

Employment prospects for high school graduates

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Not so many years ago high school was widely seen as the end of the educational road for most Canadians. It was all that was needed to get a good job. Now, conventional wisdom asserts that it is next to impossible for secondary school graduates to find well-paid employment, if they can find employment at all.

Conventional wisdom seems to be supported by experience. Since the late seventies, 25 to 29 year-olds with only a secondary school education have had increasing difficulty finding steady employment, and even more difficulty obtaining well-paid work. Indeed, many entry-level jobs previously filled by such graduates now require a postsecondary education. Yet in spite of such evidence in support of further education, high school graduates still account for a substantial portion (43% in 1993) of persons in this age group.

This article uses cohort analysis to examine the change over time in the labour market "success" of 25 to 29 year-old secondary school graduates (see *Who's who*). Three indicators of success are used: the employment rate; average earnings; and the unemployment rate. Four years are analyzed: 1979 and 1989 (peak years in two successive business cycles, when national unemployment rates were 7.4% and 7.5%, respectively); and 1984 and 1993 (the early years of labour market recovery following deep recessions, when unemployment rates were 11.2%). All earnings data are in 1993 dollars (see *Data sources and definitions*).

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Young men in crisis?

In 1979, the Canadian economy was at the peak of a four-year economic expansion, and life was good for 25 to 29 year-old men with a secondary school education (Cohort 1). These men had been in the labour market for at least 5 years, some for more than 10. Some of the older members of this cohort may have had trouble finding or keeping jobs in the early to mid-1970s, during the brief recession of 1974-75. However, most would have had time to settle in the workplace by 1979. Indeed, fully 91% of the young men in Cohort 1 were employed in 1979, and earned an average of \$32,000 (1993 dollars). More importantly, most of them (75%) were working full year full time, with average earnings of \$35,250. Their unemployment rate stood at only 6.5% (Table 1).

In 1989, economic conditions were similar to those prevailing 10 years before, but young men with only a secondary school education were not faring as well. Many members of Cohort 3 had entered the labour market during a difficult time marked by a recession and recovery, just as Cohort 1 had done, but the 1981-82 recession was more severe than the brief slowdown of the mid-1970s. Among Cohort 3's setbacks were a somewhat lower employment rate than that of Cohort 1 a decade earlier, and substantially lower average earnings (Chart A). Furthermore, although the economy was in a prolonged boom, a smaller proportion of the young men in Cohort 3 (69%) were employed full year full time. For those who did work the entire year, average earnings were also down from those of Cohort 1.

Who's who

This article examines successive groups of high school graduates aged 25 to 29 (each group forming a cohort). This age range, rather than 20 to 24 years, was selected because most people have settled into the job market by their mid to late twenties but

their work experience does not yet influence earnings significantly.

The cohorts of graduates examined in this study are defined for specific years as follows:

	1979	1984	1989	1993
	Age group			
Cohort 1	25-29	...	35-39	...
Cohort 2	...	25-29	...	34-38 *
Cohort 3	25-29	...
Cohort 4	25-29 **

* Because 1984 to 1993 (most recent earnings data available) spans nine years, the age of the cohort must be adjusted accordingly.

** Members of Cohort 3 who were aged 25 in 1989 may be found in Cohort 4 as 29 year-olds.

Data sources and definitions

Data are from the Labour Force Survey (LFS) and the Survey of Consumer Finances (SCF), which is conducted as a supplement to the LFS.¹ The bulk of this study focuses on four cohorts of 25 to 29 year-olds with secondary schooling only (Cohorts 1 to 4); four additional cohorts of 25 to 29 year-old university graduates are briefly examined (see *University graduates*).

Strictly speaking, the secondary school cohorts should not be referred to as "graduates," because their educational qualification is "having completed 11 to 13 years of schooling."² LFS data explicitly confirming graduation were not collected until 1990, when the educational attainment question was expanded into "some secondary, 11 to 13 years" and "graduated from high school." However, to maintain consistency of educational attainment for the two cohorts affected by the change (1989 and 1993), this study rolls the two new categories back into one, to include both graduates and non-graduates in 1989 and 1993.³

Another limitation arises from the changes to the LFS educational attainment questions. Prior to 1990, persons with trades certificates or diplomas from vocational schools or from apprenticeship training programs were considered to have secondary credentials only. From 1990 onwards, they

were identified as having postsecondary qualifications. This means that the first two cohorts of high school completers include an unidentifiable number of workers (both with and without high school graduation) who have such qualifications. Therefore, to maintain as much consistency as possible across the break in the data series, persons with trade/vocational or apprenticeship certificates are included in the last two cohorts.⁴ Although Cohorts 1 and 2 are not exactly comparable with Cohorts 3 and 4, any differences are unlikely to affect this study's findings.

