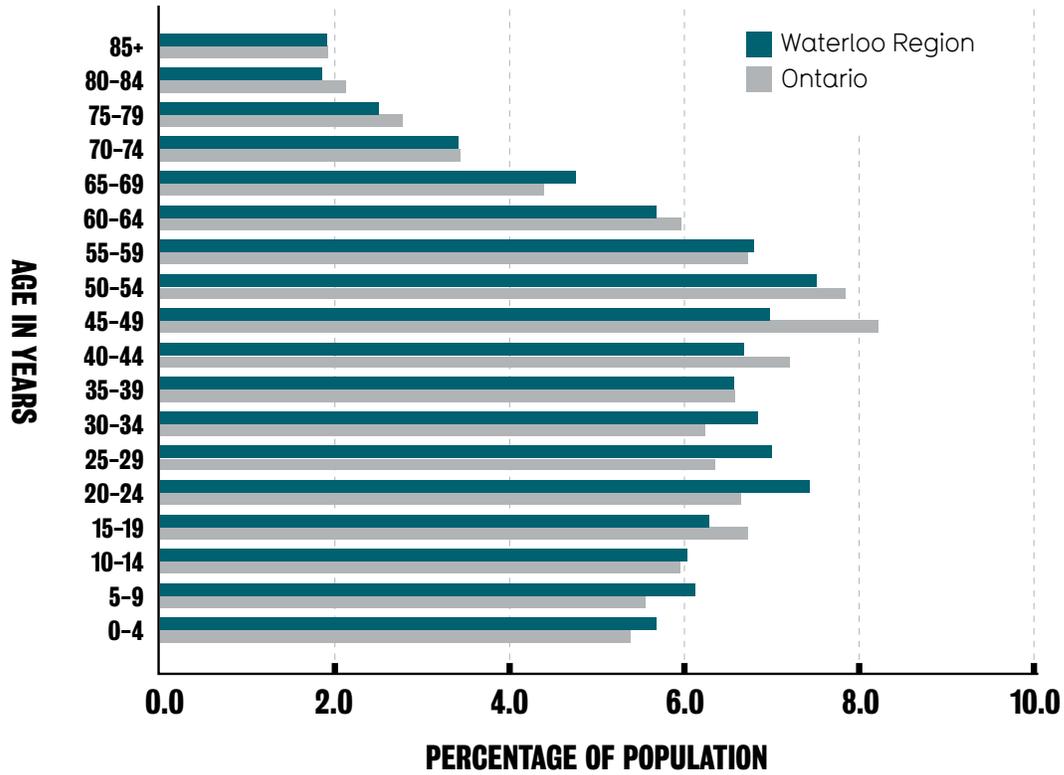
The population of Waterloo Region is slightly younger than in the rest of the province. The percentages of residents in the age range from 20 to 34 years is considerably higher than in Central Region and Ontario overall. The percentage of children aged 0 to 14 years is also higher by approximately 1.5%. The higher percentage of younger residents in Waterloo Region is reflected in an average age of 39.1 years, which is slightly lower than for Central Region (39.5 years) and almost a full year lower than for the province and the country overall (both with an average of 41.0 years). Waterloo Region also has a higher proportion of residents over the age of 65 (14.4%) than Central Region (12.2%), but is quite similar to Ontario as a whole (14.6%).



population growth from 2011 to 2016

<b>WATERLOO</b>	<b>5.5%</b>
<b>ONTARIO</b>	<b>4.6%</b>
<b>CANADA</b>	<b>5.0%</b>

**WATERLOO REGION HAS ONE OF THE HIGHEST PERCENTAGES OF RESIDENTS BETWEEN 20 AND 34 YEARS OF AGE IN THE PROVINCE**



**39.1 YRS**

average age of residents in Waterloo Region

**16.0%**

families led by a lone parent

**FAMILIES**

Lower than the provincial average (17.1%), 16.0% of families in Waterloo Region are led by a lone parent. Four of five of families led by a lone parent are women, which is a pattern consistent across the entire province. Just under 6 in 10 residents are married or living in a common-law relationship (58.4%), which is slightly higher than the provincial and national rates (57.3% and 57.6% respectively). Families in Waterloo Region have an average of 3.0 persons living in the household, which again is very slightly higher than the provincial and national average of 2.9 persons. About 7 in 10 residents (68.2%) own their homes, about the same rate as in Ontario and Canada, but much lower than in the rest of Central Region (78.3%).

## EMPLOYMENT AND INCOME

Waterloo Region has the highest employment rate in the province at 66.1% – which is more than 5% higher than in both Ontario (60.7%) and in Canada overall (61.1%). The Region also has a lower unemployment rate (5.5%) than in the province (6.5%) and in Canada (7.0%). The after-tax median family income of almost \$82,000 is notably higher than for the province overall and especially for Canada overall. Between 2010 and 2015, median incomes rose in Waterloo Region by almost 12%, which was comparable to Ontario and only somewhat lower than for Canada overall (13.9%).

## ETHNICITY AND LANGUAGE

Almost 1 in 5 residents of Waterloo Region is a member of a visible minority (18.7%). The level of diversity in the Region is much lower than in Ontario (28.9%) and somewhat lower than in Canada overall (21.8%). Diversity in Waterloo Region is actually much higher than in other parts of Central Region with the exception of the Regional Municipalities of Peel (61.9%) and York (48.8%), which have large percentages of residents with family roots in China, India, and the Philippines.

Three-quarters of the residents in Waterloo Region (76.1%) report one of Canada’s official languages as their mother tongue. Most residents (75.0%) identify English as their mother tongue – higher than the percentage nationally (57.3%). Only 1.1% of residents report French as their mother tongue, which is lower than for the province (3.8%) and significantly lower than in Canada overall (21.1%). Fewer than 1 in 10 residents of Waterloo Region (6.5%) have a working knowledge of both official languages. The percentage of people in Waterloo Region that reports another language as their mother tongue (23.9%) is similar to both the provincial and national rate. Although each group represents a small proportion of the total population, among the mother tongues reported most often by residents of Waterloo Region are German, Portuguese, Spanish, Polish, Romanian, and Serbian.



### employment rate

<b>WATERLOO</b>	<b>66.1%</b>
<b>ONTARIO</b>	<b>60.7%</b>
<b>CANADA</b>	<b>61.1%</b>

### after-tax median family income

<b>WATERLOO</b>	<b>\$81,798</b>
<b>ONTARIO</b>	<b>\$79,531</b>
<b>CANADA</b>	<b>\$76,372</b>

### visible minority population

<b>WATERLOO</b>	<b>18.7%</b>
<b>CENTRAL</b>	<b>39.2%</b>
<b>ONTARIO</b>	<b>28.9%</b>
<b>CANADA</b>	<b>21.8%</b>



# COMMUNITY VITALITY

Vital communities are those that have strong, active, and inclusive relationships among people, private, public, and non-governmental organizations that foster individual and collective wellbeing.

Vital communities are able to cultivate and marshal rich and diverse relationships in order to create, adapt, and thrive in the changing world. They do so by focusing on social relationships and support, including community safety and social engagement, and on social norms and values, including feelings towards others and residents' sense of belonging to their communities.



## SOCIAL ENGAGEMENT AND SUPPORT

Like most Ontarians, residents of Waterloo Region generally feel a strong connection to their communities, which reflects the steady rise in sense of belonging in recent years throughout the province and country. Seven in 10 residents (71.3%) report feeling a somewhat or strong sense of belonging to their communities, which is higher than Central Region (67.6%), the province (68.1%), and Canada overall (66.4%). Such a connection to their communities in Waterloo Region suggests that the majority of residents feel supported, are better able to cope, and are more resilient when faced with challenging situations.

Residents of Waterloo Region feel this greater sense of belonging despite a higher percentage of people living alone (8.9%) than in Central Region (6.0%), and a lower percentage of residents (50.5%) report having five or more close friends on whom they can depend than in Central Region (52.6%) or elsewhere in the province (53.7%). These somewhat lower levels of two important social supports represent a potential source of concern, despite the stronger connection to the community.

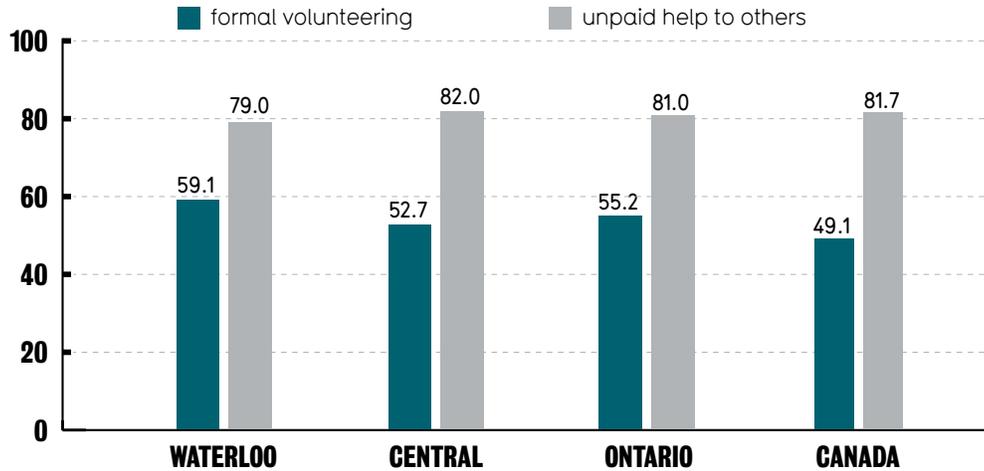
People in Waterloo Region participate in formal volunteering with organizations such as a union, a sport or recreation organization, or a cultural or educational group, to a greater degree (59.1%) than other Ontarians (55.2%) and much more than across Canada (49.1%). An even higher percentage of residents in the Region provide unpaid help to others (79.0%), such as helping an elderly neighbour, although the rate is slightly lower than in other regions, where over 4 in 5 people provide this type of help. These forms of engagement could be serving to reinforce Waterloo residents' sense of belonging to their communities despite slightly lower levels of social support.



people with somewhat/strong sense of belonging to their communities

<b>WATERLOO</b>	<b>71.3%</b>
<b>CENTRAL</b>	<b>67.6%</b>
<b>ONTARIO</b>	<b>68.1%</b>
<b>CANADA</b>	<b>66.4%</b>

## PERCENTAGE OF PEOPLE PARTICIPATING IN FORMAL VOLUNTEERING IS HIGHER AND UNPAID HELP TO OTHERS IS LOWER THAN OTHER REGIONS



## COMMUNITY SAFETY

The Crime Severity Index compiles all Criminal Code violations for each year and weights them by their seriousness, thereby providing an index that reflects the severity of criminal activity in an area. Waterloo Region has one of the higher levels of the Index at 54.9, although it is much lower than the 66.7 Index for Canada overall. Nevertheless, the incidence of serious crime in Waterloo Region is considerably higher than Central Region (39.6) – which has one of the lowest rates of any region in the province – and higher than the overall rate for Ontario (50.0). The higher level in Waterloo Region is in part attributable to a 4.7% increase in the incidence of violent crime from the previous year, which is much higher than the 0.3% increase across Ontario. More positively, the Crime Severity Index has been dropping steadily over the years in all parts of the province, including Waterloo Region, and in contrast to the violent crime rate, property crime is down by 4.0% – a much bigger drop than for the province (down 0.5%) and Canada overall (down 0.4%).



