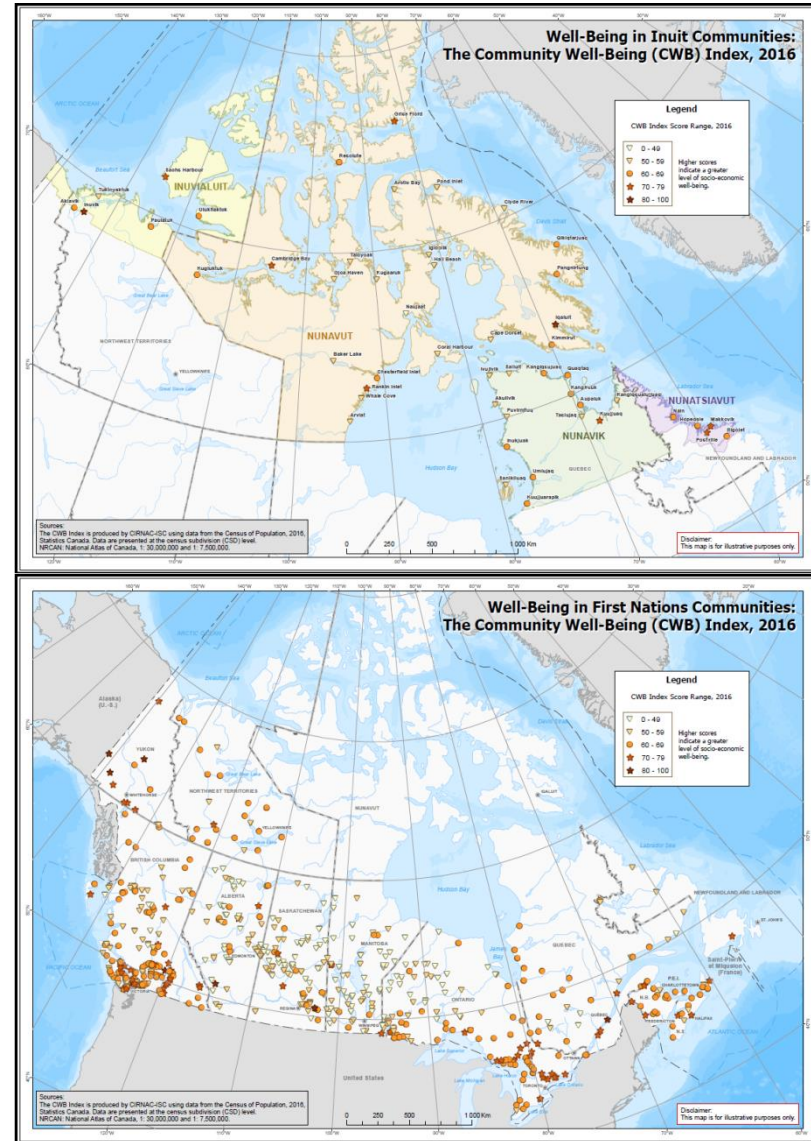


The Community Well-Being Index 2016

SEPTEMBER 2019

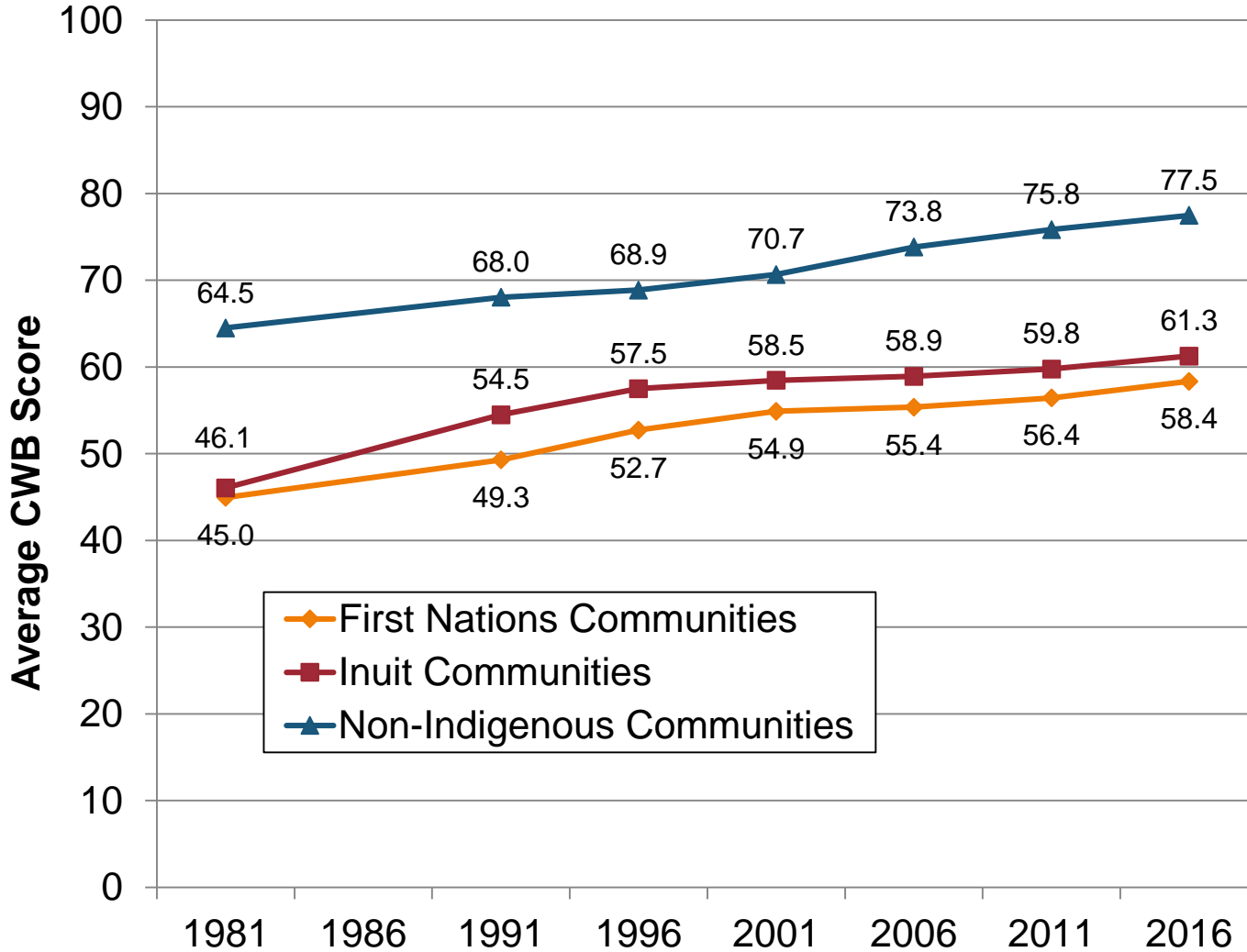
Strategic Research and Statistics Directorate
ISC/CIRNAC
CIDM #10830953



Community Well-Being (CWB) Index

- A research tool designed to:
 - Be a general and reliable measure of well-being for individual communities in Canada;
 - Compare well-being in First Nations, Inuit and non-Indigenous communities;
 - Track well-being trends over time (1981-2016, 35 years)
- Can range from 0 - 100 and is based on 4 components:
 -  Education (high school plus; university)
 -  Labour Force (participation; employment)
 -  Income (total per capita)
 -  Housing (quantity; quality)
- Based on Statistics Canada's Census of Population (1981- 2006, 2016) and the National Household Survey (2011).

