

# Income Statistics Division

75F0002MIE - 01007 Low Income Cutoffs from 1991 to 2000 and Low Income Measures from 1990 to 1999

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November 2001





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Statistics Canada Income Statistics Division



### Low Income Cutoffs from 1991 to 2000 and Low Income Measures from 1990 to 1999

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November 2001
Catalogue no. 75F0002MIE - 01007
Frequency: Irregular
Ottawa
La version française de cette publication est disponible sur demande
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# **TABLE OF CONTENTS**

Abstract	7
Introduction	9
Low Income Cutoffs	10
How Are Low Income Cutoffs Calculated? New Base Year For LICOs Updating Of LICOs Without Changing The Base Year	
After-Tax LICOs Differences In After- And Before-Tax Rates	16 17
Low Income Measures	
Adjustment For Family Size How Are LIMs Calculated? After-Tax LIMs	
Tables : Low Income Cutoffs (1992 Base) 1991 To 2000 After-Tax	23
Tables : Low Income Cutoffs (1992 Base) 1991 To 2000 Before Tax	29
Tables: Low Income Measures 1990 To 1999 After-Tax	
Tables: Low Income Measures 1990 To 1999 Before-Tax	
On Poverty And Low Income	41
Bibliography	45



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## Abstract

Statistics Canada has been publishing data on low income Canadians for more than 30 years. In the past, these measures were published separately in: *Low income cutoffs (LICO's)* (13-551-XPB) and *Low income measures, low income after-tax cutoffs and low income after-tax measures* (13F0019-XPB). Henceforth, all these measure will be incorporated in this publication.

As well as the various cutoffs, this publication incorporates a detailed description of the methods used to arrive at them. There is also an explanation of how base years are defined, and how the cutoffs are updated using the Consumer Price Index.



# ELECTRONIC PUBLICATIONS AVAILABLE AT

# Introduction

Statistics Canada has been publishing data on low income Canadians for more than 30 years. At first, only one measure was published: the low income cutoff, or LICO. Later, after-tax low income cutoffs were also published, but did not receive much attention because they were released after the before-tax cutoffs. In the early 90s, following the practice of many international organizations, Statistics Canada began to publish before- and after-tax low income measures, or LIMs. In the past, these measures were published separately in: Low income cutoffs (LICO's) (13-551-XPB) and Low income measures, low income after-tax cutoffs and low income after-tax measures (13F0019-XPB). Henceforth, all these measure will be incorporated in this publication.

As well as the various cutoffs, this publication incorporates a detailed description of the methods used to arrive at them. There is also an explanation of how base years are defined, and how the cutoffs are updated using the Consumer Price Index.

The four low income measures produced by Statistics Canada give different cutoffs and thus different rates, which can be confusing for the user. Numerous organizations and media tend to use one or other of these measures to gauge poverty in Canada, Statistics Canada urgings notwithstanding (see the note discussing poverty and low income, at the end of this document). Neither low income cutoffs nor low income measures were designed to measure poverty; at most, they were meant to show to what extent some Canadians are less well-off than others. Since opinions are divided as to what constitutes economic difficulties (just as they are over the meaning of "poverty"), Statistics Canada has decided to measure it in several ways, hence the four different measures.

Although they differ in the way they express the adequacy of individual and family income, all these measures are relative indicators of low income. The low

income cutoffs are relative measures in that whenever a new base is established, the calculation of the cutoff changes to reflect changes in the spending patterns of Canadians. If we compare LICOs using the same base, we have a near-absolute measure, or at least one that is stable over time. LIMs, on the other hands, are always relative, since they are based on median income, which varies from year to year. Both measures are indicators – albeit imperfect ones – of one form or another of economic difficulties.

# Low income cutoffs

LICOs are used to distinguish "low income" family units from "other" family units. A family unit is considered "low income" when its income is below the cutoff for its family size and its community. A family at or above the cutoff falls into the "other" category.

LICOs are set according to the proportion of annual family income spent on food, shelter and clothing. A new base year for LICOs is adopted from time to time; in other words, the cutoffs are adjusted to reflect more recent available data on family spending patterns.

Statistics Canada is currently using LICOs based on 1992 family spending data. Each year, LICOs are updated to allow for inflation as reflected in the Consumer Price Index (CPI). Therefore, price changes are taken into account, but spending patterns that have developed since 1992 are not reflected in LICOs or in related low income rates.

#### How are low income cutoffs calculated?

A LICO is an income threshold below which a family will likely devote a larger share of its income to the necessities of food, shelter and clothing than an average family would. When the cutoff was first established on the basis of the 1959 Family Expenditures Survey (FAMEX), an average family spent 50% of its pretax income on these necessities. Twenty points were added to this percentage on the assumption that a family spending 70% of its income on those items would be "in strained circumstances". This 70% threshold was then converted into a set of LICOs varying with family and community size.

