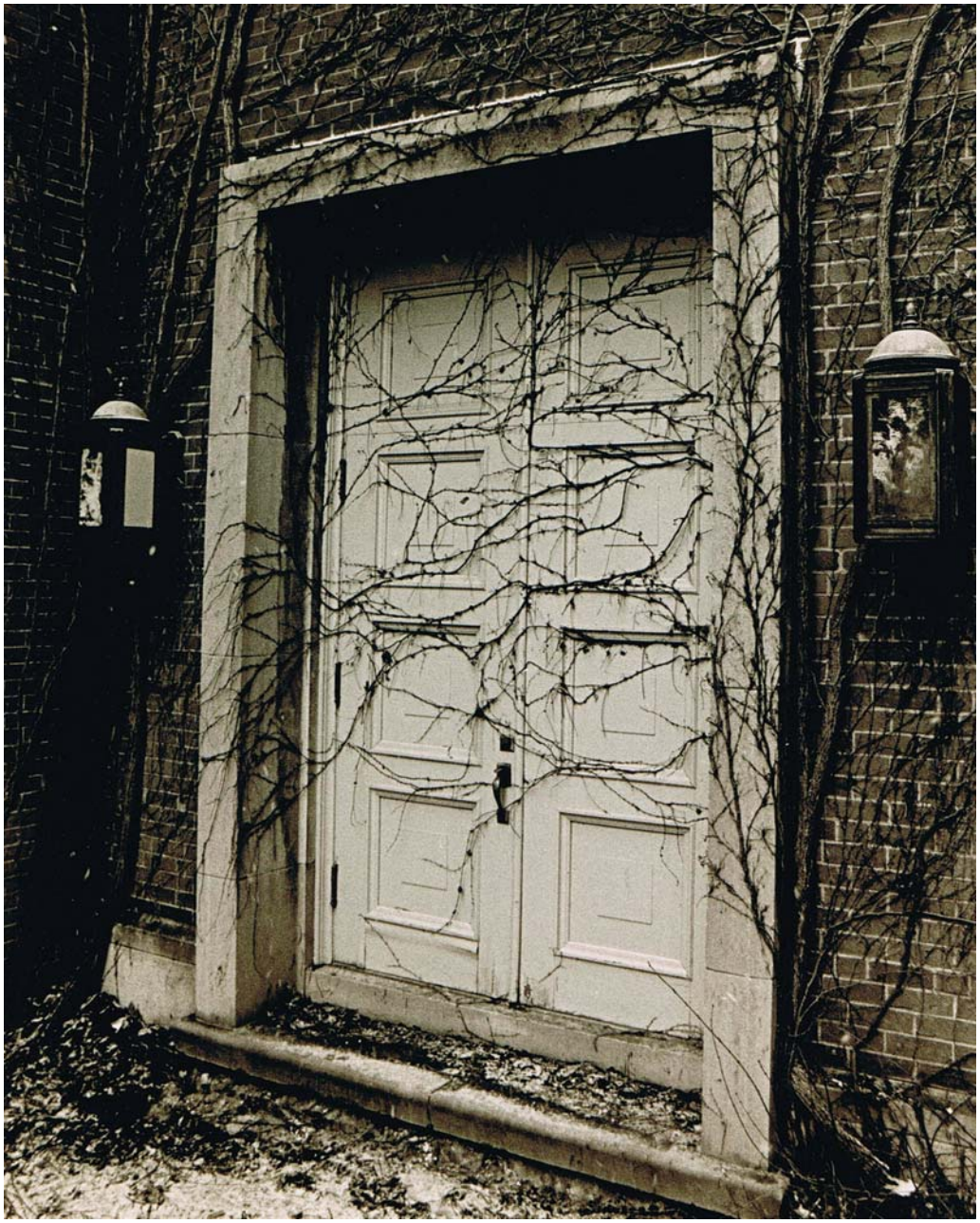
Catalogue no. 75-001-XIE

PERSPECTIVES

ON LABOUR AND INCOME

JUNE 2006
Vol. 7, No. 6

- EDUCATION AND EARNINGS
- THE GST CREDIT



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ISSN: 1492-496X.

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r	revised
x	confidential
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F	too unreliable to be published

Highlights

In this issue

Education and earnings

- Over the last 25 years, technological advancement has increased the need for highly educated workers. In 2005, 72% of Canadians aged 25 to 34 had some type of postsecondary education, compared with 54% in 1980.
- As a result of strong commodity and real estate markets, the past five years have seen a shift from white-collar to blue-collar jobs, where young people with less education are more often employed. Although this change does not appear to have boosted the overall employment rate of young, less-educated men, it may have mitigated any further downward pressure on their employment rates.
- Coinciding with the recent movement toward blue-collar jobs, average real earnings have increased more for young, less-educated men than for any other group. (Men with a university degree actually saw theirs decline.) Nevertheless, the real earnings of these men are still below their 1980 levels, and the gap between them and their university-educated counterparts is still large.

The GST credit

- In 2002/2003, the federal government collected $30.6 billion from the GST (goods and services tax). The GST accounts for 70% of consumption tax revenue and 16% of federal government revenue. The government returned $2.9 billion in GST credits to 9.1 million persons aged 16 and over in 7.5 million economic families.
- Almost two-thirds of those receiving a GST credit were major income recipients of economic families (including unattached individuals). Children still living with their parents accounted for another 21%. Although credits are designed to soften the burden of GST for families with lower incomes, only 26% of the total credit went to low-income families.
- Families with a GST credit received an average of $389, which represented 5% of their total government transfers or 1% of pre-tax income. Thus the GST credit has only a minimal effect on the redistribution of income.

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Education and earnings

Lucy Chung

Between 1980 and 2000, and particularly the latter half of the 1990s, the earnings gap widened between young workers who were less-educated and those who were well-educated. Several explanations have been suggested. Some research attributes the gap to skill-biased technological change, whereby workplaces supplanted manual labour with newer technology and processes requiring more skilled and better educated workers. The subsequent demand resulted in higher wages for such workers and hence increased returns to education. Other explanations include the growth of international trade (Wood 1994) and institutional changes such as the de-unionization of workplaces (Dinardo and Lemieux 1997).

In a global economy, industries that do not require a highly skilled, highly educated workforce search the world for cheap labour, often finding it in developing countries such as China, India or Mexico. This leaves Canadian workers with no postsecondary education facing significant uncertainty. Moreover, as the economy becomes more dependent on those with high levels of education, it is expected that the education wage premium will increase and the earnings gap between university and high school graduates will widen.

Recently, however, hot commodity and housing markets, as well as increased consumer spending since 2000, have led to a change in the industries and occupations with the most job growth. The frontrunners have been mining and oil and gas extraction, construction, and real estate, with increases of 17%, 18% and 10% respectively between 2000 and 2004 (Cross 2005). The retail sector also saw strong employment growth.

Although both blue-collar and white-collar jobs have become more plentiful since 2000, the most substantial growth occurred in positions not requiring post-secondary education, such as retail sales and clerical for white-collar, and construction and mining for blue-collar. Such jobs generally employ a larger proportion of young, less-educated workers.

The favourable conditions in these industries and occupations in recent years raise the question as to what extent the wages of young, less-educated workers have recovered, if at all, since 2000 as a result of strong employment growth in lower-skilled jobs. This study aims to answer this question by comparing employment rates, the education gap, and the changing demand for less-educated and well-educated workers between 1980 and 2005 (see *Data sources and definitions*). Young workers refers to those aged 25 to 34 while older workers are 35 to 54.