Overall CWB Trends



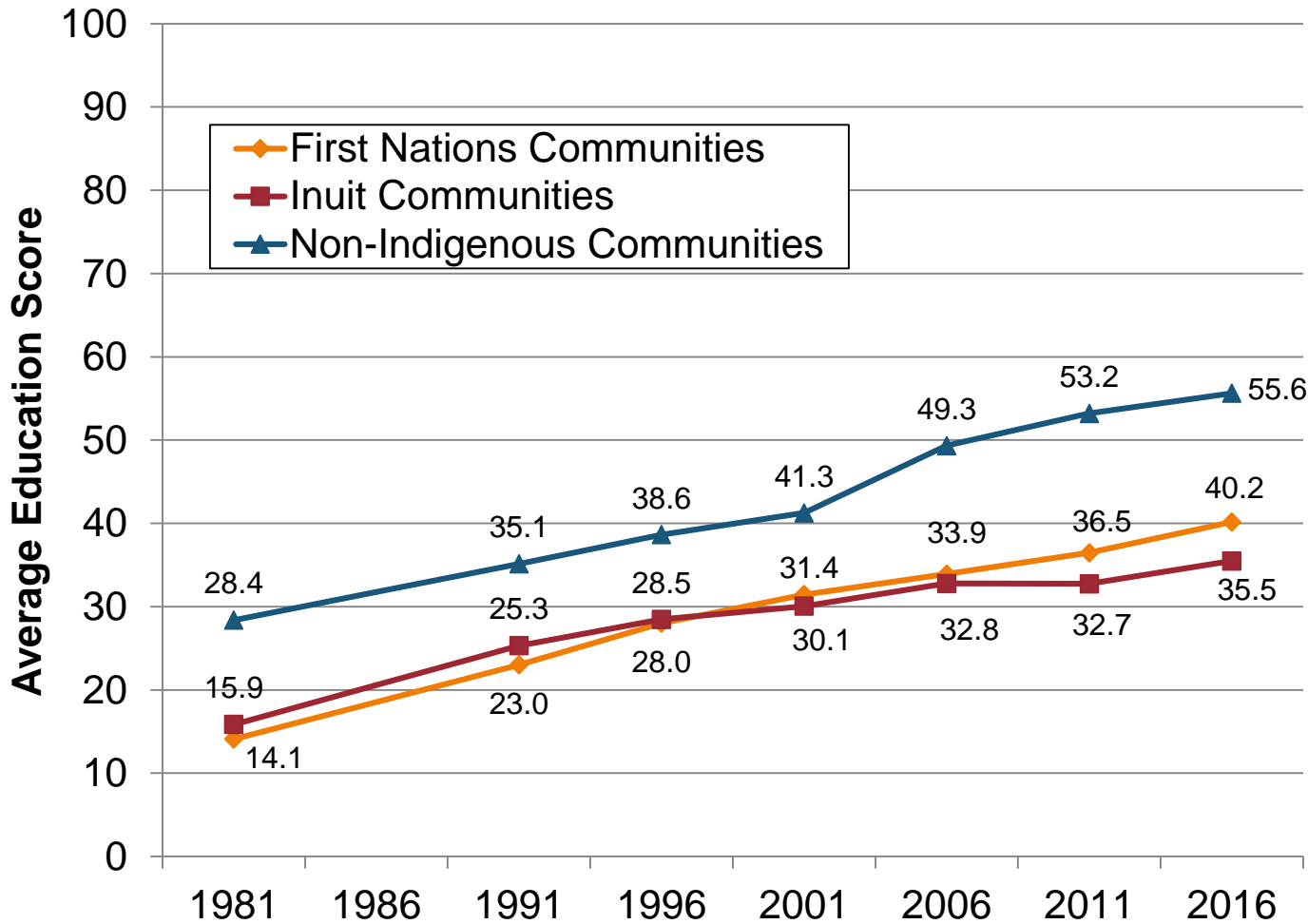
First Nations, Inuit and non-Indigenous communities all realised improvements in average CWB scores between 1981 and 2016.

Gaps in 2016 are similar to those in 1981 for both First Nations and Inuit communities.

The CWB gap for First Nations is about 19 points wide.

The CWB gap for Inuit is about 16 points wide.

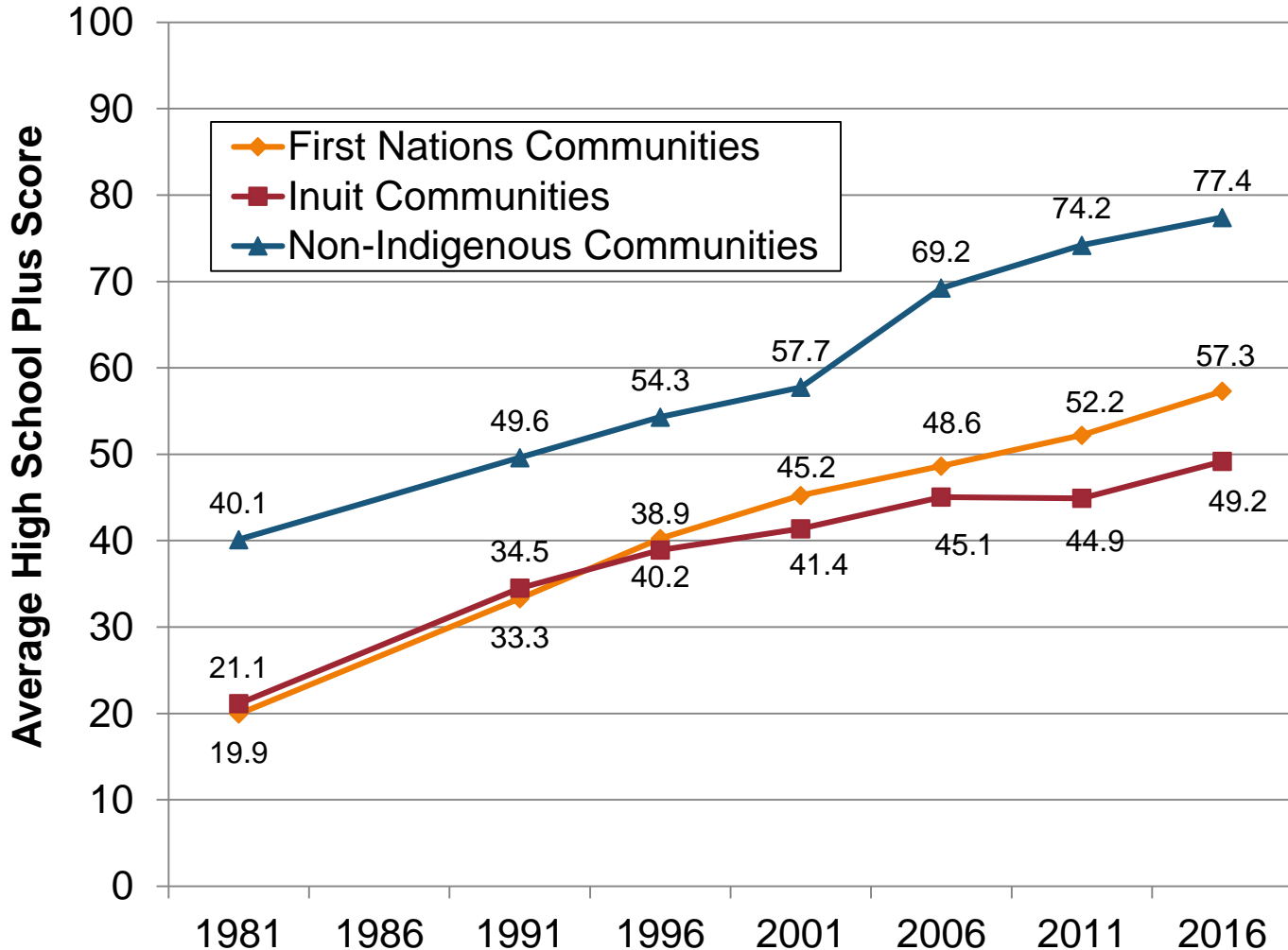
Education Trends



First Nations average education scores increased (3.7 pts) between 2011 and 2016. The education gap however, has not changed much (between 15-17 points) over the last three Census periods.

Inuit communities' average education scores increased (2.7 pts) between 2011 and 2016, but the gap relative to non-Indigenous communities remained at 20 points.