WATERLOO	54.9
CENTRAL	39.6
ONTARIO	50.0
CANADA	66.7

Further, about 4 of 5 people in Waterloo Region (80.9%) feel safe walking alone after dark in their neighbourhood, which is very similar to Central Region (81.0%) and the rest of Ontario (79.2%) where this feeling of safety has been rising in recent years throughout the province.

## SOCIAL NORMS AND VALUES

Slightly fewer residents of Waterloo Region (55.5%) feel many or most people can be trusted than in the province as a whole (57.3%). Building trust can lead to the development of strong interpersonal and community relationships, so the fact that almost 45% of residents *do not* feel others can be trusted is of concern.

Approximately 1 in 10 residents in Waterloo Region (9.4%) report experiencing discrimination due to characteristics such as one’s ethnicity, race, or sexual orientation. This rate is comparable to the province as a whole (9.6%) as well as nationally (9.3%), and has remained largely unchanged in recent years. As a factor affecting not only the sense of belonging residents feel, but also their mental and emotional wellbeing, these somewhat low rates of discrimination are encouraging. However, we can always strive to do even better to help people feel welcome in our communities.



people reporting experience of discrimination

<b>WATERLOO</b>	<b>9.4%</b>
<b>CENTRAL</b>	<b>10.2%</b>
<b>ONTARIO</b>	<b>9.6%</b>
<b>CANADA</b>	<b>9.3%</b>

## POTENTIAL INDICATORS FOR A MEASUREMENT SYSTEM OF COMMUNITY WELLBEING

Even though the indicators reflecting Community Vitality provide a complete picture of strong, active, and inclusive relationships – the essence of the domain – within Waterloo Region, several other indicators can be used to augment our understanding. Acquiring valid and reliable measures of the social aspects of a community is always a challenge, but some indicators that could also be included are:

-  Calls for police services (e.g., for disturbances, disputes, unwanted persons)
-  Percentage of population with high or very high levels of trust in policing
-  Rate of victimization incidents per 100,000 population
-  Rate of child maltreatment as defined by the Family Services Act in Ontario
-  Clearance rate of youth charges per 100,000 of youth population
-  Calls for fire services
-  Percentage of population that say they know most or all of their neighbours
-  Percentage of population that makes charitable donations
-  A measure of residential stability (e.g., percentage of population living at same address for more than five years)
-  A measure of cultural diversity (e.g., Bohemian Index, percentage of racialized population)



# DEMOCRATIC ENGAGEMENT

Democratic Engagement means being involved in advancing democracy through political institutions, organizations, and activities.

A society that enjoys a high degree of democratic engagement is one where citizens participate in political activities, express political views, and foster political knowledge; where governments build relationships, trust, shared responsibility, and participation opportunities with citizens; and where citizens, governments, and civil society uphold democratic values at local, provincial, and national levels. A healthy democracy needs citizens who feel their votes count, are informed, participate, debate, and advocate. It needs governments at all levels to be transparent, inclusive, consultative, and trustworthy. In essence, political leadership, citizen participation, and communication demonstrate the level of democratic engagement.

## CITIZEN PARTICIPATION

The most recent federal election in October 2015 saw over two-thirds of eligible voters in Waterloo Region (68.0%) come out to vote, which is a similar turnout to other areas across the country. Like other regions, voter turnout is up significantly from previous elections.

Voter turnout in Waterloo Region in the last provincial election was much lower with slightly over half of residents (50.7%) voting, which again is quite similar to the turnout in Central Region (49.3%) and across Ontario (51.3%). More troubling, voter turnout in Waterloo Region for the last regional/municipal election was not quite one-third of eligible voters (32.4%). These lower levels of engagement in the regional and provincial elections are unfortunate because voting represents the most tangible means by which citizens can engage in the democratic process and shape the society they desire.

## POLITICAL LEADERSHIP

Over one-third of the councillors on Waterloo Region Council are women (37.5%). This level of representation is slightly higher than the percentage of women from across Ontario sitting as Members of Provincial Parliament (MPPs) (34.6%) and even higher than the percentage of women sitting as Member of Parliament (MPs) in Ottawa (31.4%). Nevertheless, with over 50% of Ontario's population made up of women, our democratic and decision-making institutions should fairly reflect their values and opinions, so more work is needed to encourage women to become involved in our governments and to remove barriers to their involvement.

Only one-third of the residents in Waterloo Region (33.7%) have a great deal or quite a lot of confidence in our federal Parliament. This level of confidence is lower than that reported by Ontarians (39.6%) and all Canadians (37.6%), and much lower than the confidence expressed by residents across the Central Region (42.8%). Further, confidence in our federal Parliament has dropped considerably in the past decade in all areas of the country. However, these measures were taken prior to the last federal election and might not reflect the renewed enthusiasm for a new government.



people with confidence in federal parliament

<b>WATERLOO</b>	<b>33.7%</b>
<b>CENTRAL</b>	<b>42.8%</b>
<b>ONTARIO</b>	<b>39.6%</b>
<b>CANADA</b>	<b>37.6%</b>

## COMMUNICATION

Members of Parliament (MPs) for Waterloo Region dedicate 8.6% of their total eligible expenses to communications, typically in the form of newsletters or pamphlets mailed directly to householders in their ridings. These expenses are higher than other regions in the province and well above the provincial average of 6.9%. Politicians' investments in communications is a reflection of the strength of the connection between citizens and their local representative in Parliament, and a means of sharing activities and progress towards goals. As politicians increasingly turn to social media to communicate with their constituents, print materials are relied upon less so the recent decline in budgets dedicated to this form of communication is not unexpected.

## POTENTIAL INDICATORS FOR A MEASUREMENT SYSTEM OF COMMUNITY WELLBEING

Democratic Engagement is more than just voting, although that step is a critical component of citizen participation in the democratic process. We must also be confident in our political systems and leadership, and embrace two-way communication with our representatives and institutions. Valid and reliable measures pertaining to democratic engagement are less available than other types of data, however, there are some indicators that have the potential to supplement our sense of people's engagement in the democratic process, locally to nationally. These indicators include:

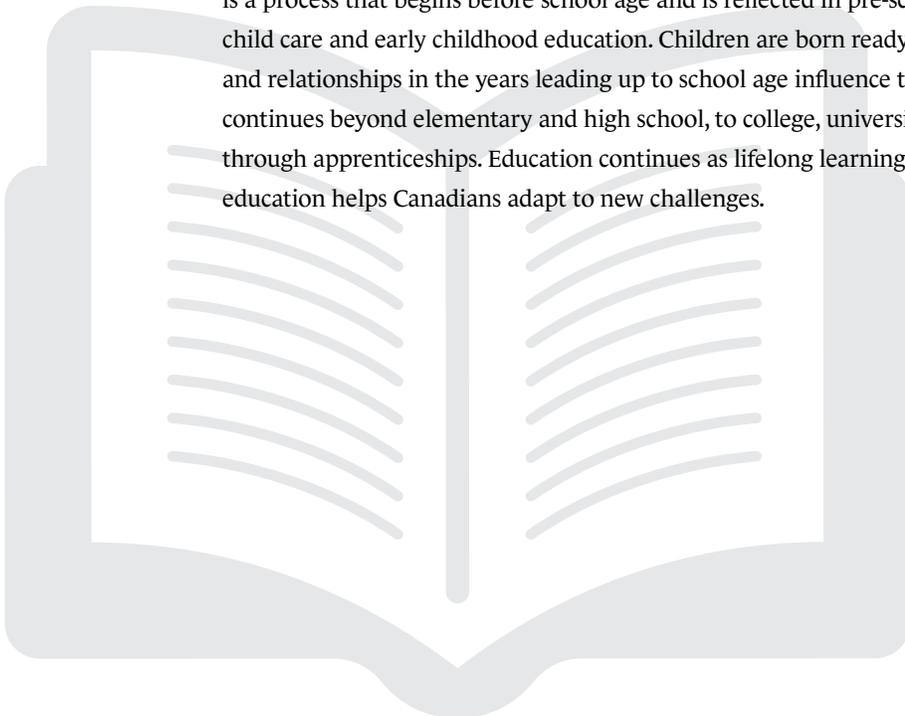
-  Percentage of population that is fairly or very satisfied with the way democracy is working in Canada
-  Gap in the percentage turnout between older and younger voters
-  Level of interest in politics – locally, provincially, and nationally
-  Degree to which residents are involved in local decision-making
-  Level of engagement with local government via online platforms and/or social media



# EDUCATION

Education is the systematic instruction, schooling, or training given to the young in preparation for the work of life, and by extension, similar instruction or training obtained in adulthood.

Societies that thrive encourage a thirst for knowledge – at every age and stage of life. Education is a process that begins before school age and is reflected in pre-school arrangements such as child care and early childhood education. Children are born ready to learn – the experiences and relationships in the years leading up to school age influence the capacity for learning. It also continues beyond elementary and high school, to college, university, and professional training through apprenticeships. Education continues as lifelong learning. As the world changes, education helps Canadians adapt to new challenges.