Since LICOs were introduced, family income has grown and the proportion of income allocated to necessities has fallen. Cutoffs are defined on the basis of average family expenditures, and have been updated periodically to match current spending patterns. The most recent base for LICOs is the 1992 Family Expenditures Survey, which showed that the average family spent 44% of its after-tax income on food, shelter and clothing.

Figure 1 shows the calculation of a LICO using the example of a family of four living in an urban community with a population between 30,000 and 99,999. The 64% line represents the average proportion of after-tax income that all families (regardless of size) spent on food, shelter and clothing in 1992, plus the 20 percentage point margin. The dots on the chart show the actual observed proportion of income spent by four-person families in medium-sized cities on necessities, according to the 1992 FAMEX. A regression line is calculated, based on relationship between spending and income. The intersection of the 64% line and the regression line corresponds to a low income cutoff of about \$21,300.

This process is carried out for seven family sizes<sup>1</sup> and five community sizes. Combining these gives a matrix of 35 cutoffs. This operation is done twice: once for before-tax cutoffs, once for after-tax cutoffs.

<sup>&</sup>lt;sup>1</sup> Note that in the calculation of LICOs, contrary to the LIMs, no distinction is made by age of family members.

#### Figure 1 Calculation of an After-Tax LICO



#### New base year for LICOs

Since LICOs were first established, the average proportion of income allocated to food, shelter and clothing has fallen considerably. From time to time, a new base year has been adopted, so that LICOs will continue to reflect average family expenditure on the necessities. In addition to the 1992 base, LICOs have been based on the 1986, 1978, 1969 and 1959 Family Expenditure Surveys.

All other things being equal, when average income rises and the proportion of income spent on necessities falls, LICOs rise. This relationship, which emphasizes that LICOs are a relative measure of income inequality, is shown in figure 2.

Figure 2 may be explained as follows: suppose the percentage of income spent on necessities is 44%. According to the standard LICO calculation, 20 percentage points are added to this, so that P1 equals 64%. The LICO is obtained by following the P1 = 64% line to the regression line drawn through the actual observed proportions of family income spent on necessities (in this case, by families of four in medium-sized cities). The LICO is about \$21,300.

Let us now suppose that average income rises and the proportion spent on necessities falls to 34%. (Such a change would normally occur over a long period; we use it here solely for purposes of illustration.) As before, we add 20 percentage points to obtain 54%. The LICO corresponding to this new proportion is about \$29,600. The LICO rises because the proportion of income spent on the necessities has fallen. (Reality is more complicated, because the entire curve would also move, but this example illustrates the point.)

## Figure 2 Effect on the LICO of a fall in the proportion of income spent on food, shelter and clothing.



Based on this description, it is not surprising that LICOs have risen over time. When the base year changed from 1986 to 1992, however, the impact on LICOs was relatively slight. Table 1 compares the 1992 base after-tax LICOs with the 1986 one.

Table 1 :	Comparison of LICOs, 1992 base vs. 1986 base (after tax)	

Ratio of 1992 base LICOs to 1986 base LICOs after tax						
		Co	ommunity size			
Size of family unit		Urban areas				
	Rural areas	Less than 30,000*	30,000 to 99,999	100,000 to 499,999	500,000 and over	
1	1.07	1.05	1.03	1.02	1.04	
2	0.96	0.95	0.93	0.92	0.93	
3	0.94	0.92	0.91	0.90	0.91	
4	0.99	0.98	0.96	0.95	0.97	
5	1.02	1.00	0.99	0.98	0.99	
6	1.06	1.04	1.02	1.01	1.03	
7 and more	1.09	1.07	1.05	1.04	1.06	

#### Updating of LICOs without changing the base year

LICOs are updated by applying the CPI for the current year to the LICO for the reference year  $1992^2$ , using the following formula:

$$\label{eq:Licoy} \begin{split} Lico_y = lico_b \; x \; \underline{I}_{\underline{y}} & \mbox{where} \\ I_b \end{split}$$

 $Lico_y$  is the cutoff for the year y;  $Lico_b$  is the cutoff for the Lico base year b;

 $I_y$  is the CPI for the year y;

 $I_b$  is the CPI for the Lico base year b.

Before 1998, the 1981-based CPI was used for annual updates of the LICO. For 1998 onwards, the 1992-based CPI was used.

Lico<sub>y</sub> = Lico<sub>y-1</sub> x  $I_{y_{-1}}$  where:  $I_{y_{-1}}$ Lico<sub>y</sub> is the cutoff for the current year y Lico<sub>y-1</sub> is the cutoff for the previous year y-1  $I_y$  is the CPI for the current year y  $I_{y_{-1}}$  is the CPI for the previous year y-1

 $<sup>^{2}</sup>$  LICOs for years prior to 1999 were updated by applying the CPI for the current year to the LICO for the previous year, according to the following formula:

Year	CPI	Year	СРІ
1980	52.4	1990	93.3
1981	58.9	1991	98.5
1982	65.3	1992	100.0
1983	69.1	1993	101.8
1984	72.1	1994	102.0
1985	75.0	1995	104.2
1986	78.1	1996	105.9
1987	81.5	1997	107.6
1988	84.8	1998	108.6
1989	89.0	1999	110.5
		2000	113.5

Table 2 : The 1992-based Consumer Price Index (CPI)

#### After-tax LICOs

The average portion of income that families spend on food, shelter and clothing, which figures prominently in the low income cutoffs, is undoubtedly a useful gauge of economic well-being no matter which income concept is used. The choice of after-tax income or total income – or even market income for that matter – depends on whether one wants to take into account the added spending power that a family gets from receiving government transfers and its reduced spending power from paying taxes.

