

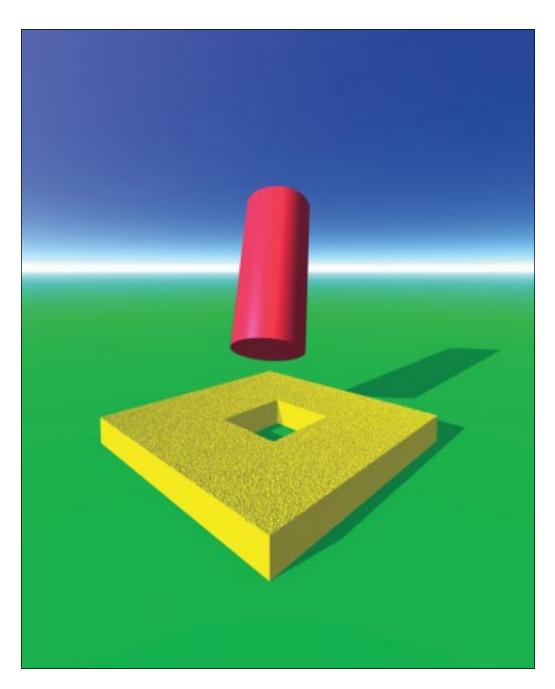
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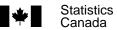
# PERSPECTIVES

ON LABOUR AND INCOME

# **MARCH 2001** Vol. 2, No. 3

■ EXPERIENCING LOW INCOME FOR SEVERAL YEARS





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# **Highlights**

#### In this issue

#### Experiencing low income for several years

- Between 1993 and 1998, some 13% of all individuals lived in families with low income. For these persons, family income was 31% to 38% below the low income cutoff.
- About 8% of Canadians lived in families experiencing low income for four years or more between 1993 and 1998. Only 3% experienced low income for all six years and some 76% lived in families with no experience of low income during the period.
- Some 29% of children under six experienced low income for at least one year; about 12% lived in families that had low income for four years or more. Conversely, only 6% of people 65 and over had low income for four years or more between 1993 and 1998.
- Between 1993 and 1998, fully 38% of people living in families headed by a lone parent experienced low income for four years or more, compared with 23% of unattached individuals.
- Of all those who started a spell of low income in one year, 50% to 60% no longer had low income the following year. On the other hand, some spells of low income last a long time: of all Canadians falling into low income in 1994, some 30% remained for three years or more.

Perspectives

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# Experiencing low income for several years

#### René Morissette and Xuelin Zhang

ome believe that the same people have low incomes year after year. According to this view, the population with low income is static, exhibiting little, if any, turnover. However, while living with low income is the long-term reality for some, considerable movement into and out of this state takes place over time (Finnie, 1997; Laroche, 1997; Morissette and Drolet, 2000).

With the advent of longitudinal data such as that available in the Survey of Labour and Income Dynamics (SLID), the understanding of low income is greatly enriched: it is now possible to follow individuals over time and to determine the duration of any low income in a given period. This provides a measure of the extent to which Canadians are exposed to low income. Using SLID data, this study analyzes which people were most likely to have had low income for several years between 1993 and 1998. While earlier studies are confirmed (see *Previous findings updated*), some new results emerge for a more nuanced profile of the population at risk.

#### A cross-sectional view of low income

An examination of the annual incidence of low income (see *Low income cutoffs*) shows that, on average, some 13% of all individuals lived in families with low income between 1993 and 1998 (Table 1). For these persons, family income was 31% to 38% below the low income cutoff, depending on the year and the sample considered. While these cross-sectional data provide interesting information, they tell nothing about the number of years these people experienced low income during the period. To answer this question, one needs longitudinal data.

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#### Previous findings updated

A previous study, covering 1993 to 1996, found that persons most likely to experience low income for at least one year or for four consecutive years had less education, had work limitations throughout the period, or were members of visible minorities, recent immigrants, unattached individuals or members of lone-parent families (Morissette and Drolet, 2000). Groups at high risk of experiencing low income did not necessarily have a substantial income gap while having low income. This article confirms that, during the 1993 to 1998 period, these groups had high chances of having low income for at least one year. As well, their chances of having low income for at least four years or for six consecutive years were also high. And again, higher risk of low income was not necessarily associated with the severity of low income.

While the earlier study found that 5% of the population had low income for all four years of the 1993 to 1996 period, 3% of the population were in low income for all six years of the 1993 to 1998 period.

The high risk of low income among visible minorities observed previously does not apply to those born in Canada. Rather, the higher risk was found only among immigrant visible minorities. Since recent immigrants in general are more likely to have low income, the high risk faced by visible minorities may be partly related to the difficulties faced by new entrants to the Canadian labour market.