Education levels still rising

In 1980, individuals without a high school diploma represented roughly one-third of young workers, and half of older workers (Table 1). However, from 1980 to 2000, the proportion of young workers without a

Table 1 Distribution of employees by educational attainment and age group

	Census		LFS	
	1980	2000	2000	2005
	%			
25 to 34	**100**	**100**	**100**	**100**
Some high school or less	29	16	12	9
High school diploma	17	13	20	18
Some postsecondary	40	48	44	46
University degree	14	24	24	27
35 to 54	**100**	**100**	**100**	**100**
Some high school or less	47	22	18	13
High school diploma	11	16	22	22
Some postsecondary	33	44	41	43
University degree	10	19	19	22

Sources: Census of Population; Labour Force Survey, January and July

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Data sources and definitions

This study uses census data from 1980, 1985, 1990, 1995 and 2000. The **Census**, which is taken every five years, is the only available source that provides consistent information on education level over the 20-year period in question. Since census data for 2005 are not yet available, the **Labour Force Survey** (LFS) was used to analyze changes in the labour market between 2000 and 2005. January and July data for each year were used.

The population is restricted to individuals aged 25 to 54 living in private households, and excludes full-time students, those living in the territories, unpaid family workers, and those working in the Armed Forces. Workers 55 and over were excluded since their performance in the labour market may be affected by early retirement decisions. As well, other studies (Morissette and Johnson 2004; Morissette, Ostrovsky, and Picot 2004) have used this age cutoff, thus facilitating comparison with this study. The sample size for 2000 using the LFS was 110,668, representing 13.4 million Canadians. For 2005 the sample size was 53,114, representing 13.8 million.

Educational attainment is divided into four categories: some high school or less, high school diploma, some postsecondary, and university degree. **Real weekly earnings** are defined as annual earnings in 2004 dollars divided by the number of weeks actually worked.

diploma fell 13 percentage points, compared with 25 points for the older group. Meanwhile, the proportion with a university degree increased about 10 points for both groups. During the first five years of this decade the trend continued, with both age groups experiencing a 3-to-5-point reduction in their share of workers without a high school diploma and a 3-point rise in their share of university graduates. Clearly then, the educational landscape has changed over the last 25 years so that now a quarter of 25 to 34 year-olds and a fifth of 35 to 54 year-olds are university graduates, while the proportion without a high school diploma has dropped below 15%. If demand for less- and well-educated workers were constant, one would expect these changes in supply to have a positive effect on the employment and earnings of less-educated workers while negatively affecting those of the well-educated.

Falling employment rates for men throughout the 1980s and 1990s

The moderate increase in the overall employment rate for workers from 1980 to 2000 masks underlying differences by sex, age and education. For example, while the increased participation of women in the labour market produced an enormous growth in their employment rate (15 percentage points), the employment rate for men fell by 3 points (Table 2).[1] Most of the drop for men occurred between 1980 and 1990, coinciding with the deepest and longest recession in the economy since the

Table 2 Employment rates by sex, age, and educational attainment

	Census			LFS		
	1980	1990	2000	2000	2003	2005
	%					
All employees	**73.8**	**77.5**	**79.7**	**79.7**	**80.4**	**81.0**
Men	**87.7**	**84.5**	**84.6**	**85.5**	**84.8**	**85.1**
25 to 34	90.8	85.3	86.9	88.8	87.7	88.3
Some high school or less	84.1	74.9	74.6	75.0	76.6	76.5
High school diploma	92.0	85.9	85.3	89.0	85.8	88.7
Some postsecondary	92.9	88.5	89.6	91.0	89.8	90.0
University degree	96.2	93.4	92.5	92.7	90.8	90.2
35 to 54	90.6	86.8	86.0	88.7	87.8	88.4
Some high school or less	85.7	77.9	75.3	80.1	77.3	79.1
High school diploma	92.1	88.1	86.9	89.2	87.7	88.5
Some postsecondary	93.9	89.5	88.6	90.4	90.2	89.9
University degree	97.1	94.6	92.2	92.7	91.1	91.7
Women	**60.2**	**70.7**	**75.0**	**73.9**	**75.9**	**76.8**
25 to 34	60.8	71.1	75.8	75.7	77.3	78.2
Some high school or less	46.1	52.4	52.0	46.8	48.8	49.0
High school diploma	57.8	68.6	67.4	70.9	69.3	72.0
Some postsecondary	68.1	76.7	79.2	79.0	81.6	81.0
University degree	79.9	85.5	86.0	84.9	83.1	84.8
35 to 54	56.8	70.9	75.7	75.0	77.1	77.9
Some high school or less	47.5	55.7	58.9	56.8	59.4	57.6
High school diploma	58.5	71.8	74.4	74.0	75.5	75.9
Some postsecondary	67.3	78.0	80.3	79.2	81.2	81.5
University degree	76.6	85.2	85.0	83.8	82.1	83.8

Sources: Census of Population; Labour Force Survey, January and July

Second World War. The decrease was seen for men in all age and education groups, but especially those without a high school diploma.[2]

Employment rates for those with a high school diploma or less were consistently lower than those of university graduates throughout the 1980-to-2000 period. The gap increased during these years, with employment rates declining more for less-educated men than for well-educated men in each age category. During the past five years, however, the trend has reversed. Rather than continuing to decline, employment rates among workers with less education remained relatively stable, while their university-educated counterparts witnessed only slight decreases in each age category.

Among young men, high school graduates found that their chances of being employed remained virtually unchanged, while university graduates saw their employment rate drop by 2.5 percentage points. During the 2000-to-2005 period, employment rates generally did not improve for men but continued to increase for women. The expectation that more blue-collar jobs would spur a rise in the proportion of less-educated men employed did not materialize. Only young men who had not completed high school saw their employment rate rise (from 75.0% in 2000 to 76.5% in 2005).

Employment rates of young, less-educated women rose slightly during the 2000-to-2005 period, with a 2.2 percentage point increase registered for those who did not finish high school. This could reflect the growth in retail sales and clerical jobs (Cross 2005). Employment rates for women university graduates remained fairly constant.

Possibly, the employment rates of less-educated men would have continued to decline had it not been for the rise in blue-collar jobs in mining, oil and gas extraction, construction, and real estate—especially as the share of jobs in manufacturing continued its long-term trend of decline, from 19% in 1980 to 13% as of December 2005.[3]

Decomposition of employment

For analytic purposes, employment is often split into full-time paid, part-time paid, and self-employment. For the 1980-to-2000 period, full-time employment rates declined for men, regardless of their age or educational attainment. Between 2000 and 2005, decline in the full-time rate for men continued, but young workers with a university degree were responsible for most of it (Table 3). The overall employment rate for the well-educated group dropped 2.5 percentage points, as did their full-time employment rate (from 78.2% to 75.7%). And although the overall employment rate for young men with a high school diploma did not increase, examining the differences by employ-

Table 3 Full-time paid employment rates by sex, age, and educational attainment

	Census			LFS		
	1980	1990	2000	2000	2003	2005
			%			
All employees	**56.5**	**59.1**	**59.3**	**58.8**	**59.9**	**60.4**
Men	**71.4**	**68.5**	**66.8**	**66.2**	**66.2**	**66.3**
25 to 34	76.9	72.5	73.2	73.9	73.4	74.5
Some high school or less	68.5	61.6	60.5	59.7	61.2	62.9
High school diploma	78.5	72.6	70.4	72.1	71.9	74.6
Some postsecondary	80.1	76.2	76.1	76.8	75.4	76.5
University degree	82.1	80.2	79.4	78.2	76.7	75.7
35 to 54	72.0	69.3	67.6	67.0	67.3	67.1
Some high school or less	65.8	60.3	57.3	58.2	58.5	57.6
High school diploma	75.3	72.0	69.2	69.2	68.7	67.5
Some postsecondary	76.0	72.6	70.8	69.5	69.8	69.5
University degree	79.3	74.5	71.3	67.5	67.4	68.2
Women	**41.7**	**49.9**	**52.0**	**51.3**	**53.5**	**54.5**
25 to 34	43.9	52.4	56.0	56.4	59.5	59.9
Some high school or less	31.1	35.3	33.7	32.1	31.9	33.4
High school diploma	42.3	49.6	46.1	51.7	51.0	53.1
Some postsecondary	48.7	56.9	57.6	57.4	62.1	60.8
University degree	63.2	68.3	69.5	67.8	67.9	68.9
35 to 54	35.9	48.6	52.5	51.4	53.7	55.0
Some high school or less	29.4	37.1	39.5	37.0	40.3	40.2
High school diploma	37.5	50.2	51.8	52.0	53.0	53.5
Some postsecondary	41.9	52.9	55.4	54.2	56.0	57.5
University degree	55.7	61.6	61.2	57.8	58.7	59.6

