



BRITISH COLUMBIA BUSINESS INDICATORS

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Have Income Redistribution Programs Been Working? Yes and No...

In Canada, there are several income redistribution programs that are designed to reduce income inequality by shifting income from the rich to the poor. The question is: have these modern day equivalents to Robin Hood been working? And the answer is yes...and no. While the incomes of the very poor have been increased through government transfers, data up to 1995 indicates that there still remains a substantial inequality in Canada's income distribution, and British Columbia proves to be no exception. This raises the question of whether or not these programs have gone far enough in addressing poverty in Canada.

According to the latest (1995) Statistics Canada release of Low Income Cut-Offs, or LICOS, there has been little movement in the last few years of the percentage of people with income below the cut-off line. LICOS are family size and locality dependent measures of income levels. LICOS are set at 20 per cent above the average amount of income that Canadian families or individuals spend on food, shelter and clothing.¹ Families or individuals who are in an income category below the LICO are considered to live in "straitened circumstances." LICOS are modified annually using the latest Survey of Consumer Finances and the most recent Survey of Family Expenditure (FAMEX) and adjusting for

Table 1: 1995 LICOS (1992 base)

| Family Size | Population of Community of Residence | | | | |
|-------------|--------------------------------------|-----------------|---------------|------------------|----------|
| | 500,000+ | 100,000-499,999 | 30,000-99,999 | Less than 30,000 | Rural |
| 1 | \$16,874 | \$14,473 | \$14,372 | \$13,373 | \$11,661 |
| 2 | \$21,092 | \$18,091 | \$17,965 | \$16,716 | \$14,576 |
| 3 | \$26,232 | \$22,500 | \$22,343 | \$20,790 | \$18,129 |
| 4 | \$31,753 | \$27,235 | \$27,046 | \$25,167 | \$21,944 |
| 5 | \$35,494 | \$30,445 | \$30,233 | \$28,132 | \$24,530 |
| 6 | \$39,236 | \$33,654 | \$33,420 | \$31,096 | \$27,116 |
| 7+ | \$42,978 | \$36,864 | \$36,607 | \$34,061 | \$29,702 |

Source: Statistics Canada, Catalogue 13-207-XPB.

1 Based on the latest Survey of Family Expenditure.

Table 2: Persons with Low Income in British Columbia, 1980 to 1995

| Year | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
|---------------|------|------|------|------|------|------|------|------|
| Number ('000) | 360 | 408 | 475 | 516 | 577 | 586 | 538 | 530 |
| Incidence (%) | 13.2 | 14.6 | 16.8 | 18 | 19.9 | 20 | 18.2 | 17.6 |

| Year | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|---------------|------|------|------|------|------|------|------|------|
| Number ('000) | 464 | 458 | 479 | 494 | 566 | 627 | 648 | 653 |
| Incidence (%) | 15 | 14.5 | 14.8 | 14.8 | 16.5 | 17.6 | 17.7 | 17.4 |

Source: Statistics Canada, Catalogue 13-569-XPB.

inflation using the Consumer Price Index (CPI). Table 1 gives the 1995 LICOs for Canada based on the 1992 FAMEX survey. Although Statistics Canada advises that LICOs are not meant to define a poverty line, they are often used for exactly that purpose due to the lack of other readily available measures.

Using these LICOs, 17.4 per cent of British Columbians were considered to be of low income status in 1995. This is down slightly from the previous year, but as can be seen from Table 2, the situation is far worse than it was just five years earlier. In absolute terms, there were more persons below the LICO in British Columbia than ever before, at approximately 653,000 people.

LICOs have been criticized on many grounds as not providing a useful measure of poverty. Due to the relative nature of the measure, there is the argument that poverty will never be eradicated as long as LICOs are used as a benchmark, since the poverty line will always be moving. For instance, it is possible for everyone in society to be better off, yet have no reduction in poverty, since relatively speaking, the people at the lower end of the spectrum will still be paying a larger portion of their income on the basics of food, clothing and shelter.

Another major criticism is that in calculating different LICOs for urban and rural areas, many basic expenditures are ignored. While the cost of housing is usually much less in rural areas than in urban areas, the cost of items such as transportation are far higher since they do not receive the same subsidies as are received in urban areas. Also, access to services such as health care and education is usually poorer in rural areas, and many retail items are more expensive in rural areas due to less competition. This means that, with the exception of housing, people in rural areas often have to pay more to get the same standard of living as those residing in urban areas. While it may still be less expensive overall to live in rural areas when housing is taken into account, it is unlikely that the differences are as large as those reflected in the LICOs.