In the past, Statistics Canada has produced two sets of low-income cutoffs and corresponding rates – those based on total income (i.e. income including government transfers, before the deduction of income taxes) and those based on after-tax income. The total income rates, called "before-tax rates", were better

known, mainly because the survey production cycle made them available earlier than the after-tax rates.

Starting with the publication of data for 1998, the two sets of rates are available simultaneously. This choice to highlight after-tax rates was made for two main reasons.

First, income taxes and transfers are essentially two methods of income redistribution. The before-tax rates only partly reflect the entire redistributive impact of Canada's tax/transfer system, by including the effect of transfers but not the effect of income taxes. Second, since the purchase of necessities is made with after-tax dollars, it is logical to use people's after-tax income to draw conclusions about their overall economic well-being.

A note about the calculation of before-tax versus after-tax low-income cutoffs: the derivation of each set of cutoffs is done independently. There is no simple relationship, such as the average amount of taxes payable, that distinguishes the two levels. Instead, the entire calculation of cutoffs is done twice – both on a before-tax basis and on an after-tax basis.

#### Differences in after- and before-tax rates

After-tax low income cutoffs, and the resulting after-tax rates, have been published back to 1980. The number of people falling below the cutoffs has been consistently lower on an after-tax basis than on a before-tax basis. This result may appear inconsistent at first glance, since income after-tax cannot be any higher than they are before-tax, considering that all transfers, including refundable tax credits, are included in the definition of "before-tax" total income. However, with a relative measure of low income such as the LICO, this result is to be expected with any income tax system which, by and large, taxes those with more income at a higher rate than those with less. "Progressive" tax rates, as they are often called, make the distribution of income more compressed. Therefore, some families that are in low income before taking taxes into account are relatively better off and are not in low income on an after-tax basis.

## Low income measures

The low income measure (LIM) is a fixed percentage (50%) of median adjusted family income, where "adjusted" indicates that family needs are taken into account. Adjustment for family sizes reflects the fact that a family's needs increase as the number of members increases. Most would agree that a family of five has greater needs than a family of two. Similarly, the LIM allows for the fact that it costs more to feed a family of five adults than a family of two adults and three children.

LIMs have been published by Statistics Canada since 1991 and are available back to 1980. In this report, LIMs up and including 1995 have been produced by the Survey of Consumer Finances (SCF). From 1996 onward, the LIMs have been based on the Survey of Labour and Income Dynamics (SLID). As table 3 shows, there is a difference of about 1%, during the two years in which the surveys overlapped and SLID was at full sample.

#### Table 3

Difference between SLID and SCF based 1996 and 1997 LIMs, before, and after-tax

	SLID	SCF	SLID/SCF
One adult, 1996, after-tax	\$10,776	\$10,662	1.011
One adult, 1996, before-tax	\$12,737	\$12,652	1.007
One adult, 1997, after-tax	\$11,006	\$10,864	1.013
One adult, 1997, before-tax	\$13,013	\$12,914	1.008

#### Adjustment for family size

When comparing family incomes to study such things as income adequacy or socio-economic status, one often wants to take the family size into account. The income amount itself is not sufficient to understand a family's financial well-being without knowing how many people are sharing it. Two approaches have been used to help with the analysis of family income. One is to produce data by detailed family types, so that within a given family type, differences in family size are not significant. In fact, many income measures have been crossed by detailed family types in the published tables.

The other way to take into account family size is to adjust the income amount, for the purposes of analysis only. The major challenge of this approach is to select an appropriate adjustment factor. It can be argued, however, that some adjustment is better than none.

The simplest method is to use per capita income, that is, to divide the family income by the family size. A limitation of per capita income, however, is that it tends to underestimate economic well-being for larger families as compared to smaller families. This is due to the fact that it assumes equal living costs for each member of the family, but some costs, primarily those related to shelter, decrease proportionately with family size (they may also be lower for children than for adults). For example, the shelter costs for an adult married couple with no children are arguably not much more than those for an adult living alone.

To take such economies of scale into account, it is common to use an "equivalence scale" to adjust family incomes. Instead of implicitly assuming equal costs for additional family members as the per capita approach does, the equivalence scale is a set of decreasing factors assigned to the first member, the second member, and so on. The adjusted income amount for the family is derived by dividing the income value by the sum of the factors assigned to each member.

