

Income disparity and wellbeing in B.C.'s coastal regions

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REVIEWER

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What's happening?

Income disparity in some of B.C.'s coastal regions is greater than the B.C. average, which is greater than Canada's overall score (Figure 1).¹ Income disparity is a significant indicator of social wellbeing and is commonly known as the wealth gap between the rich and the poor. In this article, we consider two metrics of income disparity. Both metrics agree that among B.C. coastal census divisions, Comox Valley demonstrates the least income disparity and the Central Coast has the highest disparity score. Depending on the metric, Greater Vancouver, Mount Waddington, and Skeena-Queen Charlotte areas also score relatively high in disparity, while Strathcona, Cowichan Valley and Alberni-Clayoquot areas exhibit lower disparity scores.



Photo: Dan Blondal

The Canadian Index of Wellbeing

defines wellbeing as a state of
comfort, health, or happiness
 that reflects:



COMMUNITY
VITALITY



DEMOCRATIC
ENGAGEMENT



EDUCATION



ENVIRONMENT



HEALTHY
POPULATIONS



LEISURE &
CULTURE



LIVING
STANDARDS



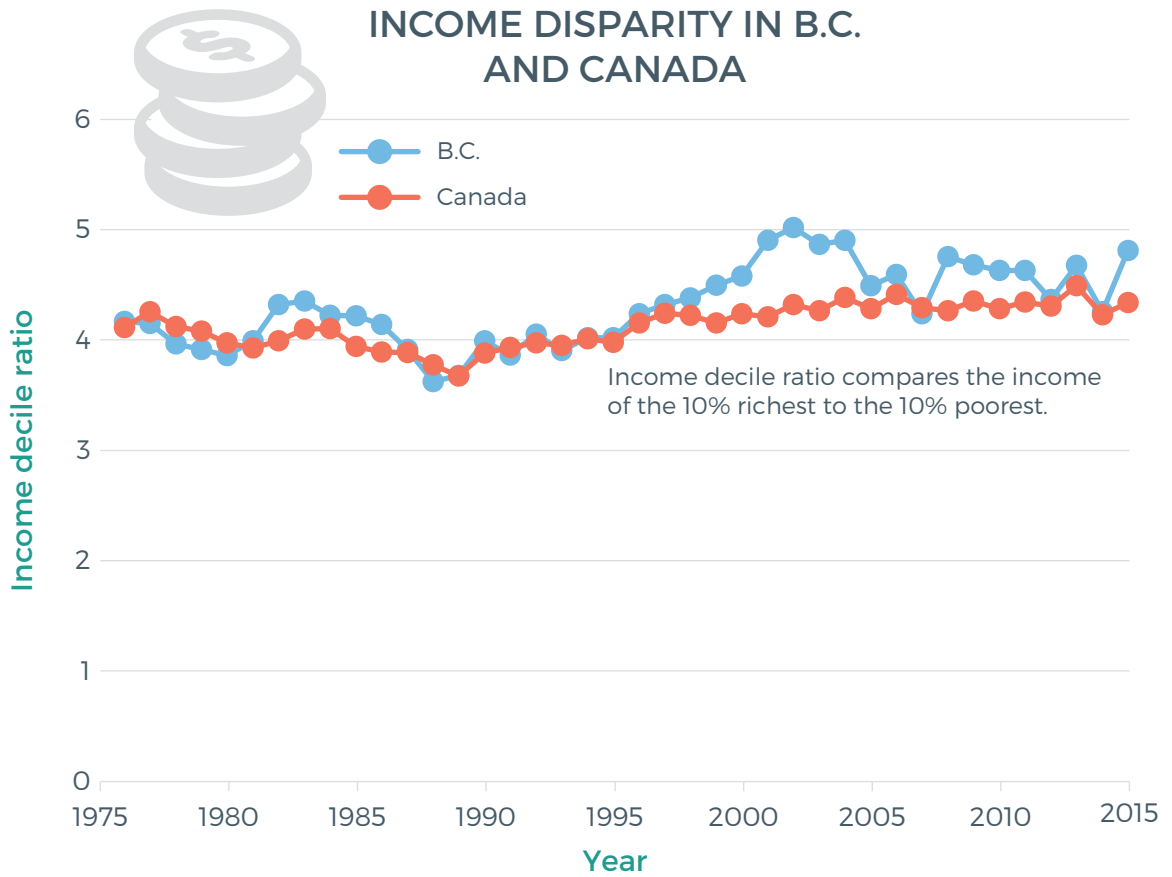
TIME USE

Why is it important?