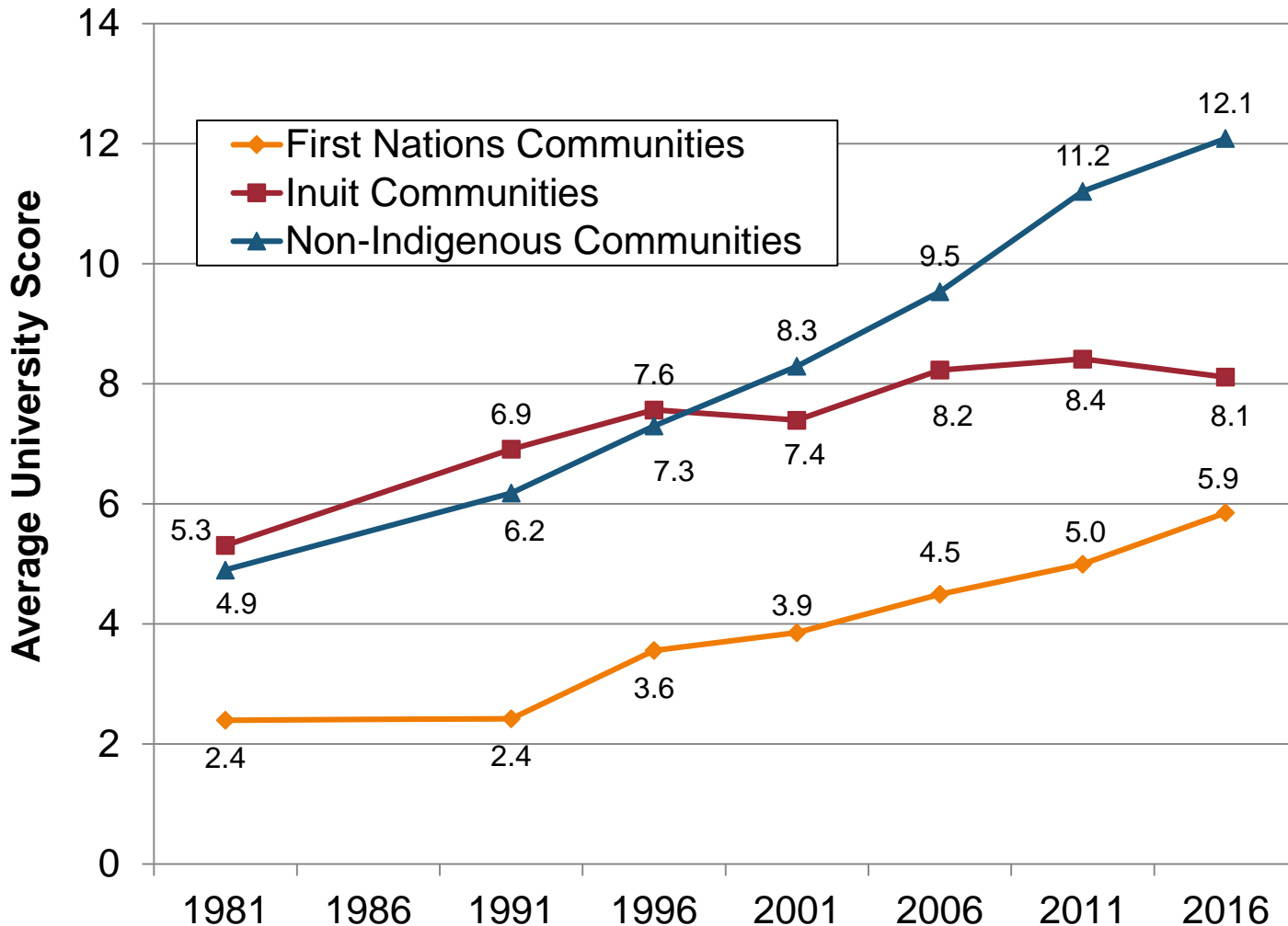
Education Subcomponent - High School Plus



Both Inuit and First Nations communities experienced gradual increases in their high school plus scores since 1981 (by 28 and 37 points respectively).

The average high school plus gaps for First Nations and Inuit communities narrowed slightly between 2011 and 2016.

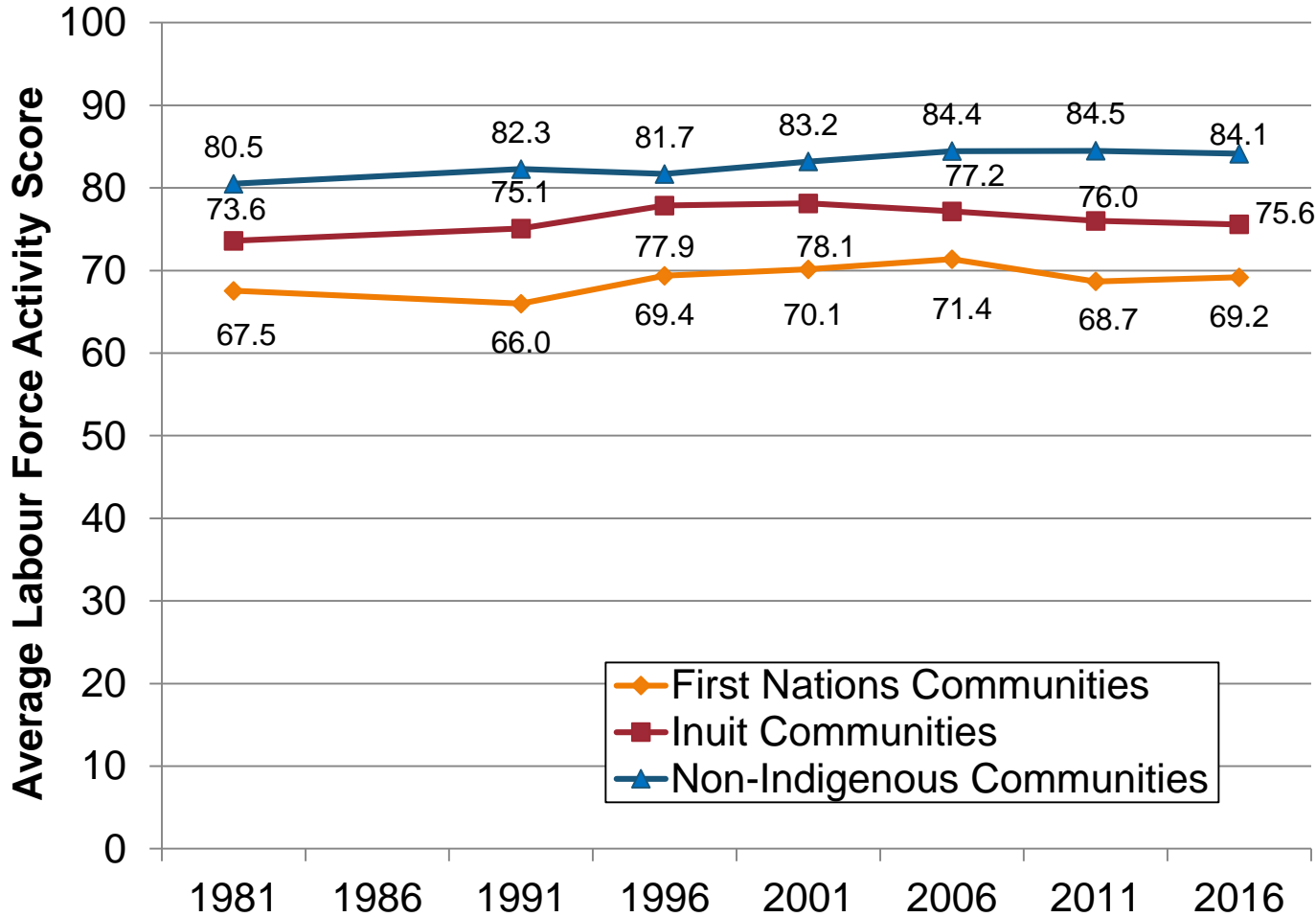
Education Subcomponent - University



Both Inuit and First Nations communities experienced improvements in average university scores since 1981.

Gaps have widened due to average scores for non-Indigenous communities growing at faster pace than Indigenous communities.