## ACADEMIC ACHIEVEMENT

Even though high school graduation rates have increased over the last six years in Waterloo Region, the 82.2% completion rate in 2016 was the lowest in the areas making up Central Region (91.0%) and among the lowest in the entire province (86.5%).<sup>1</sup> Nationally, the high school completion rate among 20 to 24 year olds is even higher at 89.3%.

Just over one-quarter of residents in Waterloo Region, 25 to 64 years of age, have a university degree (26.2%), and this rate is almost 5% lower than Central Region and somewhat lower than for the province overall (28.5%), which has risen steadily in recent years. Participation in education is critical for preparation for work as well as for ongoing personal development and its positive impact on our living standards and social networks. Creating more opportunities and encouraging greater participation in education-related activities would serve to enhance wellbeing because of these activities' influence across many domains.



children that  
are vulnerable  
based on EDI

<b>WATERLOO</b>	<b>18.5%</b>
<b>ONTARIO</b>	<b>14.4%</b>

## MEASURING PROGRESS

Elementary schools in Ontario make important contributions to the early development of our children and their preparation for life. Indeed, in the past year, the Ontario Ministry of Education added “wellbeing” to its goals for the education system and many schools are now including softer skills such as creativity and social-emotional skills among its key measures of progress.<sup>2</sup> One way to assess children’s development is with the Early Development Index (EDI). It measures children’s developmental health in five areas: (1) physical health and wellbeing, (2) social competence, (3) emotional maturity, (4) language and cognitive development, and (5) communication skills and general knowledge.<sup>3</sup>

<sup>1</sup>High school graduation rates for Waterloo Region, Central Region, and the province are based on Ontario Ministry of Education figures whereas the graduation rate for Canada is based on data provided by Statistics Canada; therefore, comparisons may not be valid because they use different definitions and reference groups.

<sup>2</sup>People for Education. (2015). *Ontario’s Schools: The gap between policy and reality*. Annual Report on Ontario’s Publicly Funded Schools 2015. Toronto, ON: People for Education. Available from: <http://www.peopleforeducation.ca/research/p4e-reports-bytopic/>

<sup>3</sup>Janus, M., Brinkman, S., Duku, E., Hertzman, C., Santos, R., Sayers, M., Schroeder, J., & Walsh, C. (2007). *The Early Development Instrument: A population-based measure for communities. A handbook on development, properties, and use*. Hamilton, ON: Offord Centre for Child Studies, McMaster University. [More information about the EDI can be found at: <https://edi.offordcentre.com/about/what-is-the-edi/>]

Consequently, when more than 1 in 3 children in Senior Kindergarten in Waterloo Region have low scores on one of the five areas and almost 1 in 5 children aged 4 to 8 years (18.5%) have low scores on two or more – and therefore are considered vulnerable – we must recognize that they are struggling. Vulnerability includes identifying children whose struggles may be apparent or not. If they remain vulnerable, they are at greater risk of reduced lifelong health, learning, and behavioural development. A greater percentage of children in Waterloo Region are vulnerable than across Ontario where 14.4% of children have low scores on at least two of the five developmental areas.

One means of providing more support to children is to consider the ratio of students-to-educators. Doing so has the potential to give more individualized attention to children who might be at risk of falling behind in one or more of these developmental areas. In Waterloo Region, the ratio of students-to-educators is 10.2, which is better than the national average (11.1), but not as good as for Ontario as a whole (8.9).

## CONTRIBUTION OF LIBRARIES

Beyond their traditional role in providing citizens with the content they need to succeed, libraries in our communities have evolved to play a central role as a hub for community development, learning, and sharing. The many instructional programs and services they offer promote literacy, skills development, and access to technology for people of all ages.<sup>4</sup>

Public libraries in Waterloo Region offer an average of 27.0 early literacy and learning programs per 1,000 children, which is comparable to the 28.2 programs offered by Central Region and higher than in the province overall (25.8). For other programs offered to children, such as in the arts and culture, health and wellness, and play groups, Waterloo Region leads the province. An average of 21.8 of these programs per 1,000 children are provided annually in the Region compared to just 15.2 in Central Region and 16.5 across Ontario.

In comparison, libraries throughout the province, including those in Waterloo Region, offer far fewer programs for adults. On average, libraries in Waterloo Region offer about one program per 10,000 adults related to career support and advice, job help, and skills training, which is half as many as provided in Central Region and across the province. In addition, libraries in Waterloo Region offer approximately one adult learning program on other general topics of interest per 1,000 population, which is about one-third of the average offered province-wide.



children's programs at libraries per 1,000 children

<b>WATERLOO</b>	<b>21.8</b>
<b>CENTRAL</b>	<b>15.2</b>
<b>ONTARIO</b>	<b>16.5</b>

<sup>4</sup>Federation of Ontario Public Libraries. (2012). *Annual Report on the State of Public Libraries 2012*. Toronto, ON: FOPL. Available from: <http://fopl.ca/news/2011-annualreport-on-the-state-of-public-libraries/>

## CHILD CARE



children with  
licensed child  
care available

<b>WATERLOO</b>	<b>17.8%</b>
<b>ONTARIO</b>	<b>20.7%</b>
<b>CANADA</b>	<b>24.1%</b>

The availability of quality child care, which has expanded in Ontario in recent years, contributes to our pre-school children’s social, emotional, developmental, and educational outcomes, especially for children living in lower income families. In Waterloo Region, there is a lower proportion of children from 0 to 4 years of age for whom licensed, centre-based child care is available (17.8%) than in the province overall.<sup>5</sup> Across Ontario, about 1 in 5 pre-school children have access to such spaces (20.7%), and nationally, the percentage is closer to 1 in 4 (24.1%). More could therefore be done to ensure that a greater number of spaces are available to children before entering school, especially infant and toddler spaces. Doing so would extend the positive benefits derived from quality child care to more children, especially those most marginalized by income or access, and also provide families with more opportunity to allocate their time differently and reach work-life balance.

Children from 0 to 14 years of age benefit in their cognitive, linguistic, and social development from time spent in talk-based interactions with adults. Activities like conversation, listening to them read or reading to them, playing, or helping with homework provide an important context and opportunity for a child’s development. In Waterloo Region, adults spend an average of just over half an hour (38.6 minutes) per day in such interactions with children, which is a similar amount of time as the provincial average (39.6 minutes) and somewhat better than the national average (35.4 minutes). Creating more opportunities for these interactions will contribute to our children’s overall development.

<sup>5</sup> Waterloo Region Community Services (Children’s Services) provided the data on *licensed* centre-based child care spaces whereas data for Central Region, Ontario, and Canada come from the Childcare Resource and Research Unit (CRRU) (<http://www.childcarecanada.org/>) in Toronto, which reports *regulated* centre-based child care spaces. Consequently, direct comparisons should be made with caution because of methodological differences.

## POTENTIAL INDICATORS FOR A MEASUREMENT SYSTEM OF COMMUNITY WELLBEING

Education is a lifelong endeavour and can occur in a variety of venues, both formal and informal. Valid and reliable measures reflecting the degree to which we have access to educational opportunities – and how we embrace them – are foundational aspects that satisfy our desire and curiosity to learn. Among some of the other indicators that have the potential to reflect opportunities for and participation in education are the following:

-  Average expenditure per public school student
-  Average annual undergraduate tuition fees for local Universities
-  Number of services available per 1,000 children aged 0 to 6 years (e.g., Ontario Early Years Centres)
-  Student achievement in literacy and math in grades 3 and 6
-  School absenteeism and attendance

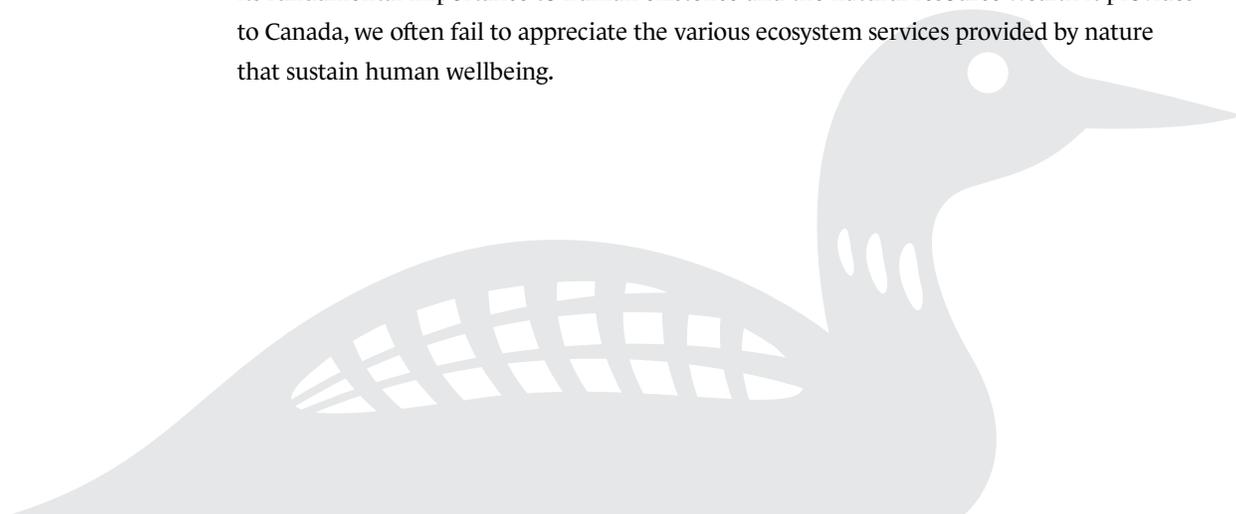
As with several indicators used in the CIW's national report, such as expenditures on public school students and undergraduate tuition fees, they are available at the national and provincial level, but not at the regional or community level.



# ENVIRONMENT

The environment is the foundation upon which human societies are built and the source of our sustained wellbeing. On a broader level, environmental protection involves the prevention of waste and damage while revitalizing our ecosystems and working towards the sustainability of all of our natural resources.

The environment is the basis for our health, our communities, and our economy. Despite its fundamental importance to human existence and the natural resource wealth it provides to Canada, we often fail to appreciate the various ecosystem services provided by nature that sustain human wellbeing.



## AIR QUALITY

Ground level ozone – or “smog” – represents a potentially serious risk to the environment (e.g., crop loss), to our health (e.g., respiratory issues), and to our health care system (e.g., increased hospital admissions). While ground-level ozone levels have been largely stable over the past two decades, they have increased slightly in the province over the past year.

