

Poverty in British Columbia:

Income Thresholds, Trends, Rates, and Depths of Poverty

Gillian Petit and Lindsay M. Tedds
School of Public Policy, University of Calgary

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Author Note

The authors can be contacted at gillian.schafer@ucalgary.ca and lindsay.tedds1@ucalgary.ca.

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Abstract

We present and assess extensive statistics regarding poverty rates and depths for Vancouver, B.C., and Canada. We show that not only are single adults in B.C. the most likely to experience poverty, but they also experience the deepest level of poverty. Both single adults and single parents who are younger (i.e., ages 18–24) are more likely to be in poverty and are deeper in poverty than single older persons (i.e., 65+) or those who live as couples. These poverty rates and depths of poverty remain high for single adults and single parents as they get older (i.e., ages 26–65), at which point the depth of poverty decreases. Lastly, poverty tends to be experienced at higher levels by women than by men when conditioning on family type. For these reasons, B.C. government will have to consider these groups in reforms focused on addressing poverty reduction targets.

Introduction

As part of the 2017 Confidence and Supply Agreement (CASA) between the BC Green Caucus and the BC New Democrat Caucus, which formed the basis of the BC Green Caucus confidence in the NDP minority government, the Government of British Columbia developed a detailed plan to reduce poverty in the province. The first step in this commitment was to adopt the *Poverty Reduction Strategy Act* (SBC 2018), which set out the requirement to develop a strategy to reduce and prevent poverty in B.C. and to update it at least once every five years. The act states that the adopted poverty reduction plan must include initiatives that will reduce the poverty rate by 25% among all persons and 50% among children by 2024 as compared to 2016. The act also states that the poverty rate must be measured using the Market Basket Measure (MBM), which is also Canada's official poverty line, and that any initiatives must consider the depth of poverty, though no poverty depth targets were stipulated. B.C.'s first Poverty Reduction Strategy was developed through an extensive public engagement process¹ and was released in March 2019 (Government of British Columbia, 2019). It sets out four guiding principles to address poverty reduction—affordability, opportunity, reconciliation, and social inclusion—and itemizes actions to be taken immediately in these areas, many of which were committed to in the 2019 provincial Budget (B.C. Ministry of Finance, 2019), which was tabled the month before the Poverty Reduction Strategy was released.

A second step outlined in CASA was to investigate whether a basic income is an effective policy tool to reduce poverty. To investigate this, the B.C. Expert Panel on Basic Income was formed in 2018 (B.C. Poverty Reduction, 2018). The expert panel was mandated to help the province not only assess the feasibility of a basic income in B.C. but also to investigate how basic income principles might be used to transform and enhance the existing income support system, with a particular focus on the impacts on the incidence and depth of poverty in B.C. In particular, using the Poverty Reduction Strategy as the baseline in the province, the expert panel would look to see what further improvements can be made. An important first step of the expert panel's work was to define poverty and document the current trends, rates, and depths of poverty in the province.

The main findings in this paper are as follows:

- Both the incidence and depths of poverty are typically higher in Vancouver and B.C. than for Canada.
- Poverty rates have declined across time for all groups considered across all jurisdictions, often by substantial degrees.
- Females have higher poverty rates than males when conditioned by family type.

¹ For more information on the public engagement process, read B.C. Ministry of Social Development and Poverty Reduction (2018) and Government of British Columbia (n.d.).

- No longer are single parents the most impoverished. Instead, single working-age adults have the highest poverty rates and deepest depths of poverty across all groups.

It should be kept in mind that the statistics on poverty presented here currently end in 2018.² Not included is the state of poverty following the 2020 COVID-19 pandemic. COVID-19 is having a large impact on employment and labour force participation, particularly for women with young children, racialized workers, and workers in less secure, low-quality jobs. This shock may have a significant impact on the poverty statistics presented here.

Defining Poverty

Defining poverty is not an easy task, and regardless of how poverty is defined it will be contested, disputed, and debated. There is wide variation in definitions of poverty, with some poverty scholars focusing on (the lack of) economic well-being—that is, they measure deficiencies in quantifiable measures such as income, wealth, or consumption. Other scholars focus on capability poverty, as advocated by Amartya Sen, defined as the actual opportunities a person has and their ability to achieve the various things a person has reason to value, such as good health and participation in society. In this definition, poverty is complex and multi-faceted and moves beyond a simple lack of income. We also recognize that poverty is complex, and income is only a single aspect of poverty. However, the B.C. government has chosen to examine poverty by looking at income (or the lack thereof) and has set its poverty targets accordingly. As such, in this paper we will follow suit and define the poverty rate as the fraction of the population living with low income (i.e., income below some income threshold). However, it is important to note that this does not account for the full range of circumstances faced by B.C. residents, such as variations in housing costs, child-care costs, and costs faced by those with a disability, nor does it inform us about cycles of poverty.

Statistics Canada has developed three measures of low income for Canada: the low income measure (LIM), the low income cut-off (LICO), and the Market Basket Measure (MBM) (Statistics Canada, 2015). Each of these measures measure low income in a different way. Both the LIM and the LICO are low-income measures that compare a family's income to a predefined income threshold. Specifically, the LIM measures the fraction of the population with an income

² Most of the MBM poverty statistics shown in this paper are based on the 2008 base. While Statistics Canada has now made available MBM poverty statistics based on the 2018 base, these statistics are available only for the years 2015-2018. The short period of time available then does not allow for any discussion or presentation on important trends in poverty, particularly the dramatic reduction in poverty in Canada since 2006. However, the move to a 2018 base actually resulted in poverty levels to increase compared to the 2008 base and using the 2008 base then understates poverty based on a more up to date measure of the cost of the MBM basket. The component that had the largest adjustment was that related to shelter. The 2018 base uses the rental of a 3-bedroom dwelling using results of the 2016 census versus a two- or three-bedroom dwelling in the 2008 base. Because under the 2018 base, MBM income thresholds increased this results in a higher proportion of individuals living in poverty, *ceteris paribus*.

lower than one-half of the median income in that year. It is a relative measure of income that is continually updated as the median income changes. The LICO measures the fraction of the population who have an income lower than the income level at which a family is likely to spend 20 percentage points or more on food, shelter, and clothing than the average family. That is, the LICO is a relative measure of income that reflects spending patterns anchored around an income base last measured in 1992 and based on the Family Expenditures Survey (the base is increased each year in line with inflation).

Until the mid-1990s, the LIM and the LICO tracked each other fairly consistently, but they began to diverge in 1996, with the LIM staying fairly constant while the LICO fell dramatically. By 2018, the overall low-income rate for Canada was 12.3% as measured by the LIM but 7.3% as measured by the LICO. Because of the divergence between these measures, those who wanted to argue that poverty had fallen would point to the LICO, while those who wanted to argue that poverty had not changed at all would point to the LIM.

With these two measures of low income telling very different stories over a 20-year period, it was time to reflect and reconsider the approach to measuring low income, resulting in calls for a new low-income measure. Based on input from experts, Statistics Canada devised the Market Basket Measure (MBM) of poverty in the early 2000s (Statistics Canada, 2016). Calculating the MBM threshold involves costing out a basket of goods and services associated with a modest standard of consumption. It takes into consideration costs of specified qualities and quantities of food, clothing, footwear, transportation, shelter, and other expenses adjusted not only for family size but also for geographical region. In measuring low income, the MBM compares family disposable income (rather than gross income) to the MBM threshold. The use of disposable income is important in that it better reflects income available to purchase goods and services. Official measures of MBM low income are available starting in 2006 and, since it has been measured, the MBM consistently provides a measure of poverty that is between the two extremes of the LIM and the LICO, both in terms of trends and measured rates.

After broad consultation, the MBM was chosen as Canada's official poverty line in 2018 by the Government of Canada, which has also developed a national Poverty Reduction Strategy and set poverty reduction targets outlined in *An Act Respecting the Reduction of Poverty*, SC 2018, c. C-87. B.C. has likewise chosen the MBM as its official legislated poverty measure. As a result, the MBM is the measure of poverty that will be presented here. While some may not agree with setting the MBM as the official poverty line, it is not the mandate of the B.C. Expert Panel on Basic Income to assess this choice. We do, however, readily acknowledge that the MBM is not a perfect measure of poverty—but then again, no measure is. Over the last several years, Statistics Canada has been conducting a detailed review of and consultation on the MBM poverty measure. This resulted in an update in the poverty statistics based on the 2008 base as well as the release of the MBM based on a new 2018 base. The MBM poverty statistics related

to the 2018 base address issues related to what a modest standard of living means and how consumption is measured in some of the categories. The component that had the largest adjustment was that related to shelter. The 2018 base uses the rental of a three-bedroom dwelling using results of the 2016 census versus a two- or three-bedroom dwelling in the 2008 base. Because MBM income thresholds increased under the 2018 base, this results in a higher proportion of individuals living in poverty, *ceteris paribus*. It does not, however, change the overall trends and comparisons across groups from the 2008 base.

Most of the MBM poverty statistics shown in this paper are based on the 2008 base. Unfortunately, the MBM poverty statistics based on the 2018 base are available only for the years 2015–2018. The short period of time available, then, does not allow for any discussion or presentation on important trends in poverty, particularly the dramatic reduction in poverty in Canada since 2006. However, the move to a 2018 base actually resulted in poverty levels to increase in relation to the 2008 base. This means that using the 2008 base understates poverty based on the more up-to-date measure of the cost of the MBM basket. This should be kept in mind when considering the trends, rates, and depths of poverty presented here and as B.C. progresses toward its poverty reduction targets.

MBM Thresholds in B.C.

Statistics currently available and publicly available for the MBM include:

- **income thresholds:** defined as the disposable income below which someone would be considered living in poverty
- **low-income rates:** defined as the proportion of people living with disposable income below the MBM threshold
- **depths of low income:** defined as the gap between the MBM income thresholds and the average income of those whose income is below the MBM; or this gap measure, called the average gap ratio, the bigger the gap, the further below the MBM income threshold the population is

The income measure used to compare against the MBM income thresholds is disposable income for the MBM. Disposable income is defined as the amount of income available to an economic family or a person not in an economic family to purchase goods and services. MBM disposable income is calculated by taking total income and deducting income taxes and non-discretionary spending.³

Additionally, the MBM is based on an economic family, which refers to a group of two or more persons living in the same dwelling who are related by blood, marriage, common-law

³ Non-discretionary spending includes EI and CPP/QPP contributions, employer mandated payroll deductions, child support, alimony payments, child care expenses, and non-insured medical expenses.

status, or adoption, including foster children.⁴ Only children under the age of 18 who have never been married and children over 18 who have a serious disability are included. An alternative definition of the family is a census family, which consists of a head, a spouse (if present), and their children under the age of 25 (including their guardian children) who are unmarried and who are living together in the same dwelling. A still further definition of a family is a nuclear family, which is similar to a census family but is restricted to children under the age of 18 who have never been married and are living in the same dwelling.

One of the most important distinctions among these three definitions of the family is related to adult children (ages 18–24) who live with their parents. Under the definition of an economic family and a nuclear family, these adult children who live with their parents are their own economic or nuclear family, but under the definition of census family they are part of the census family. The distinction can be important for policy and poverty reduction because an adult child living with their parents may be considered poor by the MBM measure even if they are not living in poverty, because of parental support. As more adult children between the ages of 18 and 24 are engaged in post-secondary education or other labour force training, this complication becomes increasingly important. Do governments want to direct resources to lift adult children living at home out of statistical poverty? Does it matter if the adult child is not in education, employment, or training? This matter cannot be settled here, but it is relevant as we consider poverty reduction programs and their interactions, since programs often differ in their definitions of family. In particular, the tax system, similar to the definition of a family under the MBM poverty measure, considers anyone 18 or older to be an independent tax unit and not attached to their parents even if they live with their parents.