Definitions

Cohort: persons of the same age range with the same level of education grouped together, usually for the purpose of studying specific characteristics (for example, unemployment rates) over time.

Secondary/high school graduates: persons with 11 to 13 years of formal schooling, but without postsecondary training normally requiring high school graduation (for example, college or university).

Employment rate: the percentage of a population group (for example, male 25 to 29 year-olds with a secondary school education) that is employed either full or part time during a reference week. In this article, employment rates are annual LFS averages.

Full-year full-time employment rate: the percentage of a given population that is employed full year full time, that is, works mostly 30 hours or more per week for 49 to 52 weeks in the calendar year; occasionally referred to as the *full-year employment rate*. Full-year full-time employment rates are calculated from SCF estimates.

Unemployment rate: the percentage of persons in the labour force who are unemployed. The labour force consists of the employed and the unemployed (persons looking for work or on temporary layoff or with a job starting within four weeks and not already working and available for work). The unemployment rates used in this study are annual LFS averages.

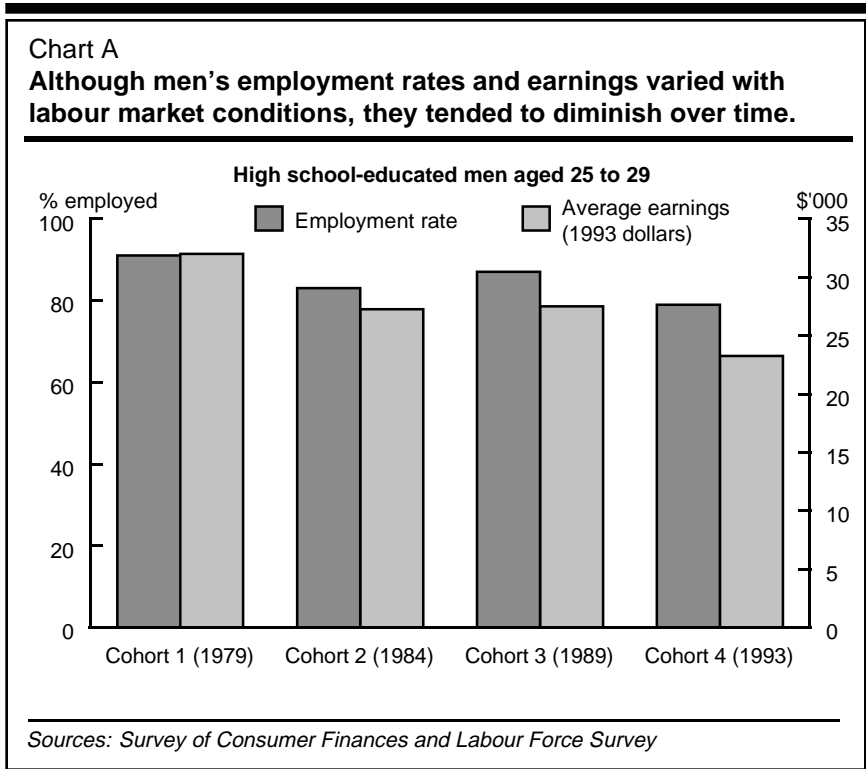
Earnings: income from wages, salaries, tips and commissions, and net income from self-employment. All earnings data have been converted to 1993 dollars and rounded to the nearest \$250. *Average earnings* are calculated by dividing workers' total earnings in the calendar year (obtained from both full- and part-time work, as well as full- and part-year employment) by the number of workers reporting earnings. *Average full-year earnings* estimate the average earnings of workers employed full year full time in the calendar year. (Workers with negative earnings, that is, net losses from self-employment, are excluded from these calculations.) Earnings data are provided by the SCF.

In both 1984 and 1993, the labour market was in early recovery following a deep recession. However, most of the young men in Cohorts 2 and 4 would have entered the job market before the recession; the majority probably entered during the preceding expansionary period. But in 1984, the unemployment rate of young men with a high school education was 12.6% (Cohort 2). Only 83% of them were employed, and they earned \$27,250 on average. Earnings were about

21% higher for full-year full-time workers, but the rate of full-year employment in Cohort 2 was low, at 63%.