In Waterloo Region, annual ground-level ozone is 28.0 parts per billion (ppb), which is marginally higher than Central Region and Ontario, both of which sit at 27.4 ppb. More positively, ground level ozone in Waterloo Region is well below the rate nationally (32.8 ppb). While these levels are well below standards that place people at risk, we can take action to prevent ozone production by increasing active transportation (i.e., walking, riding bicycles) or taking public transit and ensuring industry meets recommended targets.

Greenhouse gas emissions (GHGs) – a major contributor to climate change – have been declining slowly in recent years in Ontario. While much of this reduction is due to the slowing of manufacturing, increased energy efficiency, and especially the closure of coal-fired electricity generation plants, in recent years, the reduction of household emissions through conservation efforts has also been, on a proportional basis, a significant factor in helping to reduce overall emissions. Ontarians are doing their part.

Total greenhouse gas emissions from the largest facilities in Waterloo Region were 0.13 megatonnes of CO<sub>2</sub> in 2015, which represents just 0.3% of the provincial total. All of the large facilities throughout the Central Region generated 4.4 megatonnes of CO<sub>2</sub> in 2015, which represents 9.6% of the total emissions for the province as a whole (45.6 megatonnes).<sup>6</sup> Several other factors also affect the level of GHGs, including the intensity of economic activity and energy use, due to variable climatic conditions throughout the year (e.g., increased use of air conditioning in the summer) – all of which are playing out in Waterloo Region.

<sup>6</sup>Data on greenhouse gas emissions (GHGs) are taken from the *Reported Facility GHG* Data available from Environment and Climate Change Canada (<http://www.ec.gc.ca/ges-ghg/default.asp?lang=En&n=8044859A>), and represent only one part of total GHGs in Ontario; that is, only emissions generated by the largest operations in the province are reported.

## WATER QUALITY

The relative abundance of fresh water in the province is a tremendous benefit enjoyed by all Ontarians, including residents of Waterloo Region, which draws much of its drinking water from ground water. The quality of fresh water in Ontario overall, as measured by its pH level, is 8.2, which is slightly alkaline, but well within acceptable limits. Fresh water in Waterloo Region has a pH level of 8.3, which is almost identical to the province as a whole.

Over the past several years, average daily water consumption in Waterloo Region (in cubic metres per capita) has been declining. Currently, the water flow rate sits at 0.273 cubic metres per capita per day, down from 0.361 ten years previously.<sup>7</sup> While the reasons for the drop in water consumption are many, this overall trend might point to a reduced level of demand due to greater conservation efforts.



waste  
diversion rate

<b>WATERLOO</b>	<b>59.3%</b>
<b>CENTRAL</b>	<b>52.1%</b>
<b>ONTARIO</b>	<b>47.3%</b>

## WASTE REDUCTION

In Ontario, the percentage of all residential and non-residential waste diverted from landfill, mainly through recycling programs, is about 25%. About 60% of all waste in Ontario is generated by the non-residential sector (e.g., factories, shopping malls, universities), yet it diverts only about 13% of the waste from landfill. In contrast, residential waste accounts for about one-quarter of the provincial total, yet Ontarians are diverting 47.3% of their waste from landfills, mainly through recycling through the Blue Box and Green Bin programs, and this rate has been improving in recent years.<sup>8</sup> While residents of Ontario are doing their part, recycling rates overall have remained largely the same over the past decade.

In Waterloo Region, the residential waste diversion rate is 59.3%, which is 12% higher than the provincial rate. This higher rate is likely due both to a rapid expansion of recycling programs in the Region and greater awareness of recycling programs and feelings of environmental responsibility among residents. In addition, the Region has a comparatively lower concentration of heavy industry, which as a sector, recycles less than residents do.

<sup>7</sup> Region of Waterloo. (2017). 2017 *Water and wastewater monitoring* report. Water Services Annual Reports. Available from: <http://www.regionofwaterloo.ca/en/aboutTheEnvironment/resources/WaterServices/WS2017JuneWaterAndWastewaterMonitoringReport.PDF>

<sup>8</sup> Government of Ontario. (2015). *Strategy for a waste free Ontario: Building the circular economy*. (Draft for consultation). Toronto, ON: Queen's Printer of Ontario. Available from: [http://www.downloads.ene.gov.on.ca/envision/env\\_reg/er/documents/2015/012-5834\\_DraftStrategy.pdf](http://www.downloads.ene.gov.on.ca/envision/env_reg/er/documents/2015/012-5834_DraftStrategy.pdf)

## ACTIVE TRANSPORTATION

More Canadians are engaging in various forms of active transportation as a means of improving their overall health, which has the additional benefit of improving air quality through reduced emissions. In 2011 in Waterloo Region, 4.8% of all-day weekday trips used active transportation, whether walking or cycling. In contrast, almost 88% of weekday trips involved the use of a personal automobile, as either a driver or a passenger. Public transit accounted for another 6.8% of daily trips.

Active transportation is embraced more strongly in some other large urban areas of Canada, such as Victoria, Calgary, Vancouver, and Ottawa-Gatineau<sup>9</sup> where commitments to trails and bike paths are generally stronger. The expansion of the network of trails and sidewalks in Waterloo Region, including an eye to urban design to make neighbourhoods more walkable – both key factors in active transportation – will contribute to more walking and cycling by residents.

A factor contributing to more participation in active transportation is the walkability of a community. While a variety of methods have been proposed to assess walkability, it has been calculated in Waterloo Region using four objective measures of land features: (1) intersection density, (2) residential density, (3) rate of mixed land use, and (4) retail density. Within the Tri-cities, 18.3% of the land area was determined to be high or very high on the Walkability Index. Along the Central Transit Corridor in the Region, walkability was even higher where 57% of the population was living in a high or very high walkable area.<sup>10</sup>

<sup>9</sup> Kriger, D., Rose, A., Baydar, E., Moore, J., Frank, L., Chapman, J., & Pisarki, A. (2016). *Urban transportation indicators. Fifth survey*. Ottawa, ON: Transportation Association of Canada. Available from: [http://www.tac-atc.ca/sites/tac-atc.ca/files/site/doc/resources/final\\_report-april\\_2016.pdf](http://www.tac-atc.ca/sites/tac-atc.ca/files/site/doc/resources/final_report-april_2016.pdf)

<sup>10</sup> Parkin, M., Stubbs, D., Hang, V., & Wray, A. (2016). *Central Transit Corridor Monitoring Program: 2015 Monitoring Report*. Planning Research and Analytics, Region of Waterloo. Waterloo, ON. Available from: <http://www.regionofwaterloo.ca/en/regionalGovernment/resources/PW/Companion-Report.pdf>

## POTENTIAL INDICATORS FOR A MEASUREMENT SYSTEM OF COMMUNITY WELLBEING

Finding and compiling valid and reliable indicators for the Environment domain is a greater challenge than for any other domain. There are limited measures available at the national level that reflect the ways in which the environment enhances our wellbeing, but most of these are either not available at the regional level (e.g., Ecological Footprint) or are less meaningful in a local context. However, local sources of data can serve to enrich our understanding of how the local environment and our behaviours in it influence both individual and community wellbeing. Among the indicators that have this potential include the following:

-  An index of the connectivity of roads, sidewalks, and trails
-  Percentage of total land area (in hectares) dedicated to farming
-  Percentage of total land area (in hectares) dedicated to public greenspace
-  Percentage of total land area (in hectares) with tree canopy coverage
-  Number of community garden plots per 1,000 population
-  Residential energy consumption per capita
-  Percentage of population using alternative, green energy
-  Particulate matter in the air
-  Occurrences of extreme weather events (e.g., days above 30 degrees Celsius)



# HEALTHY POPULATIONS

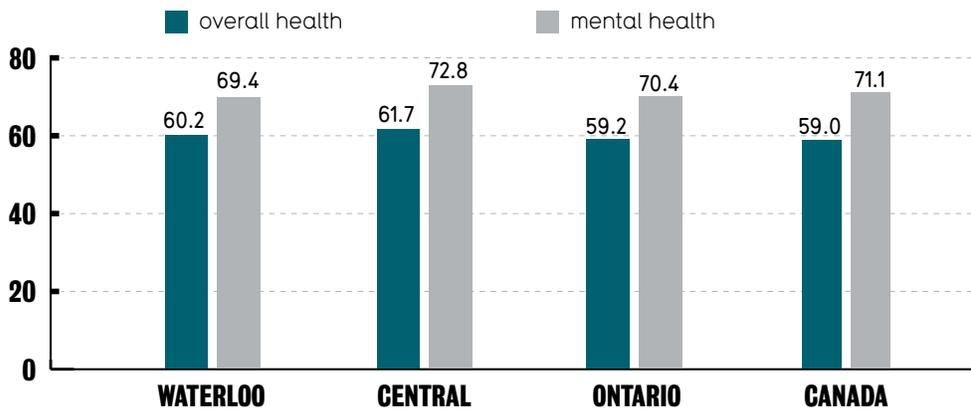
The Healthy Populations domain considers the physical, mental, and social wellbeing of the population. It examines life expectancy, lifestyle and behaviours, and the circumstances that influence health such as access to health care.

Healthy Populations captures both the overall health of the population (“health status”) as well as factors that influence health (“health determinants”). This broad perspective is used because peoples’ lifestyles and behaviours are constrained and shaped by broader social factors such as how food is distributed and priced, how houses are constructed and located, how urban transportation is designed, how easily people can access health care and recreational services, and how we interact with the natural environment.

## SELF-REPORTED HEALTH

In terms of overall health, 6 in 10 residents in Waterloo Region say their overall health is very good or excellent and 7 in 10 report that their mental health is very good or excellent. In both instances, these percentages are very similar to those reported in Central Region, across the province, and nationally. Nevertheless, these numbers also suggest that approximately 30 to 40% of residents feel their overall and mental health is only “good” – or worse. Further, residents’ ratings of their health in all regions have been declining somewhat in recent years, so this is an added area of concern.

