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Unemployment Dynamics Among Canada's Youth

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.	not available for any reference period
..	not available for a specific reference period
...	not applicable
0	true zero or a value rounded to zero
0^s	value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p}	preliminary
^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E}	use with caution
F	too unreliable to be published
*	significantly different from reference category ($p < 0.05$)

Unemployment Dynamics Among Canada's Youth

By André Bernard

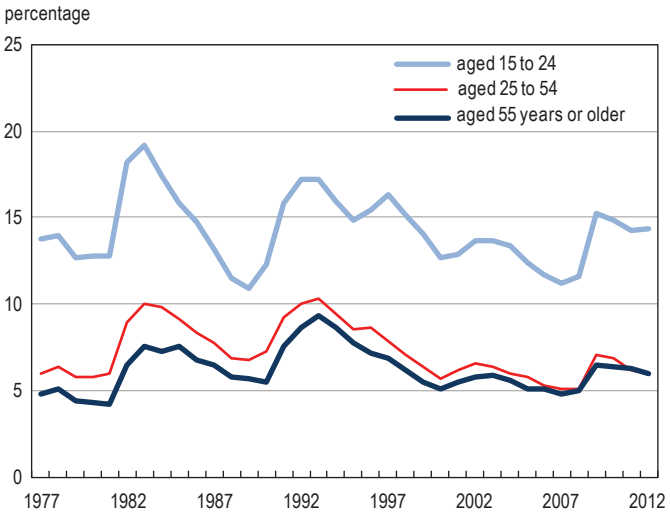
This *Economic Insights* article reports on the differences between youth and adults in terms of unemployment inflow and outflow rates, factors that contribute to a better understanding of the gap between the unemployment rates of youth and adults. Data from the Labour Force Survey from 1977 to 2012 are used for this analysis.

The youth unemployment rate has historically been higher than that for adults. Recent years, marked by the 2008-2009 recession and the subsequent recovery, have been no exception. In 2012, the unemployment rate of youths aged 15 to 24 was 14.3%, compared with a rate of 6.0% for workers aged 25 to 54 and workers aged 55 or older (Chart 1).

The gap between the unemployment rates of youths and adults has not decreased since the early 1990s, and has even increased slightly since 2010 (Chart 2). In 2012, the youth unemployment rate was 2.4 times that of workers aged 25 to 54, the biggest gap recorded since 1977.[1] The widening of the gap between the two unemployment rates is due primarily to the fact that the level of employment among young people had still not, by 2012, returned to its pre-recession level (Bloskie and Gellatly 2012). It is worth noting that the labour force participation rate of youth is historically lower than that of adults, mainly because a majority of young people attend school (Chart 3).[2]

The historical difference between youth and adult unemployment rates is not unique to Canada. In 2011, youth in all member countries of the Organisation for Economic Co-operation and Development (OECD) posted higher unemployment rates than did adults. Among G7 countries, Italy, the United Kingdom, and France reported the largest gaps between youth and adults, while Germany and Japan reported the smallest. (Chart 4).[3]

Chart 1
Unemployment rate by age, 1977 to 2012



Source: Statistics Canada, CANSIM table 282-0002.

1. In absolute difference, the youth unemployment rate was 8.3 percentage points higher than that of adults in 2012. On average, between 1977 and 2012, the difference between these two unemployment rates was 7.0 percentage points.
2. This gap has also widened since 2008. The labour force participation rate for youth aged 15 to 24 years fell from 67.5% in 2008 to 63.6% in 2012, while it remained stable among workers aged 25 to 54 and increased among workers aged 55 or older. The drop in the labour market participation of youth is due mainly to increased full-time school attendance.
3. The data for Canada and the other countries listed have been adjusted for comparability. For this reason, the Canadian data in this graph may differ slightly from the data normally published by Statistics Canada.

Why is the unemployment rate among youth consistently higher than the unemployment rate among adults? One way to address this question is to examine the differences between youth and adults in terms of unemployment inflow rates, which provide information on the incidence of unemployment, and unemployment outflow rates, which provide information on the duration of unemployment.[4]

Unemployment inflow rates are higher when people who are employed or who are not in the labour force are more likely to become unemployed, for example, when a group of workers is at greater risk of being laid off. Higher inflow rates therefore contribute to increasing the unemployment rate. If unemployment spells that go along with these inflows are short, the employment situation will be one in which a great many individuals periodically go through unemployment but come out of it relatively quickly.

Low unemployment outflow rates also contribute to increasing the unemployment rate and normally reflect difficulties that people seeking a job encounter during their job search. As a result, spells of unemployment tend to increase in duration, and this can have negative consequences in the long term, such as financial problems, skills erosion, and some degree of social exclusion.[5]

This article examines the relative contributions of the unemployment inflow and outflow rates of youth and adults in explaining the differences in the unemployment rates of these two groups. To this end, data from the Labour Force Survey (LFS) from 1977 to 2012 are used.