Having a work limitation is not necessarily a permanent condition. Between 1993 and 1997, of all individuals who had a work limitation in one year, 27% to 35% no longer had a work limitation in the next year. As a result, only 2% of all individuals had a work limitation for all six years between 1993 and 1998 while 15% had a work limitation during part of the period. As expected, risks of long-term low income were much higher among the former than among the latter. Hence, these two groups must be distinguished in any analysis of persistent low income.

#### Low income cutoffs

Low income cutoffs (LICOs) are established using data from the Survey of Household Spending (or its predecessor, the Family Expenditure Survey). They are intended to convey the income level at which a family may need to spend a greater-than-average proportion of its income on the basics (food, shelter and clothing). The LICO varies by family size and community size.

Although LICOs are often referred to as poverty lines, they have no official status as such, and Statistics Canada does not recommend their use for this purpose.<sup>2</sup> Separate low income cutoffs can be calculated with before- or after-tax income.<sup>3</sup> This

study uses the latter because it is a better indicator of disposable income.

The number of years of low income during a given period and the duration of a spell of low income are two different concepts.4 First, someone may have started a spell in 1991 and moved beyond it in 1995. If so, the number of years he or she had low income during the 1993 to 1998 period would equal two (1993 and 1994), while the duration of the spell of low income would be four years (1991, 1992, 1993 and 1994). Second, someone may have experienced two spells of low income lasting one year each, for two years total, during the 1993 to 1998 period.

#### A longitudinal view

Had there been no turnover in this 13%, the percentage of individuals who had low income for at least one year during the period would have remained at that level. Conversely, had the population been replaced completely by a new group after one year, 78% (13% times six) of Canadians would have experienced low income for at least one year. Reality lies somewhere between these two extremes: 24% of persons lived in families with low income for at least one year between 1993 and 1998 period (Table 2).

Some people do live in straitened circumstances persistently. About 8% of Canadians lived in families experiencing low income for four years or more during the study period. Only 3% experienced low income for six consecutive years. At the same time, some 76% of Canadians lived in families with no experience of low income between 1993 and 1998.

# Long-term low income among children and seniors

In recent years, growing attention has been paid to children living in families with low income. Some analysts have pointed out that growing up in a low income family may increase the probability of encountering low income as an adult (Corak, 1998). If so, families with low income would produce a new generation at high risk of exposure.

About 12% of all children under six lived in families that had low income for four years or more, compared with roughly 8% of all persons. Some 29% of these children experienced low income for at least one year.

Conversely, seniors (65 and over) experienced low income less frequently. Between 1993 and 1998, only 6% had low income for four years or more. Since the early 1980s, the growth of income from the Canada and Quebec Pension Plans, from private pensions and from the Guaranteed Income Supplement and Old Age Security has helped to decrease the percentage of seniors in low income (Myles, 2000).

The small percentage of those 65 and over who experienced low income hides substantial differences between men and women.

Table 1: Cross-sectional statistics on low income after tax (1992 LICO base)

	1993	1994	1995	1996	1997	1998
				%		
Low income individuals	12.0	13.1	12.6	14.2	13.7	12.2
Income deficit*			19	96 \$		
All individuals Excluding those with negative family	6,050	6,340	6,620	6,190	6,750	6,860
income	5,920	5,910	5,990	5,860	5,850	5,960
Income deficit*/LICO				%		
All individuals  Excluding those with  negative family	32.3	33.1	34.6	32.6	34.8	37.5
income	31.5	31.2	31.7	30.9	31.3	32.2

Source: Survey of Labour and Income Dynamics, 1993 to 1998
\* Low income cutoff minus family income.