## PERCENTAGE OF PEOPLE RATING THEIR MENTAL HEALTH AS VERY GOOD OR EXCELLENT IS HIGHER THAN THEIR RATINGS OF OVERALL HEALTH



people with no health or activity limitations

<b>WATERLOO</b>	<b>67.8%</b>
<b>CENTRAL</b>	<b>73.9%</b>
<b>ONTARIO</b>	<b>67.9%</b>
<b>CANADA</b>	<b>78.5%</b>

Two-thirds of the residents in Waterloo Region report they are living without any health or activity limitations. As with ratings of one’s health, these results suggest that approximately 30% of residents in Waterloo Region do have some health-related and activity limitations that might be inhibiting their day-to-day quality of life. The numbers of residents living with these limitations is similar to Ontarians overall, but higher than the 20 to 30% of residents in Central Region and across Canada who are facing health-related difficulties in their day-to-day living.

The incidence of self-reported diabetes has been rapidly increasing across Ontario in recent years, currently sitting at 7.4% of the population. In Waterloo Region, the percentage is even higher at 7.8%. Both locally and provincially, the growing incidence of diabetes is notably higher than the rate reported nationally (6.7%). Addressing the incidence of diabetes is a concern because it is a critical marker of other health-related issues such as cardiovascular disease, and kidney and vision problems.

**HEALTH-RELATED BEHAVIOUR**

Over the past decade, the number of individuals across the country being immunized against influenza each year has remained relatively unchanged at approximately one-third of the population. In Waterloo Region, the immunization rate is 33.4%, which is slightly higher than Central Region (30.4%), but is still lower than for Ontario overall (35.4%) – and one of the lowest rates of any region in the province. While being immunized is advisable for all age groups, Waterloo Region is comparatively younger than Ontario and Canada overall, possibly misleading residents to feel less vulnerable to contracting the flu.

Smoking is widely recognized as a health behaviour associated with a variety of illnesses that could otherwise be prevented. Preventing and reducing smoking at an early age, when such behaviour is typically adopted, is a strategy that ensures better health in later life.

Smoking rates among teens (aged 12 to 19 years) have been steadily decreasing across Ontario over the years. While teen smoking rates are approximately 6 to 8% elsewhere in the province and in Canada overall, Waterloo Region reports a dramatically lower rate. Only 1 in 200 teens in the Region (0.5%) smoke occasionally or daily. This is good news and points to better overall health for young people as they enter adulthood.



teens smoking  
occasionally  
or daily

<b>WATERLOO</b>	<b>0.5%</b>
<b>CENTRAL</b>	<b>5.9%</b>
<b>ONTARIO</b>	<b>5.8%</b>
<b>CANADA</b>	<b>7.7%</b>

## HEALTH CARE ACCESS

Having access to a regular health physician, such as a family doctor, is a useful indicator of the capacity and appropriateness of the primary health care system. Access to a family doctor is a more effective means of sustaining good health than is the episodic use of emergency care.

The vast majority of residents of Waterloo Region have access to a regular health physician (94.5%), which is almost 10% higher than in Canada overall (85.1%). The percentage of residents in Waterloo Region with access to a regular health physician is also higher than for residents of Ontario overall (92.5%).

Considering all of the various health behaviours and resources available to people, life expectancy provides a sense of overall population health based on *quantity* of life rather than *quality* of life. It helps to inform how the health of Canadians is shifting as improvements to systems and services are made. Life expectancy (in years from birth) in Waterloo Region is 82.6 years, which is slightly longer on average than in the province (82.3 years) and almost a year longer than across Canada (81.8 years). As is the case elsewhere in the country, life expectancy among women is longer in Waterloo Region – 84.2 years compared to 80.6 years for men, although the gap has been narrowing in recent years. As a broad marker of population health, longer life expectancy in the Region suggests more favourable conditions and health care access.

## POTENTIAL INDICATORS FOR A MEASUREMENT SYSTEM OF COMMUNITY WELLBEING

Data sources and indicators describing the health of the population are relatively abundant and frequently gathered when compared to data on social and environmental aspects of communities. The challenge for the Healthy Populations domain is deciding which indicators to use. While the indicators used here are strongly connected to the conceptual definition of the Healthy Populations domain, several other indicators have been identified that could complement our understanding of residents' health and wellbeing. Among those indicators that could also be included are:

-  Percentage of the population that is overweight or obese
-  Percentage of babies born with a healthy weight for gestational age
-  Visits to emergency hospital departments on per capita basis
-  Number of physicians per 100,000 population
-  Percentage of adult population exceeding recommended low-risk alcohol consumption guidelines



# LEISURE AND CULTURE

By participating in leisure and cultural activities, whether arts, culture, or recreation, we contribute to our wellbeing as individuals, to our communities, and to society as a whole. The myriad of activities and opportunities we pursue and enjoy benefit our overall life satisfaction and quality of life.

As forms of human expression, leisure and cultural activities help to more fully define our lives, the meaning we derive from them, and ultimately, our wellbeing. This remains true throughout our lives regardless of age, gender, or social group. The impact of participation in leisure and cultural activities is even greater for people in marginalized groups, such as those living with disabilities, living in poverty, and as members of a minority population.



average number of times per month participating in physical activity lasting over 15 minutes

<b>WATERLOO</b>	<b>30.2</b>
<b>CENTRAL</b>	<b>27.9</b>
<b>ONTARIO</b>	<b>28.2</b>
<b>CANADA</b>	<b>27.6</b>

## PARTICIPATION

Spending leisure time with others in pursuit of shared interests and in arts and cultural activities is an important way for people to connect, celebrate diversity, and develop and broaden their passions – all contributors to community social capital.

In Waterloo Region, residents spend an average of 13.2% of their time engaged in social leisure activities, such as socializing with others at home, going out, and volunteering with civic and family organizations, among other activities. This average is quite similar for residents of Central Region (13.7%), which reports the highest percentage of time in social leisure activities of any region in the province. Residents of Waterloo Region spend on average 3.8% of their time participating in arts and cultural activities (e.g., going to music concerts, visiting museums and galleries), which is just slightly lower than the overall provincial average (4.1%). Arts and culture activities occur more occasionally rather than daily, which explains why the amount of time spent in these important activities appears low.

An active lifestyle has numerous physical, social, and psychological benefits. In Ontario, over 90% of the population reports participating in some form of regular physical activity during leisure time, and like elsewhere across the country, participation has been rising steadily over the years.

In Waterloo Region, residents report participating in physical activity lasting at least 15 minutes once every day (30.2 times per month on average). This level of activity is higher than elsewhere in Ontario and Canada, and might be in part a reflection of the Region’s somewhat younger population that tends to participate more in physical activity. Nevertheless, participation has been increasing for all age groups.

Taking regular holidays provides relief from daily routines, opportunities to bond with friends and family, and revitalization. The longer the vacation, the greater these benefits. Residents of Waterloo Region report an average of 2.4 nights away per vacation trip (to destinations at least 80 km away from home), which is lower than almost every other region in the province, and below the national average (3.0 nights away). This lower level of vacation time in Waterloo Region is of concern because time away on holiday has been steadily decreasing in recent years all across the country, and if the trend continues, residents will miss opportunities to receive its benefits.

## OPPORTUNITIES

### PARKS AND TRAILS

Public greenspace in the form of parks, trails, and other open spaces provides opportunities for residents to engage in active lifestyles, to build and reinforce social connections, and to strengthen feelings of belonging to their community. They also serve to enhance the physical environment by improving air quality, assisting with flood control, and reducing climate-related concerns such as intense heat and greenhouse gases.

In the Tri-cities of Waterloo Region (i.e., Cambridge, Kitchener, and Waterloo), 88.5 hectares of public greenspace are available for every 10,000 people in the population. Another 10.2 kilometres of trails and pathways for every 10,000 residents wind their way through the cities.<sup>11</sup>

### LIBRARIES

As noted earlier in the Education domain, libraries provide much more than just content to advance people's education and interests. Indeed, they are important community hubs where people meet, engage in activities, and attend events, thereby strengthening community bonds.

For every 1,000 people in Waterloo Region, 112.6 in-person visits are made each year to public libraries, a rate of usage that is among the highest of any region in the province. By way of comparison, fewer than 100 visits per 1,000 people are made by residents of Central Region and only slightly more are made by Ontarians overall.

In the past year, libraries in Waterloo Region offered 13.5 library programs of various types to every 1,000 people, which is lower than the rate in Central Region (15.1) and even lower than the provincial rate of 16.6 programs. Further, the Region's libraries offered just one arts and cultural event and show (e.g., Culture Days, poetry and story readings, art shows) per 10,000 people in the past year. Again, this level of offerings is lower than the rate in Central Region (1.5) and much lower than in the province overall (4.4). Indeed, the number of annual library programs is one of the lowest in Ontario.



annual in-person  
visits to libraries  
per 1,000 people

<b>WATERLOO</b>	<b>112.6</b>
<b>CENTRAL</b>	<b>97.2</b>
<b>ONTARIO</b>	<b>103.2</b>

<sup>11</sup>Figures for public greenspace and for trails are for the Tri-cities (i.e., Cambridge, Kitchener, and Waterloo) and do not include the four Townships. They are drawn from the *2015 Monitoring Report* produced by the Central Transit Corridor Monitoring Program (2016).



annual library  
programs per  
1,000 people

<b>WATERLOO</b>	<b>13.5</b>
<b>CENTRAL</b>	<b>15.1</b>
<b>ONTARIO</b>	<b>16.6</b>

By making computers and internet connections freely available in public libraries, access to information and resources is provided, especially to people who might otherwise not have it due to financial constraints or other access limitations. Access is comparatively lower in Waterloo Region – as well as Central Region – where 5.4 internet connections are available in the libraries for every 10,000 people, compared to 7.2 connections per 10,000 people for Ontario as a whole.

## POTENTIAL INDICATORS FOR A MEASUREMENT SYSTEM OF COMMUNITY WELLBEING

The ways in which people make use of their leisure time, the activities in which they engage, and the places where they participate are vast and diverse. Narrowing down the array of possibilities to use in the Leisure and Culture domain represents a challenge in itself, but it is made even more difficult due to a lack of valid and reliable measures at the national and provincial levels. However, local sources of information can be gathered and organized to capture the character of people's leisure and cultural lifestyles, and to describe the ways in which they contribute to overall individual and community wellbeing. Among the indicators that have this potential include the following:

-  Average attendance per performance at all performing arts events
-  Expenditures on recreation, sport, arts, and culture as a percentage of annual total household expenditures
-  Number of special events and festivals per 10,000 population
-  Number of public recreation facilities per 10,000 population (e.g., swimming pools, arenas, community centres)
-  Average attendance per capita at festivals and special events
-  Percentage of population enrolled in at least one public recreation program
-  Percentage of population participating in organized team and individual sports
-  Number of low cost recreation programs as a percentage of all public recreation programs



# LIVING STANDARDS

Living Standards examines Canadians' average and median income and wealth, distribution of income and wealth including poverty rates, income fluctuations and volatility. It considers economic security, including labour market security, and housing and food security.