Sources: Census of Population; Labour Force Survey, January and July

Table 4 Change in weekly earnings

	Overall				Full-time			
	Median		Average		Median		Average	
	1980-2000	2000-2005	1980-2000	2000-2005	1980-2000	2000-2005	1980-2000	2000 2005
	% change							
All employees	**-1.2**	**-1.0**	**4.1**	**1.7**	**-0.3**	**0.1**	**5.3**	**1.7**
Men	**-6.5**	**-0.6**	**1.2**	**0.2**	**-5.8**	**-1.3**	**3.1**	**0.4**
25 to 34	-16.9	0.9	-10.6	2.5	-15.7	1.9	-9.5	2.7
Some high school or less	-22.9	4.4	-21.1	7.8	-21.7	3.8	-20.3	8.1
High school diploma	-24.9	1.1	-21.0	5.2	-23.6	3.0	-19.8	5.1
Some postsecondary	-19.0	1.4	-14.5	2.6	-17.6	1.5	-13.6	2.7
University degree	-9.3	-1.3	0.3	-2.8	-8.0	0.9	1.2	-2.3
35 to 54	-6.8	-1.8	-0.4	-0.6	-5.7	-2.3	0.8	-0.5
Some high school or less	-14.0	-0.8	-10.6	0.6	-12.8	-1.2	-9.6	0.3
High school diploma	-16.9	-5.3	-15.7	-1.8	-15.1	-5.8	-14.4	-1.6
Some postsecondary	-10.5	-2.8	-5.6	-1.3	-9.8	-2.1	-4.6	-1.2
University degree	-11.4	-2.7	0.0	-3.9	-10.1	-4.4	1.9	-3.8
Women	**12.6**	**4.1**	**18.1**	**4.8**	**14.2**	**2.0**	**19.1**	**4.5**
25 to 34	0.8	3.5	5.3	5.3	-0.4	2.2	4.3	4.5
Some high school or less	-17.0	-1.8	-7.6	-1.6	-15.3	-0.9	-8.0	1.0
High school diploma	-20.2	0.4	-10.2	2.0	-15.2	-0.9	-9.4	0.5
Some postsecondary	-10.0	5.1	-4.4	5.1	-9.7	2.2	-5.4	3.8
University degree	-6.8	-0.6	0.5	2.4	-6.7	1.7	-1.1	2.7
35 to 54	17.2	3.5	22.8	5.4	16.3	3.6	19.1	4.6
Some high school or less	-1.5	2.1	5.9	5.5	-0.8	1.8	4.3	4.0
High school diploma	3.2	0.4	8.2	3.3	3.9	0.6	4.2	3.8
Some postsecondary	5.7	1.6	10.5	3.5	2.6	1.2	6.8	2.2
University degree	-4.5	-2.8	4.9	-0.1	-5.4	-4.8	2.5	-0.2

Sources: Census of Population, 1980 to 2000; Labour Force Survey, January and July 2000 to 2005

ment type indicates that full-time paid employment for this group went up 2.5 percentage points, but was offset by a decrease in self-employment (data not shown).

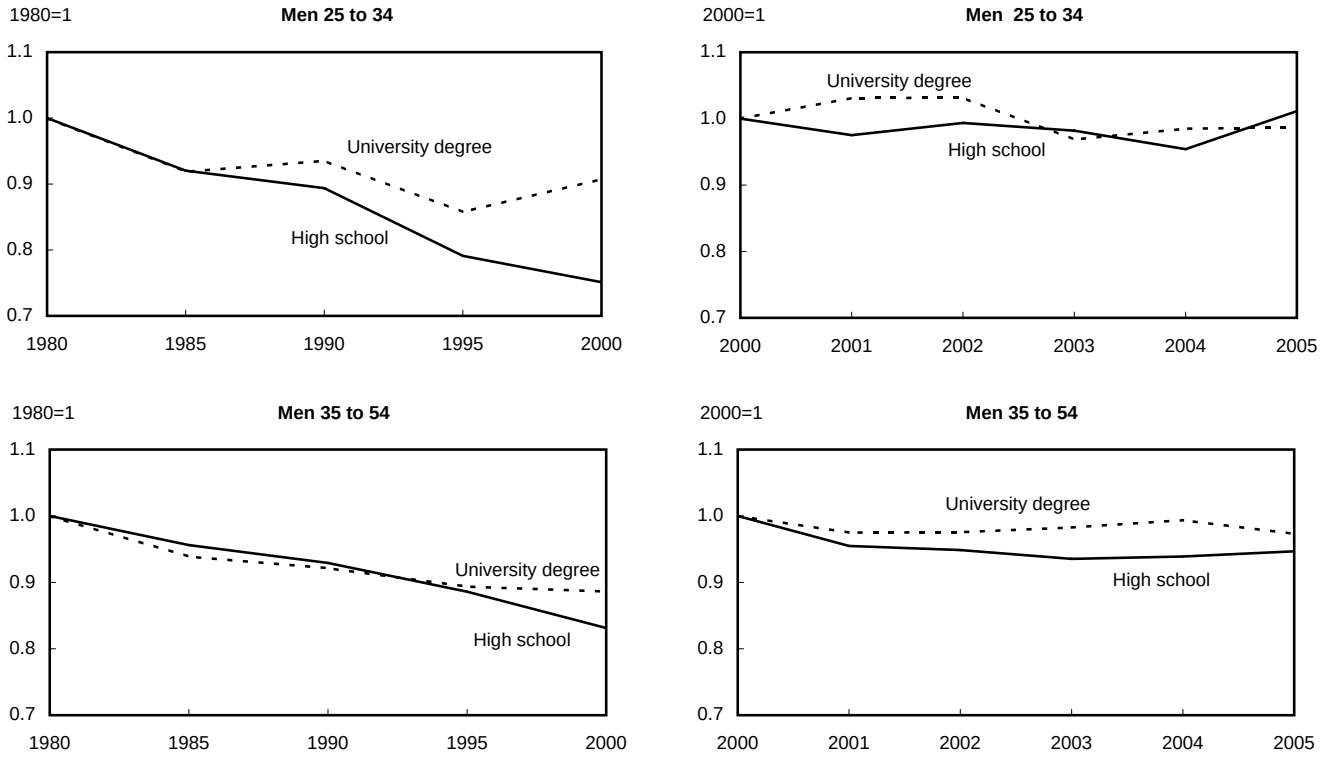
Between 1980 and 2000, full-time employment rates for women rose by at least 10 percentage points. This increase was more pronounced for the older age group where the rate increased almost 17%. Although full-time employment rates increased at all education levels, the rise was more pronounced among young, well-educated women than among those with less education. The older group saw increases at all education levels. Between 2000 and 2005, the full-time employment rate for women continued to climb for both age groups and for every level of education.

Given that full-time paid employment rates have risen slightly since 2000 for the young and less-educated, regardless of sex, it is interesting to see how the increase and the concomitant shift to blue-collar and non-management white-collar jobs have affected their earnings.

Education–earnings gap

On the whole, the constant-dollar median weekly earnings of paid workers have seen little change in the past 25 years (Table 4).[4] However, it is possible to find certain differences when examining earnings by age, sex and educational attainment. For example, between 1980 and 2000, men's median weekly earnings dropped by 7% while women's grew by 13%. In the last five years, median earnings have remained relatively constant for men while continuing to rise for women (4%). Average weekly earnings showed similar patterns.

Chart A Median real weekly wages of men



Sources: Census of Population, 1980 to 2000; Labour Force Survey, January and July 2000 to 2005

The increase in women's earnings between 1980 and 2000 was concentrated among older women, who saw their average real weekly earnings rise by 23%, compared with 5% for younger women. Older men also fared better than their younger counterparts over this period, their average weekly earnings remaining relatively constant while those of young men fell 11%.[5] Young male workers definitely bore the brunt of negative labour market changes in the 1980s and 1990s. Indeed, previous research has shown that between 1980 and 2000, real weekly earnings of young male high school graduates employed in the private sector fell 20% (Morissette, Ostrovsky and Picot, 2004).