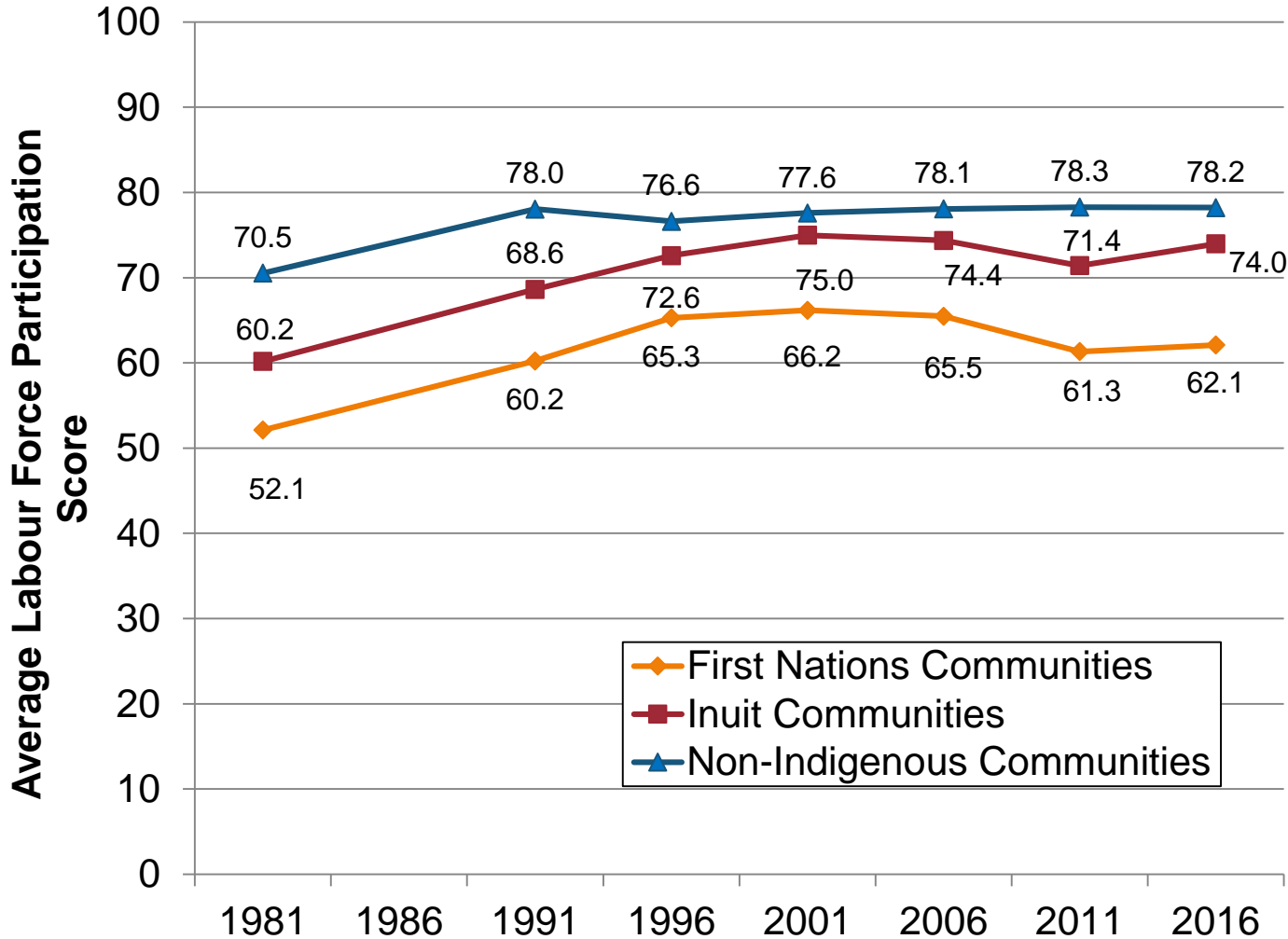
Labour Force Activity Trends



Improvements in Labour Force Activity Scores that occurred in Indigenous communities during the 1990s have not developed into a long-term trend.

Labour Force Activity scores for both Indigenous communities improved around 2 points since 1981.

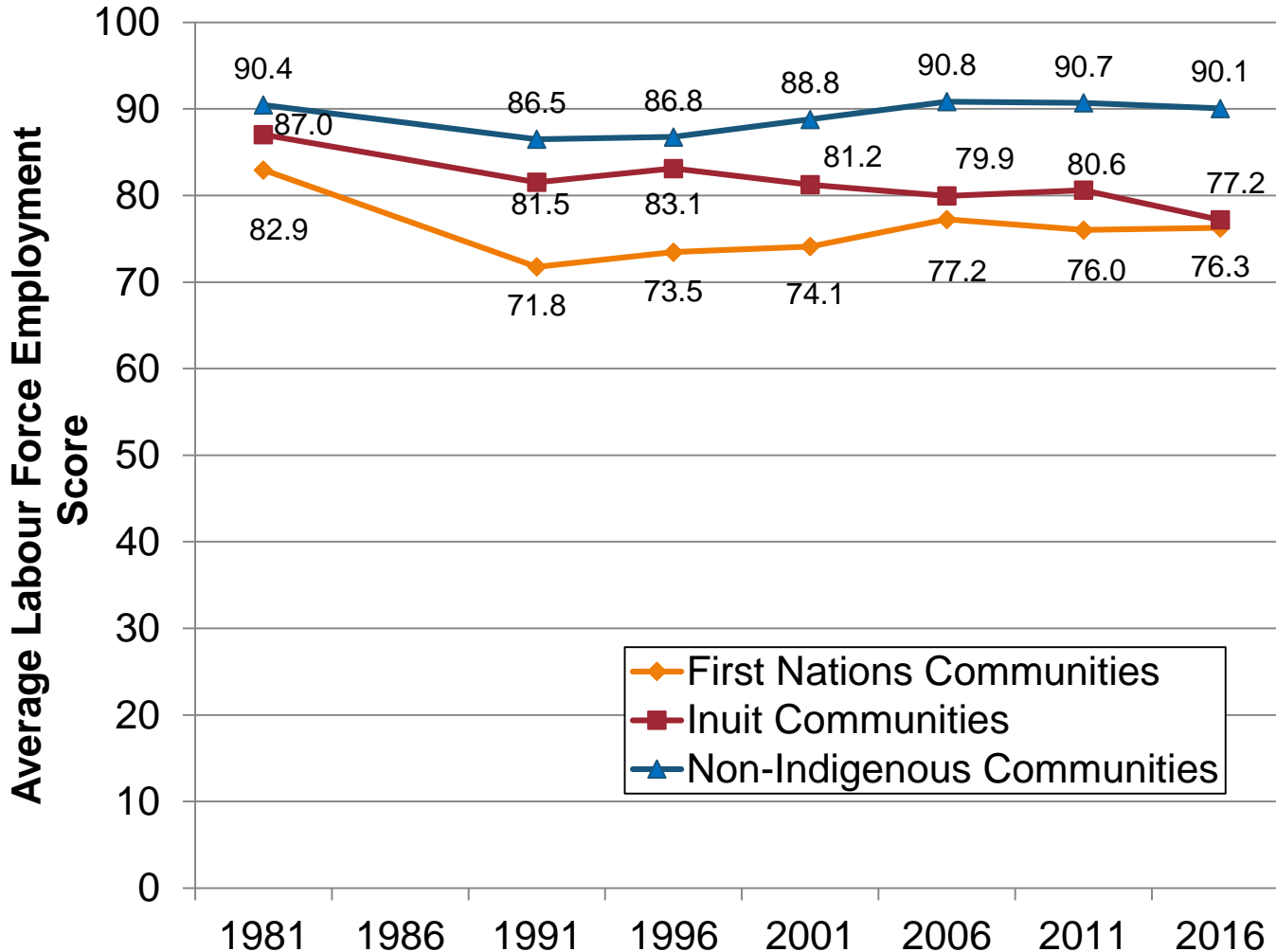
Labour Force Activity Subcomponent - Participation



Average labour force participation scores for both Inuit and First Nations communities increased since 1981 by 14 and 10 points respectively.

However, the improvements in labour force participation gained between 1981 and 2001 have not continued in more recent Census periods.

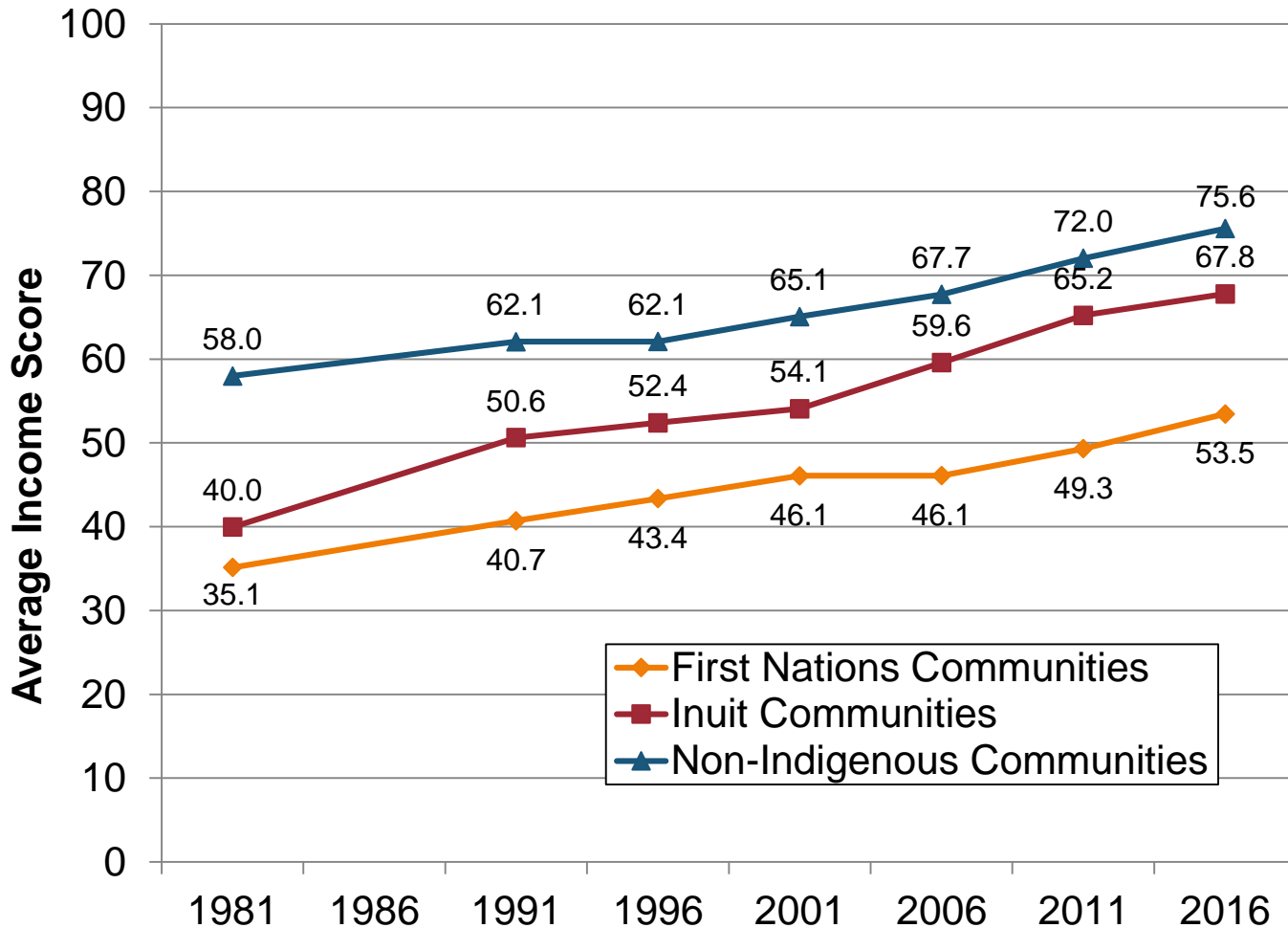
Labour Force Activity Subcomponent - Employment



Both Inuit and First Nations communities experienced a reduction in their average labour force employment scores between 1981 and 2016 of 10 and 7 points respectively.