One further criticism of LICOs is that they are based on before-tax income, and therefore do not take into account the effects of taxes and transfers. This may in fact overstate the proportion of those with low income, since not all government redistribution transfers are taken into account.²

While there are problems with LICOs, there are also difficulties with other measures of poverty. Many argue that poverty lines should be based on the cost of a basic basket of goods, but then the question arises of what to include in that

² Actually, Statistics Canada has begun to produce after-tax LICOs, but the before-tax numbers are still the ones that are usually quoted.

basket. Is entertainment considered a basic need? Should anyone who can properly feed, clothe and house themselves not be considered poor, even if they have no income remaining for anything else, such as entertainment, basic transportation, telecommunication, and so on? If one asks different people these questions, one will likely get different responses.

It becomes clear as one tries to define poverty that any definition will be subjective and subject to disagreement. With this in mind, Statistics Canada's LICOs may be as good a measure as any—despite Statistics Canada's objections that they are not intended to be used as poverty lines. (This begs the question that if those people living in "straitened circumstances" are not to be considered poor, then what is the purpose of determining Low Income Cut-Offs in the first place?).³

Figure 1 displays the gender breakdown of the data presented in Table 2. Clearly, there is a gender difference in incidence of low income, with females experiencing it in greater percentages than males. This may be due, in part, to the continuing, systemic problem where male-dominated professions tend to be paid higher wages than those dominated by females. More likely, however, it is the greater

preponderance of lone parents who are female. According to Statistics Canada, 56.8 per cent of female lone-parent families had low income (compared to 12.8 per cent of two-parent families).

Figure 2 shows that there are also differences in the incidence of low income between different age groups.

In 1980, in British Columbia, almost one third of people over the age of 65 were below the LICO. This situation has since improved dramatically with the incidence of low income among the elderly approaching that of the working age population; however, the incidence of low income among children is significantly higher than that of the remainder of the population. Once again, this is likely due to an increase in lone-parent families and the greater likelihood of these families having low income. According to Statistics Canada, children in female lone-parent families were four times more likely to be below the LICO than those in two-parent families.

However, the statistics with regard to the elderly can be deceiving. Hidden in the total figure is a substantial gender gap, with elderly females

Figure 1

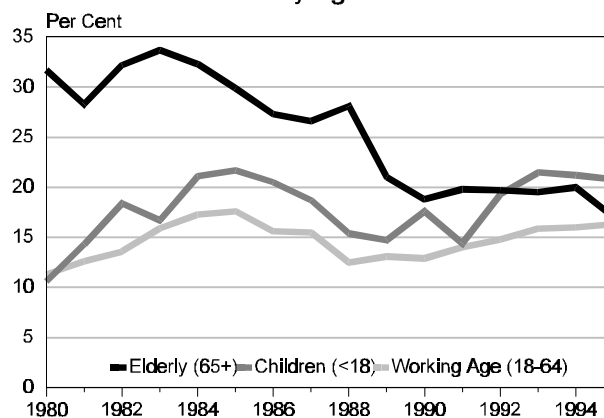
Incidence of Low Income in British Columbia, 1980 to 1995
By Gender



Source: Statistics Canada, Catalogue 13-569-XPB

Figure 2

Incidence of Low Income in British Columbia, 1980 to 1995
By Age



Source: Statistics Canada, Catalogue 13-569-XPB

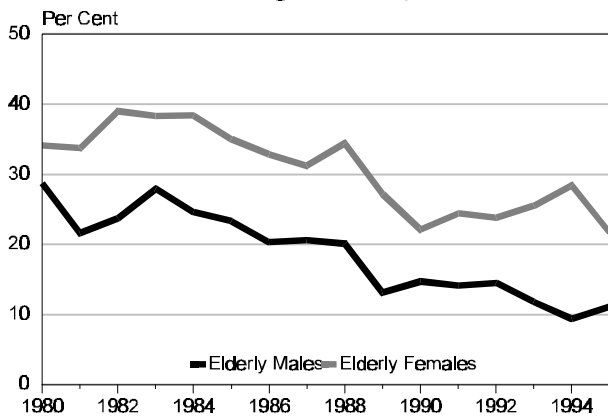
3 The Oxford Dictionary defines "straitened circumstances" as "characterized by poverty."

experiencing low income at a rate approximately 10 per cent higher than elderly males. This is likely due to a lack of pension income, combined with longer life spans, such that even in cases where they were receiving some kind of pension benefits or life insurance from deceased spouses, these benefits are beginning to run out. This gap will likely decline in the future since a greater percentage of women are working, which means more women will have pension eligibility when they retire.

A comparison of British Columbia with the rest of Canada reveals that the incidence of low income is slightly less than the Canadian average.