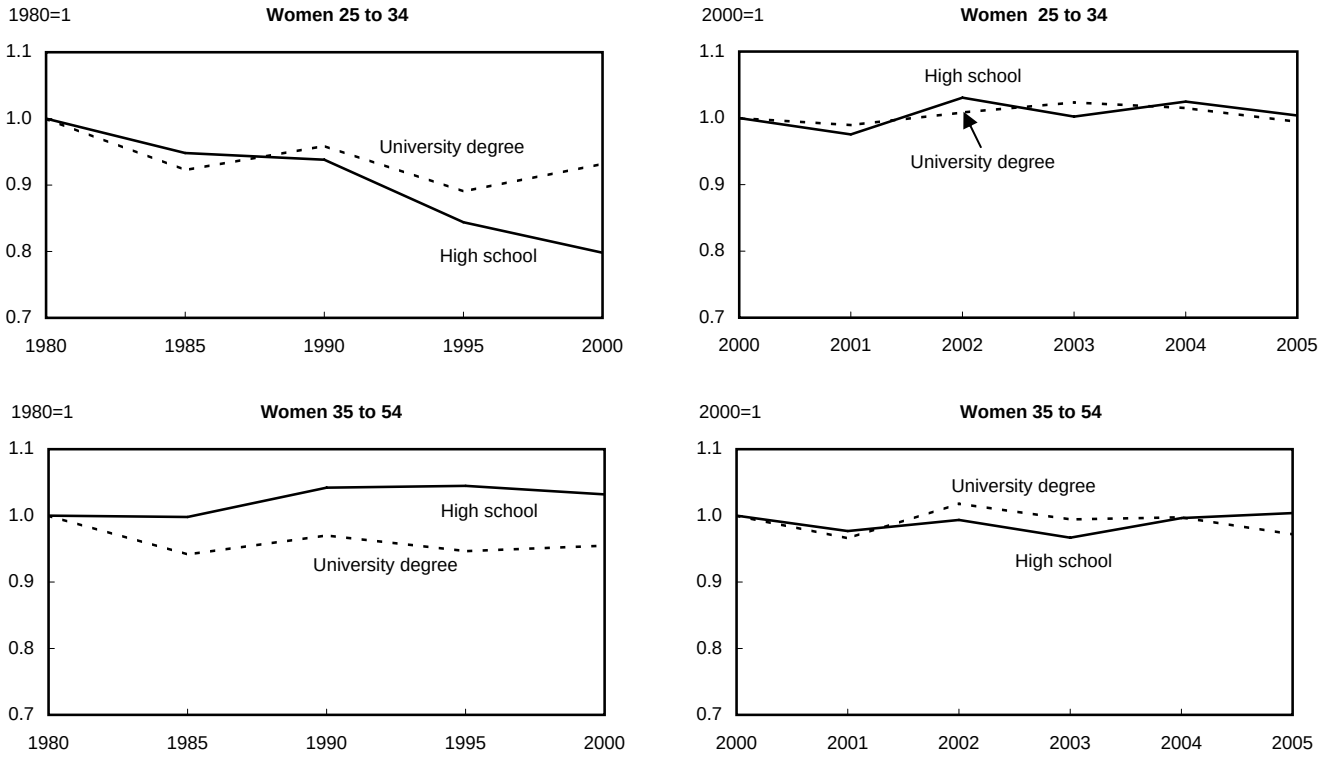
High school graduates in both age groups saw their earnings fall in relation to those with a university degree over this period (except for older women). For instance, average weekly earnings of young male high school graduates fell 21% between 1980 and 2000, while their university-educated counterparts saw a slight increase of 0.3%. As a result, the wage gap between young workers with university and high school credentials rose over the period (Charts A and B).

Over the last five years, however, earnings trends have changed somewhat. In the case of younger men, the trend has reversed. Between 2000 and 2005, the average weekly earnings of young male employees with a high school diploma rose by 5% while dropping 3% for those with a university degree. Even though the earnings gap between university-educated workers and those with a high school diploma remains large, these recent movements have somewhat narrowed the gap.

Earnings effects of bust and boom

In an increasingly knowledge-based economy such as Canada's, the recent drop in real earnings among men with a university degree has been unexpected.

Chart B Median real weekly wages of women



Sources: Census of Population, 1980 to 2000; Labour Force Survey, January and July 2000 to 2005

However, while many lost their jobs in the high-tech bust of 2001, others have found work in the flourishing oil and gas, mining and construction industries. In fact, the oil boom led to a 43% growth in employment in the oil and gas sector between 2000 and 2004 (Cross 2005). Construction was also booming over this period (26%), while overall employment growth from 2000 to 2005 was less than 10%.

In order to determine the extent to which the high-tech meltdown was a cause of the decline in earnings of men with a university degree over the past five years, the computer and telecommunications (CT) sector was excluded from the calculation of weekly earnings (Table 5).[6] With this sector excluded, the average weekly earnings of young men fell by less than 1%, compared with 2.8% when it was included. For older men, median and average weekly earnings either remained relatively constant or dropped even more when the CT sector was excluded. Wage changes in the CT sector therefore did not explain the drop in weekly earnings for this group of workers.

Employment growth in mining and oil and gas extraction, construction, and real estate likely contributed to the increase in weekly earnings for employees with high school education.[7] Excluding these sectors should therefore lessen the increase, and indeed this is true for certain groups of workers. All sectors included, young men with a high school diploma saw their average weekly earnings increase by 5.2% from 2000 to 2005. With the high-growth sectors excluded, their real earnings increased only 3.2%. For young men without a high school diploma, including all sectors showed an average weekly earnings gain of 7.8%. When mining and oil and gas extraction, construction,

Table 5 Change in weekly earnings, 2000 to 2005

	Excluding computer and telecommunications sector				Excluding mining, oil and gas, construction, and real estate			
	Overall		Full-time		Overall		Full-time	
	Median	Average	Median	Average	Median	Average	Median	Average
	% change							
All employees	**0.3**	**2.0**	**1.5**	**1.9**	**-0.2**	**1.4**	**0.6**	**1.4**
Men	**-0.9**	**0.5**	**-1.6**	**0.7**	**-1.1**	**-0.2**	**-1.6**	**0.1**
25 to 34	1.6	3.5	1.3	3.7	0.1	1.5	0.7	1.7
Some high school or less	4.2	7.8	3.8	8.1	3.4	3.6	4.3	4.2
High school diploma	1.1	5.0	4.1	4.9	-0.2	3.2	0.4	3.0
Some postsecondary	0.1	3.1	0.7	3.2	0.3	2.2	1.4	2.4
University degree	0.4	-0.7	-1.0	-0.2	-1.9	-3.2	-0.1	-2.7
35 to 54	-3.5	-0.4	-2.3	-0.4	-3.5	-0.9	-2.7	-0.8
Some high school or less	-1.0	0.5	-1.2	0.2	-3.1	-0.3	-2.4	-0.4
High school diploma	-5.3	-1.7	-5.8	-1.6	-4.8	-2.3	-5.6	-2.1
Some postsecondary	-2.8	-1.3	-3.1	-1.1	-2.4	-1.6	-2.8	-1.4
University degree	-5.5	-3.7	-2.7	-3.5	-2.7	-4.0	-3.5	-4.0
Women	**4.4**	**5.0**	**3.5**	**4.6**	**3.8**	**4.7**	**2.0**	**4.5**
25 to 34	5.5	5.8	2.6	4.7	3.0	5.1	2.2	4.3
Some high school or less	-1.8	-1.9	-0.9	0.6	-0.5	-1.4	-0.9	0.9
High school diploma	0.4	2.6	-0.6	0.8	0.4	1.9	-0.9	0.2
Some postsecondary	6.3	5.4	3.0	4.1	4.6	4.6	2.2	3.4
University degree	0.3	2.9	2.9	2.8	-0.6	2.4	1.7	2.6
35 to 54	2.8	5.3	4.2	4.5	4.0	5.3	3.4	4.5
Some high school or less	1.0	5.4	1.6	3.8	1.1	5.2	1.3	3.6
High school diploma	0.1	3.4	1.8	4.0	0.4	3.2	1.2	3.6
Some postsecondary	1.8	3.6	1.9	2.3	2.0	3.5	1.0	2.4
University degree	-3.9	-0.5	-5.1	-0.7	-2.3	-0.2	-5.1	-0.3

Source: Labour Force Survey, January and July

and real estate were excluded, the rise was only 3.6%. For women, the high employment growth sectors had little effect on the earnings of those with a high school diploma or less.