2016 average employment scores for both Inuit and First Nations communities have not recovered to 2006 levels.

Income Trends

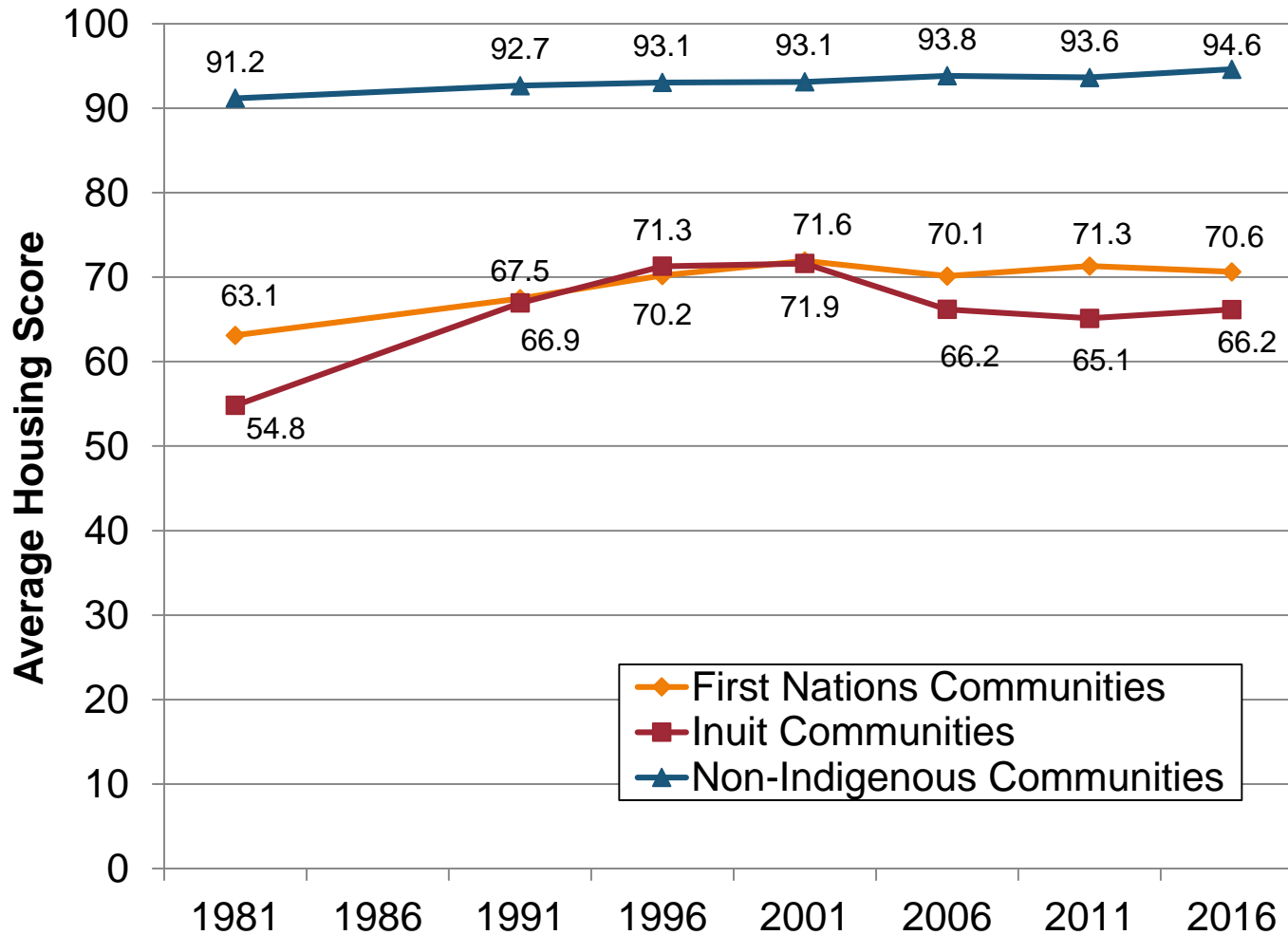


All community types saw income increases since 1981.

The gap between Inuit and non-Indigenous communities narrowed between 1981 and 2011 and was stable thereafter.

The gap between First Nations and non-Indigenous communities has changed little since 1981.

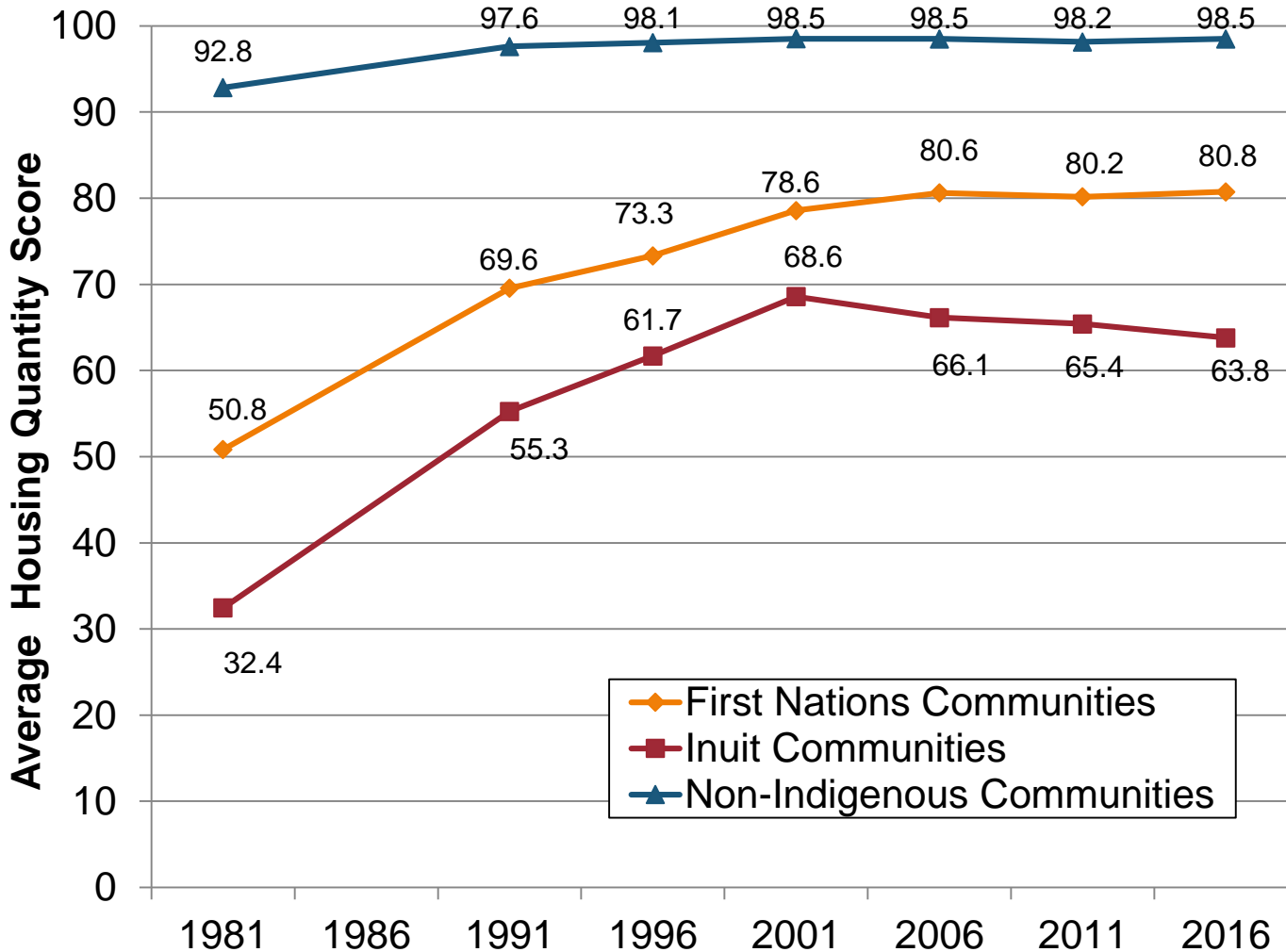
Housing Trends



First Nations' average housing scores continue to be around 70-71 points since 1996. The gap widened slightly between 2011 and 2016.

