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Backgrounder

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Perceptions of Poverty:
Correcting Misconceptions about the Low-Income Cutoff

by

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The federal government produces a number of measures that are regularly interpreted as reflecting low income and poverty. These not only measure the well-being of Canadians at a given point in time, but also attempt to reveal whether their well-being is improving over time. Statistics Canada's low-income cutoffs (LICOs) are the measure most often cited. In part due to the complexity of its estimation, LICOs are regularly misinterpreted as a "poverty line." What is truly worrisome, however, is that LICOs are biased toward ever-increasing numbers of families in straitened circumstances. Another rebasing of the LICO measure is due soon, which will again likely raise the number of Canadians who are said to be living in poverty. Using the LICO measure, however, may lead not only to a poor understanding by the public of the true magnitude of poverty, but also to misguided government policy decisions. A better alternative would be to improve the measure by tightening a number of screws. Better still, however, given its inferiority to other measures of low income and poverty, Statistics Canada should cease publishing the LICO.

Different Concepts of Deprivation

All levels of government in Canada are involved in setting and implementing policies aimed at improving the well-being of poor Canadians. Unfortunately, in the absence of a nationally or internationally accepted definition of poverty, the dilemma lies in how to measure the spectrum of "well-being" and how to define who is "poor."

There are two distinct approaches to this problem, though both involve judgment and are thus somewhat arbitrary. The first examines relative income distribution, while the second defines poverty in absolute terms. Measures based on the former approach choose a definition of low income, relative to another defined group. For example, the low-income measure

(LIM) was constructed as a relative measure of income distribution. It is calculated as 50 percent of the median family income — that is, the middle observation when family incomes are sorted from lowest to highest — adjusted for family size and composition. As a measure of income dispersion, the LIM is straightforward, easily understood, and objective. Its only assumptions concern the cutoff below which a family is considered low income and the appropriate adjustment for family size. These people are considered poor in a relative sense.

The other set of definitions falls under the absolute approach. Measures based on this philosophy examine income and expenditure data without relating them to those of a base group, such as the median or average of the population. For example, Human Resources Development Canada (HRDC) is in the process of developing a market basket measure (MBM) of poverty. The MBM assigns costs to a basket of goods and services, including food, shelter, clothing, and transportation, and incorporates a multiplier to cover other necessities. It then shows the level of disposable income required to cover the cost of the basket. The MBM is a true measure of absolute poverty, since its calculation is not based on income or expenditures relative to some other group. Like all absolute measures, however, it relies on a number of assumptions. In this case, the assumptions surround the definition of necessity. Moreover, what is considered a necessity may change over time. It is not now known if, how, or when the MBM will be rebased.