By 1993, the situation had deteriorated further for young men. Many in Cohort 4 would have joined the workforce in the mid to late 1980s when the number of jobs was growing rapidly. But it seems that employment opportunities or career advancement, or both, were lacking.⁵ In 1993, the unemploy-

ment rate for men in Cohort 4 had reached 15.0% and their rate of employment was below that for men in Cohort 2, who had faced a similar economic climate in 1984. More telling were Cohort 4's average earnings of \$23,250, which were 15% lower than those of Cohort 2 at the same age. The labour market situation was no better among men working full year full time: Cohort 4's employment rate was down to 59%, and average earnings were 12% lower.



Young women also lose ground

Ages 25 to 29 are the principal childbearing years, when many women with young children choose to work part time or part year, or withdraw from the labour force altogether. For this reason, their labour market experience should not be directly compared with that of men the same age; nor should assumptions be made based solely on the economic conditions prevailing at the time they entered the labour force.

In 1979, 58% of young women with a secondary school education (Cohort 1) were employed, with average earnings of \$18,250. Women working full year full time – 52% of the women in Cohort 1 – made \$6,500 more (Table 2).

In 1989, the average earnings of employed Cohort 3 women were down 7% compared with Cohort 1, although their rate of employment

had risen to 68% (Chart B).⁶ The full-year employment rate was up modestly for Cohort 3,⁷ while earnings were much lower (-12%).

In 1984, the young women in Cohort 2 faced a labour market

struggling toward recovery. The rate of employment for all women in the cohort was 60%, but the rate of full-year full-time work was only 46%. Average earnings for all employed women in Cohort 2 were \$17,000, about 28% less than for women employed full year full time.

In 1993, the women in Cohort 4 recorded the highest unemployment rate of any of the female cohorts studied (13.9%). On the other hand, their employment rate was higher than it had been for Cohort 2, even though earnings had shrunk 6%. Earnings of full-year workers had also dropped (-9%), while their rate of full-year employment was the same as it had been for young women nine years earlier.

Work experience has little impact

Employment stability and earnings often rise with experience; therefore, one would expect employment rates and earnings to increase with age. But it is not clear that work experience improves the position of workers with a high school education only.

Table 1
Labour market success of men aged 25 to 29 with a high school education, selected years

	Employment rate			Average earnings	
	All workers	Full-year full-time workers	Unemployment rate	All workers	Full-year full-time workers
	%			(\$1993)	
Cohort 1 (1979)	91	75	6.5	32,000	35,250
Cohort 2 (1984)	83	63	12.6	27,250	33,000
Cohort 3 (1989)	87	69	8.5	27,500	31,750
Cohort 4 (1993)	79	59	15.0	23,250	29,000

Sources: Survey of Consumer Finances and Labour Force Survey

Table 2
Labour market success of women aged 25 to 29 with a high school education, selected years

	Employment rate			Average earnings	
	All workers	Full-year full-time workers	Unemployment rate	All workers	Full-year full-time workers
	%			(1993 \$)	
Cohort 1 (1979)	58	52	9.4	18,250	24,750
Cohort 2 (1984)	60	46	12.6	17,000	23,500
Cohort 3 (1989)	68	56	10.3	17,000	21,750
Cohort 4 (1993)	64	46	13.9	16,000	21,500

Sources: Survey of Consumer Finances and Labour Force Survey

In 1989, when Cohort 1 was aged 35 to 39, employment rates were slightly lower for men but 14 percentage points higher for women than they had been 10 years earlier. Both sexes recorded increases in full-year full-time employment rates. Average earnings were 10% higher for men in 1989 than in 1979, and 12% higher for women (Table 3).

The position of both men and women in Cohort 2 appears to have improved as they grew older. In 1993, rates of total and full-year full-time employment were higher than they had been nine years earlier, and average earnings had risen by 19% for men and 9% for women.

Despite Cohort 2's gains, the first cohort maintained its better labour market position as the years passed: in 1989, Cohort 1's employment rates and earnings (for both total and full-year full-time workers of either sex) still exceeded those of Cohort 2 in 1993.

Men are more likely to have blue-collar jobs ...

Young high school-educated men were more likely to be employed in one of the major blue-collar occupations (product fabricating, assembling and repairing, con-

struction trades, and transport equipment operating) in 1993 than in 1984 – 50% of Cohort 4 compared with 43% of Cohort 2.⁸ The gap between the cohorts was even greater among full-year full-time workers (49% versus 40%). These occupations have traditionally been highly unionized and well-