The average Inuit housing score declined following improvement during the 1990s and is currently around 65-66 points for last three Census periods.

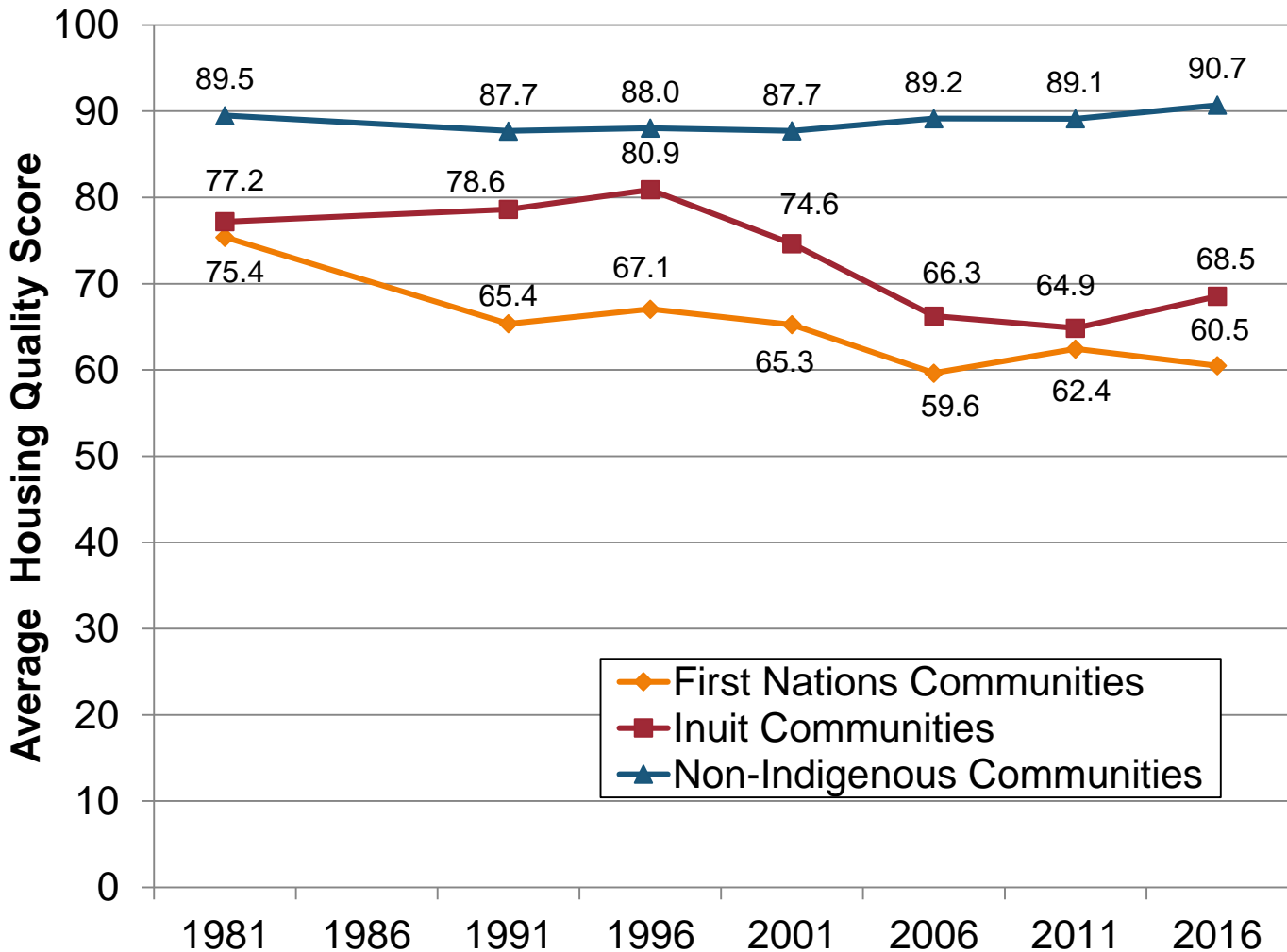
Housing Subcomponent – Quantity (Not Crowded)



Both Inuit and First Nations communities experienced improvements in their housing quantity scores between 1981 and 2016 by 31 and 30 points respectively.

Housing quantity gaps with non-Indigenous communities also decreased by 25 and 24 points for both Inuit and First Nations communities.

Housing Subcomponent - Quality (not in need of major repair)



The housing quality gaps in 2016 between Indigenous and non-Indigenous communities were almost double of that observed in 1981.

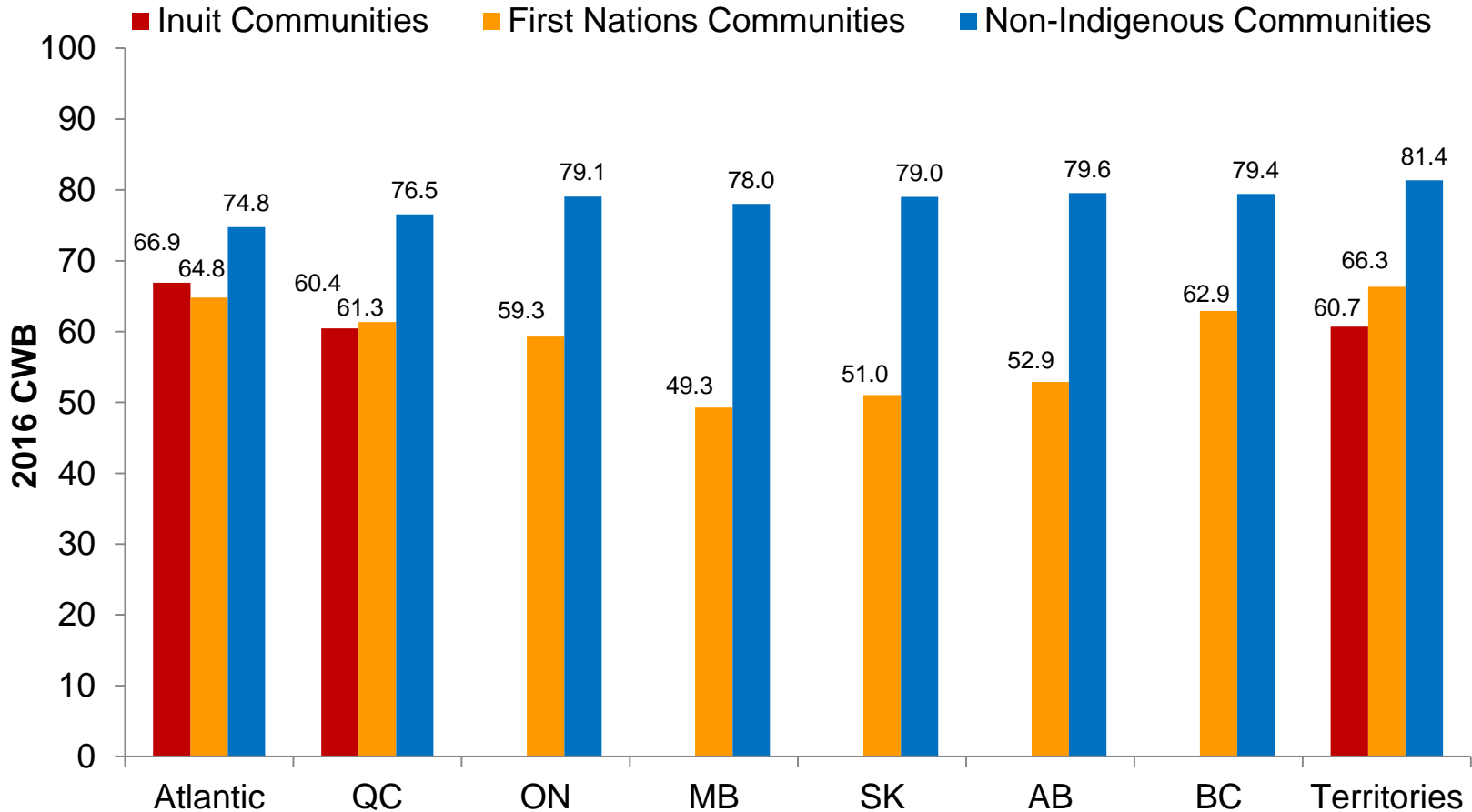
Between 2011 and 2016, the housing quality gap closed slightly for Inuit communities. However, the gap widened for First Nation communities (by 2.5 points) in this same period.