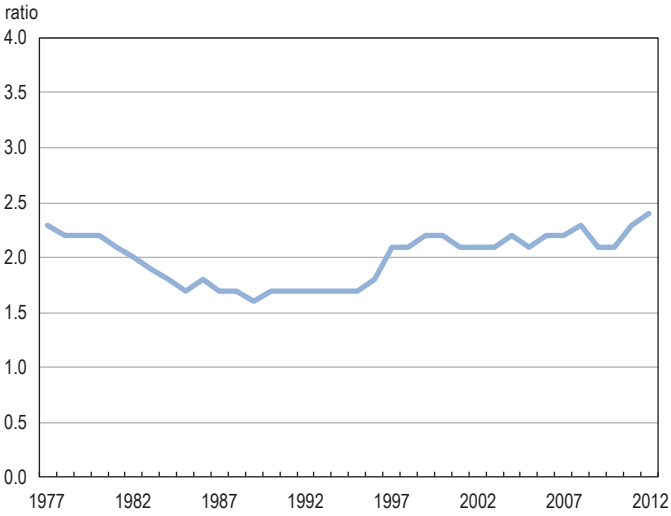
Inflows to unemployment are higher among youth than adults

A significant proportion of unemployed youth are people entering the labour market for the first time, most often after having completed their education. These young people have never worked and most often experience a period of unemployment of varying duration before finding a first job. This situation is much less common among adult workers.

In 2012, more than one-quarter (28.1%) of unemployed young people between 15 and 24 years of age were youth who had never worked.[6] For workers aged 25 to 54 and workers aged 55 or older, these proportions were 5.4% and 1.7%, respectively. For these young people, unemployment is linked to seeking a first job and is not the result of the economic situation, unless their job search is prolonged.

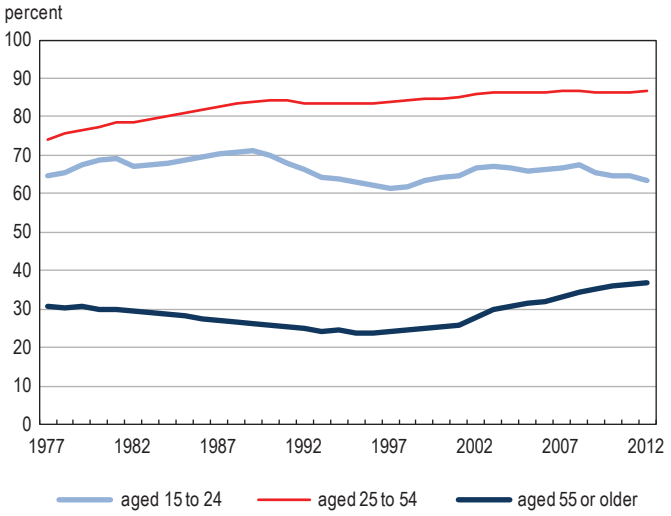
What is the situation regarding inflows to unemployment of people who are employed? Table 1 shows the proportion of youth and adults who were employed in a given month but unemployed the next month. It also shows the proportion of youth and adults who were employed in a given month but who had left the labour force the next month.

Chart 2
Ratio of unemployment rate of 15-to-24 age group to unemployment rate of 25-to-54 age group, 1977 to 2012



Source: Statistics Canada, CANSIM table 282-0002.

Chart 3
Labour force participation rate by age, 1977 to 2012



Source: Statistics Canada, CANSIM table 282-0002.

Young workers are generally more likely to become unemployed than are adult workers. In 2012, the average monthly inflow to unemployment of employed youth was 2.6%. This means that, on average, 2.6% of youth who were working in a given month in 2012 became unemployed in the following month.[7]

