

## **A Note on Single Adult Poverty in British Columbia**

David A. Green

Vancouver School of Economics, University of British Columbia

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### **Author Note**

The author can be contacted at [david.green@ubc.ca](mailto:david.green@ubc.ca).

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## **Abstract**

Petit and Tedds (2020) show that single adults without children have notably higher and persistent poverty rates in B.C. than any other demographic group studied. This short note picks up on this finding and investigates the single adult without children group further to try to understand who they are and their sources of income. Using Census data, I find that there are three main groups of single adults living below the poverty line. First are those with earnings over \$16,000 who are mainly young females that have completed high school, who tend to work much of the year and who live in the Lower Mainland and Victoria. Second are those who with mostly transfer income who are mostly older males who have not completed high school, who tend no to work and who do not live in the Lower Mainland or Victoria. Third are those who work up to half the year, but otherwise are very heterogenous except they tend to have more social insurance (employment insurance and pension) income and who may be aided by social insurance reform.

## Introduction

Petit and Tedds (2020) show that single adults without children have notably higher and persistent poverty rates in B.C. than any other demographic group studied. This short note picks up on this finding and investigates the single adult without children group further to try to understand who they are and their sources of income. This I see as a necessary basis for thinking about policy responses to the clear poverty problems. That this is a group deserving of focus can be seen in the trends shown in Petit and Tedds (2020). They show that B.C. poverty rates for single adults without children (defined using the Market Basket Measure [MBM] poverty line) have been notably high and persistent. Between 2006 and 2018, the poverty rate for this group declined from 41.5% to 31.4%. The decline is notable—and welcome—but it is smaller than that experienced by other groups. As a point of comparison, the family composition group with the second highest poverty rate in 2018, as reported in Petit and Tedds (2020) was lone parents whose poverty rate declined from 62.2% in 2006 to 18.6% in 2018.

I use data from the 2016 Census public use long file microdata sample. For most of the analysis, I restrict attention to individuals between the ages of 18 and 64 who are currently single (i.e., not currently married or living common-law), have no children present, and did not attend any type of school between September 2015 and May 2016. I present comparisons of people in this group whose incomes are below and above the MBM poverty line. Note that the income used in the Census definition of being below the MBM line is that of the economic family. Thus, between this definition and not including students, people defined as poor should not include young students living at home, students not living at home, and young, non-students living with their parents.

At the outset, it is worth noting that the poverty rates obtained from the Census are similar to, though somewhat lower than, those at the end of the Petit and Tedds (2020), sample period. In particular, the overall poverty rate for B.C. according to the Census was 13.1% in 2015, which is slightly lower than the 14.9% rate reported in Figure 2 in Petit and Tedds (2020). The poverty rate for 2015 for single adults age 18 to 64 with no children was 34.9% according to the Census and 44% in Figure 6 in Petit and Tedds (2020), (though 2015 is an anomalous year in their data, with the poverty rate for this group being about 37% in 2016).

## Income Sources

Table 1 contains characteristics of the distribution of income by source for those in families below the MBM (top panel) and above the MBM (lower panel). The mean total individual income for single adults below the poverty line is less than one-fifth of that for single adults above the poverty line. The income distribution for those below the poverty line is relatively symmetric, with approximately 10% being quite close to the poverty line and 10% having total income from all sources of less than \$400 per year.

A key difference between those below and above the poverty line is the role of market versus transfer income in their total income for the year. For those below the poverty line,

market income makes up about 60% of their total income, with the rest being from transfer income. For those above the poverty line, market income makes up 96% of their total income. This, of course, reflects a strong targeting of transfers to the poor. But for those below the poverty line, the mean provides a very incomplete picture of their earnings. For this group, only 43% have any wage and salary income. The distribution of wage and salary earnings conditional on having any wage and salary earnings for those below the poverty line is given in Table 2. With the poverty line for this group in the range of \$20,000 to \$23,000 (depending on location), the distribution in Table 2 reveals that about half of this group have earnings less than half of the relevant poverty line. The top 25% of the group have annual earnings over \$16,000, which puts them in a range where an earnings subsidy of, say, 30% could put them at or above the poverty line. This is a point that will return when we look at weeks of work: there is a subset consisting of about 15% to 25% of single adults below the poverty line whose income problems might be addressed through an earnings subsidy.

### **Conclusion 1**

Of single adults below the poverty line, 15% to 25% have earned income that would suggest that an earnings subsidy on the order of 30% would put them near the poverty line. For the rest, (the 57% with no wage and salary earnings in the year and the half to two-thirds of the remainder who have quite low earnings) some other policy would be needed.