There is no single equivalence scale in use in Canada. The one used in the published income tables and in concepts such as the low income measure (LIM) has, however, achieved a high degree of acceptance. In this equivalence scale, the factors are as follows:

- the oldest person in the family receives a factor of 1.0;
- the second oldest person in the family receives a factor of 0.4;
- all other family members aged 16 and over each receive a factor of 0.4;
- all other family members under age 16 receive a factor of 0.3.

For example, a couple without children or a single-parent family with one child both have a conversion factor of 1.4. The families are the same size, but differ in composition. However, they rate the same conversion factor, reflecting the assumption that the same level of income will be required to support the same standard of living.

The next example shows that it does not always work out this way. The equivalence factor is 2.6 for a family of five adults whereas for a family of two adults and three children, it is 2.3. This reflects the fact that grown children cost

more than young children. In 1998, the after-tax LIM for the first family was \$29,658, and for the second, it was \$26,236.

Equivalence scale for the calculation of the LIM					
Family composition	Conversion factor				
One adult	1.0				
Two adults / One adult, one child	1.4				
Three adults	1.8				
Two adults, one child / One adult, two children	1.7				
Four adults	2.2				
Three adults, one child	2.1				
Two adults, two children / One adult, three children	2.0				
Five adults	2.6				
Four adults, one child	2.5				
Three adults, two children	2.4				
Two adults, three children / One adult, four children	2.3				
Six adults	3.0				
Five adults, one child	2.9				
Four adults, two children	2.8				
Three adults, three children	2.7				
Two adults, four children / One adult, five children	2.6				

#### Table 4

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#### How are LIMs calculated?

The procedure is as follows:

- (i) Determine the "adjusted size" of each family (The first person is counted as 1.0 and the second person is counted as 0.4, regardless of age. Additional adults count as 0.4 and additional children count as 0.3.);
- (ii) calculate "adjusted family income" for each family by dividing family income by "adjusted family size";

- (iii) determine the median "adjusted family income" that is the "adjusted family income", such that half of all families will be above it and half below;
- (iv) the LIM for a family of one person is 50% of the median "adjusted family income", and the LIMs for other kinds of family are equal to this value times their "adjusted family size";
- (v) repeat the calculation for each year for which LIMs are to be established.

#### After-tax LIMs

As with LICOs, the derivation of each set of cutoffs is done independently. There is no simple relationship, such as the average amount of taxes payable, that distinguishes the two levels. Instead, the entire calculation of cutoffs is done twice – both on a before-tax basis and on an after-tax basis.

# Tables : Low income cutoffs (1992 base) 1991 to 2000 After-tax

Size of family unit					
	Rural areas		Urban	areas	
		Less than	30,000	100,000	500,000
		30,000 *	to	to	and over
			99,999	499,999	
1991					
1 person	8 635	9 981	10 923	11 094	13 170
2 persons	10 536	12 179	13 328	13 536	16 071
3 persons	13 327	15 404	16 857	17 121	20 326
4 persons	16 598	19 185	20 995	21 324	25 315
5 persons	18 551	21 442	23 465	23 833	28 295
6 persons	20 505	23 699	25 935	26 343	31 274
7 or more persons	22 459	25 957	28 405	28 852	34 254
1992					
1 person	8 764	10 130	11 086	11 260	13 367
2 persons	10 694	12 361	13 527	13 739	16 311
3 persons	13 526	15 634	17 109	17 377	20 630
4 persons	16 846	19 472	21 309	21 643	25 694
5 persons	18 829	21 763	23 816	24 190	28 718
6 persons	20 812	24 054	26 323	26 737	31 742
7 or more persons	22 795	26 345	28 830	29 284	34 766
*T			0 - 1 20 0	00	11 1

Community size

\*Includes cities with a population between 15,000 and 30,000 and small urban areas (under 15,000).

	Community size				
Size of family unit					
	<b>Rural areas</b>		Urbar	n areas	
		Less than	30,000	100,000	500,000
		30,000 *	to	to	and over
			99,999	499,999	
1993					
1 person	8 924	10 315	11 289	11 466	13 611
2 persons	10 889	12 587	13 774	13 990	16 609
3 persons	13 773	15 920	17 422	17 695	21 007
4 persons	17 154	19 828	21 698	22 039	26 164
5 persons	19 173	22 161	24 251	24 632	29 243
6 persons	21 192	24 494	26 804	27 226	32 322
7 or more persons	23 212	26 827	29 357	29 819	35 401
1994					
1 person	8 940	10 333	11 309	11 486	13 635
2 persons	10 908	12 609	13 798	14 014	16 638
3 persons	13 797	15 948	17 452	17 726	21 043
4 persons	17 184	19 862	21 736	22 077	26 209
5 persons	19 206	22 199	24 293	24 675	29 294
6 persons	21 229	24 537	26 851	27 273	32 378
7 or more persons	23 252	26 874	29 408	29 871	35 462
* Includes cities wit	h a population l	petween 15,0	00 and 30,	000 and sma	all urban
areas (under 15,000)	).				