Standard of living is one of eight categories of wellbeing identified by a Canadian network of academics and documented in the Canadian Index of Wellbeing (CIW).² A 2016 CIW report³ concluded that the gap between national economic growth and overall wellbeing is widening. Since the recession in 2008, Canada's economy has recovered and grown by 8.1 percent, as measured by growth in Gross Domestic Product (GDP). However, when overall wellbeing was calculated using a metric that included standard of living and seven other aspects of human wellbeing, the results showed a mere 1.1 percent gain in overall wellbeing over the

same time period. In short, not all citizens are benefitting from the growth in GDP. In fact, across Canada, scores for several components of the wellbeing index have declined.

Income disparity is one indicator that illustrates the growing gap between economic growth and general wellbeing. The gap between Canadians in the top income brackets and those at the bottom has widened. According to the Conference Board of Canada, income inequality increased over the 20 years following a low in 1989 and has leveled out since.⁴ After-tax income



In 2015 the 10% richest in B.C. earned 4.8x the income of the 10% poorest.

Figure 1. Income disparity (decile ratio) in Canada and B.C. from 1976 to 2015. Higher values mean greater disparity. Data source: Income Statistics Division, Statistics Canada.

data from Statistics Canada show that inequality scores for B.C. have been consistently higher than inequality scores for Canada as a whole since 1998 (Figure 1). A look further back in time suggests a pattern of higher inequality at the beginning of the 20th century, falling rates through the 1970s, and rising inequality since then, but only for certain countries including the U.S., U.K., and Canada.⁵ Inequality in continental Europe and Japan has not risen to the same extent since the 1980s.

Income inequality matters because societies with greater disparity are shown to have worse health and wellbeing outcomes.^{6,7} Further, these negative outcomes are not restricted to the poor. They are felt by those at both the bottom and top of the socioeconomic ladder, meaning everyone suffers in unbalanced societies. Currently, scientists are studying potential causal relationships and looking for evidence that once a certain threshold of inequality is crossed, impacts to health and wellbeing become evident.⁸

Is there a particular importance or connection to First Nations?

We did not look at First Nation communities in particular.



Photo: Kim Wright

What is the current status?

We looked at two common metrics of income disparity:

- **An income decile ratio**, or the ratio of the income of the 10 percent richest to that of the 10 percent poorest (Figure 2),⁹ and
- **The Gini coefficient**,¹⁰ a statistical measure of inequality (Figure 3).¹¹

Income ratios are the most basic inequality measures and are widely used because they are easy to understand, but they are vulnerable to extreme values and outliers.¹² Income decile ratio, which in our case compares the adjusted household income of the top 10 percent to that of the bottom 10 percent of households, in coastal B.C. ranges from 4.14 to 6.68 (Figure 2). For example, the top 10 percent in the Central Coast division earn 6.7 times as much as the bottom 10 percent in that region. Higher values indicate greater income inequality and may imply lower overall wellbeing. Strathcona, Powell River and Comox Valley census divisions have the lowest disparity among coastal divisions.

The Gini coefficient can be used to measure any form of uneven distribution, and is the most widely used single measure of inequality.¹³ Values range from zero, where all people have equal income, to one, where one person has all the income. Therefore, higher values indicate greater inequality. The coefficient allows direct comparison of two populations' income distribution, regardless of their size, but very different income distributions can have the same Gini coefficient.¹⁴ For

example, a population with incomes skewed to the low end could have the same Gini score as a population with incomes skewed to the high end.