	Years of low income								
Characteristics	0	1	2	3	4	5	6	1+	4
					%				
Both sexes	76.0	8.0	4.7	3.0	2.9	2.2	3.3	24.0	8.
Men	78.0	7.5	4.5	2.3	2.8	2.0	3.0	22.0	7.
Women	74.0	8.4	4.9	3.7	2.9	2.5	3.6	26.0	9.
Age in 1993									
Less than 6	71.0	7.9	5.8	3.3	3.7	3.4	5.0	29.0	12
6 to 17	72.4	9.7	5.3	3.5	3.3	2.8	3.0	27.6	9
18 to 24	61.5	13.4	8.8	5.5	5.4	2.4	3.0	38.5	10
Not a student	75.9	9.8						24.1	7
Student	56.5	18.4	10.8	5.6	4.0	2.9	1.8	43.5	8
25 to 34	76.5	7.4	5.5	2.7	2.4	2.7	2.8	23.5	7
35 to 44	80.9	6.8	3.0	2.2	2.7	1.5	3.0	19.1	7
45 to 54	81.4	5.0	3.7	2.7	2.2	1.7	3.5	18.6	7
55 to 64	77.3	7.7	4.7	2.5	2.0	2.3	3.6	22.7	7.
65 and over	84.1	6.2	1.6	1.9	1.8		3.6	15.9	6
Men	94.5							5.5	
Women	83.8	7.2	2.5	1.4			3.1	16.2	5
Family composition (all	years)								
Unattached	61.0	7.2	4.1	4.4	3.4	4.0	15.9	39.0	23
Couple, no children	91.3	4.6	1.7	1.2				8.7	1
Couple with children	84.4	5.3	3.1	1.7	1.4	1.7	2.5	15.6	5
Lone parent	42.4	5.8	3.5	10.3	8.4	10.2	19.4	57.6	38
Other	84.7	4.6	3.2		4.3			15.3	6
Changed over period	67.7	12.2	7.6	4.2	4.1	2.4	1.9	32.3	8
Family composition in 1	993								
Unattached	58.8	9.8	6.7	5.5	5.1	3.7	10.5	41.2	19
Couple, no children	86.9	6.1	2.6	1.7	1.4	0.8		13.1	2
Couple with children	80.2	7.6	4.5	2.3	1.9	1.5	2.1	19.8	5
Lone parent	47.6	11.5	7.5	8.0	6.7	7.6	11.1	52.4	25
Other	76.5	8.3	5.0	2.3	4.4	2.8	0.7	23.5	7

About 16% of senior women had low income for at least one year, compared with only 6% of men. In part, this reflects their lower or limited participation in the labour market in earlier years, which in turn yielded little or no pension income.

Persons aged 18 to 24 in 1993 who were students at least one year during the period were much more likely than their non-student counterparts to experience low income for at least one year (44% versus 24%), mainly because they were much more likely to have low income for up to two years. This suggests that low income is only a temporary state for most students.

## Lone-parent families and unattached individuals more vulnerable

While 8% of the population experienced low income for four years or more, some groups were at much greater risk of exposure than others. Fully 38% of people living in families headed by a lone parent were in this situation for four years or more. The corresponding number was 23% for unattached individuals. This is much higher than the corresponding percentage for people living in families composed of couples with children (6%).

These figures refer to people whose family type remained unchanged over the study period. Obviously, families change over time. Some women who were lone mothers in 1993 may have eventually married. Since marriage may help lone-parent families move out of low income, looking only at families that remain lone-parent for all six years would overestimate, for this family type, the percentage of individuals in low income for several years. The same argument can be made for unattached individuals. For this reason, the study also presents data by family type defined as of 1993.

When this is done, the incidence of longer-term low income drops markedly. For instance, of all persons living in families headed by a lone parent in 1993, some 25% experienced low income for four years or more. Corresponding figures for unattached individuals and persons living in families composed of couples with children were 19% and 6%.

The high risk of exposure to low income observed for lone-parent families probably reflects a combination of factors. First, only one parent can enter the labour market and contribute to family income. Second, institutional factors—such as the availability and cost of child-care services—combined with limited labour market opportunities may lead some lone parents to decide not to participate in the labour market. Third, the jobs available may be restricted by these parents' need to combine family and work responsibilities. Lone parents may limit themselves to jobs relatively close to school or child-care facilities and may have to refuse high-paying jobs that also involve long hours. Or they may be able to work only part time.

For a more complete picture of low income, several other individual characteristics, such as educational attainment, visible minority status, immigration status and work limitation status, need to be examined. Persons aged 16 and over are studied here.

#### People with work limitations are at risk

People who had work limitations throughout the period had a relatively high chance of encountering low income. Almost 50% were in low income for at least one year between 1993 and 1998 (Table 3). Furthermore, 16% experienced low income for all six years. In contrast, 19% of persons who experienced no work limitations during the period had low income for at least one year, and only 2% had low income for all six years. People whose work limitation status changed, that is, who had work limitations for part of the period, were between these two extremes.

Several factors may contribute to this difference. First, some people may be unable to work and forced to rely on government transfers as their major source of income. For some, government transfers and earnings by other members of the family may not be large enough to lift them out of low income. Second, having a work limitation may restrict the jobs a person can perform, limiting access to high-paying positions. Third, for the tasks that can be performed as efficiently as others, persons with work limitations may receive lower wages. Fourth, some employers may discriminate through hiring rather than wages: they may simply prefer hiring people who do not have work limitations. Whatever the underlying mechanisms, having a work limitation dramatically increases the chances of low income.6

## Visible minorities and immigrants also experience difficulty

Persons who immigrated to Canada after 1976, many of whom are members of visible minorities, had a high risk of experiencing low income. At least 20% experienced low income for four years or more, compared with 7% of the Canadian-born population. In comparison, only 6% of persons who arrived in 1976 or before experienced low income for four years or more. Members of a visible minority were also more likely than others to have low income for four years or more: about 21% versus 7%.