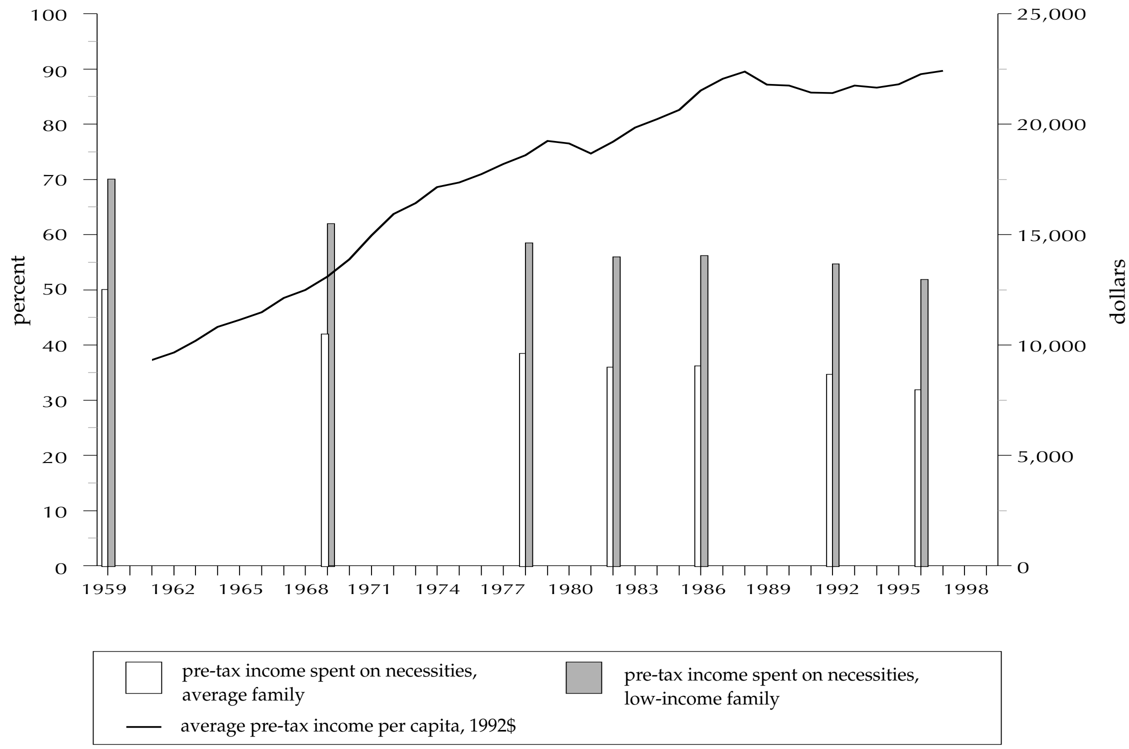
The LICO's Identity Crisis

Statistics Canada's LICOs are a confusing — and unsuccessful — attempt to combine the two principles of relative income distribution and absolute poverty. LICOs look first at the percentage of income an average family spends on necessities — that is, food, clothing, and shelter. In 1992, the average family spent about 35 percent of its before-tax income on necessities. A family is said to be below the LICO if its level of income is such that a typical family with that income would spend 20 percentage points or more than the average family spends on necessities as a proportion of income (adjusted for family and community size). For example, in 1992, a typical family of four living in a city of 100,000 to 500,000 people and spending 55 percent of its before-tax income on necessities earned about $26,000 (Canada 1999, 20). Therefore, in that year, any family of four in a city of this size with an income of less than $26,000 was considered to be in "straitened circumstances." The number of families below this point relative to the total number of families gives the low-income rate. In 1992, 17 percent of Canadians fell below the LICO.

The LICO rate is, however, often incorrectly interpreted to mean the proportion of the population living in poverty, a misinterpretation that occurs not only in the media and among Canadians in general, but also within the federal government itself. For example, one HRDC working paper notes that "we calculate the child poverty rate based on the 1986 Statistics Canada Low Income Cut-Off Line" (Zyblock 1996, 8); another explains that "In the absence of any official definition of poverty in Canada,...LICOs are used by many organisations, such as the National Council of Welfare, as their definition of poverty. This paper also uses different versions of the LICOs as measures of poverty" (Hatfield 1997, 7).

LICOs are updated annually for inflation using the consumer price index (CPI). Since Statistics Canada recognizes that, over time, spending patterns change, LICOs are also periodically rebased to the most recent information on spending on necessities as a share of income. However, this produces a break in the time series, so it is incorrect to compare LICOs or LICO rates across two different bases, since the average family's spending patterns will have changed and the rate will then show an apparent sudden increase in low-income families that is inconsistent with the trends of the

Average Relative Spending on Necessities Falls as Income Rises



Source: Statistics Canada.

previous several years. The current LICO base is 1992 expenditure patterns, though a series based on 1986 expenditures is also available. Thus, to be accurate, LICOs have to make a tradeoff between generating series that are consistent over time and those that are up to date regarding spending patterns.

The LICO was first designed in 1959, when the average family spent 50 percent of its before-tax income on necessities. A family that spent 70 percent or more of its before-tax income on necessities was considered to be in straitened circumstances (Cotton, Webber, and Saint-Pierre 1999). For consistency, this "plus 20 percentage points" rule has been maintained over the years, despite changes in the average family's spending patterns. In 1992, for example, the average family spent only 35 percent of its before-tax income on necessities (see the Figure, above), so families that spent 55 percent or more of their income on necessities were considered to be poor. But these "poor" families are only slightly worse off than the average family in 1959.