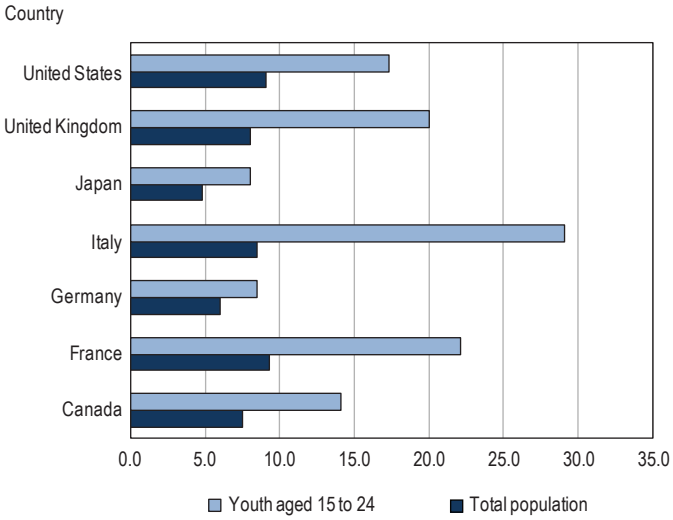
4. Baker, Corak, and Heisz (1998) and Tille (1998) examined differences in incidence and duration to explain the differences between Canadian and U.S. unemployment rates, while Elsby, Hobijn, and Sahin (2008) used a similar approach to explain variations in the unemployment rates of OECD countries.
5. See, for example, Tille (1998) and Dubé (2004).
6. On average, in the last 15 years, almost one-quarter (22.9%) of unemployed youth were persons who had never worked.
7. The LFS is a rotating panel survey. Households are interviewed for six consecutive months. The data in Tables 1 and 2 and Graphs 5 and 6 are obtained by matching the responses from individuals who are respondents for each pair of consecutive months and examining the transitions related to labour force status from one month to the next. The data in Graphs 7, 8, and 9 are obtained by matching the responses from respondents for periods of four consecutive months. Controls are in place to ensure that the transitions identified relate to the same person. The methodology employed is similar to that used in Chan, Morissette, and Frenette (2011).

In comparison, the inflow to unemployment of workers aged 25 to 54 and workers aged 55 or older was significantly lower. In 2012, on average from one month to the next, 1.1% of workers aged 25 to 54 left or lost their jobs and became unemployed.

While employed youth are more likely to become unemployed, they are also more likely to leave the labour force without going through a spell of unemployment. When they do this, it is in most cases because they are returning to full-time education. In 2012, 4.2% of youth employed in a given month were no longer part of the labour force the following month and were instead attending school full-time. It is likely that these young people who leave the labour force to attend school will rejoin it later on.

In addition, the proportion of youth who were employed and who left the labour force without becoming full-time students was not very different from the proportion observed among workers aged 25 to 54. This result appears at odds with the notion that young people are less inclined to participate in the labour market than adults, if one excludes those youths who do not participate in the labour market because they are attending school full-time.

Chart 4
Unemployment rate, total population and youth aged 15 to 24, G7 countries, 2011



Source: Organisation for Economic Co-operation and Development.

Table 1
Changes in status from one month to the next, employed persons, 2007 to 2012

	1977 to 1989	1990 to 1999	2000 to 2006	2007	2008	2009	2010	2011	2012
				percent					
Aged 15 to 24									
Still employed	91.6	90.9	90.7	91.6	91.7	91.3	91.9	91.9	91.8
Became unemployed	3.0	2.9	2.7	2.4	2.6	2.8	2.5	2.4	2.6
Left the labour force									
Full-time studies	3.6	4.5	4.8	4.3	4.1	4.3	4.3	4.2	4.2
Other reasons	1.8	1.6	1.8	1.6	1.6	1.5	1.4	1.5	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Aged 25 to 54									
Still employed	97.2	97.2	97.1	97.5	97.5	97.2	97.5	97.5	97.6
Became unemployed	1.3	1.4	1.2	1.1	1.0	1.4	1.1	1.0	1.1
Left the labour force									
Full-time studies	F	F	F	F	F	F	F	F	F
Other reasons	1.3	1.2	1.5	1.3	1.3	1.3	1.2	1.2	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Aged 55 or older									
Still employed	96.5	96.0	94.8	95.9	95.8	95.9	96.1	95.9	96.3
Became unemployed	0.8	1.0	0.9	0.8	0.8	1.0	0.9	0.9	0.8
Left the labour force									
Full-time studies	F	F	F	F	F	F	F	F	F
Other reasons	2.6	3.0	4.2	3.3	3.3	3.1	3.0	3.1	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Estimates for the percentage of workers aged 25 to 54 and aged 55 or older who return to full-time education are too small and therefore too unreliable to be published.

Source: Statistics Canada, Labour Force Survey.

Youth are twice as likely as adults to be laid off

The majority of youth (60.4% in 2012) who were employed one month and unemployed the next month made this transition because they were laid off.[8] It is therefore important to examine the trends in the layoff rates among youth and adults.

Young workers are more likely than adult workers to be laid off by their employers. The monthly layoff rate among youth was 3.5% in 2012.[9] This rate is more than twice the rate of 1.3% for workers aged 25 to 54 and the rate of 1.5% for workers aged 55 or older (Chart 5). Since 1977, the annual layoff rate for youth aged 15 to 24 has been between 2.0 to 2.7 times that of workers aged 25 to 54.

Since it is less expensive for an employer to replace a worker who has just been hired than a more experienced worker, the employer may be more inclined, when workforce reductions are occurring, to lay off a worker with less seniority. The link between seniority and the likelihood of being laid off was in fact documented in a recent study.[10] It is therefore possible that part of the difference in layoff rates between young workers and adult workers is due to the lower seniority, on average, of young workers.