The reasons for these differences are unclear. The longer immigrants are in the country, the more their economic situation improves. When they enter the labour market, they generally receive lower wages than the Canadian-born. If the period during which immigrants have a wage disadvantage lasts longer than it used to, they may, as a result, have a greater risk of encountering low income in the long term.

The higher risk among both visible minorities and the post-1976 group of immigrants exists even after differences in age and level of education are taken into account (Table 4).8 Other factors important in determining levels of employment income, such as language skills and relevant work experience, have yet to be assessed. The high risk of having low income (for at least one year) found for visible minorities does not apply to those who are Canadian-born (Table 3). Among the latter, only 17% were in low income for at least one year, much less than the 39% for foreign-born visible minorities.9

	Years of low income								
Characteristics	0	1	2	3	4	5	6	1+	4
					%				_
<b>Both sexes</b> Men	<b>76.8</b> 79.6	<b>7.8</b> 7.1	4.6	<b>2.9</b> 2.1	<b>2.8</b> 2.6	<b>2.0</b> 1.8	<b>3.1</b> 2.5	<b>23.2</b> 20.4	<b>7</b> 6
Women	74.2	8.4	4.3 4.9	3.7	3.0	2.2	3.7	25.8	8
Age in 1993									
16 to 24	61.6	14.5	8.6	5.6	5.5	2.6	2.6	38.4	10
25 to 34	76.5	7.4	5.5	2.7	2.4	2.7	2.8	23.5	7
35 to 44 45 to 54	80.9 81.4	6.8 5.0	3.0 3.7	2.2 2.7	2.7 2.2	1.5 1.7	3.0 3.5	19.1 18.6	7 7
55 to 64	77.3	7.7	3. <i>1</i> 4.7	2.7	2.2	2.3	3.6	22.7	7
35 to 64 35 and over	84.1	6.2	1.6	1.9	1.8	2.5	3.6	15.9	6
Education (all years)									
_ess than high school	73.2	7.5	3.5	3.3	3.3	3.1	6.2	26.8	12
High school completed	80.0	6.0	5.2	1.5	1.8	1.4	4.0	20.0	7
Postsecondary*	80.0	7.6	4.5	2.5	2.3	1.4	1.7	20.0	5
Jniversity	89.3	4.1	2.6	1.8				10.7	2
Education changed	62.5	16.7	4.7	0.5	3.8	2.5	9.4	37.5	15
Student status Not a student	82.2	6.1	3.2	2.2	1.8	1.5	3.1	17.8	6
1 year	70.1	9.0	5.7	3.3		1.5	J. I	29.9	11
2 years	64.2	15.1	8.1					35.8	
3 years	57.6	12.8	9.6					42.4	14
4 years	54.0	14.3	13.0					46.0	14
5 years	50.5	19.9						49.5	18
6 years	62.2	9.8	10.1					37.8	12
Work limitation (all years)		7.0	4.0	0.4	0.0	4.5	4.0	40.0	_
No work limitation Work limitation	81.1 51.2	7.0 9.6	4.2 7.9	2.1	2.2	1.5 6.8	1.8 16.3	18.9 48.8	5 28
Status changed	69.5	9.5	7.9 5.9	4.5	3.8	2.8	4.1	30.5	10
Minority status									
Visible minority	65.4	7.0	4.4		8.1		9.2	34.6	20
Canadian-born	82.8							17.2	
Immigrant	61.2	7.9	4.9		9.7		10.4	38.8	24
Not a visible minority	77.7	7.8	4.6	3.0	2.4	1.9	2.6	22.3	6
mmigration status	<b>77</b> 4		4.5		0.5	4.0	0.0	20.0	_
Canadian-born	77.4	8.0	4.5	2.9	2.5	1.9 	2.9	22.6 18.6	7 5
Immigrant, before 1977 Immigrant, 1977 to 1986	81.4 59.1	6.4 7.1	3.7	2.8	2.1			40.9	20
mmigrant, after 1986	54.1							45.9	28
Family composition (all ye	ears)								
Jnattached `	<b>6</b> 1.0	7.2	4.2	4.4	3.4	4.0	15.9	39.0	23
Couple, no children	91.3	4.6	1.7	1.2				8.7	1
Couple with children	85.2	4.9	3.0	1.6	1.3	1.6	2.4	14.8	5
_one parent	40.0			12.4	8.7	11.1	17.2	60.0	37
Other Changed over period	86.4 70.0	4.9 11.2	3.0 7.0	4.0	4.0	2.2	 1.7	13.6 30.0	5 7
		11.2	1.0	4.0	4.0	۷.۷	1.7	30.0	,
F <b>amily composition in 19</b> 9 Jnattached	9 <b>3</b> 58.8	9.9	6.7	5.5	5.1	3.7	10.5	41.2	19
Couple, no children	86.9	6.1	2.6	1.7	1.4	0.8		13.1	2
Couple with children	81.0	7.1	4.5	2.3	1.9	1.4	1.8	19.0	5
one parent	50.1	11.9	7.3	7.5	7.0	6.9	9.4	49.9	23
Other <sup>*</sup>	78.2	8.7	4.5	2.4	3.5	2.1		21.8	6
Jnknown	75.2	7.8	7.2					24.8	6