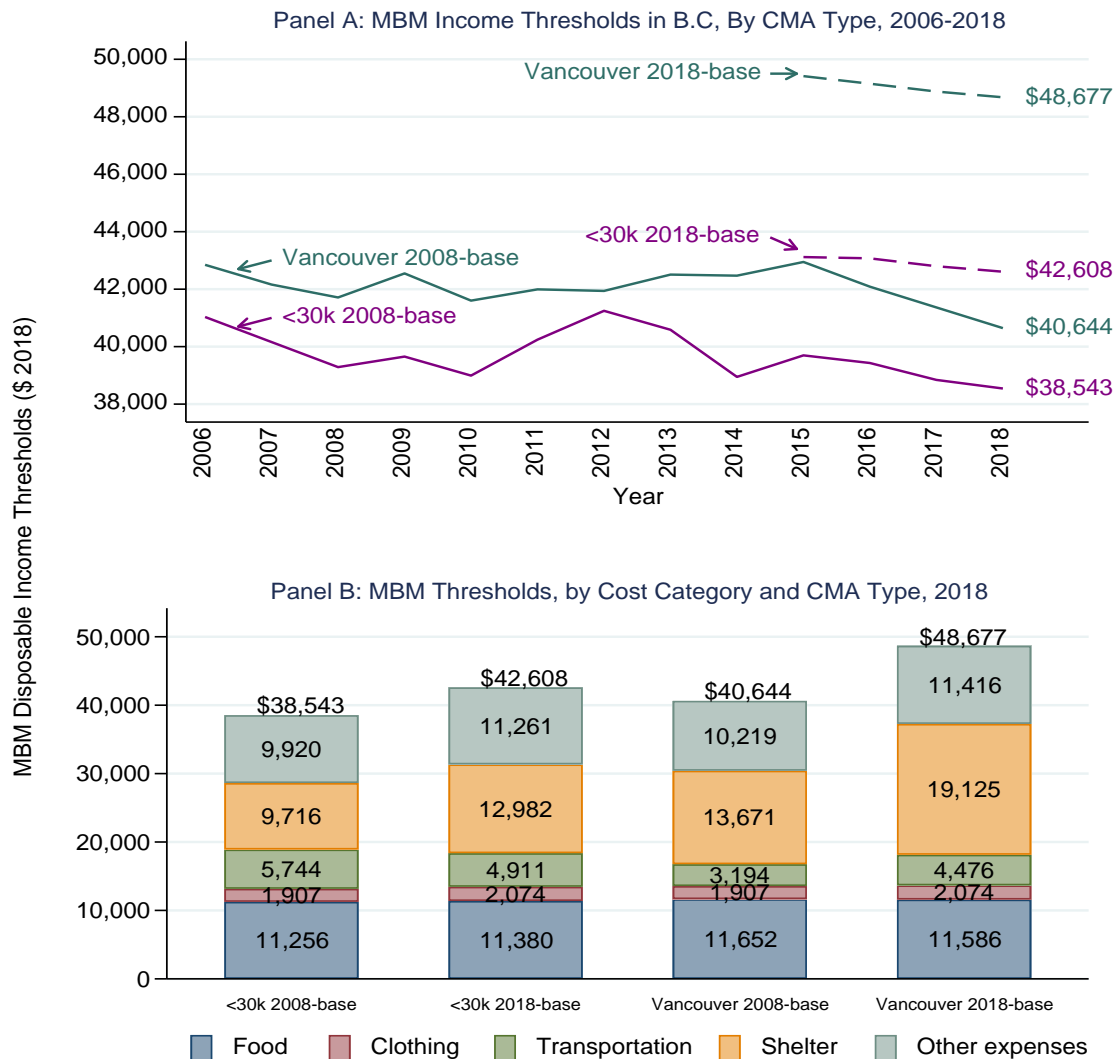
As mentioned above, the MBM is adjusted for geographical region, given that costs vary greatly across Canada. This includes adjustments not only by province but also within a province. Figure 1 displays the MBM income thresholds for a representative family of four (two adults and two children)⁵ in B.C. for Vancouver and regions with a population below 30,000, representing the areas with the highest income threshold in B.C. and the lowest income threshold in B.C. It also shows the thresholds for both a 2008 base and a 2018 base.

⁴ It is important to note that the official MBM statistics presented here are based on the economic family. It is possible to generate poverty statistics based on other measures of the family, including census family and nuclear family. However, statistics based on different family types are not directly comparable. This is a point that is important to keep in mind when poverty measures are based on different family definitions, as occurs in studies that use either tax filer data or the SPSP/M to model various income support policies like a basic income.

⁵ The thresholds can easily be converted to other family sizes by dividing these thresholds by two (the square root of the reference family size of four people) and then multiplying by the square root of the desired family size. Using this formula, for example, the MBM threshold for a single person in Vancouver is calculated as just under \$21,000.

Figure 1

MBM Income Thresholds, Family of Four, B.C.,



Source: Statistics Canada Table 11-10-0066-01

Figure 1, Panel A, shows that, based on the 2008 base, the MBM thresholds have been quite volatile, but since 2015 MBM thresholds have been steadily trending downwards. In looking at the thresholds based on the 2018 base, we see, as predicted, that the revision in the base shifted thresholds upwards, but the trends shown in the 2008 base hold. Panel A also makes it clear that the amount of disposable income needed to rise above the poverty line changes based on the size of the region in which they live. A family of four needs much more income to live above the poverty line in Vancouver than in a smaller jurisdiction, and this is true regardless of which base is used.

Figure 1, Panel B, presents the contribution to the MBM income threshold by cost component to see if there are key cost component drivers to the variations presented in Panel A. Panel B shows that the key component driving differences in thresholds is the amount of disposable income for shelter, with an increasingly larger amount needed as the size of the jurisdiction within which they live increases. This is more evident in the revision to the 2018 base. These sizable geographic differences in disposable income needed to live above the MBM threshold will be important considerations as the government considers how to devise policies that take these differences into account.

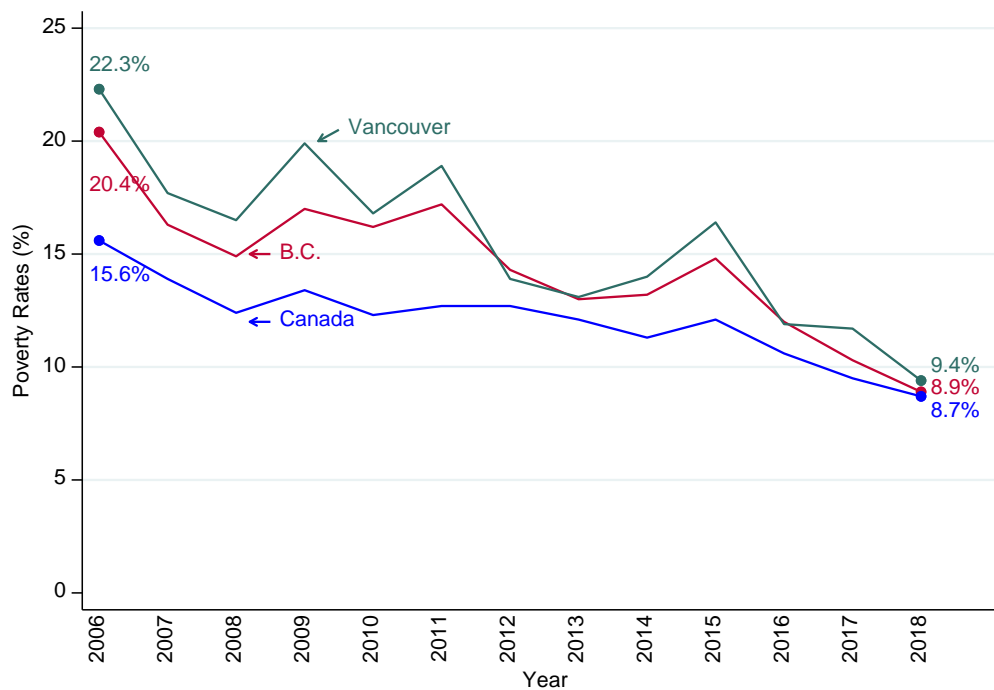
Understanding that the MBM poverty measures based on the 2018 base versus the 2008 base show that the poverty rates would be higher but that the trends shown by the 2008 base appear to hold, for the rest of this document we will use the 2008 base, since understanding trends is important for understanding how poverty has changed over time, acknowledging that poverty statistics based on the 2018 base are higher.

MBM Poverty Rates in B.C.

We now consider poverty rates, defined as the proportion of people living with disposable income below the MBM threshold. Figure 2 displays the overall poverty rate in Canada, B.C., and Vancouver. In 2006, poverty rates in B.C. and Vancouver were much higher than the overall rate for Canada. The poverty rate in Vancouver was the highest at 22.3%, the poverty rate for B.C. was a little lower at 20.4%, and the poverty rate in Canada was 15.6%. Since 2006, the poverty rates have declined and the distance between the rates has narrowed, though poverty rates in Vancouver and B.C. are still higher than in Canada. In 2018, the poverty rate was 9.4% in Vancouver, 8.9% in B.C., and 8.7% in Canada. It is not surprising that poverty rates are higher in Vancouver, given its much higher MBM threshold (discussed in the previous section); however, the convergence of the poverty rates for Vancouver, B.C., and Canada is noteworthy, especially since 2017. Yet it leaves unanswered the question as to why poverty rates have been and continue to be higher in B.C. than in Canada. Klein, Ivanova, and Leyland (2017) had previously argued that B.C. had a much higher poverty rate than Canada for five reasons: (a) lack of a poverty reduction strategy until very recently, (b) high child poverty rates, (c) a higher senior population, particularly single senior women with limited work-related pension income, (d) wage rates not keeping pace with costs, especially housing costs, and (e) income and disability assistance rates far below the income thresholds needed to lift people above the poverty line. When the NDP-Green coalition formed a government in 2017 in B.C., it introduced a poverty reduction strategy, increased the minimum wage, brought in measures to tame housing costs, and raised income and disability assistance rates. It may be that these measures contributed to the reduction in poverty seen since 2017.

Figure 2

MBM Poverty Rates by Jurisdiction, Canada, B.C., and Vancouver



Source: Statistics Canada Table 11-10-0135-01

Poverty Rates by Age Group

We can explore some of these considerations by breaking down the poverty rates shown in Figure 2 by age. Figure 3, Panel A, shows poverty rates for children under the age of 18.⁶ In 2006, poverty rates for children (persons under 18 years) in B.C. were substantially higher than for children in Canada. In Vancouver, 31.1% of children lived in poverty, compared to 28.7% in all of B.C., 19.2% in Canada. Between 2006 and 2017, child poverty rates fell considerably, including in Vancouver and B.C., and rates across these regions converged. In 2018, child poverty rates in Vancouver were 6.1% compared to 6.9% in B.C. and 8.2% in Canada.

Figure 3, Panel B, shows poverty rates for working-age adults⁷ (ages 18–64), which shows similar trends to those in Figure 2. Poverty rates start high in 2006, with poverty rates in

⁶ For the child poverty measure, the disposable income of the economic family in which the child resides is compared to the relevant MBM threshold.

⁷ Working-age adults include both working-age adults in economic families (i.e., couples with and without children and singles with children) and persons not in economic families (i.e., working-age single adults with no children). For each working-age adult, the disposable income of the economic family (or single without children) is compared to the relevant MBM threshold.