The Central Coast and Greater Vancouver have the highest Gini coefficients of the B.C. coastal census divisions (Figure 3). Researchers have found that not only are negative health outcomes related to income inequality despite individual income level,¹⁵ but also that association between negative outcomes and income inequality is stronger above a threshold of 0.3¹⁶ for the Gini coefficient.¹⁷

The conference board of Canada ranks Canada 13th out of 16 peer countries (using Gini scores, after taxes and transfers).¹⁸ The United States experiences the greatest income inequality, while countries like Denmark, Finland, and Norway show the lowest rates. Within Canada, B.C., Alberta, and Ontario have the highest income inequality.¹⁹

Interpreting either of these metrics has limitations and caveats. In any region, the relative size of urban versus rural populations will contribute to the inequality metric – incomes are generally lower in rural areas – as will the relative proportion of the population receiving income from sources such as self-employment, investments, or income assistance. These factors can be broken out and studied in more detail to inform policy to address the increasing gap between the rich and the poor.

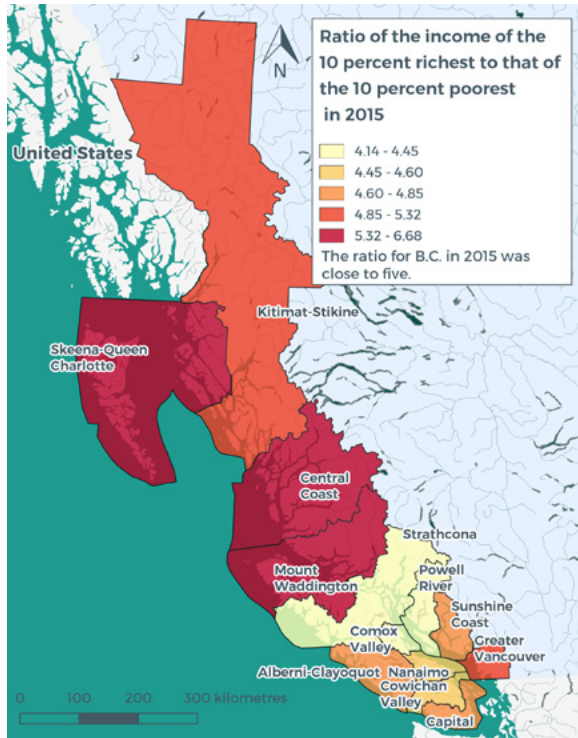


Figure 2. Income decile ratio for B.C. coastal census subdivisions. Higher values mean greater income inequality. Data Source: Statistics Canada

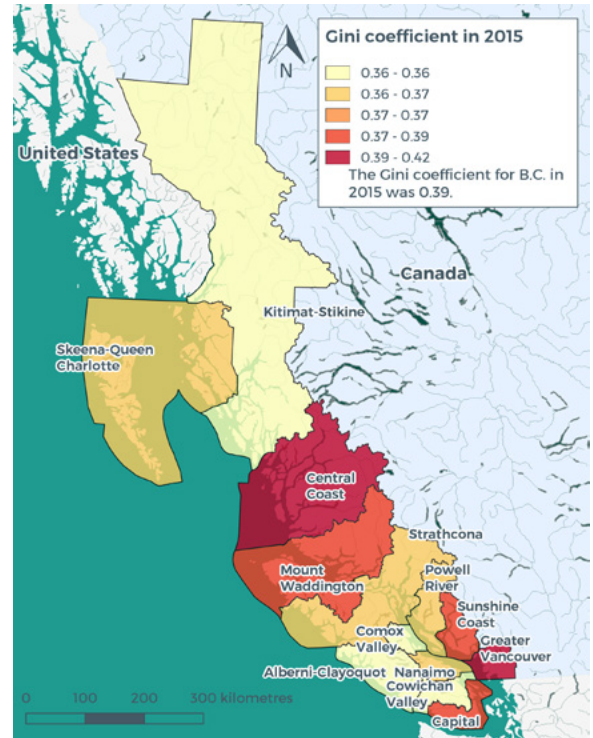


Figure 3. Gini coefficient for B.C. coastal census divisions. Gini values range between zero and one, with higher values indicating greater disparity. Data Source: census mapper

What is being done?