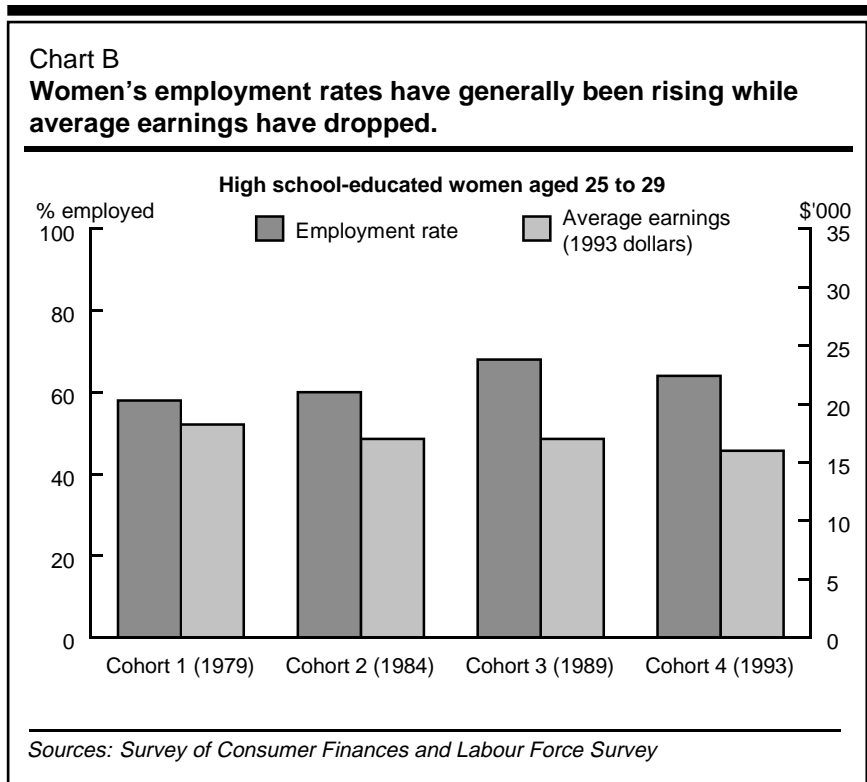
paid. The decline in earnings observed among the later cohorts may be due to lower entry level wages, possibly as a result of wage concessions made by unions under pressure to save jobs.⁹

... while women are making inroads in different areas

Compared with young men, the occupational profile of high school-educated women aged 25 to 29 was changing between 1984 and 1993. These young women were leaving clerical jobs (down from 47% to 36%) and moving into service (up from 16% to 24%), and managerial and administrative (from 9% to 12%) occupations.

Summary

Since the late 1970s, young adults completing high school and hoping to find steady employment have faced greater challenges. Among 25 to 29 year-olds, who have reached an age when the transition from



University graduates¹⁰

High school graduates were not alone in facing deteriorating labour market conditions. The average earnings of 25 to 29 year-old men with university degrees fell 15% from 1979 to 1984. And although their total employment rate fell only marginally, the proportion of these men working full year full time declined six percentage points, to 65%. By 1989, employment rates had mostly recovered, only to fall back again in 1993. At the same time, average earnings continued to shrink for all male workers between 1984 and 1993, while earnings of full-year workers eventually stabilized (Table).

The labour market position of university-educated women differs somewhat from that of their male counterparts. Between 1979 and 1989, women aged 25 to 29 with degrees saw moderate gains in employment rates, although they dipped slightly in 1993. Average earnings for these women were more stable than men's. In 1993, the average earnings of all female workers were virtually the same as in 1979, while the earnings of full-year workers had improved slightly (up 3%).

In contrast to secondary school graduates, work experience substantially improved the labour market situation of university graduates. In

1989 and 1993, both men and women with university degrees were more likely to be working (especially full year) than they had been a decade earlier. Over this period, total and full-year employment rates improved more for degree holders than for those with a high school education only (except for university women's total rates). University graduates were amply rewarded for

their work experience, in comparison with the monetary gains seen among high school graduates (Cohorts 1 and 2 in Table 3). Between 1979 and 1989, the average earnings of both men and women with degrees rose 42%; similarly, between 1984 and 1993, men's earnings increased 45% and women's, 26%.