Characteristics	At least one year	At least four years	All six years
Reference group		%	
Both sexes	18.3	3.9	0.8
Men	16.2	3.6	0.7
Women	20.3	4.2	0.9
<b>Age</b> 16 to 24	24.3*	4.5*	0.9
25 to 34	22.5	5.4	1.1
35 to 44	18.2	4.5*	1.0
45 to 54	16.2	4.7*	1.3
55 to 64	19.3*	4.2*	0.9
65 and over	9.9	1.2	0.2
Education	00.4	0.0	0.0
Less than high school High school completed	26.4 17.7*	9.0 4.3	2.6 1.5
Postsecondary—some or comple		2.7	0.5
University	8.3	1.1	0.1
Education changed	19.9	3.8*	0.6
Student status			
Not a student	17.0	3.5	0.8
1 year	24.9	8.0 5.2*	1.7 1.1'
2 years 3 years	27.2 32.9	11.1	1.1
4 years	35.5	11.1	3.4
5 years	37.9	14.5	0.1
6 years	28.2	8.9	1.5
Work limitation			
No work limitation	14.0	2.6	0.6
Work limitation	43.4	14.7	3.7
Status changed	26.0	5.9	1.2
Minority status Visible minority	20.8*	11.0	5.4
Not a visible minority	18.2	3.8	0.8
Immigration status			
Canadian-born	18.0	3.9	0.9
Immigrant, before 1977	16.8*	2.6	0.4
Immigrant, 1977 to 1986	37.1	8.2	1.2
Immigrant, after 1986	37.7	10.4	1.6
Family composition (all years) Unattached	41.5	22.0	11.7
Couple, no children	8.8	0.9	0.2
Couple with children	14.3	4.2	1.4
Lone parent	53.2	27.9	10.6
Other Changed over period	9.3* 24.6	2.0 4.9*	0.2 0.8
Family composition in 1993	27.0	7.0	0.0
Unattached	41.3	16.5	6.7
Couple, no children	13.4	2.1	0.7
Couple with children	16.0	3.5	1.1
Lone parent	39.3	16.2	6.3
Other	16.4*	3.1*	0.2

Source: Survey of Labour and Income Dynamics

Note: Probabilities are conditional on the average values of the explanatory variables. Probabilities associated with family composition, all years and as of 1993, are from two separate logistic regressions. There are six logistic regressions, three for each type of probability for each family composition.

Not statistically different from the coefficient of the reference group at the 5% level.

#### Highly educated at low risk

The risk of exposure to low income depends on the number of earners in a family and the level of income of each earner. Education tends to be a major determinant of earnings.

Persons with a university degree are generally insulated from low income. Almost 90% avoided it between 1993 and 1998, compared with 73% for persons who had not completed high school.

Higher levels of education may reduce the likelihood of having low income in two ways. First, because highly educated persons—whether main<sup>10</sup> or secondary earners—generally receive higher wages, they are less likely to have low income at a given moment. Second, as long as their wages increase more rapidly over time than those of persons with less education, they will probably move out of low income more quickly.

# Higher risk not necessarily associated with severity

Whether a family experiences low income is not all that matters. The low income gap—the difference between the low income cutoff (LICO) and a family's income—is also relevant. The size of the income gap clearly affects a family's purchasing power. Some persons, while more likely than others to receive low income, may have higher family incomes than others experiencing a low income state. In other words, a higher incidence of low income is not necessarily associated with a greater depth of low income or a greater income gap.

Between 1993 and 1998, the average income gap for the population aged 16 and over that

Table 5: Inco in low incom		
Characteristics	Deficit	Relative deficit**
Reference group	1996 \$	%-point
Both sexes	5,060	_
Men	5,290	-
Women	4,890	-0.8*
Adults 25 to 34	5,380	-
Elderly (65 and over)	1,950	-11.4
High school graduates	4,970	-
University graduates	6,210	4.9
Not a student	4,540	-
Student for six years	6,450	4.8*
Canadian-born	4,820	-
Immigrant, before 1977	5,770	1.0*
Immigrant, 1977 to 1986	5,740	-3.2*
Immigrant, after 1986	7,050	-2.6*
Visible minority	7,080	4.0*
Not a visible minority	4,810	-
With work limitation	4,470	0.8*
No work limitation	4,960	-
Unattached individuals	3,700	8.0
Couples with children	6,410	-
Lone parents	5,410	1.0*
Source: Survey of Labour a	and Income Dyn	amics