Statistics Canada through the Canadian census program tracks the distribution of income across Canada. This provides regular and comprehensive data, with a short gap in 2011 when the federal government replaced the long form census with a National Household Survey. The data collected in 2011 do not compare well statistically with census data before or since. Suppression of census data does occur occasionally, for reasons of confidentiality and accuracy. Statistics are not released for areas with small populations (less than 40 households), nor for areas with a response rate of less than 50 percent, as the risk of inaccuracy is high.²⁰

Tracking of disparity metrics, such as the Gini coefficient or the decile ratio, is done at the international scale by organizations that also research and develop policy recommendations, such as the Organisation for Economic Co-operation and Development (OECD) and the World Bank.²¹ Within Canada, think tanks like the Fraser Institute and the Broadbent Institute publish analyses and opinion pieces with opposing political perspectives.

The British Columbia government, in a September 2017 budget update, announced several tax measures that may begin to restore fairness and reduce income inequality in the Province.²²

What can you do?



Individual and Organization Actions:

- Be aware of income inequality issues in your community and support government policy and action to address change and imbalance.



Government Actions and Policy:

- Provide a universal basic income as part of social assistance to reduce income inequality.
- Further extend health and social benefits to low and modest income Canadians, to reduce income inequality.²³
- Mitigate the inequality impact of technological progress by improving the general skills level across all geographies through broader access to high-quality education and training programs.
- Remove obstacles to women's participation in the labour force.
- Work to reduce and minimize tax evasion.
- Convene a Fair Tax Commission to review the entire provincial tax system.²⁴

Resources

Statistics Canada, 2016 Census topic: Income

<http://www12.statcan.gc.ca/census-recensement/index-eng.cfm>

Report from BC Statistics - Mind the Gap: Income Inequality Growing, 2012

<http://www.bcstats.gov.bc.ca/Files/3af25093-fc87-48f7-b6bd-5e951af09c9b/MindtheGapIncomeInequalityGrowing.pdf>

An interactive map of Gini Coefficients based on Canada Census 2017

<https://censusmapper.ca/maps/840#7/49.404/-124.360>

Our World in Data: Income Inequality

<https://ourworldindata.org/income-inequality/>

OECD on Income Inequality

<https://data.oecd.org/inequality/income-inequality.htm>

Broadbent Institute

http://www.broadbentinstitute.ca/income_inequality and http://www.broadbentinstitute.ca/towards_a_more_equal_canada

Fraser Institute

<https://www.fraserinstitute.org/studies/towards-a-better-understanding-of-income-inequality-in-canada>

Canadian Index of Wellbeing

<https://uwaterloo.ca/canadian-index-wellbeing/what-we-do/domains-and-indicators/gini-coefficient-income-gap>

Report from City of Vancouver including information on Income Inequality

<http://vancouver.ca/files/cov/factsheet5-making-ends-meet.PDF>

Footnotes

¹Data from Statistics Canada. Table 206-0032 – Upper income limit, income share and average of adjusted market, total and after-tax income by income decile, Canada and provinces, annual. (accessed: December 07, 2017)

²Canadian Index of Wellbeing. 2017. Accessed Dec. 7, 2017. <https://uwaterloo.ca/canadian-index-wellbeing>

³Canadian Index of Wellbeing. 2016. How are Canadians Really Doing? The 2016 CIW National Report. Waterloo, ON: Canadian Index of Wellbeing and University of Waterloo. Accessed Dec. 7, 2017. https://uwaterloo.ca/canadian-index-wellbeing/sites/ca.canadian-index-wellbeing/files/uploads/files/c011676-nationalreport-ciw_final-s.pdf

⁴Conference Board of Canada. 2017. Income inequality. Accessed on Nov 28, 2017. <http://www.conferenceboard.ca/hcp/details/society/income-inequality.aspx>

⁵Roser, M. and E. Ortiz-Ospina. 2017. “Income Inequality”. Published online at OurWorldInData.org. Accessed Dec. 7, 2017. <https://ourworldindata.org/income-inequality/>

⁶CIW 2017.