Labour market success of university graduates aged 25 to 29, selected years

	Employment rate			Average earnings	
	All workers	Full-year full-time workers	Unemployment rate	All workers	Full-year full-time workers
	%			(1993 \$)	
Men					
Cohort 1 (1979)	90	71	4.1	37,750	45,000
Cohort 2 (1984)	88	65	6.1	32,000	40,500
Cohort 3 (1989)	90	69	4.1	30,250	36,750
Cohort 4 (1993)	85	68	6.8	29,250	36,750
Women					
Cohort 1 (1979)	76	56	5.7	25,000	32,000
Cohort 2 (1984)	79	58	7.5	25,500	32,750
Cohort 3 (1989)	84	59	5.1	25,000	32,250
Cohort 4 (1993)	82	57	7.1	24,750	33,000
One decade later					
Men					
Cohort 1 (1989)	95	88	3.0	53,500	57,000
Cohort 2 (1993)	92	81	5.5	46,500	52,000
Women					
Cohort 1 (1989)	82	64	4.3	35,500	42,000
Cohort 2 (1993)	82	65	6.2	32,250	41,250

Sources: Survey of Consumer Finances and Labour Force Survey

Table 3
Labour market success of Cohorts 1 and 2, one decade later

	Employment rate			Average earnings	
	All workers	Full-year full-time workers	Unemployment rate	All workers	Full-year full-time workers
	%			(1993 \$)	
Men					
Cohort 1 (1989)	89	82	6.4	35,250	38,500
Cohort 2 (1993)	84	73	10.9	32,500	37,250
Women					
Cohort 1 (1989)	72	55	7.5	20,500	26,000
Cohort 2 (1993)	70	50	10.5	18,500	24,500

Sources: Survey of Consumer Finances and Labour Force Survey

school to work should be over, it has become more difficult to find work; for those with jobs, the income earned (in 1993 dollars) is substantially less than it used to be.

The contemporary job market is particularly harsh for young men. In 1993, a high school-educated man aged 25 to 29 was considerably less likely to be employed than a man of that age in 1979. If he was employed during that year, he made 27% less than the amount earned by his counterpart in 1979; if he was employed full year full time, he earned 18% less. In fact, the labour market position of

young men working full year full time has deteriorated to such an extent that in 1993, even those with a university degree earn little more, in real terms, than high school graduates did in the late seventies.

The labour market situation of young women with secondary school education also deteriorated, but not as much as men's – perhaps because women's employment rates and average earnings were much lower to begin with. In 1993, a 25 to 29 year-old woman with a high school education was more likely to be working than her counterpart in 1979, but less likely to be employed full year full time. Furthermore, average earnings were about 12% lower for all working women as well as for those employed full time year round. □

■ Notes

1 LFS age, sex and educational attainment estimates, as well as unemployment rates and overall employment rates, are benchmarked to the 1991 Census of Canada population counts. SCF data on earnings and full-year full-time employment rates are benchmarked to the 1986 Census counts. (Revised SCF estimates based on the 1991 Census should be available in late 1995 or early 1996.)

Evaluations of the impact of the revisions on LFS estimates have shown that the revised rates are not significantly different from the original rates. Therefore, the main

findings in this article are unlikely to be compromised by the mixture of revised LFS and unrevised SCF rates.

2 A recent study revealed that in 1990 most persons (89%) with 11 to 13 years of schooling had high school diplomas (Gower, 1993). Thus, it seems reasonable to assume that the majority of 11 to 13 completers in earlier and later years were also graduates.

3 The change in the coding of educational attainment affected the 1989 cohort because full-year employment and earnings data for the 1989 calendar year were collected in 1990, after the introduction of the new education questions in the LFS.

4 In 1990, 13% of high school graduates had obtained a trades certificate or diploma from a vocational school or apprenticeship training program (Gower, 1993).

5 A general discussion on career blockage in the Canadian labour market can be found in an interview with David Foot, published in the Winter 1994 issue of *Perspectives* (Duchesne, 1994).

6 This employment rate increase reflects one of the longest and most important trends in the Canadian labour market, that is, the rising participation of women since World War II.

7 However, the smaller rise in the full-year full-time employment rate indicates a significant amount of part-year or part-time work.

8 In 1984, the classification system used to categorize occupations changed from the 1970 *Occupational Classification Manual* to the 1980 *Standard Occupational Classification*. In the 1980 classification, many supervisory and lower-level management occupations were reclassified; therefore, 1979 and 1993 data (that is, Cohorts 1 and 4) cannot be compared.

The increase in the proportion of blue-collar workers among young men with only a secondary school education may also reflect the inclusion of workers with explicit trade/vocational qualifications in Cohort 4. (See *Data sources and definitions*.)

9 Betcherman and Morissette (1994) found that the annual earnings of young workers aged 16 to 24 as a proportion of the annual earnings of 25 to 64 year-olds (earnings ratio) fell during the 1980s. The hourly wages ratio also declined throughout the eighties, suggesting that the drop in the earnings ratio was not simply a response to the business cycle. Attempts to assess the impact of early labour market experiences on later employment outcomes were inconclusive.

10 Persons with a university certificate below the bachelor's level are included among degree holders to maintain comparability between the cohorts throughout the study period.

■ References

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