Changes in average scores and gaps with non-Indigenous communities over time

CWB Components	First Nation communities					Inuit communities				
	2016 Gap	Score changes		Gap changes		2016 Gap	Score changes		Gap changes	
		1981-2016	2011-2016	1981-2016	2011-2016		1981-2016	2011-2016	1981-2016	2011-2016
Education	15.5	+ 26.1	+ 3.7	+ 1.2	- 1.2	20.2	+ 19.6	+ 2.7	+ 7.6	- 0.3
High School Plus	20.1	+ 37.4	+ 5.1	- 0.1	- 1.9	28.2	+ 28.0	+ 4.3	+ 9.2	- 1.1
University Plus	6.2	+ 3.5	+ 0.9	+ 3.7	0	4.0	+ 2.8	- 0.3	+ 4.4	+ 1.2
Labour force	15	+ 1.6	+ 0.5	+ 2.0	- 0.9	8.6	+ 2.0	- 0.4	+ 1.7	+ 0.1
Participation	16.1	+ 10.0	+ 0.8	- 2.3	- 0.8	4.3	+ 13.8	+ 2.6	- 6.1	- 2.6
Employment	13.8	- 6.7	+ 0.2	+ 6.3	- 0.9	12.9	- 9.8	- 3.4	+ 9.4	+ 2.8
Income	22.1	+ 18.3	+ 4.1	- 0.7	- 0.6	7.8	+ 27.8	+ 2.6	- 10.2	+ 1.0
Housing	24	+ 7.5	- 0.7	- 4.1	+ 1.6	28.4	+ 11.4	+ 1.0	- 7.9	- 0.1
Quantity	17.8	+ 29.9	+ 0.6	- 24.3	- 0.2	34.7	+ 31.4	- 1.6	- 25.7	+ 2.0
Quality	30.2	- 14.9	- 1.9	+16.1	+ 3.5	22.2	- 8.6	+ 3.7	+ 9.8	- 2.1

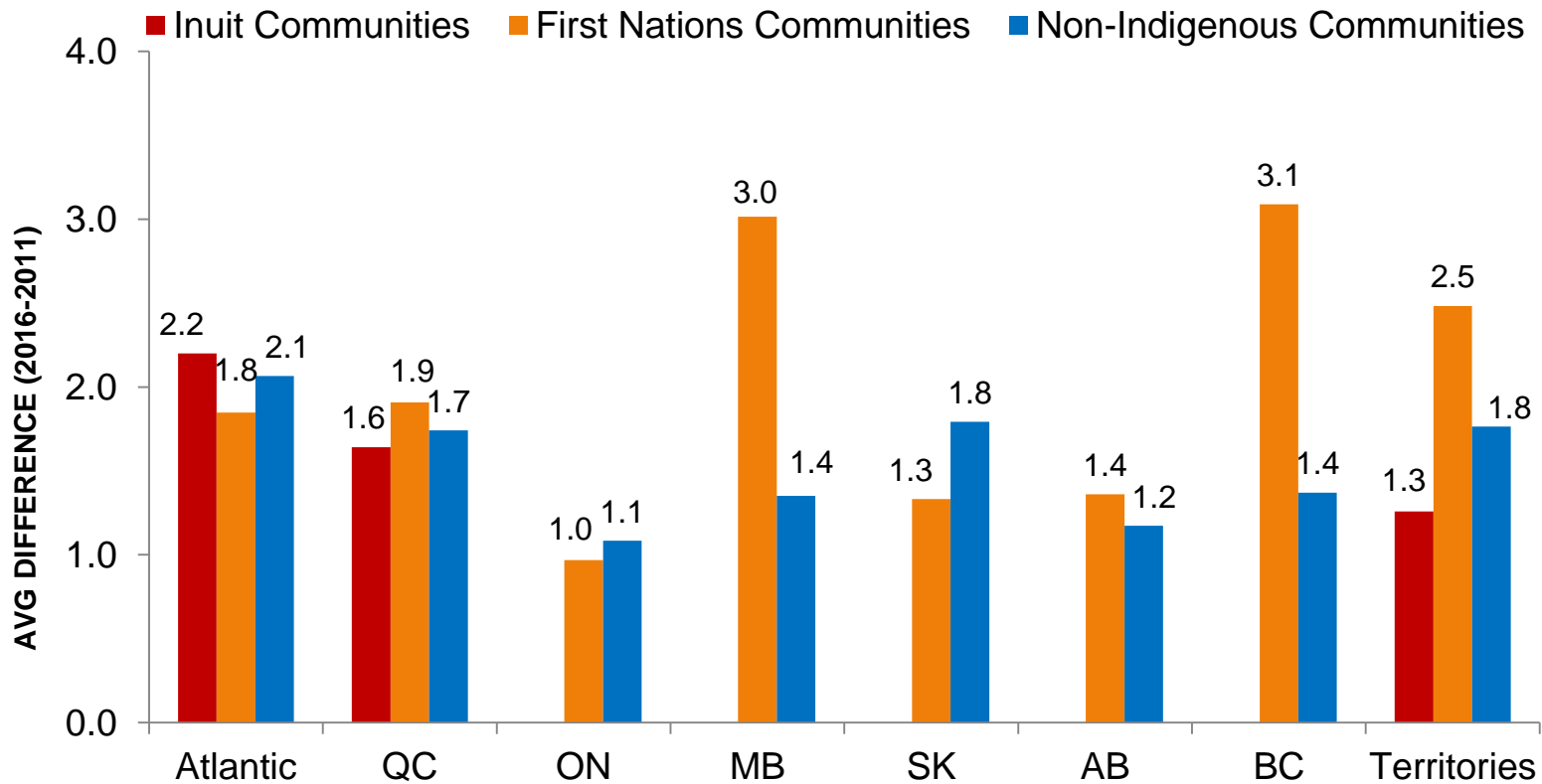
Regional CWB

Gaps continue to be widest in the Prairie Provinces

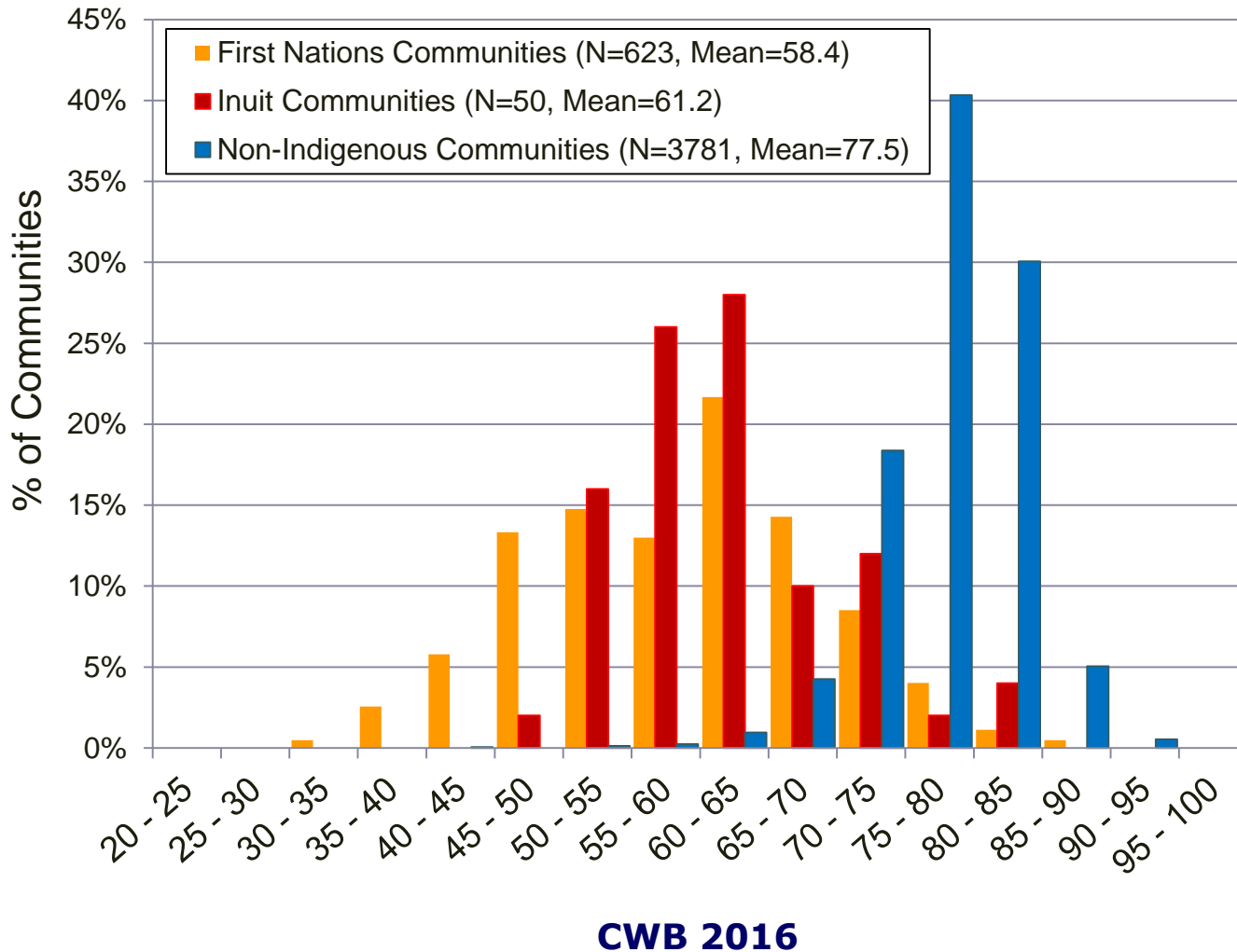


CWB Changes by Region, 2011 - 2016

Average CWB scores for all community types in all regions saw small increases between 2011 and 2016. First Nations in Manitoba, British Columbia and the Territories had the largest average CWB increases for all community types.