It is worth pointing out at the point, also, that Employment Insurance (EI) income makes up only 3% of total income for single adults below the poverty line and only 5% of the group have any EI income. This leads to the following conclusion.

### **Conclusion 2**

Even relatively radical reforms of the EI system will not have a substantial impact on poverty rates for this group.

Table 1 also shows that self-employment is more common for those below the poverty line, with 13% having at least some self-employment income. The distribution of self-employment earnings conditional on having any such earnings is given in the second column of Table 2 and is remarkably similar to the wage earnings distribution. That is, about the top 10 to 20% of these earners are close to the poverty line but the remainder have much lower earnings. The broad “other government income” category (which contains IA but also other income sources such as workers’ compensation) makes up 29% of total income for single adults below the poverty line. But this understates how much these systems affect this group. Nearly all (98.8%) of this group has at least some income in this category. For 37% of single adults below the poverty line, their only income source is government transfers and for this group with only transfer income, 91% of their income comes from the “other government income” sources.

**Table 1***Income Distributions for Single Adults Without Children Present*

<b>Below MBM</b>							
	<b>Mean income (\$)</b>	<b>Proportion of total income (%)</b>	<b>Mean income by income percentile (\$)</b>				
			<b>10th</b>	<b>25th</b>	<b>50th</b>	<b>75th</b>	<b>90th</b>
<b>Total income</b>	11,371	1.00	400	6,800	11,400	15,500	19,700
<b>Market income</b>	6,847	0.60	0	0	3,000	13,000	18,000
Employment income	6,010	0.53	0	0	1,000	12,000	18,000
Wages	4,883	0.43	0	0	0	8,000	16,000
Self-employment	1,127	0.10	0	0	0	0	4,000
<b>Transfer income</b>	4,524	0.40	200	400	1,400	10,800	11,500
EI	325	0.03	0	0	0	0	0
IA +	3,266	0.29	200	400	600	6,500	11,400
CPP	840	0.07	0	0	0	0	2,500
CPP under age 60	444	0.04	0	0	0	0	0
<b>Above MBM</b>							
	<b>Mean income (\$)</b>	<b>Proportion of total income (%)</b>	<b>Mean income by income percentile (\$)</b>				
			<b>10th</b>	<b>25th</b>	<b>50th</b>	<b>75th</b>	<b>90th</b>
<b>Total income</b>	59,515	1.00	24,701	33,600	49,000	71,400	97,300
<b>Market income</b>	57,281	0.96	21,000	31,000	47,000	70,000	97,000
Employment income	55,112	0.93	19,000	30,000	44,000	69,000	94,000
Wages	49,262	0.83	1	25,000	43,000	65,000	91,000
Self-employment	2,885	0.05	0	0	0	0	0
<b>Transfer income</b>	2,233	0.04	0	0	300	800	8,300
EI	690	0.01	0	0	0	0	800
IA +	719	0.01	0	0	100	400	600
CPP	2,522	0.04	0	0	0	0	0
CPP under age 60	253	0.00	0	0	0	0	0

**Conclusion 3**

IA (and/or some of the other systems in the other government income category) touches the lives of nearly all single adults below the poverty line. For between a third and two-fifths of single adults living in poverty, IA and related income is their only source of income. Thus, for this group, answers to poverty lie in the IA system.

**Table 2**

*Distribution of Wage and Salary Earnings for Single Adults Below Poverty Line with Positive Line*

<b>Percentile (%)</b>	<b>Wage earnings (\$)</b>	<b>Self-employment earnings (\$)</b>
5	1,000	1,000
10	2,000	2,000
25	5,000	5,000
50	11,000	10,000
75	16,000	14,000
90	20,000	18,000
95	22,000	21,000

The other question was whether disability-related incomes are important for single adults living in poverty. To try to get at that, the last lines in the panels in Table 1 show CPP income for adults under age 60 (i.e., below the age where they could be taking early retirement benefits from the system so that their CPP income is likely related to disability). Only about 5% of these adults have any CPP income so, once again, it is not this system that is going to make big inroads into the poverty rate (at least, not on its own).