		Com	munity siz	e	
Size of family unit	Rural areas	Urban areas			
		Less than	30,000	100,000	500,000
		30,000 *	to	to	and over
			99,999	499,999	
1995					
1 person	9 136	10 560	11 557	11 738	13 934
2 persons	11 148	12 886	14 101	14 322	17 003
3 persons	14 100	16 298	17 835	18 115	21 505
4 persons	17 561	20 298	22 213	22 562	26 785
5 persons	19 628	22 687	24 827	25 217	29 937
6 persons	21 695	25 076	27 441	27 872	33 089
7 or more persons	23 763	27 464	30 054	30 527	36 241
1996					
1 person	9 276	10 721	11 733	11 917	14 147
2 persons	11 318	13 083	14 316	14 541	17 263
3 persons	14 315	16 547	18 107	18 392	21 833
4 persons	17 829	20 608	22 552	22 907	27 194
5 persons	19 928	23 033	25 206	25 602	30 394
6 persons	22 026	25 459	27 860	28 298	33 594
7 or more persons	24 126	27 883	30 513	30 993	36 794
* Includes cities wit	h a population l	between 15,0	00 and 30,	000 and sma	ıll urban
areas (under 15,000)	).				

	Community size						
Size of family unit	Rural areas	Urban areas					
		Less than	30,000	100,000	500,000		
		30,000 *	to	to	and over		
			99,999	499,999			
1997							
1 person	9 426	10 894	11 923	12 110	14 376		
2 persons	11 501	13 294	14 547	14 776	17 542		
3 persons	14 546	16 814	18 400	18 689	22 186		
4 persons	18 117	20 941	22 916	23 277	27 633		
5 persons	20 250	23 405	25 613	26 016	30 885		
6 persons	22 382	25 870	28 310	28 755	34 137		
7 or more persons	24 516	28 333	31 006	31 494	37 388		
1998							
1 person	9 514	10 995	12 034	12 223	14 510		
2 persons	11 608	13 418	14 682	14 913	17 705		
3 persons	14 681	16 970	18 571	18 863	22 392		
4 persons	18 285	21 136	23 129	23 493	27 890		
5 persons	20 438	23 623	25 851	26 258	31 172		
6 persons	22 590	26 110	28 573	29 022	34 454		
7 or more persons	24 744	28 596	31 294	31 787	37 735		
* Includes cities wit	h a population l	between 15,0	00 and 30,	000 and sma	all urban		
areas (under 15,000)	).						

	Community size						
Size of family unit	Rural areas	ural areas Urban areas					
		Less than	30,000	100,000	500,000		
		30,000 *	to	to	and over		
			99,999	499,999			
1999							
1 person	9 684	11 194	12 250	12 442	14 771		
2 persons	11 817	13 659	14 947	15 182	18 024		
3 persons	14 946	17 276	18 905	19 202	22 796		
4 persons	18 615	21 517	23 546	23 916	28 392		
5 persons	20 806	24 048	26 317	26 730	31 733		
6 persons	22 997	26 580	29 087	29 544	35 075		
7 or more persons	25 188	29 111	31 857	32 359	38 416		
2000							
1 person	9 947	11 498	12 583	12 780	15 172		
2 persons	12 138	14 030	15 353	15 594	18 513		
3 persons	15 352	17 745	19 419	19 723	23 415		
4 persons	19 120	22 101	24 186	24 565	29 163		
5 persons	21 371	24 701	27 031	27 456	32 595		
6 persons	23 622	27 301	29 877	30 346	36 027		
7 or more persons	25 872	29 902	32 722	33 237	39 459		
* Includes cities wit	h a population l	petween 15,0	00 and 30,	000 and sma	ıll urban		
areas (under 15,000)							

# Tables : Low income cutoffs (1992 base) 1991 to 2000 before tax

	Community size						
Size of family unit	Rural areas		areas				
		Less than	30,000	100,000	500,000		
		30,000 *	to	to	and over		
			99,999	499,999			
1991							
1 person	11 021	12 640	13 584	13 678	15 947		
2 persons	13 776	15 800	16 980	17 098	19 935		
3 persons	17 134	19 649	21 117	21 265	24 792		
4 persons	20 740	23 786	25 563	25 741	30 011		
5 persons	23 184	26 588	28 574	28 775	33 547		
6 persons	25 629	29 390	31 586	31 808	37 083		
7 or more persons	28 073	32 192	34 598	34 842	40 619		
1992							
1 person	11 186	12 829	13 787	13 883	16 186		
2 persons	13 982	16 036	17 234	17 354	20 233		
3 persons	17 390	19 943	21 433	21 583	25 163		
4 persons	21 050	24 142	25 945	26 126	30 460		
5 persons	23 531	26 986	29 002	29 205	34 049		
6 persons	26 012	29 830	32 059	32 284	37 638		
7 or more persons	28 493	32 674	35 116	35 363	41 227		
* Includes cities with	n a population b	etween 15,00	0 and 30,0	00 and sma	all urban		
areas (under 15,000)							