It appears then that the CT sector explains a portion of the decrease in the average weekly earnings of young university-educated male workers but not those of their older counterparts. In addition, the sectors with high employment growth during the last five years contributed to the increase in earnings among young male employees with a high school diploma or less, but had little effect on their older counterparts or women with the same education.

Summary

Over the last 25 years, technological advancement has increased the need for highly educated workers. In 2005, 72% of Canadians aged 25 to 34 had some type of postsecondary education, compared with 54% in 1980.

Employment rates also changed over the period. Women, regardless of education level, saw their employment rates increase as more of them moved into the labour market. For men, however, rates decreased. Between 1980 and 2000, the decline was more pronounced for men with lower levels of education.

As a result of strong commodity and real estate markets, the past five years have seen a change from white-collar to blue-collar jobs, where young people with less education are mainly employed. Although this change does not appear to have boosted the employment rate of young, less-educated men, it may have mitigated any further

downward pressure on their employment rates. However, when employment rates are examined separately for full-time, part-time and self-employment, full-time employment of less-educated workers did rise over the last five years but was offset by a drop in self-employment.

Coinciding with the recent movement toward blue-collar jobs, average real earnings have increased more for young, less-educated men than for any other group. (Men with a university degree actually saw theirs decline.) Nevertheless, the real earnings of these men are still below their 1980 levels, and the gap between them and their university-educated counterparts is still large. Moreover, earnings growth among less-educated workers is not expected to be sustainable since the recent increases appear to be a result of short-term fluctuations in demand, mainly due to the boom in oil and gas, mining and construction.

Notes

1 Estimates for workers aged 15 to 24 are not presented because of small sample sizes.

2 The decline in employment rates does not reflect an absolute decline in employment but rather a decline relative to the growth in population.

3 The recent drop in male workers with a university degree could be attributed to the high-tech bust in 2001. The next year, employment in the computer and telecommunications sector fell by 10% and the unemployment rate jumped from 3.9% to 6.6%.

4 Overall median weekly earnings in 2005 were $640; average weekly earnings were $715.

5 The patterns are much the same for full-time employees (Table 3).

6 The CT sector includes the following NAICS (North American Industry Classification System) industries: commercial and service industry machinery manufacturing (3333), computer and peripheral equipment manufacturing (3341), communications equipment manufacturing (3342), audio and video equipment manufacturing (3343), semiconductor and other electronic components manufacturing (3344), navigational, measuring, medical and control instruments manufacturing (3345), computer and communications equipment and supplies wholesaler-distributors (4173), software publishers (5112), telecommunications (5133), data processing services (5142), computer systems design and related services (5415), electronic and precision equipment repair and maintenance (8112).

7 These high-growth sectors include the following NAICS industries: oil and gas extraction (2111), support activities for mining, and oil and gas extraction (2131), construction (23), real estate and rental and leasing (53).

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The GST credit

Raj K. Chawla

The federal goods and services tax (GST) was introduced in 1991. Unlike its predecessor, the manufacturers' sales tax, which was levied only on manufactured goods, the GST applies to almost all goods and services. Initially set at 7%,[1] GST is charged over and above any provincial sales tax.[2]

Unlike income tax where the rate increases with income, the GST is levied at the same rate for everyone. As a result, low-income consumers end up paying relatively more of their income in GST than those with higher incomes. To alleviate some of the burden on low-income Canadians, the federal government introduced a GST tax credit. The credit is tied to personal income rather than the amount of GST paid. Besides personal income, the credit amount depends on marital status, number of children, and spousal net income as reported in the previous year's tax return.[3] The credit is adjusted for inflation as measured by the change in the consumer price index. Recipients are issued a cheque on the 5th of January, April, July, and October.

This article looks at issues surrounding the GST and the GST credit. How important is the GST as a source of federal government revenue? How does it relate to personal disposable income and other consumption taxes? How much of the entire GST take is paid back to individuals? How many are receiving the GST credit, and who are they? Does the credit help redistribute income? The 2003 Survey of Labour and Income Dynamics (SLID), and federal revenue and expenditure data are used to answer these questions.[4]

The family perspective

Since the economic well-being of an individual also depends on family income rather than just personal income, those who qualify for the GST credit are not necessarily disadvantaged. An example would be a young adult living with parents and working part time at a low-paying job. Another reason to look at the GST credit in a family income context is that the majority of recipients 16 and over, other than unattached individuals, are from multiple-earner families or those with more than one recipient (for instance, a child and another relative of the major income recipient living in the same family).

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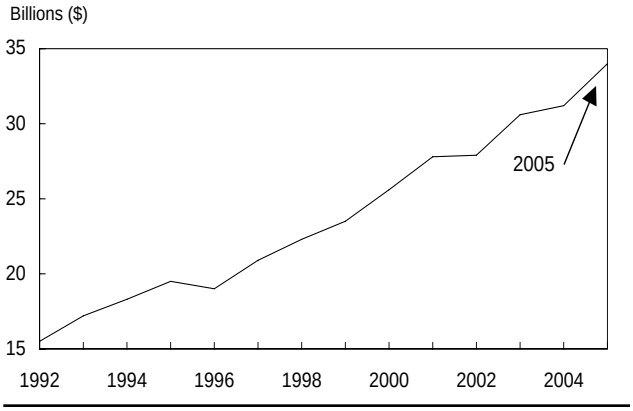
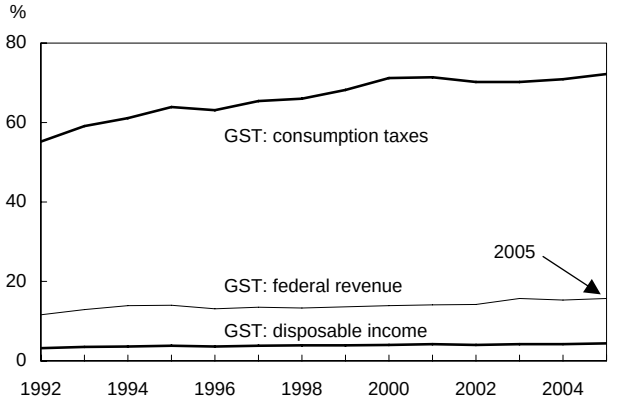
Chart A GST revenue has risen steadily since its introduction



Source: Federal government revenue and expenditure

Government revenue from the GST has climbed steadily, from $15.5 billion in 1991/1992 to $34.0 billion in 2004/2005 (in current dollars). The rise can be attributed to increased consumer spending, which in turn has been influenced by factors such as population growth, family make-up, favourable economic conditions, higher income levels, easier credit, lower interest rates, and changing spending patterns. A spending spree between 2002 and 2005 alone accounted for 33% of the increase in GST collected since 1991/1992.

Chart B GST is the major consumption tax and a key source of federal government revenue



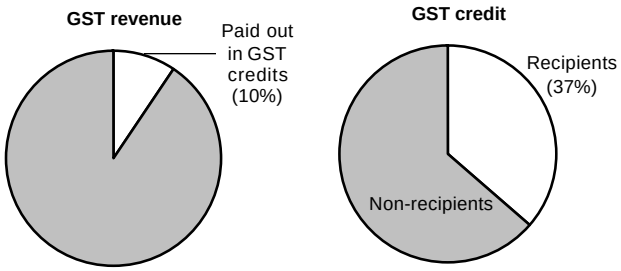
Source: Federal government revenue and expenditure

The GST is the main consumption tax in Canada. Others include customs duties as well as taxes on alcoholic beverages and tobacco products, gasoline, and amusement. The GST accounted for 72% of consumption taxes in 2004/2005 compared with 55% in 1991/1992.