Note: Persons 16 and over (in 1993) who had at least one year of low (but not negative) income between 1993 and 1998.

encountered low income for one year or more was \$5,060 (in 1996 dollars) (Table 5).<sup>11</sup> In other words, the average family income for persons in this group was \$5,060 below their family's LICO. The average gap varied from group to group; for example, for a person aged 25 to 34 it was \$5,380, compared with only \$1,950 for a person aged 65 and over. Consequently, elderly people not only had a relatively low risk of experiencing low income for several years, they also had a smaller income gap when they did encounter low income.

High school graduates had a higher risk of low income than university graduates. However, when they were in a low income situation, their family income averaged \$4,970 below their LICO, compared with \$6,210 for university graduates. One reason could be that following a layoff from a high-paying job, university graduates may take some time to find a new job with the same pay level, resulting in a longer spell of unemployment and a substantial decrease in family income.

Are these qualitative differences statistically significant? Yes. Other things being equal, elderly people had an income gap (as a percentage of the associated low income cutoff) 12 some 11 percentage points lower than that of people aged 25 to 34. Similarly, university graduates had a relative income gap about 5 percentage points higher than that of high school graduates.

No statistically significant differences in the relative income gap existed within the following groups: immigrants versus the Canadian-born, visible minorities versus others, persons with work limitations versus others, and lone-parent families versus couples with children. In contrast, the relative income deficit of unattached individuals was 8 percentage points higher than that of persons living in families composed of couples with children.<sup>13</sup>

#### How long does a spell of low income last?

Given that 24% of the population had low income for at least one year during the 1993 to 1998 period and only 13% of the population, on average, had low income, the population under study was not static; that is, it underwent substantial turnover. A more direct way to examine turnover in this population is to calculate how long people remained in low income.

Many factors lead to a change in low income status. Being laid off from a high-paying job, having a new child, moving from a small to a large community or experiencing a family breakdown may push a family into low income. Similarly, persons who escape low income may do so by securing a higher-paying job, getting married, moving from a small to a large company, or having a child leave home or enter the labour market.

Of all those who started a spell of low income in 1994, some 61% moved out of this state in 1995 (Table 6). Similarly, of all who started a spell of low income in 1995, some 50% escaped low income in 1996. Thus, 50% to 60% of persons who began a spell of low income in one year no longer had low income the following year. These high exit rates confirm a substantial turnover in this population.

<sup>\*</sup> Not statistically different from the coefficient of the reference group at the 5% level.

<sup>\*\*</sup> Compared with reference group.

Table 6: Duration of new low income spells

	Year low income spell began					
Duration (years)	1994	1995	1996	1997		
		9	, o			
One	60.8	50.3	50.8	51.7		
Two	9.5	14.6	17.3	48.3*		
Three	7.9	12.0	37.9*	-		
Four	8.2	23.1*	-	-		
Five	13.7*	-	-	-		

Source: Survey of Labour and Income Dynamics, 1993 to 1998

On the other hand, some spells of low income last a long time: of all Canadians falling into low income in 1994, some 30% remained for three years or more. 14 Corresponding percentages for 1995 and 1996 were 35% and 38%. Furthermore, 14% of individuals who started a spell of low income in 1994 were in this state for five years or more. This indicates a persistence of low income in Canada. 15

Taken together, these figures provide strong evidence against the extreme views that people with low income remain in low income, or that they are there for only a short period (one year). The reality is more complex and lies between the two.

#### High-risk groups with low income

The extent to which some groups are represented in the population with low income depends not only on their risk of exposure, but also on their relative number in the whole population.

Many people, such as recent immigrants, members of visible minorities, those with work limitations, or those in lone-parent families, have a high risk of exposure to low income. However, they represent a small proportion of the population. Consequently, it is not surprising that they account for a relatively small share of those with low income.

For instance, 32% of persons living in lone-parent families were in low income in 1993, compared with only 8% of those in families composed of couples with children. Yet, because they represented only 7% of the entire population, people in lone-parent

families accounted for just 20% of those in low income in 1993. In other words, 80% of the population in low income in 1993 consisted of people not in lone-parent families.

### Cumulated income and cumulated low income cutoffs

While the number of years in low income during the 1993 to 1998 period provides one simple measure of the persistence of low income, it does not allow a comparison of the extent to which different families were in straitened circumstances during the six-year interval. For instance, family A, which was in low income for six consecutive years, may have had a larger cumulated (over six years) income than family B, which was in low income for only four years.