Figure 3

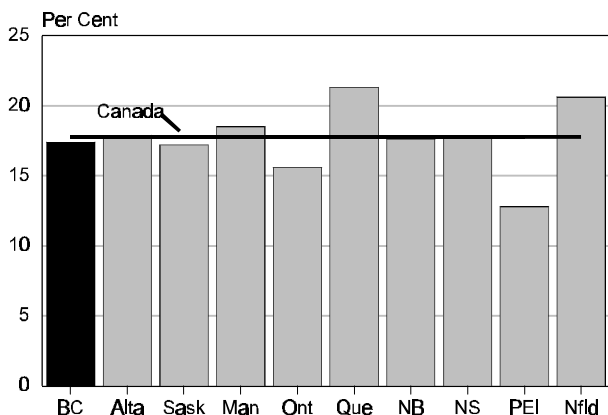
Incidence of Low Income in British Columbia, 1980 to 1995 Among the Elderly



Source: Statistics Canada, Catalogue 13-569-XPB

Figure 4

Incidence of Low Income in Canada by Province, 1995



Source: Statistics Canada, Catalogue 13-569-XPB

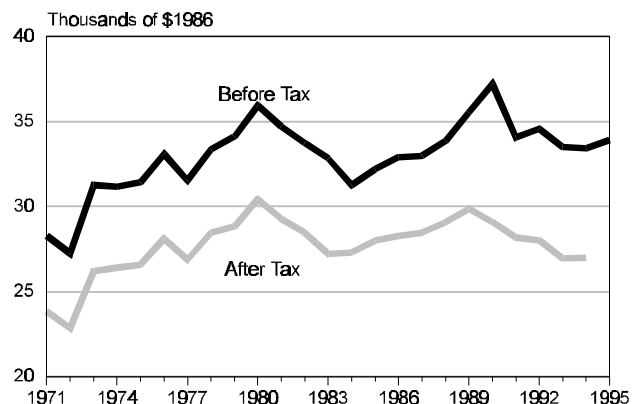
Prince Edward Island has the lowest incidence of low income, followed by Ontario. At the other end of the scale, Quebec has the highest incidence of low income, followed by Newfoundland. Figure 4 compares incidence of low income by province for 1995.

While British Columbia may be slightly better off than the Canadian average, the number of people with low income in British Columbia has been increasing at a faster rate. In 1980, only 13.2 per cent of British Columbians were below the LICO, compared to 16.0 per cent for Canada as a whole. During the mid-eighties, the incidence of low income was actually higher in British Columbia, reaching a peak in 1985. Around this time British Columbia was still in recovery from the 1982 recession that affected the entire country, but which had a particularly hard impact on British Columbia, and from which recovery was slow to occur.

In British Columbia, the overall average real income (before tax, in 1986 constant dollars) of families and unattached individuals rose slightly between 1994 and 1995, to \$33,917 from \$33,413. As can be seen from Figure 5, the growth in average real income has been fairly stagnant in recent years after some volatility through the eighties (peaking, then falling, then peaking again), and steady growth in the seventies. It is well below the 1990 peak level, and is also lower than the level of the early eighties. After

Figure 5

British Columbia Average Income of Families and Unattached Individuals



Source: Statistics Canada, Catalogues 13-207-XPB, 13-210-XPB

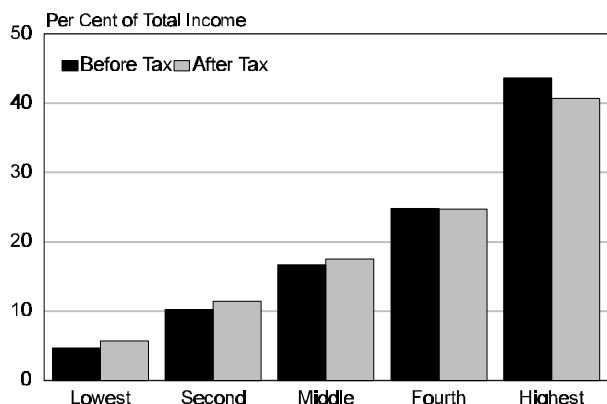
tax income for 1995 is not yet available, but Figure 5 shows that it basically follows the same pattern as before tax income, except at a lower level and with less amplitude in its movements.

Between 1981 and 1994, average real after tax income in British Columbia fell by approximately eight per cent. The brunt of this decline was experienced by the middle income earners. Looking at income quintiles (i.e., income classes, each containing one-fifth of income earners), the highest 20 per cent of income earners experienced only about a three per cent decline in income between 1981 and 1994. The next highest quintile experienced a 6 per cent decline. By contrast, both the second and middle quintiles experienced an eight per cent decline. However, on the positive side, the lowest quintile actually experienced just under a three per cent increase in real after tax income. When percentage shares of after tax income by quintile are examined, the income squeeze of the middle class can be seen more clearly. From 1980 to 1994, the top 40 per cent of income earners experienced virtually no change in their share of after tax income; however, the middle income quintile's share declined, while the lowest income quintile experienced a corresponding increase in its share.