Figure 3

MBM Poverty Rates by Age, Canada, B.C., and Vancouver



Source: Statistics Canada Table 11-10-0135-01

Vancouver at 21.4%, B.C. at 20.1%, and Canada lower at 16%. Again, since 2006 poverty rates have trended downwards and the rates across regions have converged substantially. In 2018, poverty rates for working-age adults had dropped to 10.7% in Vancouver, 10.5% for all of B.C., and 10.3% for Canada.

Panel C shows poverty rates for seniors (age 65+). Poverty rates for seniors in Vancouver and B.C. are and have always been significantly higher than in Canada. In 2006, 11.7% of seniors in Vancouver lived in poverty, 9.6% of seniors in B.C. lived in poverty, and only 7.6% of seniors lived in poverty in Canada. By 2018, these rates had dropped such that seniors had the lowest poverty rates of all age groups. However, the geographical differences are noteworthy. While only 3.5% of seniors lived in poverty in Canada in 2017, 5.1% of seniors in B.C. and 7.6% of seniors in Vancouver lived in poverty. This means that the poverty rate for seniors in B.C. in 2017 was 45% higher than the national average and a 53% higher than the national average in Vancouver.

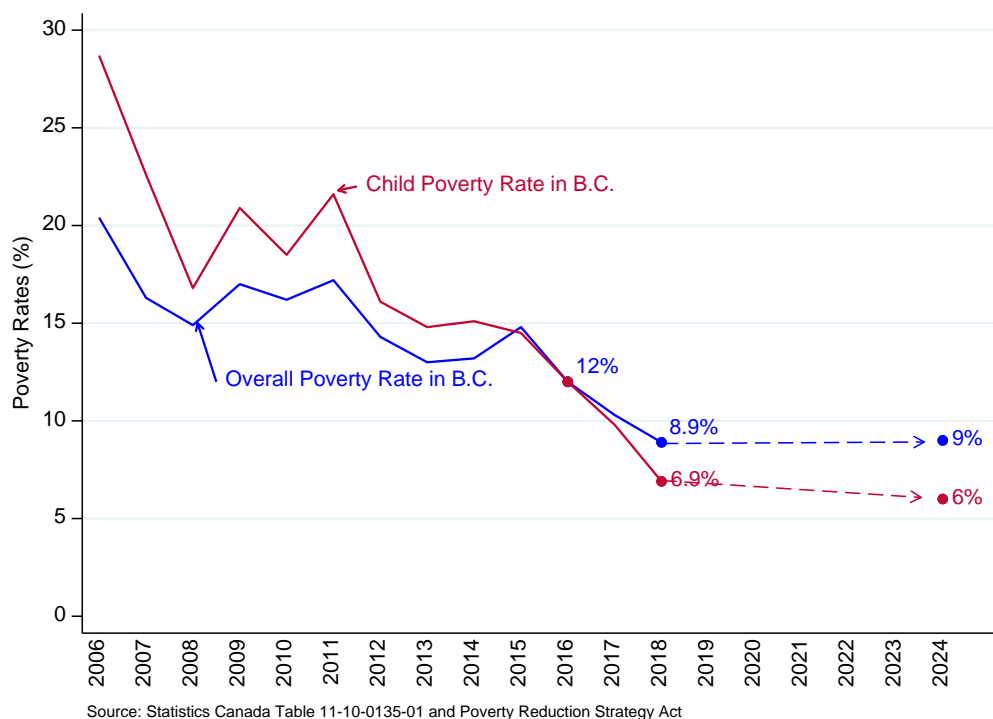
In summary, from Figure 3 we see that B.C. has had a higher poverty rate for all age groups since 2006, the year the MBM became available, compared to the national average, but that this gap has significantly narrowed over time. While the poverty rate for children was historically the highest among all the age groups, by 2017 the age group in B.C. with the highest rate of poverty was working-age (18–64) persons, at 10.5%. The age group with the lowest poverty rate was seniors, at 5.1%, but this is higher than the national average. These trends are also poignant, as both senior and working-age poverty rates have decreased over a period in which the proportion of the population in B.C. that is senior and working-age has risen (Statistics Canada, 1996, 2019).

Poverty Targets and Poverty Trends in B.C.

As noted above, B.C. has set legislative targets for the province for its overall poverty rate and child poverty rate (there are no specific targets set for Vancouver or other jurisdictions in B.C.). Figure 4 shows these targets in the context of the historical trends for both overall poverty and child poverty in B.C. Using the MBM poverty rate in 2016 of 12% for both overall poverty and child poverty, the poverty reduction target is set to reduce overall poverty rates in B.C. by 25% by 2024, yielding a target of 9%, and to reduce child poverty by 50% by 2024, yielding a target of 6%. The dashed lines in Figure 4 show the reduction in poverty that is required to meet these targets. B.C. met its legislative target for overall poverty in 2018 and was very close to meeting its child poverty target. This suggests that B.C. needs to consider whether it can hold the line on poverty during and in the aftermath of the COVID-19 pandemic and, if not, what measures need to be taken to strengthen its support programs to better manage the impact of wide-scale shocks.

Figure 4

MBM Poverty Rates and Legislative Targets, B.C.



Poverty Rates by Family Type

It is also important to consider poverty rates by family type.⁸ We begin in Figure 5 by looking at poverty rates for families with children, including single-parent families and two-parent families.

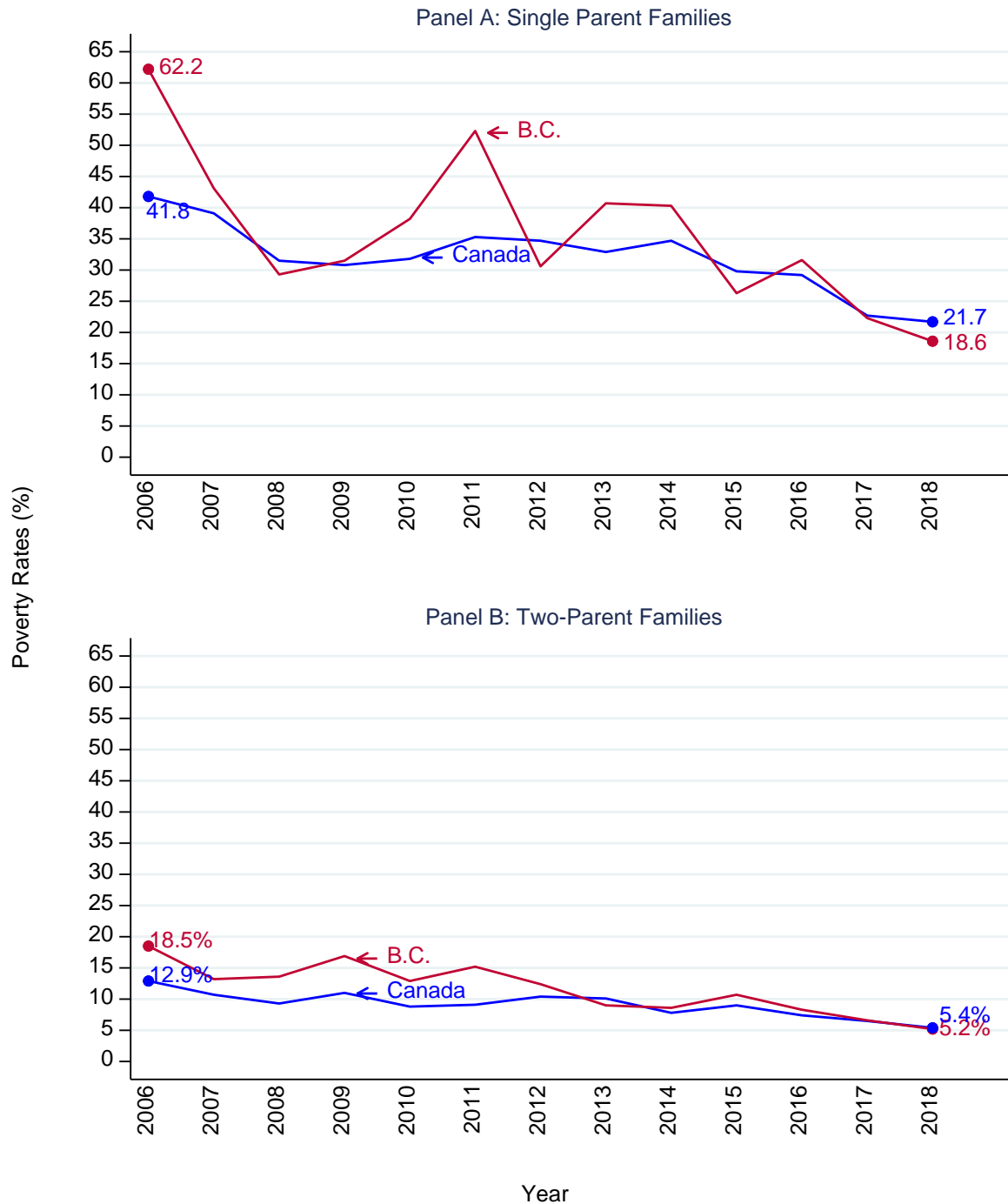
Panel A looks at single-parent families. Historically, single parents in B.C. (and in Canada) have had the highest poverty rates. In 2006, B.C. single-parent families had a poverty rate of over 62%, compared to national poverty rates of just under 42%; however, by 2018 poverty rates for single-parent families in B.C. had dropped by two-thirds, falling to 18.6%, lower than the poverty rate for single-parent families nationally, at 21.7%. While the poverty rate for these families is still more than double that of the overall poverty rate, significant progress has been made in reducing poverty for this type of family.

Panel B shows poverty rates for two-parent families. While the poverty rates for two-parent families are much lower than the poverty rates for single-parent families, the trends are the same. The poverty rate for two-parent families in B.C. was 18.5% in 2006, 43% higher than

⁸ Due to poor data quality related to poverty rates in Vancouver by family type, only data for B.C. and Canada are presented here. However, the above trends suggest that poverty rates are regularly higher in Vancouver than in either B.C. or Canada, a fact for the province to keep in mind in designing its anti-poverty policies.

Figure 5

MBM Poverty Rates for Families With Children, Canada and B.C.



Source: Statistics Canada Table 11-10-0136-01

the national poverty rate for this family type. However, by 2018 the B.C. rate and the national rate had both fallen and converged, such that the poverty rate in B.C. for this family type was 5.2%, marginally lower than the national poverty rate of 5.4% for two-parent families.

We now turn to family types where no children are present, beginning with working-age adults (ages 18–64) before turning to seniors (age 65+), shown in Figure 6. Panel A shows poverty rates for single working-age adults. In this case, in 2006 the gap between the poverty rates in B.C. and Canada was not as large as for other groups that we have presented above. In 2006, 41.5% of single working-age adults lived in poverty, compared to 38.7% in Canada. By 2018, the poverty rates for this family type had both fallen and converged; however, the decrease was not as large as for other family types. In 2018, 31.4% of single working-age adults in B.C. lived in poverty, compared to 31.7% nationally. Of note is that the poverty rate for this group went up slightly in 2018 over 2017. While there have been gains in poverty reduction, this family type continues to experience poverty at higher rates than other family types, including single parents. This is an important fact for the government to keep in mind, as the number of single working-age adults is increasing in both Canada and in B.C.: to meet its poverty reduction targets, the government will have to consider policies for a family type that historically has not been well served by income and social support programs.