⁷Pickett, K.E. and R.G. Wilkinson. 2015. Income inequality and health: a causal review. *Soc Sci Med.* 128:316–26. doi: 10.1016/j.socscimed.2014.12.031. Epub 2014 Dec 30.

⁸Rowlingson, K. 2011. Does income inequality cause health and social problems? Joseph Rowntree Foundation, York, U.K. 50pp. Accessed Dec 5, 2017. <https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/inequality-income-social-problems-full.pdf>

⁹The map presents the ratio of after-tax adjusted household income decile limits of the ninth decile and the first decile. Data provided by Statistics Canada, Nov. 22, 2017, Eric Olson, Chief, Housing and Census Income, Income Statistics Division.

¹⁰Developed by and named after an Italian statistician, Corrado Gini, in 1912.

¹¹Data retrieved from CensusMapper, “After Tax Household Income Gini Coefficient,” accessed November 15, 2017. <https://censusmapper.ca/maps/840#5/55.727/-122.981> (CensusMapper uses data from Canada Census 2016.)

¹²United Nations. 2015. Inequality measurement. *Development Issues No 2.* UN Department of Economic and Social Affairs. 2p. Accessed Dec. 6, 2017. Available at: http://www.un.org/en/development/desa/policy/wess/wess_dev_issues/dsp_policy_02.pdf

¹³Chapter 6. Inequality Measures, p.101–119. In Houghton, J. and S.R. Khandker. 2009. *Handbook on Poverty and Inequality.* The World Bank, Washington, D.C. 446pp. http://siteresources.worldbank.org/INTPA/Resources/429966-1259774805724/Poverty_Inequality_Handbook_Ch06.pdf

¹⁴United Nations 2015.

¹⁵Kennedy, B.P., Kawachi, I., Glass, R., and D. Prothrow-Stith. 1998. Income distribution, socioeconomic status, and self rated health in the United States: multilevel analysis. *BMJ* 1998; 317 doi: <https://doi.org/10.1136/bmj.317.7163.917>

¹⁶The Gini coefficient value in the threshold study resulted from standardization of several metrics of income inequality and may not be not directly comparable to the Gini values that we report for B.C. and coastal regions.

¹⁷Kondo, N., Sembajwe, G., Kawachi, I., van Dam, R.M., Subramanian, S.V., and Z. Yamagata. 2009. Income inequality, mortality, and self rated health: meta-analysis of multilevel studies. *BMJ* 2009; 339 doi: <https://doi.org/10.1136/bmj.b4471>

¹⁸Conference Board of Canada. 2017.

¹⁹Conference Board of Canada. 2017.

²⁰Statistics Canada, “Guide to the Census of Population, 2016. Chapter 11 – Dissemination,” Statistics Canada Catalogue No.98-304-X2016001, February 8, 2017, <http://www12.statcan.gc.ca/census-recensement/2016/ref/98-304/chap11-eng.cfm> and Statistics Canada. 2017. 2016 Census – Geographic Areas Not Released. Dec. 11, 2017. Available at <http://www12.statcan.gc.ca/census-recensement/2016/ref/sup/index-eng.cfm>

²¹For example, OECD. 2015. Growth and income inequality: trends and policy implications, OECD Economics Department Policy Notes, No. 26, Accessed Dec. 7, 2017. <http://www.oecd.org/eco/labour/Growth-and-income-inequality-trends-and-policy-implications.pdf>

²²Government of BC. 2017. Budget 2017 September Update. Accessed Dec 7, 2017. http://bcbudget.gov.bc.ca/2017_Sept_Update/default.htm

²³Canadian Index of Wellbeing 2016, pg. 68.

²⁴Hemingway, A. 2017. Tackle inequality through tax fairness: BC Budget 2018. Policy note from BC Centre for Policy Alternatives. Accessed Dec. 7, 2017. <http://www.policynote.ca/tackle-inequality-through-tax-fairness-bc-budget-2018/>