Our living standards should reflect our capacity to transform economic growth into stable current and future income streams for everyone. Economic growth does not automatically translate into better living standards. A higher average income, for example, may be achieved at the cost of increased social inequality or greater economic insecurity. In contrast, achieving greater job quality, reducing poverty, and providing affordable housing and food security to individuals and families will raise wellbeing for everyone.



persons in low income

<b>WATERLOO</b>	<b>12.1%</b>
<b>CENTRAL</b>	<b>11.5%</b>
<b>ONTARIO</b>	<b>14.4%</b>
<b>CANADA</b>	<b>14.2%</b>

## ECONOMIC SECURITY

The Kitchener-Cambridge-Waterloo CMA has one of the highest full-time employment rates (66.1%) in the province, exceeding the rate across Ontario (60.7%). Its unemployment rate (5.5%) is a full percentage point lower than for the province overall (6.5%) and 1.5% lower than in Canada overall (7.0%). Taking both of these employment measures into account suggests that the job market in Waterloo Region is evolving and diverse, reflecting an economy that provides opportunities for many residents.

After-tax median income of families in Waterloo Region (\$81,798) is above both the provincial (\$79,531) and national levels (\$76,372). The higher median income may be, in part, a reflection of higher employment, lower long-term unemployment, and an evolving and growing economy. Monitoring these characteristics is helpful in understanding the conditions affecting residents’ feelings of economic security, through opportunities for a secure and stable job and more access to the necessities of life like food and shelter.

The after-tax low income measure (LIM-AT) is a fixed percentage (50%) of median adjusted household income, where “adjusted” indicates that household needs are taken into account (e.g., the number of persons living in the household). More than 1 in 8 households in Waterloo Region (12.1%) are living with low incomes. Even though this rate is lower than in Ontario (14.4%) and in Canada overall (14.2%), it represents almost 65,000 people living in Waterloo Region who are struggling economically. Equally of concern is that the incidence of persons living in low income has edged up slightly in recent years indicating a decline in economic security. Relatedly, 3.2% of the Region’s residents can be classified as “working poor”; that is, individuals under 65 years of age earning an annual working income of at least \$3,000, but an after-tax income below the low income measure.

## FOOD INSECURITY

Food insecurity occurs when nutritious food is not available to people, the amount of food is insufficient, and/or there are barriers to safe and effective food preparation, such as poor drinking water quality or sanitation issues. The numbers of people who are moderately or severely food insecure in Ontario has been rising in recent years, and now sits at 8.3% of the total population. A smaller percentage of residents in Waterloo Region are food insecure (6.7%), but this rate is still much higher than for residents of Central Region (5.1%), and represents an estimated 36,000 people in Waterloo Region who may be experiencing food insecurity. These trends are troubling because, in contrast, national trends suggest food insecurity has been edging downwards in recent years.



households that  
are food insecure

<b>WATERLOO</b>	<b>6.7%</b>
<b>CENTRAL</b>	<b>5.1%</b>
<b>ONTARIO</b>	<b>8.3%</b>
<b>CANADA</b>	<b>7.7%</b>

## HOUSING SECURITY

For housing to be considered affordable, housing costs should be less than 30% of a family's before-tax household income. Just under one-quarter of households in Waterloo Region (23.4%) are spending 30% or more of their income on housing, which is lower than in Ontario overall (27.7%) as well as across the country (24.1%). Housing is a major part of a family's expenses, so residents of Waterloo Region are arguably somewhat more secure in this respect than elsewhere. Still, affordable housing is potentially out of reach for approximately 1 in 4 families and needs greater attention.



people  
reporting  
high levels  
of work stress

<b>WATERLOO</b>	<b>30.1%</b>
<b>CENTRAL</b>	<b>29.1%</b>
<b>ONTARIO</b>	<b>28.2%</b>
<b>CANADA</b>	<b>28.9%</b>

## WORK-RELATED STRESS

High levels of stress attributed to work can be related to a variety of factors including poor job quality and low stability – and hence, security – as well as longer hours of work and poor working conditions. In Waterloo Region, 3 in 10 working residents (30.1%) report feeling quite a bit or extreme levels of work-related stress, which is slightly above the rate both for the province overall (28.2%) and nationally (28.9%). Higher levels of stress are concerning, not just because of its link to feelings of security, but also because stress can have a serious effect on one's physical and mental health.

## POTENTIAL INDICATORS FOR A MEASUREMENT SYSTEM OF COMMUNITY WELLBEING

Similar to the Healthy Populations domain, economic data sources and indicators describing the living standards of the population are even more abundant and gathered regularly, so the challenge again is deciding which indicators to use. The indicators selected to represent the Living Standards domain are strongly connected to its conceptual definition and fit in the broader CIW framework. Several other indicators could be included to provide a deeper understanding of the wellbeing of residents, especially as they relate to their economic, housing, and food security. Among those indicators recommended as potential additions are:

-  Gini coefficient as a measure of the income gap
-  A measure of employment quality such as the CIBC Index of Employment Quality
-  Percentage of labour force in precarious employment (e.g., multiple part-time jobs, short-term contracts, under-employment)
-  Percentage of people on Ontario Works (OW)
-  A measure of housing affordability based on need rather than cost (e.g., CANCEA's Shelter Consumption Affordability Ratio<sup>12</sup>)
-  A measure of housing quality (e.g., percentage of dwellings in need of major repair)
-  Number of affordable housing units and numbers of people on the waiting list
-  Vacancy rate of rental units and percentage of population below ability to pay average market rent
-  Percentage of population that live in “food deserts” and “food swamps”
-  Percentage of families using food banks
-  Number of new businesses created

<sup>12</sup> Smetanin, P., Moca, I., Yusuf, F., & Kobak, P. (2015). *Understanding shelter affordability issues*. Research Report Executive Summary. Toronto, ON: The Canadian Centre for Economic Analysis. Available from: <http://www.cancea.ca/?q=node/96>



# TIME USE

Time Use measures how people experience and spend their time. It means how the use of our time affects physical and mental wellbeing, individual and family wellbeing, and present and future wellbeing. It examines the length of our workweek, our work arrangements, our levels of time pressure, and the time we spend with friends and in other free-time activities.

The implicit assumption with Time Use is the notion of *balance*. Most activities are beneficial to wellbeing when done in moderation, but are detrimental when done excessively or not at all. There are only 24 hours in a day, so too much time directed towards one activity can mean not enough or no time at all allocated for other activities that are also critical for our wellbeing. Not only does the amount of time matter, but the pace of and relative control over timing of activities throughout the day can affect overall quality of life.



people working  
50+ hours per week

<b>WATERLOO</b>	<b>15.7%</b>
<b>CENTRAL</b>	<b>15.2%</b>
<b>ONTARIO</b>	<b>14.3%</b>
<b>CANADA</b>	<b>8.7%</b>



average time  
spent per day with  
friends (in minutes)

<b>WATERLOO</b>	<b>84.9</b>
<b>CENTRAL</b>	<b>93.9</b>
<b>ONTARIO</b>	<b>90.1</b>
<b>CANADA</b>	<b>84.3</b>

## TIME

How much time Ontarians devote each day to certain kinds of activities may be beneficial – or detrimental – to their wellbeing. While some people might have the ability to allocate their time to achieve greater work-life balance, too often, factors beyond their control dictate how that time is allocated.

In Waterloo Region, 15.7% of residents are working 50 hours or more each week, well beyond the maximum 35 to 40 hours most full-time employees work. Indeed, this percentage is one of the highest rates in Ontario and well above the national rate (8.7%), and might represent a departure from recent trends that show that fewer people are working longer hours.

While residents elsewhere in Ontario and across the country have average workday commute times of nearly an hour, round-trip commutes in Waterloo Region are considerably shorter.

In Waterloo Region, workers spend an average of 37.6 minutes commuting to and from work each day, almost 20 minutes less than workers living elsewhere in Ontario. Lower commute times by Waterloo Region residents can contribute to a greater sense of work-life balance, less time pressure, and higher overall life satisfaction.

With more people working long hours and despite shorter commute times, residents of Waterloo Region are spending on average less time with friends each day (84.9 minutes per day) than in other regions of the province. Residents spend on average about five minutes less each day with friends compared to the provincial average of 90.1 minutes per day. While this difference might appear low, the cumulative effect of more time with friends can have a significant impact on people’s wellbeing and connection to their communities.

## TIMING

*Timing* considers when activities occur during the day, and how easy or difficult it might be for people to schedule activities like work, leisure, meals, or volunteer commitments. The more easily people can control their time, the greater their wellbeing.

Having regular, weekday work hours increases the sense of stability and security people feel about their jobs. In Waterloo Region, over two-thirds of employees (67.4%) have regular weekday working hours, which is just slightly above the provincial rate (65.9%) and almost identical to the national rate (67.3%). Further, the percentage of residents in Waterloo Region (51.5%) who have access to flexible work hours (i.e., when they choose to begin and end their workday) is notably higher than elsewhere in Ontario (46.1%) and much above the average across Canada (43.2%). Overall, these measures of timing for working people in Waterloo Region suggest they have a greater degree of control over their time than others do.



working people with flexible work hours

<b>WATERLOO</b>	<b>51.5%</b>
<b>CENTRAL</b>	<b>45.6%</b>
<b>ONTARIO</b>	<b>46.1%</b>
<b>CANADA</b>	<b>43.2%</b>

## TEMPORALITY

*Temporality* focuses on the natural rhythms associated with time such as our sleep and waking time rhythms, transitions from day to night, and activities associated with the changing of the seasons. Sleep is a biological necessity – we need good quality sleep in order to function. Adults require between seven to nine hours of sleep per day, and too much, too little, or poor quality sleep is detrimental to our wellbeing.