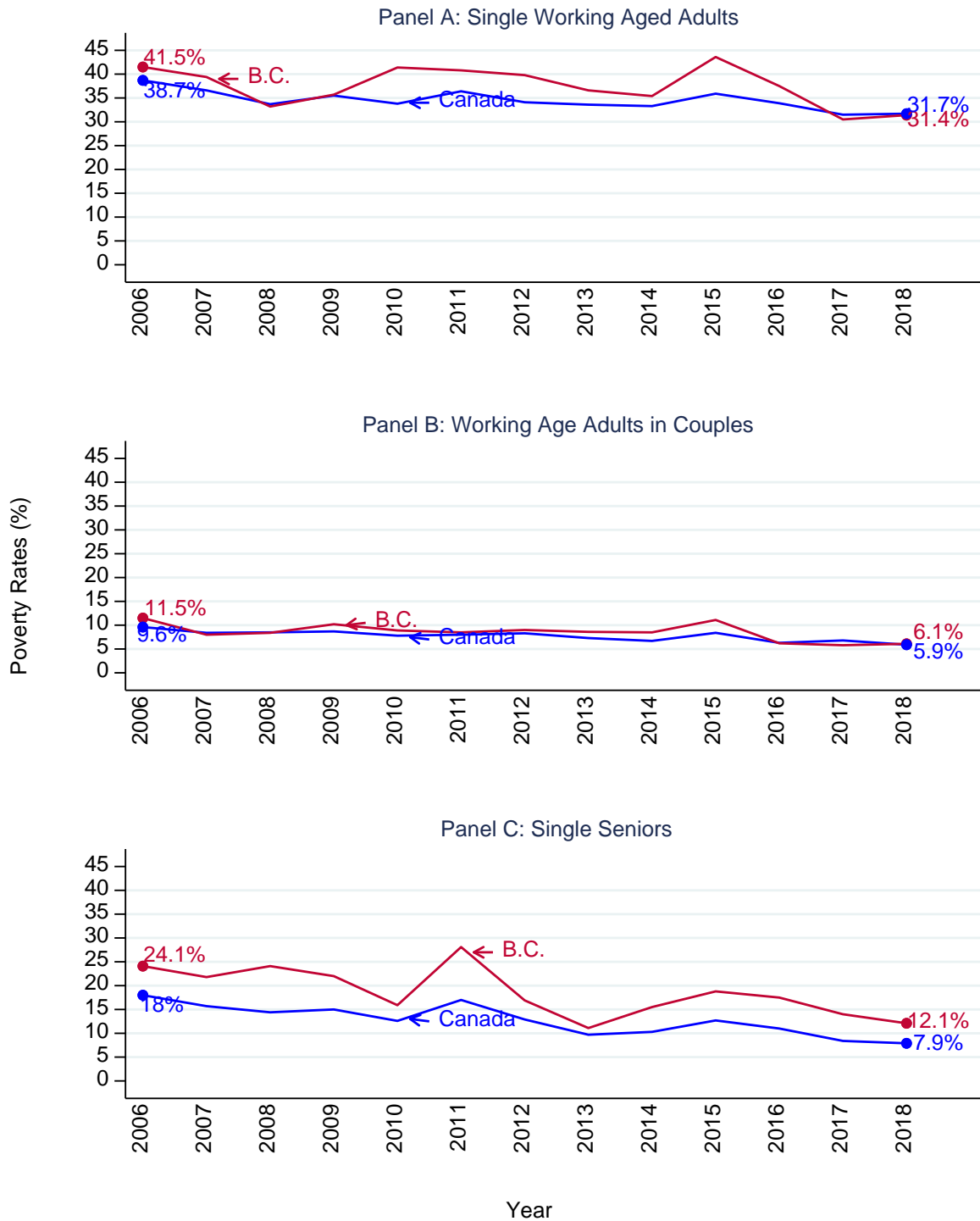
Panel B presents poverty rates for working-age adults (ages 18–64) in couples with no children present. Their poverty rates are much lower than for single working-age adults. In 2006, this family type faced a poverty rate of 11.5%, again a rate higher than the national average, which was 9.6% for working-age adults in couples with no children. Between 2006 and 2018, poverty rates for this family type were cut nearly in half in B.C. By 2018, the poverty rate for this family type in B.C. had fallen to 6.1%, compared to a national poverty rate of 5.9% for this family type. The poverty rate for this group is lower than the poverty rate for seniors in B.C., but, much like the trend for single working-age adults, the rates have increased in 2018 compared to 2017, albeit marginally.

Given the differences in poverty rates between working-age singles and those in couples, it is worth revisiting senior poverty rates along family type. Panel C presents senior poverty rates for single seniors.⁹ Here we find that poverty rates for single seniors are much higher than for seniors overall (Figure 3, Panel C). In 2006, single seniors experienced a poverty rate of 24.1% compared to 18% for single seniors in Canada. By 2018, the poverty rate for B.C. single seniors had fallen to 12.1% but was still much higher than the national poverty rate of 7.9% for single seniors. Comparing these proportions to Figure 3, Panel C, which shows poverty rates for all

⁹ Unfortunately, due to poor data quality related to poverty rates for seniors in couples for B.C. only single seniors are presented here. However, comparing Figure 7 to Figure 3, it is clear that seniors in couples face a significantly lower poverty rate than single seniors.

Figure 6

MBM Poverty Rates for Families Without Children, Canada and B.C.



Source: Statistics Canada Table 11-10-0136-01

Figure 7

Poverty Rates by Sex, Canada, B.C., and Vancouver



Source: Statistics Canada Table 11-10-0135-01

seniors, it is clear that the low overall senior poverty rate is driven by low poverty rates among seniors in couples.

Poverty Rates by Sex

One final categorization to consider is that related to sex. Figure 7 shows the poverty rates for males (Panel A) and females (Panel B) for Canada, B.C., and Vancouver. While females historically had a marginally higher poverty rate than males, poverty rates have converged and by 2018, both sexes had similar poverty rates across the jurisdictions, but with women having slightly lower poverty rates than men. Overall, poverty rates in Vancouver and B.C. are higher than for Canada, but they have converged significantly.

Figure 8 shows the poverty rate by sex for single parents, working-age singles, and single seniors.¹⁰ Only data pertaining to 2018 is shown in Figure 8.^{11 12} Here again we see that seniors—both single female and single male seniors—have the lowest poverty rates in B.C., though they are higher than the national average. The poverty rate for single senior females (14.5%) is noticeably higher than the rate for single senior males (10.5%). The same is not true for single parents: single mothers have a slightly lower poverty rate (19.5%) than single fathers (18.6%). The highest poverty rates, however, are experienced by single non-seniors. Single female non-seniors have a poverty rate in B.C. of 32.7%, now only slightly more than single males at 30.3%. There are two main reasons proffered for why women have higher poverty rates than men: women dedicate more time to unpaid work and women earn lower wages than men (Canadian Women's Foundation, 2018). This gendered difference in poverty rates among single working-age adults will be important for the B.C. government to address in moving forward on poverty reduction targets.

Summary of Poverty Rates

The poverty trends presented here clearly show that single persons have very high rates of poverty. The family type with the highest rate of poverty in B.C. (and Canada) in 2018 was working-age single adults, at 31.4%, with working-age single females being the highest overall at 32.7%. They also show that policies targeted at reducing child poverty have had a discernible impact on poverty rates for both children and their parents. Single parents are no longer the family type experiencing the highest rates of poverty; however, their poverty rates are still high, at 22.3%. It is also clear that couples experience the lowest rates of poverty, and singles experience the highest rate of poverty. While this finding is not surprising, it is an important fact for the B.C. government to note, given that singles are a growing form of family type (Statistics Canada, 2017; Tang, Galbraith, & Truong, 2019).

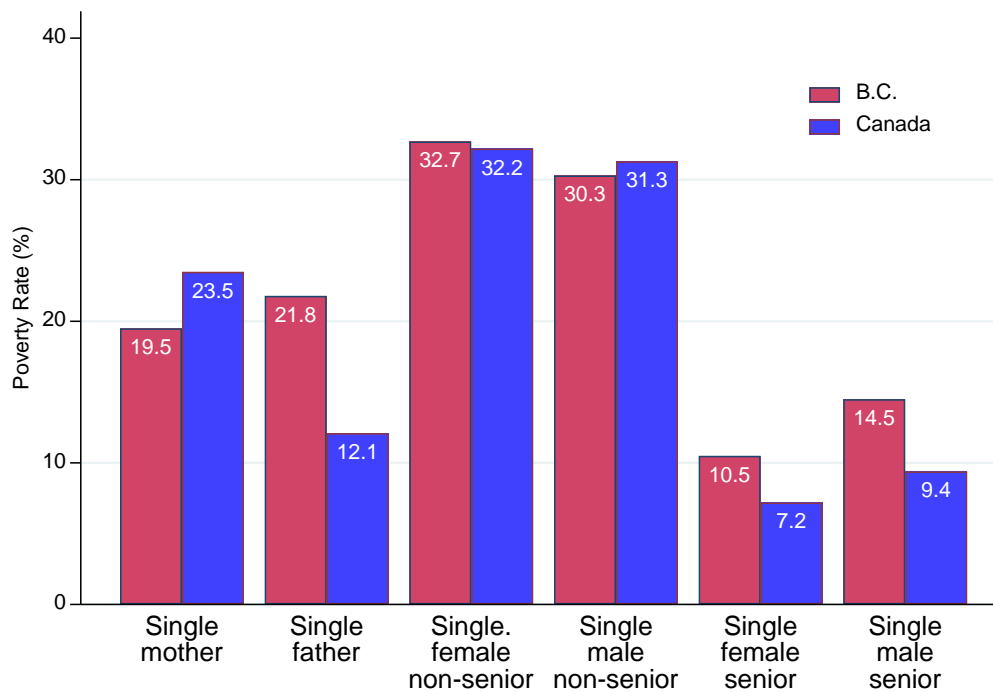
¹⁰ Due to poor data quality related to poverty rates in Vancouver by sex and family type, only data for B.C. and Canada are presented here.

¹¹ Only data from 2018 is used because historically there have been a smaller number of single males, whether as parents, working-age adults, or seniors, making past data quality problematic. However, single male households of all types are becoming more common, making more current data of higher quality.

¹² In the summary table at the end of this paper, we present the data for both for 2006 and 2017.

Figure 8

MBM Poverty Rates by Sex and Family Type, Canada and B.C., 2018



Source: Statistics Canada, Table: 11-10-0135-01 and Table: 11-10-0136-01

MBM Depths of Poverty in B.C.

The next set of statistics relates to the depth of poverty, defined as the gap between the MBM income thresholds and the average income of those whose income is below the MBM. Technically referred to as the “average gap ratio,” it is interpreted such that the bigger the gap, the greater the depth of poverty.¹³ The average gap ratio is expressed as a percentage of the MBM income thresholds. For example, a family of four living in Vancouver with an income of \$30,000 and an MBM income threshold of \$40,644 would have a gap ratio of 26.2%. The average gap ratio for a given population (e.g., all families of four) is the average of these values as calculated for each family.

Examining depths of poverty over time is potentially problematic as interpretation of the movement over time is difficult. Consider this example: Suppose there are only two families. Family A has an income of \$19,000/year and Family B has an income of \$15,000/year. Otherwise, both families are exactly the same. Suppose as well that the poverty line is \$20,000. Given these incomes, the average gap ratio is 15%. Suppose that due to some policy change, both families receive an extra \$1,000 in income. Family A is moved out of poverty with an

¹³ More specifically, the average gap ratio is computed as follows: $AGR = \frac{1}{n} \sum_{i=1}^n \frac{(z - y_i)}{z}$ where z is the income threshold, y_i is individual i 's income, and n is the number of persons/families under the poverty line.

income of \$20,000, and Family B remains in poverty with an income of \$16,000. After this policy change, the average gap ratio is 20%—the average gap ratio has gotten worse, but both families have a higher income. Thus, as the average poverty gap increases, it is possible that all families are better off. This occurs because as there is an improvement in poverty reduction—that is, there are fewer families with income below the income threshold, and the number of persons/families over which the average gap ratio is measured decreases.