In fact, LICOs have the peculiar quality of increasing the number of families considered to be in straitened circumstances every time the average family reduces its spending on necessities — an obvious sign of increasing prosperity. Over time, average incomes increase and the percentage spent on necessities declines, causing both the LICO and the rate of low income to rise relative to their previous bases. It is meaningless, therefore, to compare LICOs and LICO rates across bases.

Hatfield (1997) demonstrates this common fallacy. The paper uses LICOs of different bases when comparing "poverty" in different years, despite acknowledging that LICOs are only comparable when using a common base. It points out, though only in a footnote, that this choice biases the results upward by several percentage points:

> [T]he low-income rate in 1980 is calculated using the 1978 base Low Income Cutoffs while that in 1990 is calculated using the 1986 base LICOs. This means that some [census] tracts in 1990, which would not

> have exceeded this threshold using the 1978 base cutoffs, did so because the 1986 base cutoffs were used.…[T]he 1986 base cutoffs ranged from 8.5%…to 14.3% higher …than the 1978 base cutoffs. (P. 18.)

Although the LICO is not used to determine qualification for any government program, policies may be insufficiently targeted because the indicator grossly exaggerates the extent of Canada's poverty problem. Moreover, any attempt to eliminate or reduce poverty will tend to appear futile. As poverty is actually being alleviated by redistributive taxation and spending programs, the changing measure of poverty makes it appear that the programs are failing.

What Should Be Done with the LICO?

It is difficult to evaluate LICOs without some consideration of whether they are worth calculating at all. Measures, such as the MBM, that reflect the actual cost of necessities and are sensitive to family structure and location are better designed to answer questions about absolute poverty, while measures such as the LIM are more straightforward indicators of income dispersion.The LICO is an inferior measure by either standard.

Despite Statistics Canada's disclaimers, LICOs are usually interpreted and reported by the media and advocacy groups as a poverty line. For this reason, LICOs should behave over time in a fashion that is at least broadly consistent with trends in the number of Canadians living in straitened circumstances. Establishing LICOs simply by adding 20 percentage points to the share of income the average family spends on necessities fails this test.

The Third-Best Option: Rebased and Refined LICOs

Statistics Canada is currently re-evaluating the LICO. Its preferred course of action, as described in Cotton, Webber, and Saint-Pierre (1999, 32), is to rebase the series annually beginning with 1997 data. This would produce a single estimate of the low-income rate in each year that would not be comparable to previous or subsequent years. This may be confusing for many users of LICOs, particularly since Statistics Canada has stated, "Eventually, these rates would form a 'series' of low income rates based on the expenditure patterns in the corresponding year" (ibid., 31). Alternatively, Statistics Canada is considering shifting to a 1997 base for LICOs, with annual updates using the CPI, as it has done in the past. This option would produce a series that is comparable across years within its own base, but, as pointed out earlier, it would also falsely increase the number of Canadians considered to be in low-income circumstances. In both cases, Statistics Canada would continue to publish the 1992-based LICOs.

Regardless of which option Statistics Canada chooses, there are a number of steps it can take to refine the LICO. First, the definition of families needs to be reconsidered. At present, although the LICO is published by family size and city size, these breakdowns are essentially meaningless. While it is unquestionably important to distinguish between families in different circumstances, Statistics Canada currently groups families by the number of people in each. Yet the spending patterns on necessities relative to income of a family of three, for example, will differ markedly depending on whether the family is composed of two parents and one child or one parent with two children.