While the relative importance of other consumption taxes has declined, the GST share of federal revenue rose from 12% in 1991/1992 to 16% in 2004/2005. However, between 2000 and 2005, GST intake grew almost twice as much as total federal revenue—33% versus 18%.

GST is paid from personal disposable income—that is, total income less income tax, Canada or Quebec Pension plan contributions, and Employment Insurance premiums. Canadians paid 4.4% of their disposable income in GST in 2005 compared with 3.2% in 1992. Over this period, the growth in GST paid also outpaced income growth—120.0% versus 60.9%.

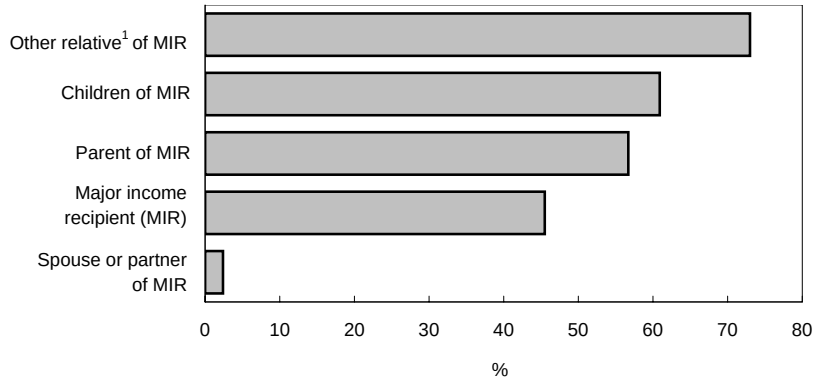
Chart C Over one-third of persons 16 and older received a GST credit in 2003, accounting for 10% of all GST collected



Sources: Federal government revenue and expenditure, 2003; Survey of Labour and Income Dynamics, 2003

GST revenue in 2003 was $30.6 billion. Of this, $2.9 billion was paid back as a credit to 9.1 million of the 24.8 million taxfilers aged 16 and older, for an average of $322 per recipient.[5] SLID treats this credit as a government transfer.

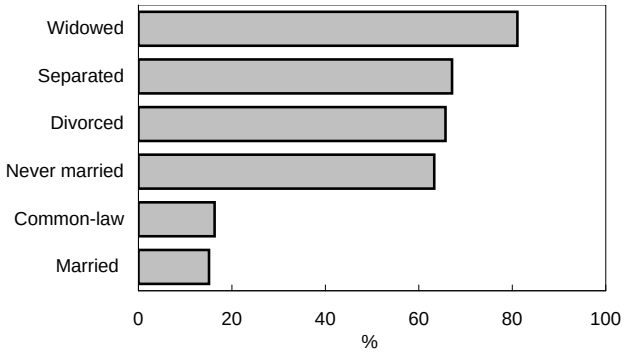
Chart D Children and parents of major income recipients were more likely to receive a GST credit



1 Includes sibling, grandparent, grandchild and other relatives.
Source: Survey of Labour and Income Dynamics, 2003

In economic families, major income recipients were less likely to receive a GST credit than children, grandchildren, parents or siblings of major income recipients.[6] Spouses or partners were least likely because the program stipulates that only the one with the larger income can claim the credit. The high proportions of parents, siblings and grandchildren receiving the credit could be due to their relatively smaller representation among persons 16 and over, since they represented only 11% of all recipients.[7] Nevertheless, major income recipients accounted for 65%, and children for another 22%. These two groups therefore accounted for 87% of all GST credit recipients.

Chart E More singles got a GST credit

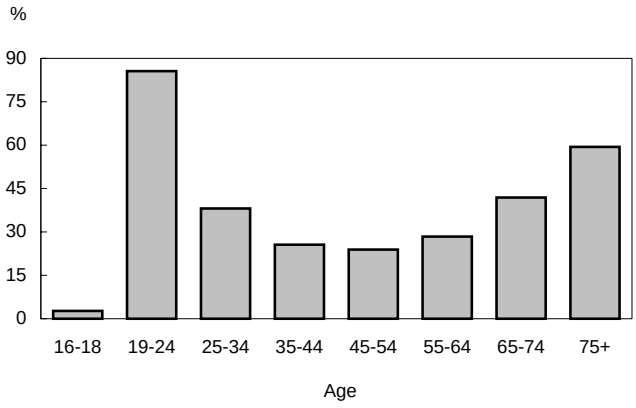


Source: Survey of Labour and Income Dynamics, 2003

Single individuals (never married) were more likely than married or common-law to receive a GST credit; and the widowed are more likely than single, separated, or divorced. This is largely due to income differences. For instance, married persons had a mean income of $36,300 compared with $19,700 for singles.

Among GST credit recipients in 2003, 48% were single; 28% were separated, divorced or widowed; and the remaining 24% were married or living common law. Their shares of the total credit were 41%, 29% and 30% respectively. Those who were not single had a larger credit share than their population representation, largely because some had young children living with them. The credit increases with the number of children in the family under 18.

Chart F Young adults and seniors were more likely to receive a GST credit



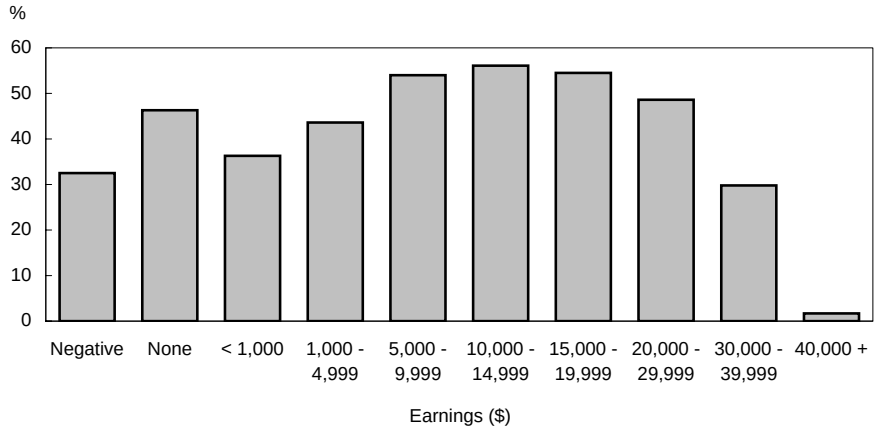
Source: Survey of Labour and Income Dynamics, 2003

Since young adults (19 to 24) and seniors (65 and over) both have lower incomes, they are much more likely to receive a GST credit. In 2003, 86% of those in the 19-to-24 age group received a credit, as did 42% of those aged 65 to 74, and 59% of those 75 or older. One in four recipients was a young adult, and one in five was a senior. These two groups accounted for 45% of all recipients.

In the young adult category, 64% were children of major income recipients, and another 29% were themselves the major income recipient (likely unattached individuals). On the other hand, among seniors, 80% were major income recipients, and just over 10% were parents of major income recipients.

Among the young adults, 40% reported attending school as their major activity during the reference year, while 36% were working at a job or business. Overall though, half of persons 16 and over attending school (most likely a postsecondary institution) in 2003 received a GST credit.

Chart G Persons with earnings between $5,000 and $20,000 were more likely than others to receive a GST credit

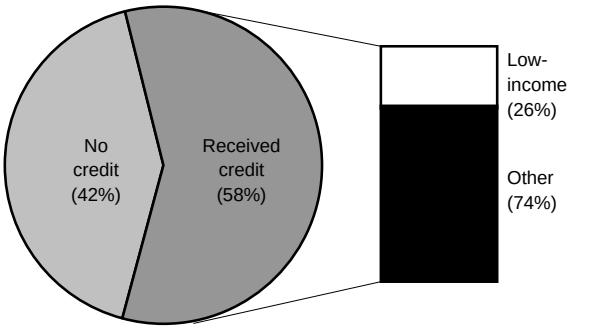


Source: Survey of Labour and Income Dynamics, 2003

Since the GST credit is tied to personal income, it is not surprising that a higher proportion of low earners received a credit in 2003. The highest receipt rate (56%) was for those with earnings between $10,000 and $14,999, while the rate for those with no earnings at all was 46%. The rate was under 2% for those with earnings of $40,000 or more.