To see this, assume that the low income cutoff for these two families equals \$20,000 (in constant dollars) and is steady throughout the period. Family A may have had a constant disposable income of \$18,000 between 1993 and 1998 and, as a result, have a cumulated income of \$108,000 (\$18,000 times six) over the 1993 to 1998 period and experience low income for all six years. Its six-year family income-to-LICO ratio would equal 0.90 (\$108,000/\$120,000). In contrast, family B may have received \$15,000 during the first four years and \$21,000 in the last two years. If so, it would be in low income for only four years but still have a cumulated income of only \$102,000 (\$15,000 times four plus 21,000 times two). As a result, it would have a six-year family income-to-LICO ratio of 0.85 (\$102,000/\$120,000).

The question then becomes: what percentage of individuals live in families whose cumulated income is less than their cumulated low income cutoff? In other words, what percentage of people have a six-year income-to-LICO ratio less than 1.0?

Overall, 8% of persons aged 16 and over lived in families whose cumulated income was less than their cumulated low income cutoff over the study period (Table 7). This percentage was somewhat smaller than that of people with low income in a given year. <sup>17</sup> All groups with a high risk of experiencing low income for several years—workers with lower education, students, persons with work limitations, visible minorities, post-1976 immigrants, unattached individuals and lone-parent families—also had a high risk of having a six-year income-to-LICO ratio less than 1.0.

<sup>\*</sup> The spell may have lasted longer.

Table 7: Incidence of low income, 1993 to 1998

	Six-year	family income	less than:
_	125% of six-year LICO	Six- year LICO	75% of six-year LICO
		%	
Both sexes Men Women	<b>14.1</b> 11.6 16.5	<b>7.9</b> 6.7 9.1	<b>3.1</b> 2.9 3.3
Age 16 to 24 25 to 34 35 to 44 45 to 54 55 to 64 65 and over	15.1 14.6 12.1 11.5 14.6 18.7	9.8 8.4 6.9 8.1 8.2 6.0	3.3 3.3 3.3 3.8 3.9
Education (all year Less than high scho High school complet Postsecondary* University Education changed	ol 22.7	12.5 7.3 5.3 3.1 11.4	4.9 3.1 1.9  4.8
Student status Not a student 1 year 2 years 3 years 4 years 5 years 6 years	12.8 16.3 12.7 21.9 20.3 21.1 15.6	6.5 11.9 7.5 14.3 13.1 	2.5    
Work limitation No work limitation Work limitation Status changed	9.7 37.0 18.4	5.6 27.7 10.9	2.2 13.7 4.6
Minority status Visible minority Not a visible minority		19.7 7.0	10.2 2.5
Immigration status Canadian-born Immigrant, before 19 Immigrant, 1977 to 2 Immigrant, after 198	13.1 977 13.0 1986 31.9	7.2 6.0 22.4 26.3	2.7 2.2 
Family compositio Unattached Couple, no children Couple with children Lone parent Other Changed over period	40.8 5.3 11.2 55.6 8.1	24.6 1.3 6.0 46.3 5.2 6.8	11.2  2.6 18.9  2.4
Family compositio Unattached Couple, no children Couple with children Lone parent Other	31.4 6.9	19.0 2.8 5.1 26.4 5.7	8.4 0.5 2.1 11.2 1.2

Source: Survey of Labour and Income Dynamics

\* Some or completed.

#### Conclusion

According to longitudinal data, roughly 50% of individuals who started a spell of low income were in that state for only one year between 1993 and 1998. On the other hand, as many as 30% of persons who started a spell of low income were there for three or more years. This suggests that low income does persist in some cases.

On average, some 13% of Canadians lived in families that had low income. However, as many as one in four experienced low income for one year or more during this six-year period. About 8% did so for at least four years. Some people, such as those in lone-parent families or those with a work limitation, were exposed to four consecutive years of low income much more frequently. Others, such as those with a university diploma, appear to have been insulated.

Twelve percent of children under six experienced low income for at least four years. Though four years may seem a short period, it represents a sizeable percentage of a young child's life (Phipps, 1999). Conversely, only 6% of people 65 and over experienced low income for four years or more.

The results also show that for many persons with a work limitation, government transfers and potential earnings from secondary earners may not lift them out of low income. Having a limitation at work severely limits earnings and probably prevents some people from achieving higher incomes.

Foreign-born visible minorities and post-1976 immigrants were more likely than others to experience persistent low income. This suggests that the problems faced by members of visible minorities and recent immigrants may be intimately related.

#### Perspectives

#### Notes

- 1 The low income gap is the low income cutoff minus family income.
- 2 For a detailed explanation, see "On poverty and low income" (Catalogue no. 13F0027XIE), by I.P. Fellegi. This article is available on Statistics Canada's website (www.statcan.ca). Select "Products and services", then "Research papers" and "Personal finance and Household finance".