**Weeks Worked**

Table 3 shows the distribution of weeks worked in 2015 for single adults above and below the poverty line. These numbers match what we saw in the earnings distribution: 37% of single adults living in poverty did not work in either 2015 or the first half of 2016 (the first line in the table). Another 5% did not work in 2015 but did work in 2016. This corresponds to the nearly 40% of single adults living in poverty whose only source of income was government transfers. At the other end, close to a third of these individuals worked at least 40 weeks in 2015, though about a third of this third only worked part time. Again, this fits with the conclusion that an earnings subsidy would likely only raise about 20% of single adults living in poverty out of poverty. Thus, those who do not work at all plus those with relatively high earnings rates make up about 60% of single adults living in poverty. The remaining 40% have income that is a mix of government transfers and earnings. It is worth noting that for both those who worked 1 to 13 weeks full time, and 14 to 26 weeks full time, in 2015 about 15% were in receipt of EI benefits in 2015. Thus, for this middle group there may be some scope for having an effect through EI reform.

**Conclusion 4**

We can roughly divide single adults living in poverty into a bottom 40% who do not work at all and rely on IA and other transfers; a middle 40% who have a mix of earnings sources; and a top 20% whose earnings from work put them close to the poverty line. For the first group, IA

reform is likely the key approach to addressing policy; for the middle group EI reform could be important; and for the top group, earnings subsidies could move them close to the poverty line.

**Table 3**

*Weeks Worked for Single Adults (Percentages)*

	<b>Below MBM</b>	<b>Above MBM</b>
<b>Weeks</b>		
None	36.8	9.3
Worked in 2016 but not 2015	5.1	1.3
<b>Weeks in 2015</b>		
1 to 9	5.2	1.6
10 to 19	5.4	2.1
20 to 29	7.7	4.8
30 to 39	7	6
40 to 48	12.4	18.8
49 to 52	20.4	56.2

### **Composition**

In this section, I look at the demographic, geographic, weeks worked, and skills compositions of five groups: 1) single adults above the poverty line; 2) single adults below the poverty line; 3) single adults below the poverty line with earnings over \$16,000; 4) Single adults below the poverty line with only transfer income; and 5) single adults below the poverty line with some non-transfer income, earnings under \$16,000 and 1 to 26 weeks worked in 2015. The latter three correspond to the main types of single adults in poverty that I discussed in the previous section.

### **Age Distribution**

From the first two columns of Table 4, single adults below the poverty line are much more likely to be age 20 to 24 than those above the poverty line. This points to concerns about youth in transition to adulthood. Both groups also show a concentration in the age 50- to 64-year-old-range, with a bit more concentration for those below the poverty line. Thus, this is an important group from a pure size point of view, but the lack of a lot of extra mass for those below the poverty line suggests that poverty status is not really a result of aging.

For the high earners among those below the poverty line, there is a very strong concentration at young ages, with 60% age 34 or younger and only 15% over age 50. Those with only transfer income are nearly the mirror image with 19% under age 34 and 56% over age 50. Those with part-year patterns are similar to the overall Below MBM group, though with some extra weight on the age 20-to-24 category.

**Table 4***Age Distribution*

	Above MBM	Below MBM			
		All	Earn over 16K	Transfer income only	Work part year
18 to 19 years	0.23	1.61	0.50	0.35	2.52
20 to 24 years	6.43	11.75	25.19	5.95	14.57
25 to 29 years	14.67	11.55	23.17	6.44	14.75
30 to 34 years	12.91	8.51	12.34	7.13	11.51
35 to 39 years	8.93	6.65	6.05	6.30	5.22
40 to 44 years	7.94	6.60	7.56	6.85	5.94
45 to 49 years	9.75	9.16	9.32	11.07	8.45
50 to 54 years	11.48	13.76	6.30	17.79	13.13
55 to 59 years	13.88	14.73	6.05	18.96	11.51
60 to 64 years	13.79	15.69	3.53	19.17	12.41
Total	100.00	100.00	100.00	100.00	100.00

**Gender Distribution**

Table 5 contains the distributions by gender and education category. There is very little difference in terms of gender between the single adults above and below the poverty line, but there are strong differences across the groups below the poverty line. In particular, the higher earnings group is disproportionately female relative to single adults as a whole while the transfer income only group is disproportionately male.