Among all recipients, 36% had no employment earnings, while 24% had earnings less than $10,000. Among those with no earnings, nearly 70% were senior major income recipients, while 9% were parents and 12% were children of major income recipients. Among those with earnings under $10,000, 48% were major income recipients, 3% were parents, and 39% were children.

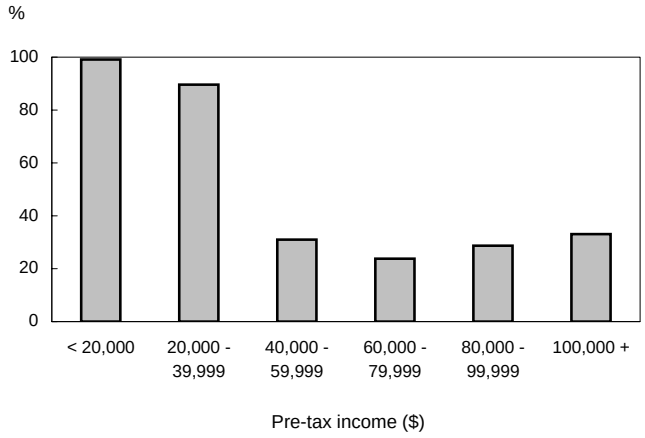
Chart H Only a quarter of families receiving a GST credit were in low income



Source: Survey of Labour and Income Dynamics, 2003

According to SLID, the 9.1 million GST credit recipients in 2003 came from 7.5 million of the 13.0 million economic families in Canada. Among families receiving a credit, only 26% were classified as low-income according to Statistics Canada's low-income cutoff measures. In other words, the majority of families who received a GST credit were not considered to be in straitened circumstances. Their relative shares of the total $2.9 billion GST credit were similar to their respective representations, resulting in an average credit of almost $390 each.

Chart I One-third of families with income of $100,000 or more received a GST credit



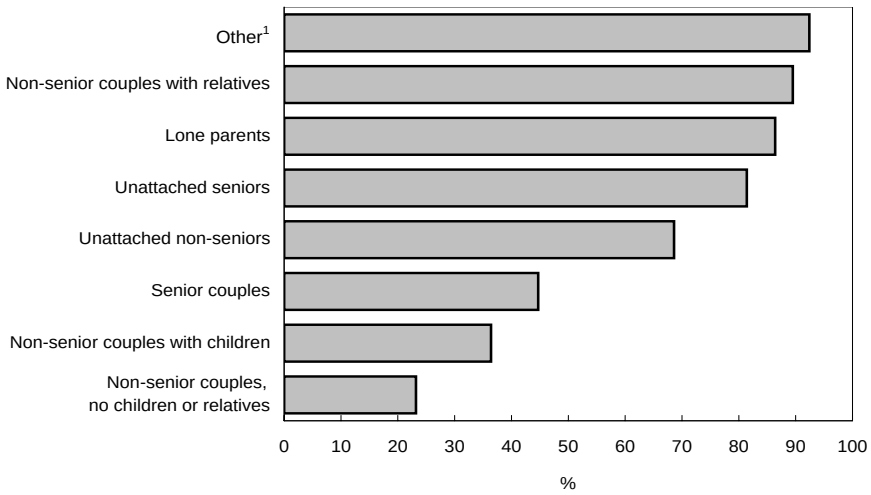
Source: Survey of Labour and Income Dynamics, 2003

Almost all families with income under $20,000 received a GST credit. This compared with 90% of those with income between $20,000 and $39,999, dropping to 24% for families with income between $60,000 and $79,999, and then rising to 33% for those with income of $100,000 and over.

This variability by income is largely due to differences in family make-up. For instance, among those with income under $20,000, 76% were unattached individuals, 12% were couples, and 8% were lone parents. Among families with income of $100,000 and over, on the other hand, 85% consisted of couples living with children or other relatives, and another 11% were non-senior, multiple-earner families. This indicates that GST credit recipients in high-income families are children, parents, or other relatives of the major income recipient.

Overall, 72% of families reporting a GST credit had income under $40,000, 20% had between $40,000 and $99,999, and only 8% had $100,000 or more.

Chart J Non-senior couples without children or relatives were least likely to receive a GST credit

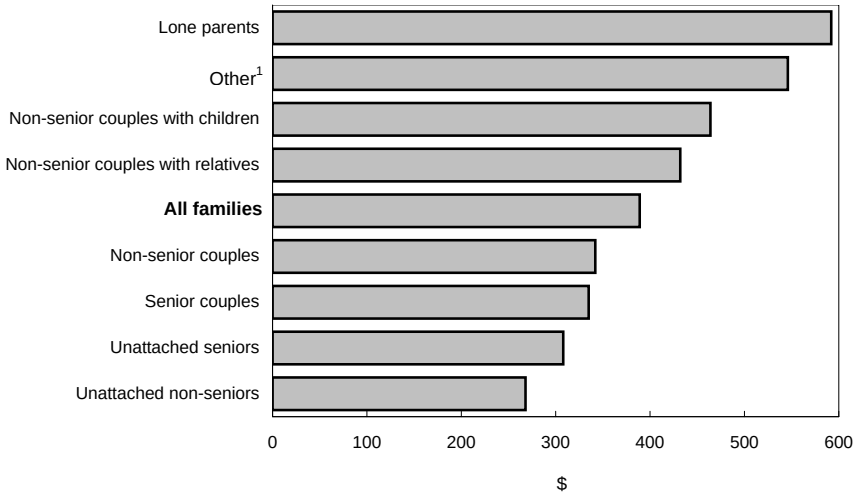


1 Includes families other than those consisting of couples or lone parents.
Source: Survey of Labour and Income Dynamics, 2003

The proportion of families receiving a GST credit differed by family type; for instance, 23% of non-senior couples without children or other relatives received a credit, compared with 69% of non-senior unattached individuals. The senior equivalents of these two groups had higher proportions (45% and 81% respectively). Credits were more common in families composed of a non-senior couple living with relatives, in lone-parent families, and in other families (ranging between 86% and 92%).

Unattached individuals and lone-parent families accounted for about 50% of GST credit recipients and couple families for another 38%, the majority living with relatives other than children.

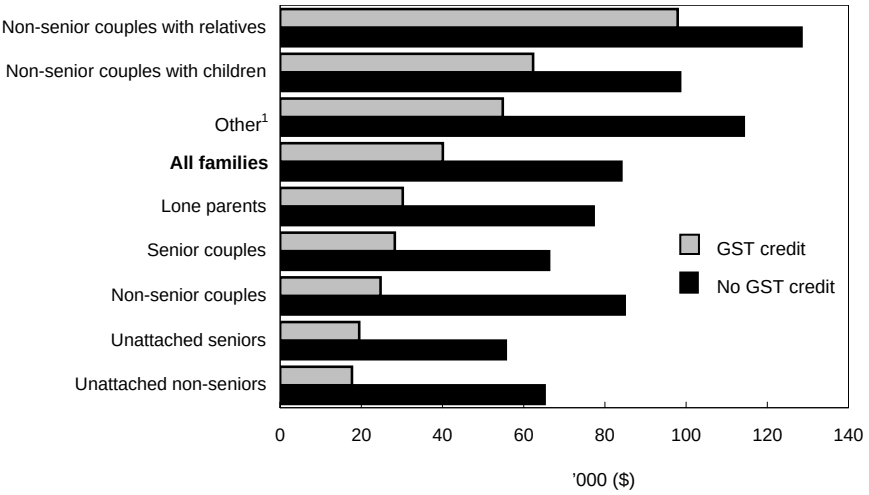
Chart K On average, lone-parent families received a larger GST credit than other families



1 Includes families other than those consisting of couples or lone parents.
Source: Survey of Labour and Income Dynamics, 2003

Lone-parent families (headed mostly by women) received the highest GST credit—$592 compared with the national average of $389. Their couple counterparts with children received $464. Non-senior unattached individuals received the least credit ($268) while their senior counterparts received $308. The average credit of $389 increased the purchasing power of recipients by $1.07 a day.