Figure 6 shows the disparity between the rich and the poor in Canada. Before taxes, the bottom 40 per cent of income earners accounted for

Figure 6

Families and Unattached Individuals by Income Quintile
Canada, 1994



Source: Statistics Canada, Catalogues 13-207-XPB, 13-210-XPB

less than 15 per cent of total income earned in Canada. Conversely, the top 20 per cent earned almost three times as much. With taxes and transfers taken into account, the bottom 40 per cent of income earners accounted for approximately 17 per cent of total income earned in Canada, while the top 20 per cent still earned just under two and a half times as much.

Different measures exist to gauge the extent of such inequities of distribution. One such measure is the "Gini Coefficient" [please see box on next page]. Statistics Canada calculated Gini coefficients on before and after tax income from 1971 to 1994, which are displayed in Table 3.

Table 3: Gini Coefficients, Canada, 1971 to 1994

| Year | Income Before Tax and Transfers | Income After Tax |
|------|---------------------------------|------------------|
| 1971 | 0.447 | 0.373 |
| 1972 | 0.446 | 0.368 |
| 1973 | 0.445 | 0.368 |
| 1974 | 0.441 | 0.363 |
| 1975 | 0.451 | 0.364 |
| 1976 | 0.462 | 0.374 |
| 1977 | 0.445 | 0.362 |
| 1978 | 0.455 | 0.367 |
| 1979 | 0.436 | 0.355 |
| 1980 | 0.442 | 0.358 |
| 1981 | 0.437 | 0.351 |
| 1982 | 0.453 | 0.353 |
| 1983 | 0.471 | 0.363 |
| 1984 | 0.469 | 0.359 |
| 1985 | 0.466 | 0.358 |
| 1986 | 0.467 | 0.359 |
| 1987 | 0.468 | 0.357 |
| 1988 | 0.469 | 0.355 |
| 1989 | 0.461 | 0.352 |
| 1990 | 0.47 | 0.352 |
| 1991 | 0.486 | 0.357 |
| 1992 | 0.491 | 0.356 |
| 1993 | 0.497 | 0.358 |
| 1994 | 0.495 | 0.354 |

Source: Statistics Canada, Catalogue 13-210-XPB.

It can be seen that for income before taxes and transfers, there has been a substantial increase in inequality from 1971 to 1994, particularly over the last four years. However, when after

tax income is examined, the inequality has actually declined. Unfortunately, most of the strides towards reducing income inequality were made in the seventies. Since 1980, the after tax Gini coefficient for Canada has changed very little. Of course, there are two ways of looking at this. Since the before tax Gini coefficient has increased since 1980 and the after tax coefficient has not, one can argue that government income redistribution efforts have been working, at least to the extent that those at the low end of the income ladder are no worse off than they were 15 years ago. On the other hand, one can also ask whether or not the inequality that existed 15 years ago, and still exists today, is at an acceptable level.

While LICOs are not technically a measure of poverty, in combination with evidence supplied by the Gini coefficient, they do give an indication that there is still some way to go before the issue of poverty in Canada has been dealt with adequately. One of the arguments against using LICOs as a measure of poverty is its relative nature; however, the question remains whether it is enough to simply increase the welfare of those with the lowest incomes, while doing nothing about the significantly skewed distribution in favour of the rich. Is it acceptable to compare low income Canadians to people in

third world countries and therefore conclude that there are virtually no Canadians living in poverty, or should the measure be more relative to the conditions of other Canadians and the standard of living enjoyed in this country? Many people would probably agree that the latter method is preferable, in which case relative measures such as LICOs and Gini coefficients are useful indicators of poverty.

With this in mind, it appears that redistribution programs have gone part way toward eradicating poverty. While the poor are undeniably better off than they would be without these programs, the richest portion of Canadian society still earns a disproportionate amount of total income. If we are to accept that relative measures of poverty should be used, then it could be argued that efforts to redistribute income may have further to go before it can be said that poverty has been eliminated in Canada.

The Gini Coefficient

The Gini coefficient is related to the Lorenz curve, which is simply a graph with the cumulative percentage of income earners arranged in order of size of income on the horizontal axis, and the cumulative share of income on the vertical axis. The curve created when these values are plotted is the Lorenz curve (see figure below). The Gini coefficient measures the area between the diagonal of the chart and the Lorenz curve as a proportion of the total area under the diagonal. If income is distributed evenly to everyone, the Gini coefficient would equal zero. Conversely, if only the top income earner received income and all others received nothing, the Gini would equal one. In other words, the higher the Gini coefficient, the greater the inequality.