Barely 1 in 5 residents in Waterloo Region (21.1%) report getting between seven and nine hours of quality sleep. This percentage is well below the rate for the Central Region and province (29.5% and 30.5% respectively) and significantly below the rate nationally (35.9%). If roughly one-third of Canadians getting adequate sleep is of concern, then the one-fifth of residents in Waterloo Region getting enough sleep is alarming.

About 1 in 5 people in Waterloo Region report high levels of time pressure (19.3%), which is similar to the percentages reported in Central Region (20.1%) and across Ontario (19.8%). Nevertheless, levels of time pressure felt by residents of the Region and across Ontario are higher than those reported nationally (17.4%), which suggests Ontarians are not sharing to the same degree decreases reported across the country in recent years. As levels of time pressure remain comparatively higher, the ongoing challenge of achieving work-life balance for many people in Waterloo Region remains.



15 to 64 year olds reporting high levels of time pressure

<b>WATERLOO</b>	<b>19.3%</b>
<b>CENTRAL</b>	<b>20.1%</b>
<b>ONTARIO</b>	<b>19.8%</b>
<b>CANADA</b>	<b>17.4%</b>

## POTENTIAL INDICATORS FOR A MEASUREMENT SYSTEM OF COMMUNITY WELLBEING

Our ability to achieve greater work-life balance is not just a function of our own choices, but also determined by structural and systemic barriers in the community. For example, our work schedules or family demands can limit our ability to access opportunities and engage in the community. Yet, these are aspects of Time Use for which there are limited data, especially at the local level. Further, these types of measures are rarely gathered at a local level. Should efforts be made, however, to begin collecting such information to gain a better understanding of the factors that might be inhibiting – or enhancing – people’s ability to achieve greater work-life balance, then these are some of the indicators that could be included:

-  Percentage of the labour force working under 30 hours per week not by choice
-  Percentage of daily time parents spend with children (e.g., number of meals each week eaten together as a family)
-  Percentage of population reporting “lack of time” as a barrier to any or more engagement with family, in leisure pursuits, and/or in community
-  Degree to which people feel they have control over their lives, to make choices about how they allocate their time
-  Percentage of population that feel high levels of time pressure associated with different areas of their lives (i.e., family, work, community)

# APPENDIX A: METHODS

To create a report on the wellbeing of residents of Waterloo Region, the *most recent data available* have been drawn from four main sources. These sources of data provided demographic characteristics and indicators for each of the eight domains comprising the CIW's framework identified as critical to our overall wellbeing (i.e., *community vitality, healthy populations, democratic engagement, the environment, leisure and culture, education, living standards, and time use*).

**1. NATIONAL SURVEY DATA AND OTHER FEDERAL SOURCES** – wherever possible, indicators used for the CIW's national index comprising the eight domains are used. The most recent data, principally from Statistics Canada and other federal agencies (i.e., Ministry of Environment and Climate Change; Legislative Assembly of Canada; Elections Canada) are the main sources for creating portraits of wellbeing. Many of the indicators come from national surveys, including the Canadian Community Health Survey, the General Social Surveys (various cycles on Time Use; Victimization; Social Engagement; Canadian Survey on Giving, Volunteering, and Participating), and the Ethnic Diversity Survey;

**2. PROVINCIAL DATA SOURCES** – when national data were not available, we chose proxy indicators for several of the domains from provincial agencies and not for profit Organizations. The agencies from which indicators were drawn included the Government of Ontario's Public Library Statistics; Government of Ontario's Provincial Water Quality Monitoring Network; Ministry of Children and Youth Services; Ministry of Tourism, Culture, and Sport's After-School Program; Ontario Provincial Park Statistics; and People for Education;

**3. CENSUS OF CANADA** – primarily for the section describing the demographic characteristics of Ontarians, data have been taken from the 2016 Census of Canada. The Census also provided the means to adapt selected indicators from national and provincial sources to per capita measures, thereby allowing for direct comparisons between regions with quite different population sizes; and

**4. WELLBEING WATERLOO REGION'S MEASUREMENT AND MONITORING GROUP** – recommendations made by the Measurement and Monitoring Group on available data for Waterloo Region complement and augment the report, especially for domains where regional levels are absent or difficult to obtain.

Almost all of the data from national sources are for the year 2014. We also used a few data sources from 2013 and whenever possible, from 2016. For the section on demographics, we used the most recent Census of Canada (2016). To ensure comparability across regions of different population sizes, some indicators have been converted to per capita measures (e.g., number of incidents per 100,000 people). In these cases, we base our population estimates on Statistics Canada guidelines.

The greatest limitation to securing indicators for all of the domains was availability of data at the regional level. While indicators could typically be taken from national sources and reported for Ontario as a whole, they could not be disaggregated to the regional level, both for the Central Region of Ontario and for Waterloo Region specifically. This limitation occurred for two main reasons. First, the national data simply may not have been available at the regional level, or second, when data were available, the sample was too small for valid reporting on the indicator. For example, at least three indicators requested from Statistics Canada specifically for Waterloo Region could not be provided due to low reliability (i.e., too small a sample from a national survey for the Region). We addressed this limitation by seeking out provincial sources of data that could provide appropriate proxy indicators. Provincial sources were scrutinised carefully for conceptual fit, accuracy, and comparability across all provincial regions.

Once we identified, validated, and aggregated the data sources for Waterloo Region, a portrait of wellbeing emerged. This portrait offers a more comprehensive and interconnected understanding of different aspects of wellbeing and how they vary for residents of Waterloo Region.

# APPENDIX B:

# SUMMARY STATISTICS FOR WATERLOO REGION



## DEMOGRAPHICS

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>POPULATION</b>	Percentage of provincial population	4.0	32.3	–	–
	Percentage of provincial land area	0.2	1.6	–	–
<b>AGE</b>	Average age in years	39.1	39.5	41.0	41.0
	Median age in years	38.5	39.9	41.3	41.2
	Percentage of population under 15 years of age	17.8	18.0	16.4	16.6
	Percentage of population 50 years of age and older	34.4	35.3	38.3	38.5
<b>FAMILIES</b>	Percentage of population 15 years of age or older that is married or living common-law	58.4	60.2	57.3	57.6
	Percentage of families led by lone parent	16.0	15.3	17.1	16.4
	Percentage of lone-parent families led by females	79.7	80.3	80.4	78.3
<b>HOUSEHOLDS</b>	Average number of persons per family	3.0	3.1	2.9	2.9
	Percentage of population that owns their homes	68.2	78.3	69.7	67.8
<b>LANGUAGE AND ETHNICITY</b>	Percentage of population with English as mother tongue	75.0	60.1	68.8	57.3
	Percentage of population with French as mother tongue	1.1	1.1	3.8	21.1
	Percentage of population with another language as first language	23.9	38.8	27.4	21.6
	Percentage of population with knowledge of both English and French	6.5	6.9	11.2	17.9
	Percentage of visible minority population	18.7	39.2	28.9	21.8
<b>EMPLOYMENT AND INCOME</b>	Percentage of labour force employed <sup>a</sup>	66.1	–	60.7	61.1
	Percentage of labour force in long-term unemployment <sup>a</sup>	5.5	–	6.5	7.0
	After-tax median family income	\$ 81,798	\$ 86,878	\$ 79,531	\$ 76,372

<sup>a</sup> Employment and unemployment rates for Waterloo region are based on the Census Metropolitan Area (CMA) of Kitchener – Cambridge – Waterloo.

## COMMUNITY VITALITY

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>SOCIAL ENGAGEMENT</b>	Percentage of population reporting somewhat/strong sense of belonging to community	71.3	67.6	68.1	66.4
	Percentage of population reporting formal volunteering for organizations	59.1	52.7	55.2	49.1
	Percentage of population who provide unpaid help to others on their own	79.0	82.0	81.0	81.7
<b>SOCIAL SUPPORT</b>	Percentage of population with five or more close friends	50.5	52.6	53.7	51.8
	Percentage of population living alone	8.9	6.0	9.6	13.9
<b>COMMUNITY SAFETY</b>	Crime Severity Index	54.9	39.6	50.0	66.7
	Violent crime rate per 100,000 population	854.0	–	789.8	1,051.6
	Property crime rate per 100,000 population	2,988.9	–	2,286.9	3,206.4
	Percentage of population who feel safe walking alone after dark	80.9	81.0	79.2	79.5
<b>SOCIAL NORMS AND VALUES</b>	Percentage of population who believe that many/most people can be trusted	55.5	57.2	57.3	53.5
	Percentage of population reporting experience of discrimination	9.4	10.2	9.6	9.3

## DEMOCRATIC ENGAGEMENT

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>CITIZEN PARTICIPATION</b>	Percentage of eligible population that voted in last <i>federal</i> election	68.0	66.1	67.8	68.3
	Percentage of eligible population that voted in last <i>provincial</i> election	50.7	49.3	51.3	–
	Percentage of eligible population that voted in last <i>regional</i> election	32.4	–	–	–
<b>POLITICAL LEADERSHIP</b>	Percentage of female councillors on Waterloo Region Council	37.5	–	–	–
	Percentage with a great deal or quite a lot of confidence in federal Parliament	33.7	42.8	39.6	37.6
<b>COMMUNICATION</b>	Percentage of total expenses used by Members of Parliament (MPs) to send communications to householders in their ridings	8.6	8.0	6.9	5.9
	Percentage of lone-parent families led by females	79.7	80.3	80.4	78.3

## EDUCATION

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>ACADEMIC ACHIEVEMENT</b>	High school graduation rate (percentage) <sup>a</sup>	82.2	91.0	86.5	89.3
	Percentage of 25 to 64 year olds in population with a university degree	26.2	31.0	28.5	28.5
<b>MEASURING PROGRESS</b>	Percentage of children who are vulnerable, scoring low on 2 or more domains of the Early Development Index (EDI)	18.5	–	14.4	–
	Ratio of students to educators	10.2	–	8.9	11.1
<b>LIBRARIES</b>	Average number of early literacy and early learning programs per 1,000 children	27.0	28.2	25.8	–
	Average number of other children's programs per 1,000 children	21.8	15.2	16.5	–
	Average number of careers, job help, and skills programs per 1,000 adult population	0.1	0.2	0.2	–
	Average number of adult learning programs per 1,000 adult population	0.9	1.3	2.7	–
<b>CHILD CARE</b>	Percentage of children aged 0 to 4 years for whom there is a regulated/licensed centre-based child care space <sup>b</sup>	17.8	18.9	20.7	24.1
	Average minutes per day spent in interactive (talk-based) child care for children 0 to 14 years of age	38.6	44.7	39.6	35.4

<sup>a</sup> High school five-year graduation rates for Waterloo Region, Central Region, and the province are estimates based on figures published by the Ontario Ministry of Education whereas the graduation rate for Canada is based on data provided by Statistics Canada; therefore, comparisons may not be valid because they use different definitions and reference groups.