2016 CWB - Preliminary Results



The 2016 CWB displays a nearly identical pattern to previous years' CWB Indices.

This is to be expected given the slow-moving nature of the indicators that compose it.

Similar to previous years, 98 out of the "bottom 100" communities are First Nations.

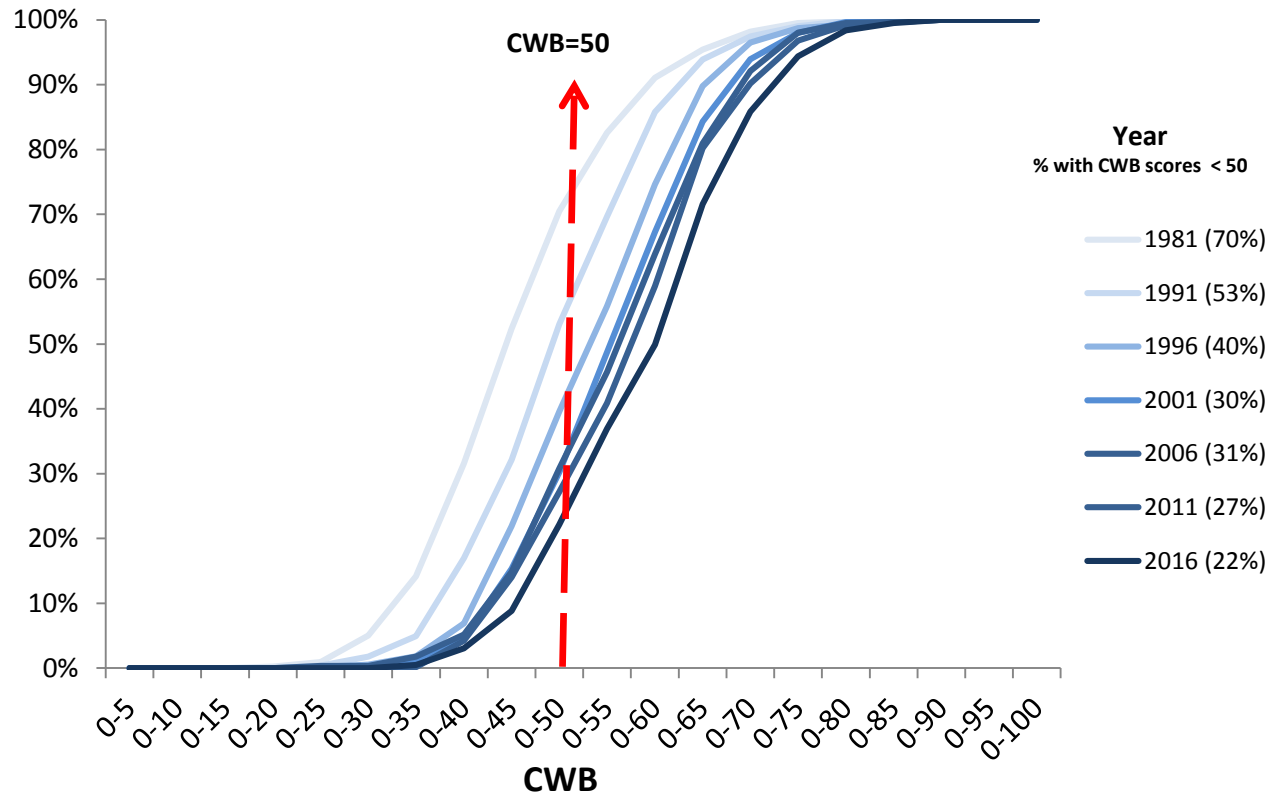
Progress for Low-Scoring Communities

Cumulative Distribution of First Nations' CWB scores, 1981-2016

The number of Indigenous communities with scores at the very low end of the CWB spectrum has decreased dramatically from 1981 to 2016.

First Nations with scores less than 50 dropped from 70% in 1981 to 22% in 2016.

Inuit communities with scores less than 50 dropped from 80% in 1981 to 2% in 2016. (Not shown in graph.)



Appendix

Defining the CWB Index Methodology

A community's CWB index score is a single number that can range from a low of zero to a high of 100. It is the average of the community's education, labour force activity, income and housing scores.

For 2016, the CWB methodology was modified to include a new labour force activity age group of 20-64 years (previously 20-65 years). Additionally, the income per capita range was changed to \$2,650 to \$75,000 (previously \$2,000 to \$40,000) to reflect current income distribution. As a result, all CWB scores have been updated back to 1981 based on these changes.

Education score

- This component comprises two variables: the proportion of a community's population, 20 years and over, that has obtained at least a high school certificate; and the proportion of a community's population, 25 years and over, that has obtained a university degree at the bachelor's level or higher.

Appendix (cont'd)

- The Education score is a combination of two-thirds of the first variable and one-third of the second. It is expressed as a percentage that is the score is multiplied by 100 giving the following:

Education score

$$\begin{aligned}
 &= \frac{200}{3} \left(\frac{\# \text{ people aged 20 \& older with at least a high school certificate}}{\text{number of people aged 20 \& older}} \right) \\
 &+ \frac{100}{3} \left(\frac{\# \text{ people aged 25 \& older with a bachelor's degree or higher}}{\text{number of people ages 25 \& older}} \right)
 \end{aligned}$$

Labour force activity score

- This component is the simple average of two rates. The labour force participation rate, which is the proportion of the population, aged 20-64, that was involved in the labour force during the week preceding census day – i.e. Census reference week. The employment rate, which is the percentage of labour force participants, aged 20-64, that were employed during the week preceding census day.
- The labour force activity score is also expressed as a percentage.

$$\text{Labour force activity score} = \frac{100}{2} \left(\frac{\# \text{ people aged 20 to 64 in the labour force}}{\text{number of people aged 20 to 64}} \right) + \frac{100}{2} \left(\frac{\# \text{ people aged 20 to 64 who are employed}}{\# \text{ people aged 20 to 64 in the labour force}} \right)$$

Appendix (cont'd)

Income score

- The Income component of the CWB index is defined in terms of total income per capita. Calculation of a community's income score is accomplished in three steps:
- Every dollar of income received by community members is divided by the total population of the community to create per capita income.
- Per capita income is transformed into its logarithm. This is done to account for “the diminishing marginal utility of income.”
- The income score is converted to a scale of 0-100, like the other components of the index. To do this, a “theoretical range” of \$2,650 to \$75,000 for per capita income was established. The theoretical range has increased through various iterations of the CWB, to account for inflation. Before taking the logarithm, per capita income below \$2,650 is replaced by 2,650 and per capita income above \$75,000 is replaced by 75,000. The income score is then calculated as follows.

$$\text{Income score} = \left(\frac{\text{Log}(\text{income per capita}) - \text{Log}(2,650)}{\text{Log}(75,000) - \text{Log}(2,650)} \right) \times 100$$

Appendix (cont'd)

- For a given Census year, say 2016, the reference year for income is the previous calendar year (2015). To better track the evolution of the income situation across years, per capita income needs to be adjusted for inflation.

Housing score

- The housing component is composed of indicators of housing quantity and quality. Housing quantity is defined as the proportion of the population living in dwellings that contain no more than one person per room. The ratio of persons to rooms is calculated by dividing the number of household members by the number of rooms in the dwelling they occupy. Housing quality is defined as the proportion of the population living in dwellings that are not in need of major repairs.
- The housing score is the simple average of the two indicators and is expressed as a percentage.

Housing score

$$\begin{aligned} &= \frac{100}{2} \left(\frac{\# \text{ people living in dwellings having no more than one person per room}}{\text{total number of people in the community}} \right) \\ &+ \frac{100}{2} \left(\frac{\# \text{ people living in dwellings that are not in need of major repairs}}{\text{total number of people in the community}} \right) \end{aligned}$$

Appendix (cont'd)

Overall CWB Score

- The CWB is the simple average of the four scores, expressed as a number between 0 and 100.

$$CWB = \left(\frac{\text{Income score} + \text{Education score} + \text{Housing Score} + \text{Labour force activity score}}{4} \right)$$