Regardless of this shortcoming, the average gap ratio is useful in assessing how many resources are needed at a point in time to eradicate poverty through a perfectly targeted cash transfer. For example, an average gap ratio of 15% means that a perfectly targeted cash transfer that is 15% of the poverty line is needed to eradicate poverty. This provides a sense of the magnitude of the average gap ratio and intensity of poverty.

Additionally, this shortcoming has implications for the B.C. government as it works toward its defined poverty reduction targets: there is a trade-off between an improved poverty rate and an improved average gap ratio. On the one hand, the government could focus on moving those persons/families just below the poverty line to the poverty line (or above). This would decrease the poverty rate but could potentially increase the average gap ratio. On the other hand, focusing on those persons/families in the greatest depths of poverty and helping them move closer to or above the poverty line would decrease the average gap ratio but may have less impact on the poverty rate and would potentially be more costly.

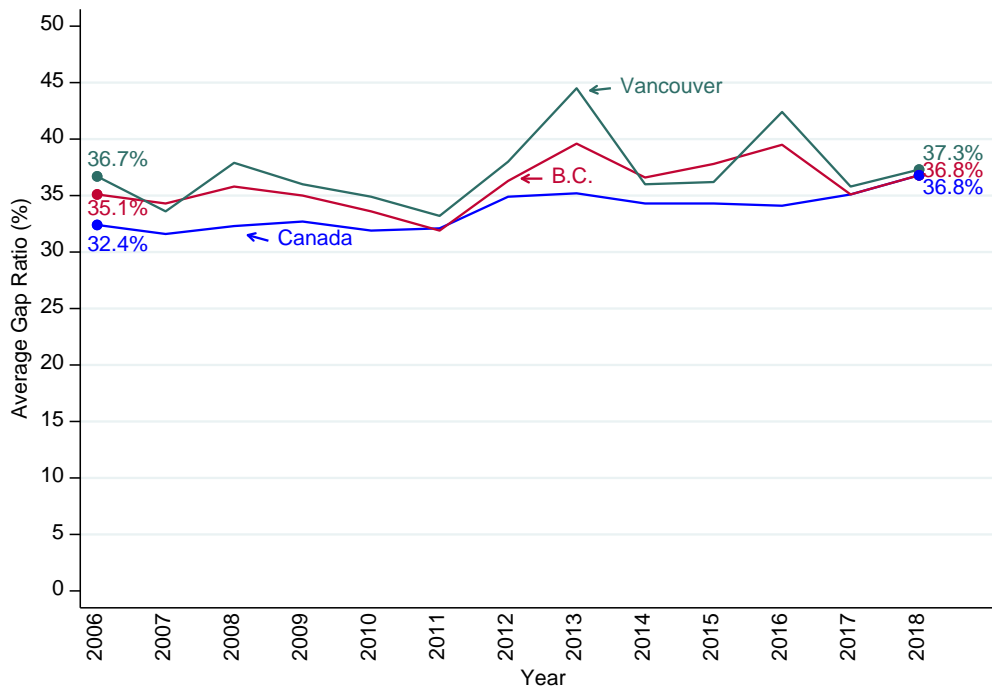
Figure 9 presents the average gap ratio overall in Canada, B.C., and Vancouver. Here we see that the depths of poverty have been relatively consistent, though they ticked up in 2018; however, we also saw in the preceding sections that there has been an improvement in poverty rates. Thus, as discussed above, we should not be too hasty in concluding that for those persons below the MBM threshold, they are necessarily in the same situation. Examining just 2018, the average gap ratio for both Canada and B.C. was 36.8%, whereas Vancouver had a slightly higher average gap ratio, at 37.3%.

Depths of Poverty by Age Group

The panels in Figure 10 present the depths of poverty by age group. Panel A shows the depth of poverty for children. While children in both B.C. and Vancouver have experienced gains in the depths of poverty, the gains have been relatively consistent across time, though there has been a notable decline since 2016, especially in Vancouver. The fact that child poverty rates have declined significantly over this period and that there have also been gains in addressing the depths of poverty is good news. It will be important to examine how the introduction of the new B.C. Child Opportunity Benefit in October 2020 affects these trends. Panel B presents the average gap ratio for working-age adults (ages 18–64). Here we see little change over much of the period, but worsening poverty depths in recent years. Panel C shows the average gap ratio for

Figure 9

MBM Average Gap Ratio (Depth of Poverty), Canada, B.C., and Vancouver

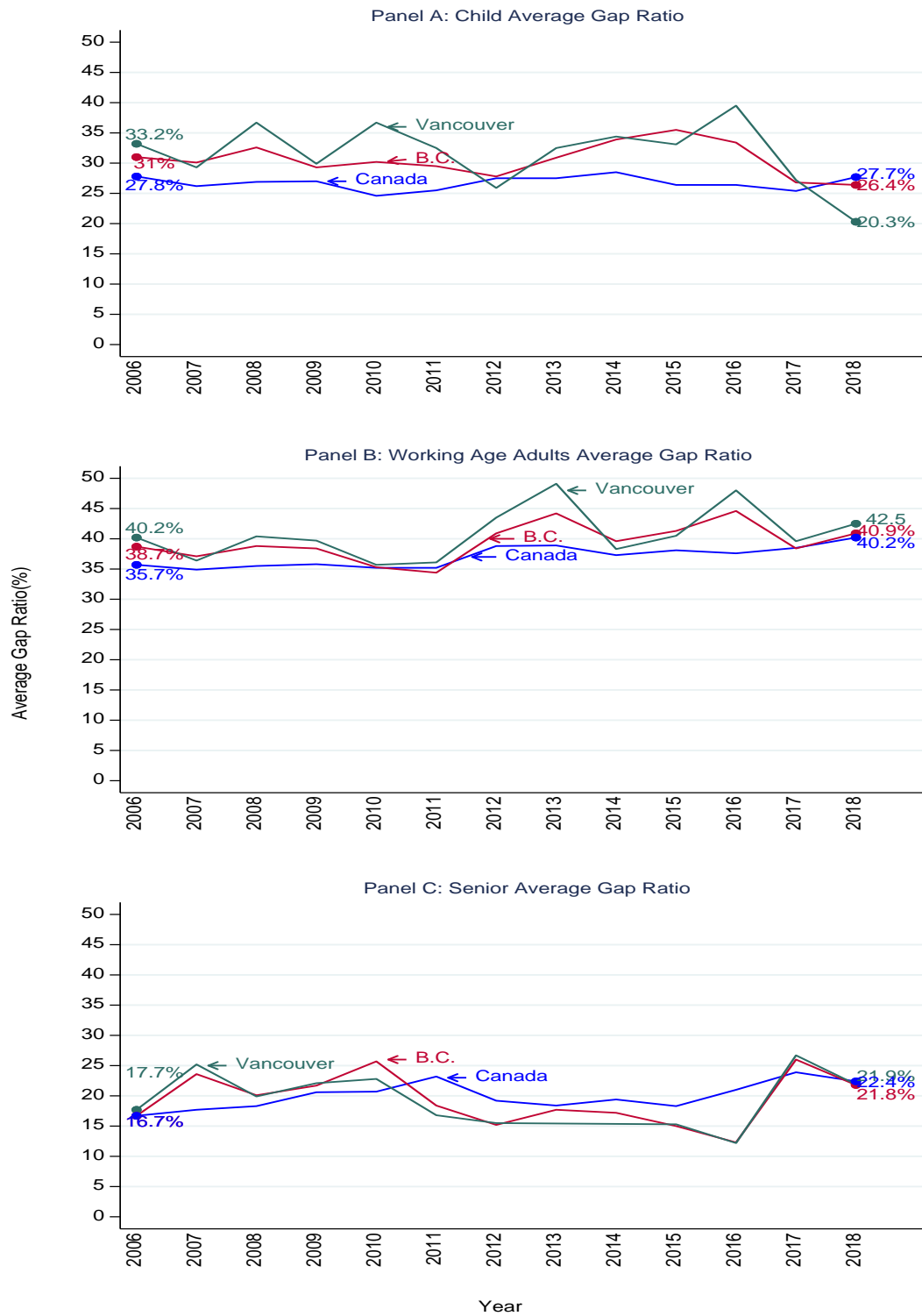


Source: Statistics Canada Table 11-10-0135-01

seniors, with a slow upward trend in the depths of poverty. Looking at just 2018 across these three age groups, we see that working-age adults had the largest average gap ratio, at 40.9% in B.C. (42.5% in Vancouver and 40.2% in Canada). Seniors and children had relatively similar average gap ratios, with seniors having an average gap ratio of 22.4% in B.C. (26.7% in Vancouver and 23.9% in Canada) and children having an average gap ratio of 26.8% in B.C. (21.9% in Vancouver and 21.8% in Canada). It is also noteworthy that for all children and working-age adults, the average gap ratios in B.C. and Vancouver are fairly consistent with Canada's. Overall, this tells us that working-age persons who were living in poverty were the deepest in poverty in 2018, and it will take a larger cash transfer to eradicate poverty for this group.

Figure 10

MBM Average Gap Ratio by Age, Canada, B.C., and Vancouver



Source: Statistics Canada Table 11-10-0135-01

Depths of Poverty by Family Type

We also consider the depths of poverty by family type.¹⁴ Figure 11 presents the average gap ratio for families with children: single-parent families are in Panel A and two-parent families are in Panel B. Likewise, Figure 12 presents the average gap ratio for families with no children: single working-age adults with no children are in Panel A, childless couples are in Panel B, and seniors are in Panel C. As observed above, the average gap ratio has remained fairly consistent across time for all family types, but this is difficult to interpret given that poverty rates have declined.

In terms of families with children in 2018, the average gap ratio for single-parent families was much higher than for two-parent families: the average gap ratio for single-parent families in B.C. was 30.8% (26.3% in Canada), compared with 22.1% for two-parent families in B.C. (28.2% in Canada). Comparatively, non-elderly persons/families with no children had an even higher average gap ratio than families with children: working-age single adults with no children had the highest average gap ratio across all family types, at 47.4% in B.C. (47.5% in Canada). Couples with no children had an average gap ratio of 30.9% in B.C. (40.1% in Canada). As we saw with poverty rates, this again lends credence to the observation that child benefits are helping families with children. However, non-elderly persons/families without children are currently the worst off, with higher poverty rates and higher average gap ratios.

Panel C of Figure 12 presents the average poverty gap for single seniors.¹⁵ Here we see that the average gap ratio for single seniors was much lower than the average poverty gap for seniors overall in 2018. While seniors overall in B.C. had an average gap ratio of 21.8%, single seniors had an average gap ratio of 16.8%. This means that the average income of single seniors was closer to the MBM thresholds than of seniors in couples. While the poverty rate for seniors in couples was much lower than for single seniors, it means that those seniors in couples in poverty had much lower average income than single seniors, who had a much higher poverty rate.