<sup>b</sup> Waterloo Region Community Services (Children's Services) provided the data on *licensed* centre-based child care spaces whereas data for Central Region, Ontario, and Canada come from the Childcare Resource and Research Unit (CRRU) (<http://www.childcarecanada.org/>) in Toronto, which reports regulated centre-based child care spaces. Consequently, direct comparisons should be made with caution because of methodological differences.

## ENVIRONMENT

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>AIR QUALITY</b>	Ground level ozone (population weighted in parts per billion)	28.0	27.4	27.4	32.8
	Overall total GHG emissions (megatonnes of CO <sub>2</sub> per year)	0.1	4.4	45.6	–
	Percentage of provincial GHG emissions (megatonnes of CO <sub>2</sub> per year) contributed by region	0.3	9.6	100.0	–
<b>WATER QUALITY</b>	pH levels (based on 1 to 14 scale where 7 is considered neutral) <sup>a</sup>	8.3	8.3	8.2	–
	Average water consumption per capita per day (cubic metres)	0.273	–	–	–
<b>WASTE REDUCTION</b>	Percentage of total residential waste diverted by municipalities (includes Blue Box and other materials)	59.3	52.1	47.3	–
<b>ACTIVE TRANSPORTATION</b>	Percentage of all-day weekday trips using active transportation (i.e., walking, cycling)	4.8	–	–	–
	Percentage of all-day weekday trips using public transportation rather than personal car (e.g., transit, GO train, school bus)	6.8	–	–	–
	Percentage of area within Tri-cities scoring high or very high on Walkability Index	18.3	–	–	–

<sup>a</sup> Pure water is neutral and has a pH level of 7.0. As values fall below 7.0, water is increasingly acidic; as values rise above 7.0, water is increasingly alkaline.

## HEALTHY POPULATIONS

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>SELF-REPORTED HEALTH</b>	Percentage of population who rate their <i>overall health</i> as very good or excellent	60.2	61.7	59.2	59.0
	Percentage of population who rate their <i>mental health</i> as very good or excellent	69.4	72.8	70.4	71.1
	Percentage of population with no health or activity limitations	67.8	73.9	67.9	78.5
	Percentage of population with self-reported diabetes	7.8	7.2	7.4	6.7
<b>HEALTH-RELATED BEHAVIOUR</b>	Percentage of daily or occasional smokers among teens aged 12 to 19 years	0.5	5.9	5.8	7.7
	Percentage of population getting influenza immunization	33.4	30.4	35.4	32.5
<b>HEALTH CARE ACCESS</b>	Percentage of population with a regular health physician	94.5	94.0	92.5	85.1
	Life expectancy in years from birth	82.6	–	82.3	81.8

## LEISURE AND CULTURE

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>PARTICIPATION</b>	Average percentage of time spent on the previous day in <i>social leisure</i> activities	13.2	13.7	13.0	13.0
	Average percentage of time spent on the previous day in <i>arts and culture</i> activities	3.8	3.9	4.1	3.9
	Average monthly frequency of participation in <i>physical activity</i> lasting over 15 minutes	30.2	27.9	28.2	27.6
	Average number of nights away per vacation trip in past year to destinations at least 80 km from home	2.4	2.8	2.8	3.0
<b>OPPORTUNITIES</b>	Hectares of public greenspace per 10,000 population <sup>a</sup>	88.5	–	–	–
	Kilometres of walking/cycling trails and pathways per 10,000 population <sup>a</sup>	10.2	–	–	–
	Number of annual library programs in past year per 1,000 population	13.5	15.1	16.6	–
	Number of Culture Days, poetry and story readings, and arts shows in past year per 10,000 population	1.0	1.5	4.4	–
	Number of in-person visits made to the library in past year per 1,000 population	112.6	97.2	103.2	–
	Number of library internet connections per 10,000 population	5.4	5.4	7.2	–

<sup>a</sup> Figures based on Tri-cities (i.e., Cambridge, Kitchener, and Waterloo) and excludes four Townships.

## LIVING STANDARDS

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>ECONOMIC SECURITY</b>	After tax median income of economic families	\$ 81,798	\$ 86,878	\$ 79,531	\$ 76,372
	Percentage of persons in after-tax low income (LIM-AT)	12.1	11.5	14.4	14.2
	Percentage of persons who are classified as “working poor”	3.2	–	–	–
	Percentage of labour force employed <sup>a</sup>	66.1	–	60.7	61.1
<b>FOOD INSECURITY</b>	Percentage of households that are moderately or severely food insecure	6.7	5.1	8.3	7.7
<b>HOUSING SECURITY</b>	Percentage of households with shelter costs exceeding 30% of before-tax household income	23.4	28.1	27.7	24.1
<b>WORK-RELATED STRESS</b>	Percentage of population reporting quite a bit or extreme self-perceived work stress	30.1	29.1	28.2	28.9

<sup>a</sup> Employment and unemployment rates for Waterloo region are based on the Census Metropolitan Area (CMA) of Kitchener -Cambridge-Waterloo.

## TIME USE

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>TIME</b>	Percentage of population reporting working 50 hours or more per week	15.7	15.2	14.3	8.7
	Average workday commute time (both ways) for individuals working for pay (minutes per day)	37.6	55.0	53.7	52.0
	Average amount of time spent with friends (minutes per day)	84.9	93.9	90.1	84.3
<b>TIMING</b>	Percentage of labour force with regular, weekday work hours	67.4	67.0	65.9	67.3
	Percentage of individuals working for pay with flexible work hours	51.5	45.6	46.1	43.2
<b>TEMPORALITY</b>	Percentage of population who report 7 to 9 hours of good quality essential sleep	21.1	29.5	30.5	35.9
	Percentage of 15 to 64 year olds reporting high levels of time pressure	19.3	20.1	19.8	17.4

## OVERALL LIFE SATISFACTION

CATEGORY	INDICATOR	REGIONS			
		Waterloo	Central	Ontario	Canada
<b>WELLBEING</b>	Percentage of population reporting being somewhat to very satisfied with life	87.3	86.9	85.6	87.1

# APPENDIX C: GLOSSARY

## CRIME SEVERITY INDEX

The Crime Severity Index measures changes in the level of severity of crime in Canada from year to year. The Index includes all Criminal Code violations including traffic, as well as drug violations and all Federal Statutes, and is calculated using Incident-based Uniform Crime Reporting Survey (UCR2) data. In the index, all crimes are assigned a weight based on their seriousness. The level of seriousness is based on actual sentences handed down by the courts in all provinces and territories. More serious crimes are assigned higher weights, less serious offences lower weights. As a result, more serious offences have a greater impact on changes in the index (Statistics Canada, 2015).

## GREENHOUSE GAS EMISSIONS (GHGs)

Greenhouse Gases are any gaseous compounds in the atmosphere that absorb infrared radiation, which results in heat being trapped and held within the atmosphere. As trapped heat increases in the atmosphere, the greenhouse effect results, which leads to global warming. Some forms of human activity (e.g., burning fossil fuels, deforestation) lead to certain types of gas released into the atmosphere, which leads to more warming. Carbon dioxide is the primary gas responsible for the greenhouse effect, but methane, nitrous oxide, and water vapour also contribute to the effect.

## GROUND-LEVEL OZONE

Ground-level ozone is a colourless and highly irritating gas that forms just above the earth's surface. It is called a “secondary” pollutant because it is produced when two primary pollutants react in sunlight and stagnant air – nitrogen oxides and volatile organic compounds (i.e., carbon-containing gases and vapors such as gasoline fumes and solvents) – which come from both natural sources and human activities (e.g., burning fuels). Ground-level ozone irritates the respiratory tract and eyes, and exposures to high levels result in chest tightness, coughing, and wheezing, so people with respiratory and heart problems are at a higher risk. Ozone also causes agricultural crop loss each year in Ontario and noticeable leaf damage in many crops, garden plants, and trees. (See: <https://www.ec.gc.ca/air/default.asp?lang=En&n=590611CA-1>).

## HOUSING AFFORDABILITY

Affordable housing should cost less than 30% of a family's after-tax household income. Shelter costs include, as applicable, mortgage payments (both principal and interest), property taxes, condominium fees, and payments for electricity, fuel, water, and other municipal services (CMHC, 2015).

## LOW INCOME MEASURE

The low income measure (LIM) is a fixed percentage, typically 50%, of a household's median adjusted income. By "adjusted", LIM takes into account household needs such as, for example, household size because a household's needs increase as the number of members increases. A household of six persons likely has greater needs than a household of two persons, although their specific needs would not necessarily be three times as costly. LIM is most often reported based on after-tax household income (LIM-AT) (Statistics Canada, 2015. For more information see: <http://www.statcan.gc.ca/pub/75f0002m/2015001/lim-mfr-eng.htm>).

## pH LEVEL

pH level is a measure of the acidity of water and therefore its quality. Pure water is neutral and has a pH level of 7.0. As values fall below 7.0, water is increasingly acidic; as values rise above 7.0, water is increasingly alkaline. Changes in the pH level of water are important for the health of many organisms. Most organisms have adapted to life in water of a specific pH and may die if it changes even slightly. Factors that can affect the pH level include in the type of bedrock and soil composition over which water flows; the amount of organic material in the water as it decomposes; and the release of chemicals into the water, typically from human sources.

## WASTE DIVERSION RATE

The waste diversion rate is the percentage of the total amount of waste material that is kept out of landfills. In other words, the rate represents that part of all waste materials diverted as a percentage of the total amount of waste disposed.

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Bryan Smale  
Director, Canadian Index of Wellbeing  
University of Waterloo



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UNIVERSITY OF WATERLOO  
200 UNIVERSITY AVE. W., WATERLOO, ON, CANADA N2L 3G1

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