	Community size						
Size of family unit	Rural areas						
		Less than	30,000	100,000	500,000		
		30,000 *	to	to	and over		
			99,999	499,999			
1993							
1 person	11 390	13 063	14 039	14 137	16 482		
2 persons	14 238	16 329	17 549	17 671	20 603		
3 persons	17 708	20 308	21 825	21 978	25 623		
4 persons	21 435	24 583	26 419	26 604	31 017		
5 persons	23 961	27 479	29 532	29 739	34 671		
6 persons	26 487	30 375	32 645	32 874	38 326		
7 or more persons	29 014	33 271	35 758	36 009	41 981		
1994							
1 person	11 410	13 086	14 063	14 162	16 511		
2 persons	14 263	16 357	17 579	17 702	20 639		
3 persons	17 739	20 343	21 863	22 016	25 668		
4 persons	21 472	24 626	26 465	26 650	31 071		
5 persons	24 003	27 527	29 583	29 791	34 731		
6 persons	26 533	30 428	32 702	32 931	38 393		
7 or more persons	29 064	33 329	35 820	36 072	42 054		
* Includes cities with	n a population b	etween 15,00	0 and 30,0	00 and sma	all urban		
areas (under 15,000)							

	Community size						
Size of family unit	Rural areas	Urban areas					
		Less than	30,000	100,000	500,000		
		30,000 *	to	to	and over		
			99,999	499,999			
1995							
1 person	11 661	13 373	14 372	14 473	16 874		
2 persons	14 576	16 716	17 965	18 091	21 092		
3 persons	18 129	20 790	22 343	22 500	26 232		
4 persons	21 944	25 167	27 046	27 235	31 753		
5 persons	24 530	28 132	30 233	30 445	35 494		
6 persons	27 116	31 096	33 420	33 654	39 236		
7 or more persons	29 702	34 061	36 607	36 864	42 978		
1996							
1 person	11 839	13 577	14 591	14 694	17 132		
2 persons	14 799	16 971	18 239	18 367	21 414		
3 persons	18 406	21 107	22 684	22 844	26 633		
4 persons	22 279	25 551	27 459	27 651	32 238		
5 persons	24 905	28 562	30 695	30 910	36 036		
6 persons	27 530	31 571	33 930	34 168	39 835		
7 or more persons	30 156	34 581	37 166	37 427	43 634		
* Includes cities with	n a population b	etween 15,00	0 and 30,0	00 and sma	all urban		
areas (under 15,000)							

	Community size							
Size of family unit	Rural areas		Urban areas					
		Less than	30,000	100,000	500,000			
		30,000 *	to	to	and over			
			99,999	499,999				
1997								
1 person	12 030	13 796	14 827	14 931	17 409			
2 persons	15 038	17 245	18 534	18 664	21 760			
3 persons	18 703	21 448	23 050	23 213	27 063			
4 persons	22 639	25 964	27 903	28 098	32 759			
5 persons	25 307	29 023	31 191	31 409	36 618			
6 persons	27 975	32 081	34 478	34 720	40 479			
7 or more persons	30 643	35 140	37 766	38 032	44 339			
1998								
1 person	12 142	13 924	14 965	15 070	17 571			
2 persons	15 178	17 405	18 706	18 837	21 962			
3 persons	18 877	21 647	23 264	23 429	27 315			
4 persons	22 849	26 205	28 162	28 359	33 063			
5 persons	25 542	29 293	31 481	31 701	36 958			
6 persons	28 235	32 379	34 798	35 043	40 855			
7 or more persons	30 928	35 467	38 117	38 385	44 751			
* Includes cities with	h a population b	etween 15,00	0 and 30,0	000 and sma	all urban			
areas (under 15,000)								

	Community size						
Size of family unit	Rural areas	Urban areas					
	-	Less than	30,000	100,000	500,000		
		30,000 *	to	to	and over		
			99,999	499,999			
1999							
1 person	12 361	14 176	15 235	15 341	17 886		
2 persons	15 450	17 720	19 044	19 176	22 357		
3 persons	19 216	22 037	23 683	23 849	27 805		
4 persons	23 260	26 677	28 669	28 869	33 658		
5 persons	26 002	29 820	32 047	32 272	37 624		
6 persons	28 743	32 962	35 425	35 674	41 590		
7 or more persons	31 485	36 105	38 803	39 076	45 556		
2000							
1 person	12,696	14,561	15,648	15,757	18,371		
2 persons	15,870	18,201	19,561	19,697	22,964		
3 persons	19,738	22,635	24,326	24,497	28,560		
4 persons	23,892	27,401	29,448	29,653	34,572		
5 persons	26,708	30,629	32,917	33,148	38,646		
6 persons	29,524	33,857	36,387	36,642	42,719		
7 or more persons	32,340	37,085	39,857	40,137	46,793		
* Includes cities with a population between 15,000 and 30,000 and small urban							

areas (under 15,000).