- 3 After-tax income refers to income after federal and provincial income taxes and government transfers.
- 4 See Duncan and Rodgers (1991) for a discussion of various measures of persistent poverty. Logistic regression can be used to model the duration of spells of low income (Hosmer and Lemeshow, 1989). Multiple episodes are taken into account in Huff Stevens (1995) and Laroche (1997).
- 5 A work limitation is a long-term physical condition, mental condition or health problem that limits the kind or amount of activity that can be performed at work. People who had work limitations for all six years of the 1993 to 1998 period, people who had no work limitations during the period, and people whose status changed (that is, who had work limitations part of the period) represented 2%, 83% and 15%, respectively, of the population 16 and over.
- 6 These mechanisms will tend to decrease families' market income by lowering the earnings of the main earner or those of other earners.
- 7 Among individuals aged 16 and over (longitudinal sample), members of visible minorities account for 67% of immigrants who came to Canada after 1976. Members of visible minorities represent 7% of the population; immigrants, 17%. Immigrants who arrived before 1977, between 1977 and 1986, and after 1986 represent 12%, 3% and 2%, respectively, of the population. Immigrants represent 76% of members of visible minorities and members of visible minorities represent 35% of all immigrants.
- Using logistic regressions, the study performed a multivariate analysis of the probability of experiencing low income for at least one year, for at least four years, and for six consecutive years. Three logit models were estimated separately, one for each probability. The control variables were sex (two categories), age (six groups), educational attainment (five categories), student status (seven categories), work limitation status (three categories), visible minority status (two categories), immigration status (four categories), and family composition (six categories). When the probabilities of having low income were calculated, say, by age group, the other control variables were set to their average values (Table 4). The higher risk among visible minorities remains when one considers the probability of experiencing low income for at least four years or for six years. Among post-1976 immigrants, the higher risk remains for the probability of experiencing low income for at least one year or for at least four years.
- 9 This finding is consistent with previous work by Hum and Simpson (1998), which shows that the wage disadvantage observed for visible minorities in the aggregate applies more to those who were foreign-born than to those who were Canadian-born. This pattern remains in a multivariate

- analysis. The probability of being in low income for at least one year is 11% for Canadian-born visible minorities, which is not significantly different (at the 5% level) from the 18% for other Canadian-born persons. For foreign-born visible minorities, the figure is 36%.
- 10 The main income earner is the family member with the highest annual income. Apart from the logistic regressions mentioned in note 8, logistic regressions were estimated for a subsample of individuals in families whose main income earner remained unchanged throughout the 1993 to 1998 period. In this case, the control variables refer to the characteristics of the main income earner of the family to which an individual belongs (rather than the characteristics of the individual). The resulting subsample consists of 60% of the population. However, as Jenkins (1999) emphasizes, "if one restricts analysis to persons and households who do not experience compositional change, one will be omitting a significant fraction of the population and introducing a form of selection bias." In any event, although the magnitude of the effects may differ somewhat from those reported in Table 4, the qualitative conclusions stated above hold. More precisely, individuals living in lone-parent families or in families whose main income earner has relatively little education, has a work limitation, is a member of a visible minority or is a post-1976 immigrant are more likely to experience low income for at least four years than are other people.
- 11 Since the individual is the unit of analysis, the study also averages the individual-specific income gap across all persons who lived in families with low income for at least one year.
- 12 The relative income gap is regressed on the following control variables: sex, age, educational attainment, student status, immigration status, visible minority status, work limitation status and family composition. This measure is used because it is more appropriate for between-group comparisons. Consider an unattached individual whose income is \$1,000 below his or her LICO and a family of six whose income is also \$1,000 below their LICO. The former will probably be worse off than the latter because his or her income gap represents a much higher *proportion* of his or her LICO. Thus, a better measure of the depth of low income is the relative income gap, that is, a percentage of a family's LICO.
- 13 Unattached individuals have a lower income gap (\$3,700) than persons living in families composed of couples with children (\$6,410) but a higher *relative* income gap, because the former have lower LICOs than the latter.
- 14 While this figure (30%) may seem inconsistent with the 11% of individuals who were in low income for at least three years between 1993 and 1998 (Table 2), this is not the case. The data refer to different populations. The 11% refers to the

entire Canadian population and the 30%, to the percentage of Canadians falling into low income in 1994 (who accounted for only 4% of the Canadian population [Morissette and Drolet, 2000: Table 9]).

15 Of all those who started a spell of low income between 1994 and 1996, some 10% to 17% had low income for two years.

16 See Morissette and Drolet (2000).

17 When based on cross-sections of the sample, the incidence of low income for persons aged 16 and over equals 10%, 11%, 11%, 11%, 10% and 10% for 1993 through 1998.

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