Second, groupings based on city size also need examination. Currently, Statistics Canada groups LICOs into regions by size: rural, urban under 30,000 people, 30,000–99,999 people, 100,000–499,999 people, and 500,000 or more people. Not only are these definitions too fine at the small end of the scale and too broad at the large end, but spending on necessities relative to income may be more tightly tied to geographic region than to city size *per se*. For example, housing costs, which constitute a large portion of spending on necessities, vary widely across the country. In addition, housing costs are generally higher than the provincial average in the largest urban centers. Spending on rental housing in 1996 was about $7,200 for an average household in cities of more than a million people, ranging from a high of about $8,200 in Vancouver and Toronto, to $7,600 in Ottawa-Hull, and a low of about $5,600 in Montreal (National Council of Welfare 1998–99, 19–20). Therefore, LICOs and LICO rates for these cities would likely exhibit spending patterns that differ not only from those of other regions in their provinces but also from one another.

To improve understanding of the LICO, Statistics Canada should provide more information on the measure's sensitivity to the definition of necessity. The agency could, for example, add more items to its basket of "necessities," such as certain types of medical expenditures or transportation. On the other hand, certain categories currently listed as necessities, such as restaurant meals, might in reality be seen as more mixed — restaurant meals may be considered to be more of a luxury good than a necessity, but they are substitutes for less expensive groceries, which are themselves necessities.

Finally, in view of the peculiar properties of the "plus 20 percentage points" benchmark, as average incomes and spending patterns change, publishing extra information on the impact of these adjustments would aid sensible interpretation of the LICO.

The Second-Best Option: Nonrebased LICOs

Since the only reason to continue to publish the LICO is for historical comparability, and since rebasing the measure causes further misinterpretations, the LICO should not rebased. Instead, Statistics Canada should update the LICO annually using only the CPI. The LICO would thus preserve its usefulness as a historically consistent measure of income dispersion, while the MBM would focus on costing a current basket of necessities. The role of each in explaining the incidence of low income would then be more clearly understood.

If Statistics Canada continues to publish LICOs, then it is after-tax, rather than before-tax, LICOs that should be highlighted. (The agency produces both, but regrettably has always emphasized before-tax LICOs in its releases.) After-tax LICOs are intuitively superior since, after all, families spend out of their after-tax income and the tax system is designed to reduce income inequality — which is precisely what the LICO attempts to measure. Moreover, after-tax LICOs would be more consistent in their treatment of taxes and transfers, where the latter are essentially equivalent to negative taxes.

The First-Best Option: Replace the LICO with a Better Measure

As a relative measure of low income, the LICO makes a number of assumptions: the definition of necessity, the cutoff below which a family is considered to be low income, and when to rebase the series for changes in spending patterns. Moreover, the LICO's use of average income is inferior to the LIM's use of median income, which removes the impact of particularly high-income outliers. The straightforward nature of the LIM makes it a good measure of income dispersion. Although the LICO also measures income dispersion, its convoluted nature leads many outside Statistics Canada to interpret it incorrectly as a measure of absolute poverty. Similarly, both the LICO and the MBM examine necessities and income, but the latter is superior because it is an absolute measure.

In short, Statistics Canada should cease publishing LICOs and focus its attention on better measures of relative income and absolute poverty.

Improving Our Understanding of Low Income in Canada

Statistics Canada's anticipated rebasing of the LICO is an opportunity to examine the measure's usefulness. As the average family's prosperity increases, LICOs and LICO rates tend to rise — a peculiar property indeed, and one that can lead to confusion about the actual state of low income and give the false appearance that government programs aimed at reducing poverty are failing.

Although its use of necessities approximates an absolute definition of poverty, the LICO is, in fact, an estimate of relative income distribution. If a measure so widely acknowledged as deficient and so often misinterpreted is to continue appearing, the desire for historical consistency must be the overriding consideration. If that is the case, there is no justification for rebasing the LICO. Further, the after-tax LICO must be the focus of data releases, since the logical focus of a low-income measure is the amount of resources available for consumption.

Given the demonstrated superiority of the low-income measure as a relative estimate of income disparity and of the market basket measure as an absolute estimate of poverty, Statistics Canada should re-examine its rationale for publishing LICOs at all. The measure should, in fact, be abandoned in favor of other measures of absolute poverty and relative low income.

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