**Tables: Low income measures 1990 to 1999 After-tax** 

Family type	1990	1991	1992	1993	1994
One adult	9 885	9 954	10 239	10 096	10 382
Two adults/ One adult, one child	13 839	13 936	14 335	14 134	14 535
Three adults	17 793	17 917	18 430	18 173	18 688
Two adults, one child/ One adult, two children	16 805	16 922	17 406	17 163	17 649
Four adults	21 747	21 899	22 526	22 211	22 840
Three adults, one child	20 759	20 903	21 502	21 202	21 802
Two adults, two children/ One adult, three children	19 770	19 908	20 478	20 192	20 764
Five adults	25 701	25 880	26 621	26 250	26 993
Four adults, one child	24 713	24 885	25 598	25 240	25 955
Three adults, two children	23 724	23 890	24 574	24 230	24 917
Two adults, three children/ One adult, four children	22 736	22 894	23 550	23 221	23 879
Six adults	29 655	29 862	30 717	30 288	31 146
Five adults, one child	28 667	28 867	29 693	29 278	30 108
Four adults, two children	27 678	27 871	28 669	28 269	29 070
Three adults, three children	26 690	26 876	27 645	27 259	28 031
Two adults, four children/ One adult, five children	25 701	25 880	26 621	26 250	26 993

### Low income measures by family type, 1990 to 1999 AFTER-TAX

Family type	1995	1996*	1997*	1998*	1999
One adult	10 537	10 775	11 018	11 409	11 902
Two adults/	14 752	15 085	15 425	15 973	16 663
One adult, one child					
Three adults	18 967	19 395	19 832	20 536	21 424
Two adults, one child/	17 913	18 318	18 731	19 395	20 233
One adult, two children					
Four adults	23 181	23 705	24 240	25 100	26 184
Three adults, one child	22 128	22 628	23 138	23 959	24 994
Two adults, two children/	21 074	21 550	22 036	22 818	23 804
One adult, three children					
Five adults	27 396	28 015	28 647	29 663	30 945
Four adults, one child	26 343	26 938	27 545	28 523	29 755
Three adults, two children	25 289	25 860	26 443	27 382	28 565
Two adults, three children/	24 235	24 783	25 341	26 241	27 375
One adult, four children					
Six adults	31 611	32 325	33 054	34 227	35 706
Five adults, one child	30 557	31 248	31 952	33 086	34 516
Four adults, two children	29 504	30 170	30 850	31 945	33 326
Three adults, three children	28 450	29 093	29 749	30 804	32 135
Two adults, four children/ One adult, five children	27 396	28 015	28 647	29 663	30 945

#### Low income measures by family type, 1990 to 1999 AFTER-TAX

\* The low income measures have been updated to take into account revisions in the income data for 1996, 1997 and 1998.

**Tables: Low income measures 1990 to 1999 before-tax** 

Family type	1990	1991	1992	1993	1994
One adult	11 856	11 947	12 178	12 011	12 299
Two adults/ One adult, one child	16 598	16 726	17 049	16 815	17 219
Three adults	21 341	21 505	21 920	21 620	22 138
Two adults, one child/ One adult, two children	20 155	20 310	20 703	20 419	20 908
Four adults	26 083	26 283	26 792	26 424	27 058
Three adults, one child	24 898	25 089	25 574	25 223	25 828
Two adults, two children/ One adult, three children	23 712	23 894	24 356	24 022	24 598
Five adults	30 826	31 062	31 663	31 229	31 977
Four adults, one child	29 640	29 868	30 445	30 028	30 748
Three adults, two children	28 454	28 673	29 227	28 826	29 518
Two adults, three children/ One adult, four children	27 269	27 478	28 009	27 625	28 288
Six adults	35 568	35 841	36 534	36 033	36 897
Five adults, one child	34 382	34 646	35 316	34 832	35 667
Four adults, two children	33 197	33 452	34 098	33 631	34 437
Three adults, three children	32 011	32 257	32 881	32 430	33 207
Two adults, four children/ One adult, five children	30 826	31 062	31 663	31 229	31 977

#### Low income measures by family type, 1990 to 1999 BEFORE-TAX

Family type	1995	1996*	<b>1997</b> *	1998*	1999
One adult	12 532	12 718	13 015	13 571	13 982
Two adults/ One adult, one child	17 545	17 805	18 221	18 999	19 575
Three adults	22 558	22 892	23 427	24 428	25 168
Two adults, one child/ One adult, two children	21 304	21 621	22 126	23 071	23 769
Four adults	27 570	27 980	28 633	29 856	30 760
Three adults, one child	26 317	26 708	27 332	28 499	29 362
Two adults, two children/ One adult, three children	25 064	25 436	26 030	27 142	27 964
Five adults	32 583	33 067	33 839	35 285	36 353
Four adults, one child	31 330	31 795	32 538	33 928	34 955
Three adults, two children	30 077	30 523	31 236	32 570	33 557
Two adults, three children/ One adult, four children	28 824	29 251	29 935	31 213	32 159
Six adults	37 596	38 154	39 045	40 713	41 946
Five adults, one child	36 343	36 882	37 744	39 356	40 548
Four adults, two children	35 090	35 610	36 442	37 999	39 150
Three adults, three children	33 836	34 339	35 141	36 642	37 751
Two adults, four children/ One adult, five children	32 583	33 067	33 839	35 285	36 353

#### Low income measures by family type, 1990 to 1999 BEFORE-TAX

\* The low income measures have been updated to take into account revisions in the income data for 1996, 1997 and 1998.