**Education Distribution**

Single adults below the poverty line are much more likely to not have a high school diploma compared to those above the poverty line (19% versus 8.7%). In contrast, those that have post-secondary education, in general, and a bachelor of arts degree, in particular are much more likely to be above the poverty line. The higher earners group has a higher concentration of people with a high school diploma as the highest education qualification but fewer people who have not completed high school than the others below the poverty line and has a bachelor of arts degree proportion similar to those above the poverty line. Those with only transfer income



**Table 5***Gender and Education*

	Above MBM	Below MBM			
		All	Earn over 16K	Transfer income only	Work part year
Female	45.8	44.9	50.4	41.4	45.9
<b>Education</b>					
No certificate, diploma, or degree	8.7	19.0	10.6	29.0	12.8
Secondary (high) school diploma or equivalency certificate	29.0	34.5	38.0	33.2	34.4
Trades certificate or diploma other than certificate of apprenticeship or certificate of qualification	4.0	4.4	2.8	5.5	3.2
Certificate of apprenticeship or certificate of qualification	6.0	3.8	2.0	3.8	4.3
Program of 3 months to less than 1 year (college, cégep and other non-university certificates or diplomas)	5.9	6.2	8.1	6.7	6.8
Program of 1 to 2 years (college, cégep and other non-university certificates or diplomas)	10.9	7.9	4.5	7.8	7.7
Program of more than 2 years (college, cégep and other non-university certificates or diplomas)	4.5	3.5	3.8	3.3	3.4
University certificate or diploma below bachelor level	3.4	3.1	4.8	1.9	3.1
Bachelor's degree	19.1	12.4	18.6	6.2	18.0
University certificate or diploma above bachelor level	1.5	1.0	0.8	0.6	1.1
Degree in medicine, dentistry, veterinary medicine, or optometry	0.4	0.1	0.0	0.0	0.4
Master's degree	5.2	2.9	4.3	1.3	3.8
Earned doctorate	0.6	0.4	0.3	0.3	0.4

are much more likely to have not completed high school. Almost two-thirds have at most a high school education. Recall, though, that this group also tends to be older and so helping them get more education is unlikely to be a viable approach at this point. It does, though, point to the advantages of getting more education earlier in life. The work-part-year group is much like those above the poverty line.

### **Other Characteristics**

Geographic location turns out to be a key difference among the groups below the poverty line. Two-thirds of the high earners group live in Greater Vancouver with another 12% in

Victoria and 14% living in smaller towns in the Interior, the North and the Island. In contrast, for those with only transfer income, 47% live in Greater Vancouver, 9% in Victoria, and 37% in the Interior, the North and on the Island.

For marital status, 13% of the high earners were divorced compared to 22% for the transfer-only income group; 77% of the high earners were never married while 64% of the transfer only income group fell in that category.

Interestingly, even among the high earners, 97% had at least some IA income in the year. For the transfer only group that was 100%, and 98% for the part-year working group. Among the latter group, 11% had EI income compared to 3% for the transfer income only group and 5% for the high earner group. Thus, reforms to EI would be most likely to help the part year working group.

Among the transfer income only group, 16% had CPP income which, given the ages we are examining, must mostly correspond to disability payments. In comparison, only 1.3% of the high earners and 9.7% for the part-year workers. This suggests that the transfer income only group has a sizable portion who are disabled since the CPP disability program makes up only part of the disabled population.

Those who work part of the year stand out in having mean self-employed income of \$1,400 compared to 0 for the people earning over \$16,000. Thus, an expansion of EI to include the self-employed would be particularly helpful for this group. Alternatively, an increase in the generosity of IA may bring more of them into greater contact with the IA system since they do not have employment insurance related to their self-employment earnings at the moment.

### **Overall Picture**

Taken together, these data patterns point to a characterization of the three main groups of single adults living below the poverty line as follows:

1. “High” earners (earnings over \$16,000): young people mainly in the Lower Mainland and Victoria. They are disproportionately female and are more likely to have completed high school than others below the poverty line. They tend to work much of the year, with 75% working 40 weeks or more and the vast majority of those working full-time hours per week. It is worth noting that they are predominantly in sales and service occupations, with 44% being in those occupations. Thus, these are low-wage, young women in sales and service occupations—the group with the most negative employment effects from the COVID pandemic.
2. Transfer income only: older males who disproportionately live not in the Lower Mainland or Victoria. They have lower education (with a particularly large proportion having not completed high school). Approximately three-quarters of them do not work in the year but another quarter reported they did work, with 8.8% of them reporting working 48 to 52 weeks in the year. It is not clear whether this corresponds to working under the table while in receipt of benefits. This group also has a high proportion with CPP income,

suggesting that a considerable proportion are living with a disability and would be addressed by policy reforms related to that part of the system.

3. Worked up to half the year. This group is middling in terms of education, age distribution, and gender, though they have some concentration in the 20-to-24-year-old age group. They have more EI income than the other groups and also have somewhat high CPP benefits. Thus, they are likely a heterogeneous group some of whom would be aided by EI policy reform.

## References

- Petit, G. & Tedds, L. M. (2020). *Income thresholds, trends, rates, and depths of poverty*.  
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