Finally, Figures 13 and 14 provide a more in-depth look at the distribution of income levels relative to the MBM by family type.¹⁶ Figure 13 shows the distribution of disposable

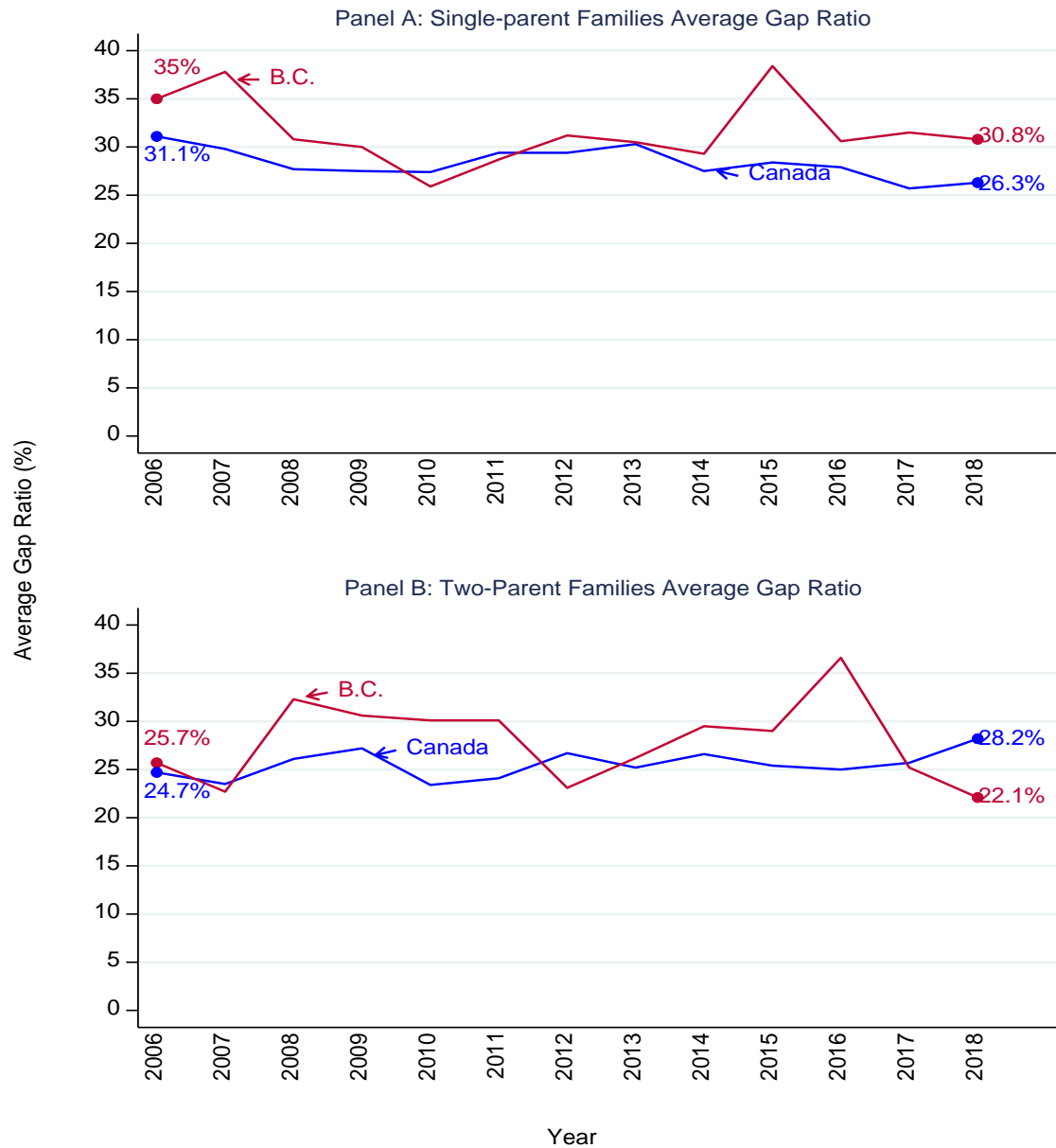
¹⁴ Unfortunately, due to poor data quality related to poverty rates in Vancouver by family type only data for B.C. and Canada are presented here. Based on the trends presented previously, we can expect the depths of poverty in Vancouver to be slightly higher than in B.C.

¹⁵ Due to poor data quality related to poverty rates for seniors in couples for B.C. only single seniors are presented here.

¹⁶ This data analysis uses the T1 Final tax statistics for 2016 and the results were provided by the B.C. Ministry of Finance. However, it is important to note that the definition of a family in the T1 data is not comparable to that used in the official statistics. The only family type for which the definitions are the same across the data are those related to singles. See the table in the appendix for the actual numbers of households in B.C. that are below the MBM. The

Figure 11

MBM Average Gap Ratio, Families With Children, Canada and B.C.

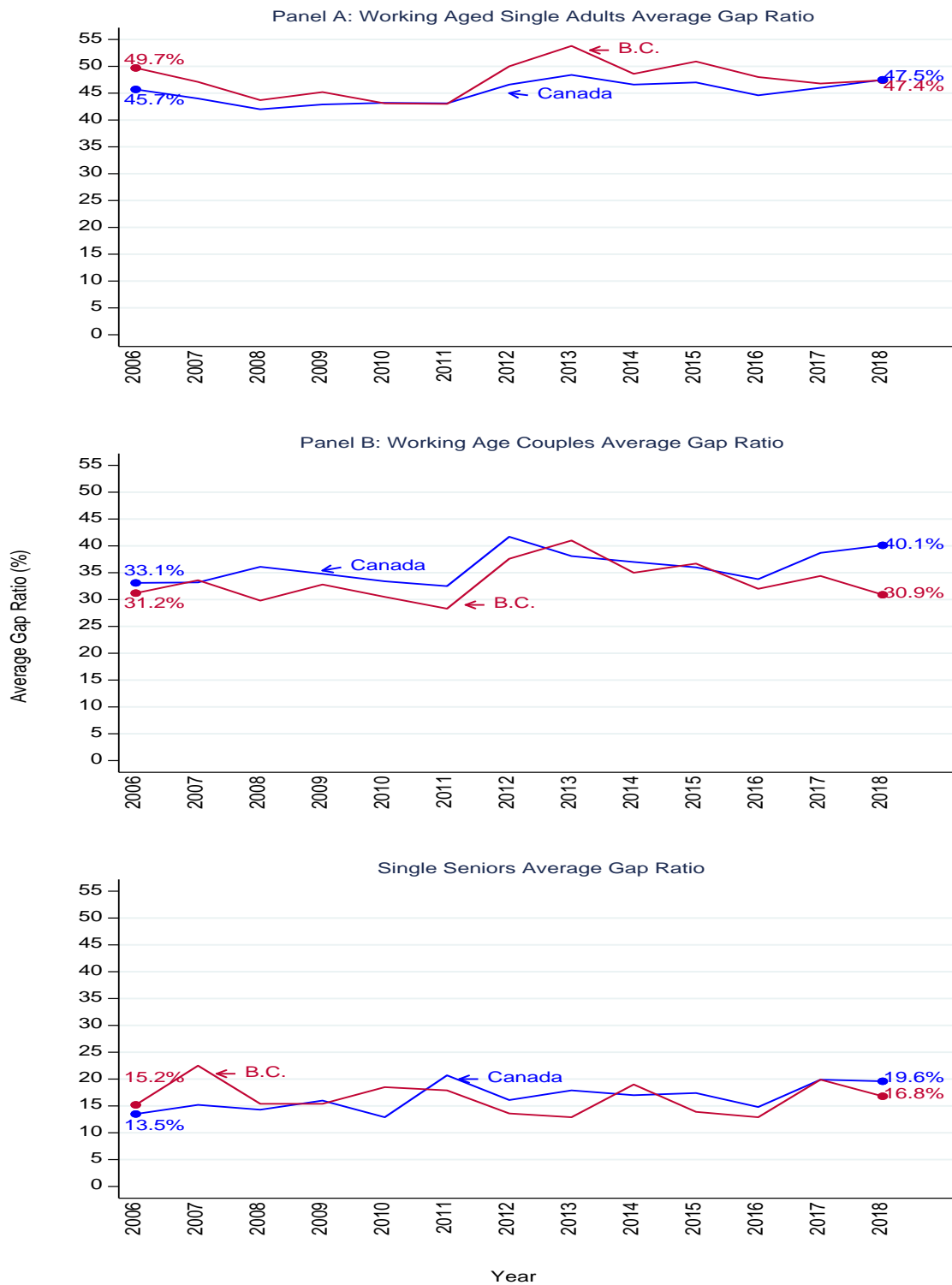


Source: Statistics Canada Table 11-10-0135-01

emphasizes that not only do childless single have higher poverty rates and depths of poverty, there are also a much higher concentration of these households below the MBM.

Figure 12

MBM Average Gap Ratio, Families Without Children, Canada and B.C.



Source: Statistics Canada Table 11-10-0135-01 and Table 11-10-0136-01

income relative to the MBM for different family types of all ages in B.C. in 2016. Families with income below the black dashed line are considered to be living in poverty. Single parents and single adults are the most likely to have incomes at less than 0.6 of the MBM whereas couples (both with and without children) are the most likely to have incomes greater than three times the MBM.

Figure 13

Income Relative to MBM by Age, B.C., 2016

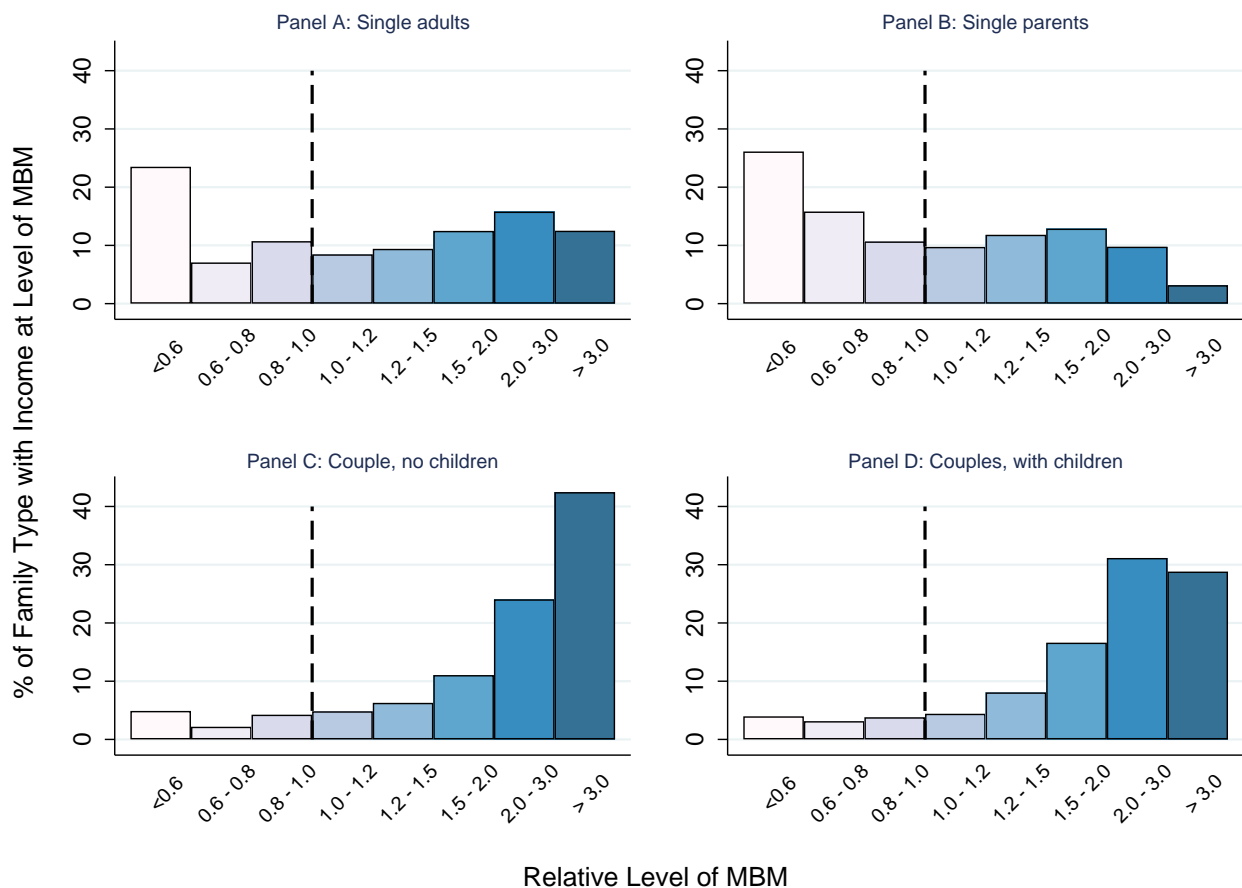


Figure 14 presents the distribution of income compared to the MBM by family type and age. For single parents and single adults, persons aged 18–25 are the most likely to have an income of less than 0.6 of the MBM. The poverty rates for single persons aged 18–25 should be treated cautiously. Since the MBM uses an economic family definition, those 18–25-year-olds are considered an independent economic unit even if they live in the same dwelling as their parents. In addition, it makes no adjustment if they are in education, employment, training, or none of these categories. That is, these figures include those 18–24-year-olds who are being