# On poverty and Low income

The author of this article is Ivan P. Fellegi, Chief Statistician of Canada

Recently the news media have provided increasing coverage of Statistics Canada's low income cutoffs and their relationship to the measurement of poverty. At the heart of the debate is the use of the low income cutoffs as poverty lines, even though Statistics Canada has clearly stated, since their publication began over 25 years ago, that they are not. The high profile recently given to this issue has presented Statistics Canada with a welcome opportunity to restate its position on these issues.

Many individuals and organizations both in Canada and abroad understandably want to know how many people and families live in "poverty", and how these levels change. Reflecting this need, different groups have at different times developed various measures which purported to divide the population into those who were poor and those who were not.

In spite of these efforts, there is still no internationally-accepted definition of poverty - unlike measures such as employment, unemployment, gross domestic product, consumer prices, international trade and so on. This is not surprising, perhaps, given the absence of an international consensus on what poverty is and how it should be measured. Such consensus preceded the development of all other international standards.

The lack of an internationally-accepted definition has also reflected indecision as to whether an international standard definition should allow comparisons of wellbeing across countries compared to some international norm, or whether poverty lines should be established according to the norms within each country. The proposed poverty lines have included, among others, relative measures (you are poor if your means are small compared to others in your population) and absolute measures (you are poor if you lack the means to buy a specified basket of goods and services designated as essential). Both approaches involve judgmental and, hence, ultimately arbitrary choices.

In the case of the relative approach, the fundamental decision is what fraction of the overall average or median income constitutes poverty. Is it one-half, one-third, or some other proportion? In the case of the absolute approach, the number of individual judgements required to arrive at a poverty line is far larger. Before anyone can calculate the minimum income needed to purchase the "necessities" of life, they must decide what constitutes a "necessity" in food, clothing, shelter and a multitude of other purchases, from transportation to reading material.

The underlying difficulty is due to the fact that poverty is intrinsically a question of social consensus, at a given point in time and in the context of a given country. Someone acceptably well off in terms of the standards in a developing country might well be considered desperately poor in Canada. And even within the same country, the outlook changes over time. A standard of living considered as acceptable in the previous century might well be viewed with abhorrence today.

It is through the political process that democratic societies achieve social consensus in domains that are intrinsically judgmental. The exercise of such value judgements is certainly not the proper role of Canada's national statistical agency which prides itself on its objectivity, and whose credibility depends on the exercise of that objectivity.

In Canada, the Federal/Provincial/Territorial Working Group on Social Development Research and Information was established to create a method of defining and measuring poverty. This group, created by Human Resources Development Canada and social services ministers in the various jurisdictions, has proposed a preliminary market basket measure of poverty - a basket of market-priced goods and services. The poverty line would be based on the income needed to purchase the items in the basket.

Once governments establish a definition, Statistics Canada will endeavour to estimate the number of people who are poor according to that definition. Certainly that is a task in line with its mandate and its objective approach. In the meantime, Statistics Canada does not and cannot measure the level of "poverty" in Canada.

For many years, Statistics Canada has published a set of measures called the low income cutoffs. We regularly and consistently emphasize that these are quite different from measures of poverty. They reflect a well-defined methodology which identifies those who are substantially worse off than the average. Of course, being significantly worse off than the average does not necessarily mean that one is poor.

Nevertheless, in the absence of an accepted definition of poverty, these statistics have been used by many analysts to study the characteristics of the relatively worst off families in Canada. These measures have enabled us to report important trends, such as the changing composition of this group over time. For example, 20 to 30 years ago the elderly were by far the largest group within the "low income" category, while more recently lone-parent families headed by women have grown in significance.

Many people both inside and outside government have found these and other insights to be useful. As a result, when Statistics Canada carried out a wideranging public consultation a decade ago, we were almost unanimously urged to continue to publish our low income analyses. Furthermore, in the absence of a generally accepted alternative methodology, the majority of those consulted urged us to continue to use our present definitions. In the absence of politically-sanctioned social consensus on who should be regarded as "poor", some people and groups have been using the Statistics Canada low-income lines as a de facto definition of poverty. As long as that represents their own considered opinion of how poverty should be defined in Canada, we have no quarrel with them: all of us are free to have our own views. But they certainly do not represent Statistics Canada's views about how poverty should be defined.

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