Chart L Families receiving a GST credit had lower incomes than other families

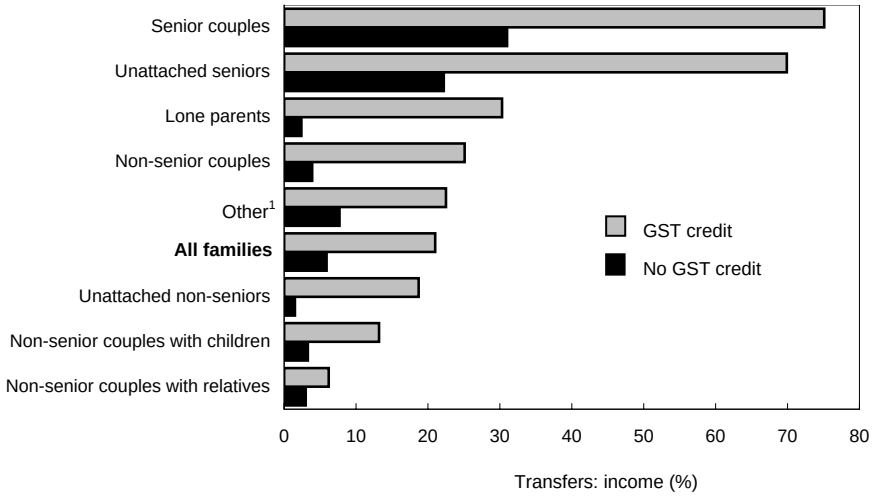


1 Includes families other than those consisting of couples or lone parents.
Source: Survey of Labour and Income Dynamics, 2003

The average income of families who received a GST credit was $40,100, compared with $84,000 for those not receiving a credit. (The lower income for those receiving the credit can be partly attributed to family make-up: more unattached non-seniors and lone-parent families). The GST credit of $389 thus narrows the income gap between recipients and non-recipients by less than 1%.

Irrespective of family type, the mean income of those with a credit was less than those without, with the largest gap for unattached non-seniors (73%) and the smallest gap for non-senior couples living with relatives (24%).

Chart M Families with a GST credit received more in government transfers

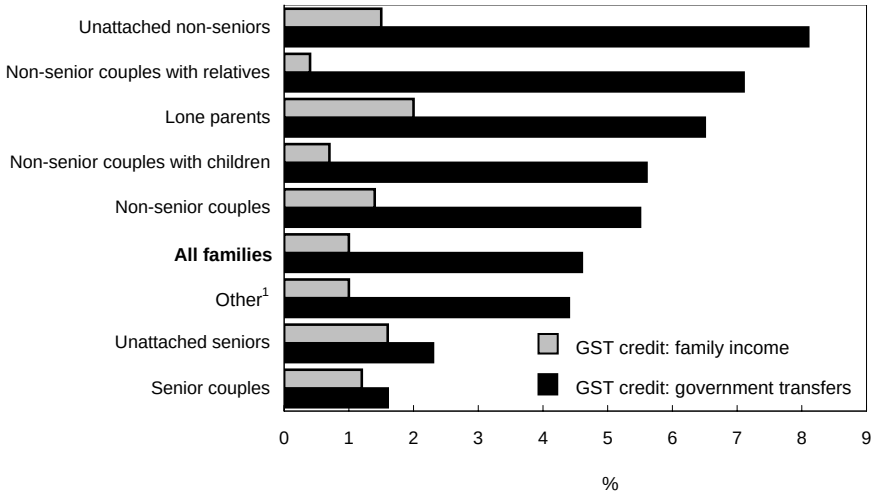


1 Includes families other than those consisting of couples or lone parents.
Source: Survey of Labour and Income Dynamics, 2003

Of the total $90.9 billion transferred from governments to families in 2003 (including the $2.9 billion GST credit), $63.5 billion (or 70%) was paid to families who received a GST credit.[8] The average transfer was $8,431 compared with $4,977 to other families. Because of their relatively lower incomes and higher transfers, families with a GST credit drew proportionately more income from government transfers—21% compared with 6% for those not receiving the credit.

The transfer-to-income ratio also varied by family type; for instance, senior couples and unattached seniors who received a GST credit drew most of their income from government transfers (75% and 70%), whereas their counterparts without a credit drew 31% and 22%. The ratio gap was much smaller for non-senior couples.

Chart N The GST credit is too small to have an effect on income redistribution



1 Includes families other than those consisting of couples or lone parents.
Source: Survey of Labour and Income Dynamics, 2003

Compared with total pre-tax family income of $764.7 billion, the $2.9 billion GST credit is too small to have much impact on the redistribution of income among families. Overall, the GST credit represented 5% of total government transfers and just 1% of recipient family income.

These ratios varied by family type; for example, for lone-parent families, the GST credit represented 6.5% of government transfers and 2.0% of pre-tax income. The respective estimates for non-senior couples with children were 5.6% and 0.7%. For both non-senior and senior unattached individuals, the GST credit represented just 1.5% to 1.6% of income.

Summary

In 2002/2003, the federal government collected $30.6 billion in GST. The GST accounted for 70% of consumption tax revenue and 16% of total government revenue. The government paid out $2.9 billion in GST credits to 9.1 million persons aged 16 and over (or 7.5 million economic families). Major income recipients in economic families (including unattached individuals) accounted for 65% of all GST recipients, and children of major income recipients for another 21%. Although credits are designed to soften the burden of GST for families with lower incomes, only 26% of the total credit was paid to low-income families. Families with a GST credit received, on average, $389, which represented 5% of their total government transfers or 1% of pre-tax income. Thus the GST credit has only a minimal effect on the redistribution of income.

Notes

1 According to the budget of May 2, 2006, the GST will drop to 6% on July 1, 2006. Another decrease to 5% is promised over the next five years. Based on the $34 billion collected in 2005, a one-point reduction would mean a loss of almost $5 billion in government revenue.

2 Alberta is the only province with no sales tax. Newfoundland and Labrador, New Brunswick and Nova Scotia have integrated their provincial sales tax with the GST, charging their residents only one tax, referred to as the harmonized sales tax, or HST.

3 For the year July 2003 to June 2004, the maximum credit was $216 for an eligible adult and $114 for each eligible child under 19. A couple with net income of less than $7,022 and no children received a maximum credit of $432, while a couple with one child could receive $546. On the other hand, a family with one child was not entitled to a credit if their income was $40,000 or more. Only one spouse in a family can claim the credit. For details on credit entitlement by marital status, number of children, and income level, visit the Canada Revenue Agency Web site at http://www.cra-arc.gc.ca/benefits/gsthst/gstc_payment02-e.html.

4 How the GST affects prices of goods and services in a market economy is beyond the scope of this study.

5 According to the Canada Revenue Agency, 9.4 million taxfilers received a GST credit between July 2003 and June 2004. The total amount paid was $3.1 billion, for an average of $325 per recipient. Since income information in SLID is derived mainly from authorized tax records, global statistics from both sources are very close. This paper uses SLID because it provides more detail on characteristics of individuals and their families.

6 This paper looks at persons 16 and older living as unattached individuals or in economic families. Unattached individuals live by themselves or in a household where they are not related to other household members. An economic family is a group of persons sharing a common dwelling and related by blood, marriage, common law, or adoption. Thus, all relatives living together are considered as one family unit, whatever the degree of family relationship.

7 The charts show the proportions who received a GST credit, whereas the percentage distributions of recipients are from unpublished data (available on request).

8 Besides the GST credit, government transfers include benefits from Old Age Security, the Guaranteed Income Supplement, the Allowance, Employment Insurance, the Canada and Quebec Pension Plans, the Child Tax Benefit, social assistance, provincial assistance and tax credits, and workers' compensation.