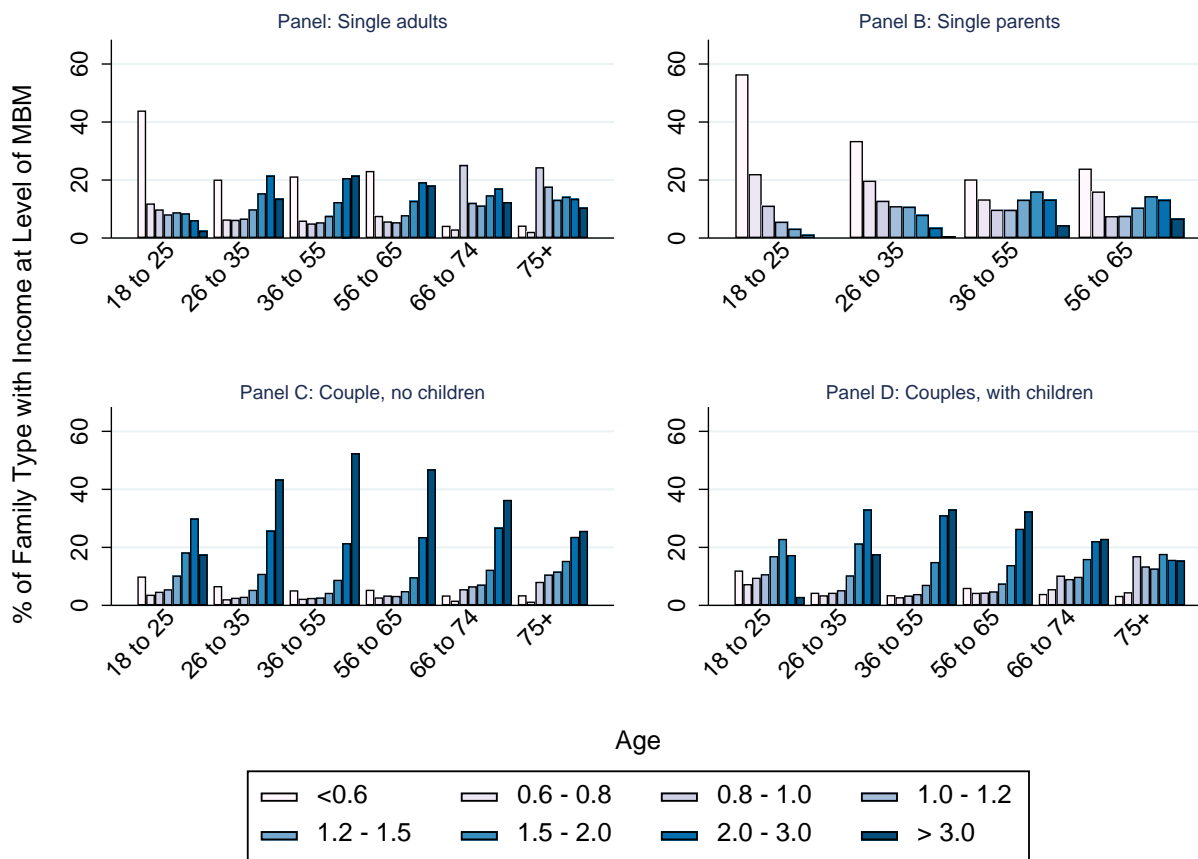
supported by their parents and may not be truly experiencing poverty, together with other singles of that age who are not supported by their parents and may be truly experiencing poverty.

The high poverty rates and depths persist for single adults aged 18–25 and single parents as they get older (i.e., 26–55). At age 65, poverty rates and depths diminish for single adults. At age 36, poverty rates and depths appear to diminish for single parents; however, it should be noted that there are very few single parents over the age of 65. Regardless, older single adults (ages 66–75 and 75+) still have incomes less than the MBM, albeit around 0.8 to 1 times the MBM, indicating that they are not as deep in poverty as those who are under 65 years of age. Age 65 is a turning point in the breadth and depth of poverty for single adults, likely due to their eligibility for more generous public benefits, such as OAS/GIS and CPP.

Also, we see from Figure 14 that the breadth and depth of poverty for couples improves as they age, and they are the best off over ages of 36–55 in terms of income levels relative to the MBM. Beginning around age 56, couples' income relative to the MBM begins to decline. This trend is opposite to that seen for single adults and single parents.

Figure 14

Income Relative to MBM by Family Type, B.C., 2016

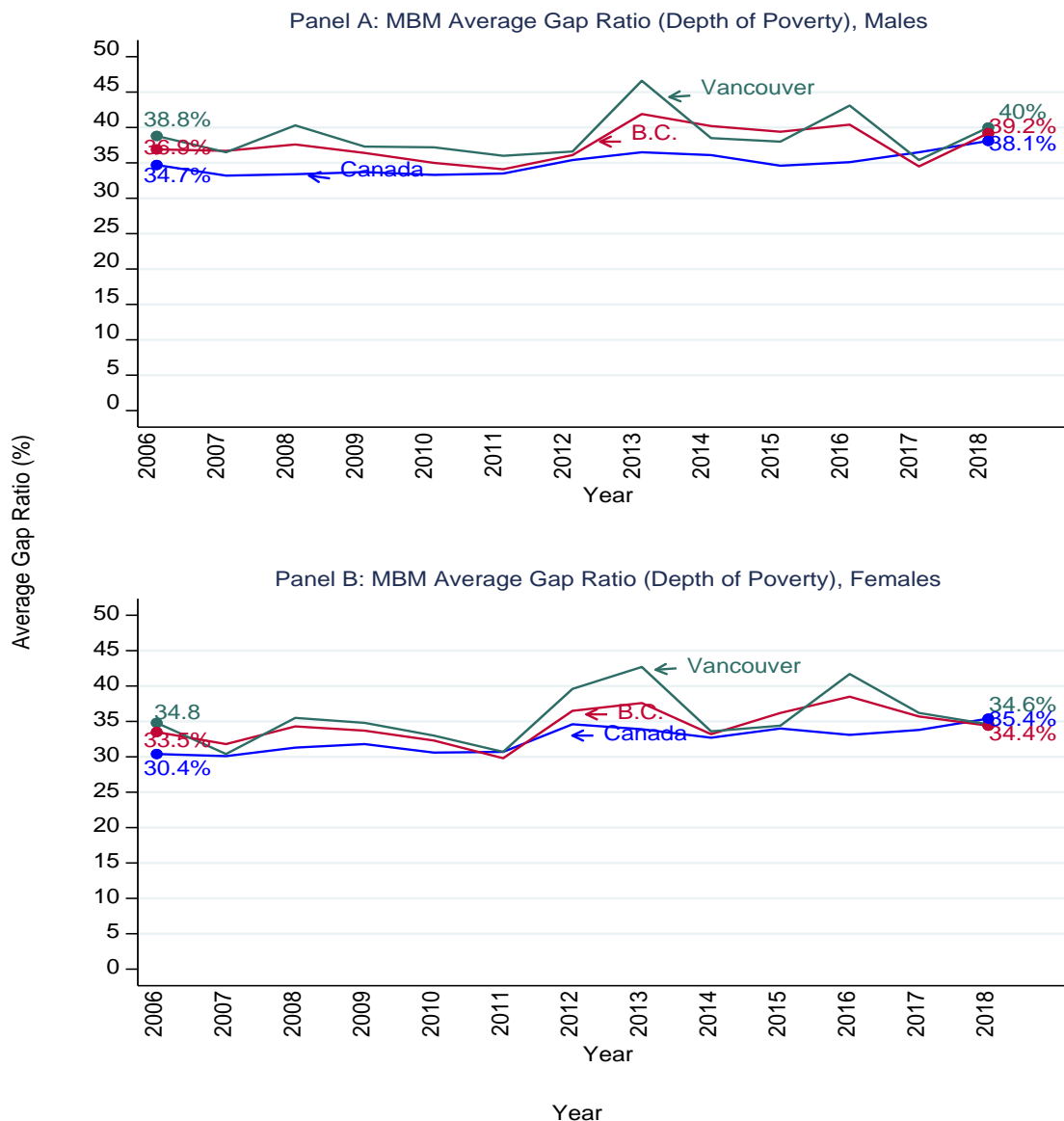


Depth of Poverty by Sex

Our final categorization to consider is that related to sex. Figure 15 shows the average gap ratio for males (Panel A) and females (Panel B) for Canada, B.C., and Vancouver. While females historically had a marginally higher poverty rate than males, females actually have had a lower average gap ratio than men, and this gap has not narrowed at all over the period. Unfortunately, the data that underlies the calculation of the average gap ratio by gender and family type is of poor quality over our entire time period, so it will not be analyzed here.

Figure 15

MBM Average Gap Ratio by Sex, Canada, B.C., and Vancouver



Source: Statistics Canada Table 11-10-0135-01

Income Inequality

We briefly present measures of income inequality here but note that companion papers will provide additional detail about wage inequality and consumption inequality respectively. We first present measures of the Gini coefficient. The Gini coefficient provides a simple statistical measure of the distribution of income. A Gini coefficient of 0 means everyone has the same income. As the Gini coefficient gets larger, this indicates greater inequality, meaning high-income earners are receiving a higher percentage of income. A Gini coefficient of 1 means one person has all the income and everyone else has no income. Figure 16 presents the Gini coefficient for Canada and B.C., using after-tax and transfer income. Overall, the Gini coefficient for Canada and B.C. both track each other, with B.C. being slightly more volatile. The Gini coefficients for Canada and B.C. in 1976 were both essentially 0.3, and by 2018 the figures were only slightly higher, at 0.300 for Canada and 0.303 for B.C. The Gini coefficients decreased in the 1980s but increased again in the mid-1990s and have stayed fairly flat since. Fortin, Green, Lemieux, Milligan, and Riddell (2012) contains a fairly detailed discussion of the path of the Gini coefficient in Canada. They note:

One possible conclusion from these patterns is that while taxes and transfers can work to reduce inequality, the political will to address persistent increases in earnings inequality through these policy tools alone may not exist. The real solution must have to do with addressing earnings inequality directly. (p. 124)

One such measure of earnings inequality would be the share of income going to various earners, a point we turn to next.

Figure 17 presents various income shares for the top 1%, 5%, and 10% and the bottom 50% of income earners in B.C. While income shares among the top declined during and after the financial collapse in 2008, the graphs shows that the top 1 and 5% particularly made noticeable gains in their income shares in 2017. On the other hand, while the bottom 50% made some modest gains in their income shares following the financial collapse, more recently there have been no gains and a drop in 2017, the latest year currently available. However, B.C. has recently planned or implemented policies that may help reverse these trends, including a plan to raise the minimum wage to above \$15, consideration of policies that support living wages, and raising the top income tax rate.

Figure 16

Adjusted After-Tax Income Gini Coefficient, Canada and B.C., 1976–2018

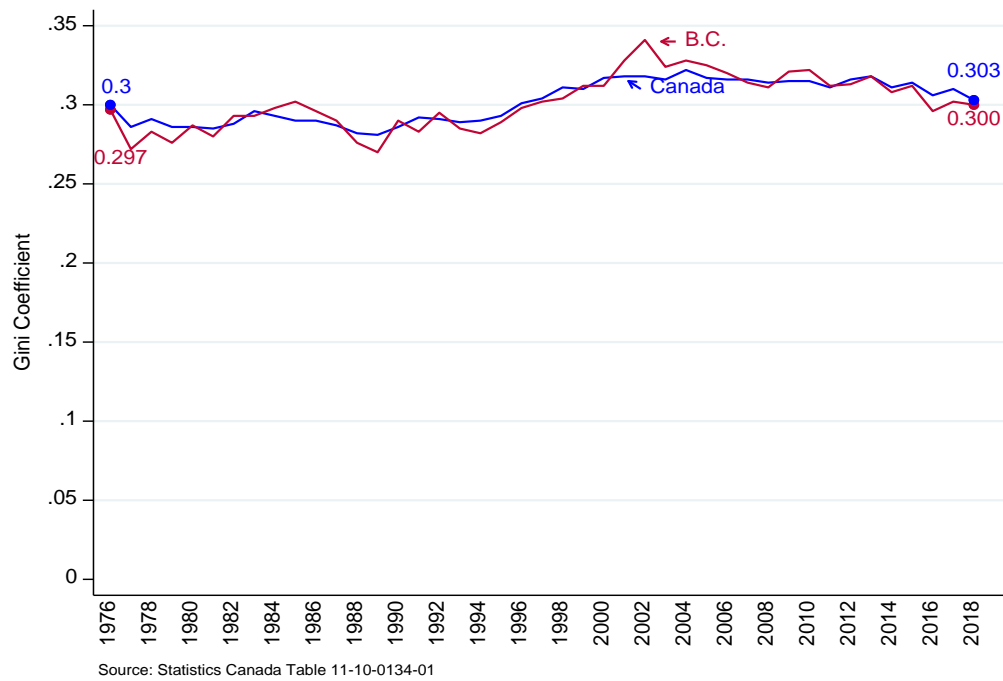
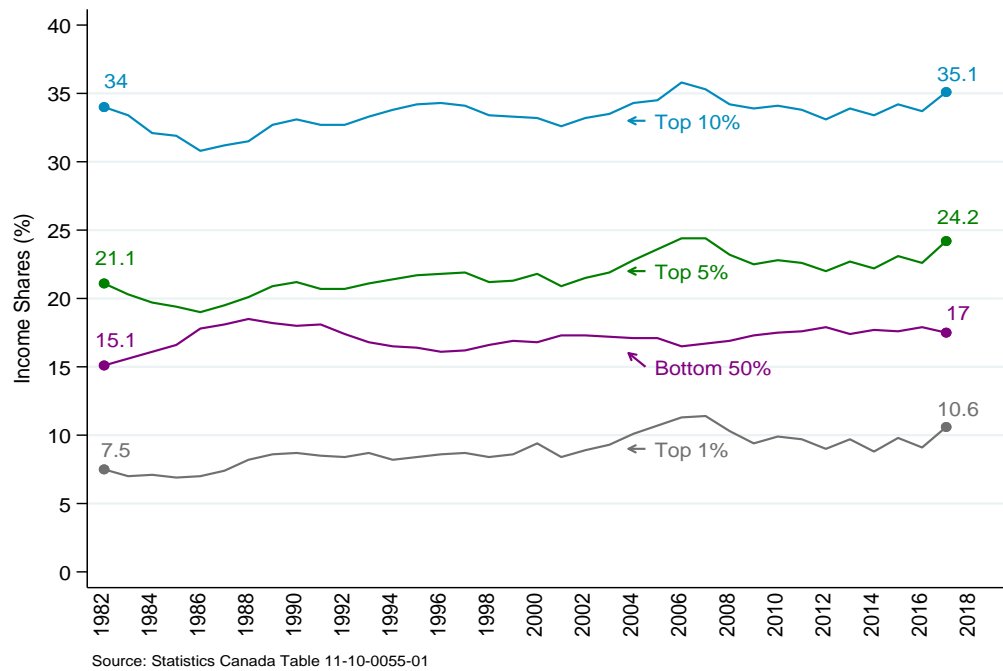


Figure 17

Income Shares for the Top 1%, 5%, and 10%, and the Bottom 50%, B.C., 1982–2018



Conclusion

This paper has presented and assessed extensive statistics regarding poverty rates and depths for Vancouver, B.C., and Canada. Table 1 provides a summary of the poverty statistics by age and various family types for B.C. Overall, the key takeaways from these statistics are that not only are single adults in B.C. the most likely to experience poverty, but they also experience the deepest level of poverty.¹⁷ Both single adults and single parents who are younger (i.e., ages 18–24) are more likely to be in poverty and are deeper in poverty than single older persons (i.e., 65+) or those who live as couples. These poverty rates and depths of poverty remain high for single adults and single parents as they get older (i.e., ages 26–65), at which point the depth of poverty decreases. Lastly, poverty tends to be experienced at higher levels by women than by men when conditioning on family type. For these reasons, B.C. government will have to consider these groups in reforms focused on addressing poverty reduction targets. In this vein, in examining poverty programs in B.C. in subsequent papers, we often focus on these specific target groups, as any improvement of these programs will have the largest impact on poverty. We will also focus more on people with disabilities, an important target group for income assistance, but for whom aggregate poverty statistics are not readily available.

In terms of inequality, overall it has remained relatively flat since the financial crisis in 2008, but trends in income shares to the top 1% and 5% of earners show a recent uptick, and income shares to the bottom 50% show a recent downtick, both of which should be monitored.

Although this paper sets out to examine poverty in B.C., it has shortcomings in providing a full picture:

1. The poverty statistics examined here do not provide a complete picture of the circumstances of those living in poverty. Income poverty is but one aspect of poverty.
2. The poverty statistics presented do not provide us with any information about the cycle of poverty. The cycle of poverty refers to a state where poverty, once started, is likely to continue throughout a person's life cycle. That is, a child born into poverty is much more likely to live in poverty as an adult, or once an adult becomes impoverished they are likely to live in poverty for the rest of their life. Addressing the cycle of poverty is essential to ensuring that once lifted out of poverty an individual or family remains out of poverty forever, the true objective of poverty reduction. Consideration of the various components that lead to the cycle of poverty will be the focus of companion papers.
3. We do not consider here the reasons for poverty, which will be explored in companion papers.

¹⁷ Understanding the rates and depths of poverty among people with disabilities is important; however, Statistics Canada's data does not provide statistics for this group. Statistics on poverty related to people with disabilities will be addressed in depth in a companion paper.

4. We also do not consider wage, consumption, or wealth inequality, particularly financial asset stores, financial literature, or access to financial services. These are topics that will be explored in companion papers.
5. Finally, the poverty statistics presented here do not consider the value of in-kind public support and services, such as subsidized housing or child care. To the extent that a family can access such support, the income they need to be above poverty is lower than these statistics show.

Table 1*Summary of Poverty Statistics, B.C.*

	MBM Poverty Rate (%)				Legislative Target	MBM Average Poverty Gap (%)			
	2006	2017	% Change	Trend	2024	2006	2017	% Change	Trend
Overall for B.C.	20.4	8.9	-56.4	↓	9.0	35.1	36.8	4.8	↑
Children (<18 years)	28.7	6.9	-76.0	↓	6.0	31.0	26.4	-14.8	↓
Working age adults (18-64)	20.1	10.5	-47.8	↓	-	38.7	40.9	5.7	→
Senior	9.6	5.1	-46.9	↓	-	16.7	21.8	30.5	↑
Single parents families	62.2	18.6	-70.1	↓	-	35.0	30.8	-12.0	↓
Two-parent families	18.5	5.2	-71.9	↓	-	25.7	22.1	-14.0	→
Single working-age adults	41.5	31.4	-24.3	↓	-	49.7	47.4	-4.6	↓
Working age adults in couples	11.5	6.1	-47.0	↓	-	31.2	30.9	-1.0	↓
Single seniors	24.1	12.1	-49.8	↓	-	15.2	16.8	10.5	↑
Males	19.7	9.1	-53.8	↓					
Females	21.1	8.6	-59.2	↓					
Single mother	65.2	19.5	-70.1	↓	-	-	-	-	-
Single father	41.6*	21.8	-47.6	↓	-	-	-	-	-
Working age single female	43.6	32.7	-25.0	↓	-	-	-	-	-
Working age single male	40*	30.3	-24.3	↓	-	-	-	-	-
Senior single female	26.3	10.5	-60.1	↓	-	-	-	-	-
Senior single male	19.4*	14.5	-25.3	↓	-	-	-	-	-

Note: * Denotes a statistic that should be used with extreme caution and is not reported in the main portion of the paper

Appendix: Count of Persons

		< 0.6 MBM	0.6–0.8 MBM	0.8–1.0 MBM	1.0–1.2 MBM	1.2–1.5 MBM	1.5–2.0 MBM	2.0–3.0 MBM	> 3 MBM	Total
Childless couple	18–25	2,301	853	1,091	1,283	2,374	4,216	6,908	4,041	23,067
	26–35	8,849	2,839	3,518	3,974	7,135	14,446	34,148	57,484	132,393
	36–55	18,213	8,066	9,037	9,514	15,150	30,861	74,871	183,108	348,820
	56–65	22,639	11,585	14,301	13,777	20,749	40,797	98,897	196,803	419,548
	66–74	10,126	4,824	16,477	19,371	21,006	36,187	78,764	106,904	293,659
	75 +	6,598	2,417	15,217	19,921	21,869	28,760	44,283	48,154	187,219
	All ages	68,726	30,584	59,641	67,840	88,283	155,267	337,871	596,494	1,404,706
Childless single	18–25	175,039	47,504	39,283	32,525	35,347	33,887	24,587	9,817	397,989
	26–35	62,446	19,861	19,418	20,763	30,642	47,751	66,632	41,947	309,460
	36–55	69,999	19,798	16,618	17,912	25,066	40,857	68,119	70,828	329,197
	56–65	46,888	15,491	11,632	11,086	16,006	25,926	39,009	36,614	202,652
	66–74	5,938	4,181	35,261	16,962	15,684	20,617	23,925	17,368	139,936
	75 +	8,138	4,018	46,020	33,403	24,804	26,810	25,376	19,670	188,239
	All ages	368,448	110,853	168,232	132,651	147,549	195,848	247,648	196,244	1,567,473
Parent couple	18–25	1,255	768	996	1,123	1,773	2,390	1,812	307	10,424
	26–35	7,257	5,812	7,257	8,734	17,150	35,396	54,843	29,268	165,717
	36–55	17,098	13,739	16,443	18,956	34,325	72,278	149,916	159,501	482,256
	56–65	1,462	1,050	1,066	1,165	1,819	3,354	6,369	7,811	24,096
	66–74	89	126	230	204	221	359	496	514	2,239
	75 +	13	18	67	53	50	70	62	61	394
	All ages	27,174	21,513	26,059	30,235	55,338	113,847	213,498	197,462	685,126
Parent single	18–25	3,872	1,513	765	385	221	81 nr	nr		6,856
	26–35	9,573	5,658	3,672	3,148	3,082	2,287	1,006	172	28,598
	36–55	13,722	9,042	6,625	6,595	8,955	10,901	8,985	2,988	67,813
	56–65	776	520	245	247	340	468	426	217	3,239
	66–74	nr	166	100	45	52 nr		36 nr		486
	75 +	nr	37	29	13	18 nr	nr	nr		114
	All ages	27,978	16,936	11,436	10,433	12,668	13,794	10,470	3,391	107,106

Source: 2016 T1 tax filer data

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