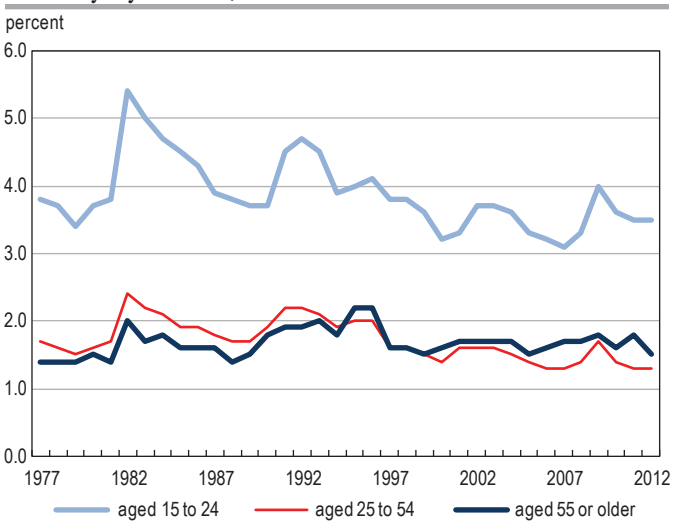
To verify this assumption, the layoff rates of youth and adults who were part of a sample of workers with less than one year of seniority with their employers are examined. For this category of newly hired workers, the gap between the layoff rates of youth and adults persists but is considerably smaller. Indeed, the layoff rate was 4.8% for youth in 2012 compared to 3.1% for workers aged 25 to 54 and 5.6% for workers aged 55 or older (Chart 6). Thus, youth are at higher risk of being laid off more because of their lack of seniority with the employer than because of their age.[11]

It is worth noting that, until the late 1990s, there was little or no difference in the layoff rates of youth and adults among workers with less than one year of seniority. A gap appeared beginning in the early 2000s. However, the difference is significantly less than that observed among workers as a whole, regardless of seniority.

Unemployment outflow rates are higher among youth

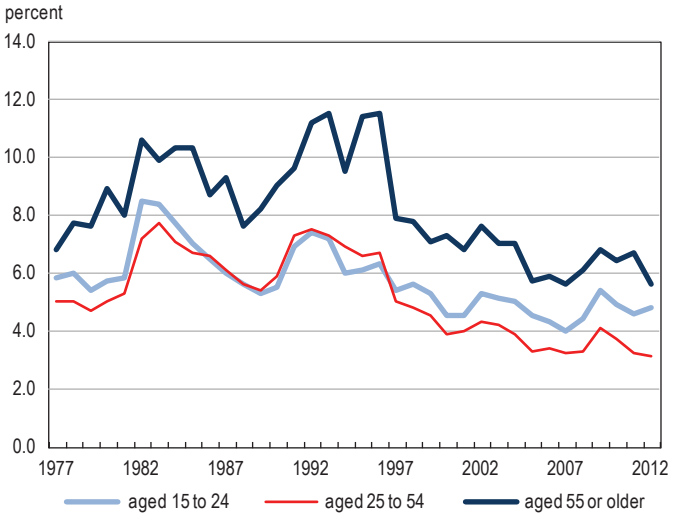
Table 2 shows the percentage of workers in a given month who found work the following month, and the percentage of workers who left the labour force. These percentages are unemployment outflow rates. Everything else being equal, the lower the outflow rates, the longer the spells of unemployment and the higher the unemployment rates.

Chart 5
Monthly layoff rates, 1977 to 2012



Source: Statistics Canada, Labour Force Survey.

Chart 6
Monthly layoff rates, workers with less than one year of seniority, 1977 to 2012



Source: Statistics Canada, Labour Force Survey.

Unemployment outflow rates for youth are higher than those for adults because young people are more likely than unemployed adults to find work and, especially, because youth are more likely to leave the labour force to attend school full time. These trends have been observed for many years.[12]

8. Normally, people who leave a job voluntarily do so either to take on another job or to leave the labour force. Some young people, however, leave their jobs to become unemployed. In a number of cases, youth make this transition in order to devote more time to finding a better-quality job. This transition can prove beneficial in the long term (Topel and Ward 1992).
9. Persons who are laid off are those who were employed in a given month and then were without a job (either unemployed or out of the labour force) the following month, and who reported that a layoff was the cause of their termination of employment.
10. See Chan, Morissette, and Frenette (2011).
11. This hypothesis was also verified using multivariate analysis. The results for a logistic regression model of the probability of being laid off that used age group as the single explanatory variable were compared to the results obtained when the variables of seniority, education, industry, and union membership were added progressively. The results show that approximately two-thirds of the difference in the probabilities of being laid off of youth and adults aged 25 to 54 years, between 2007 and 2012, is due to differences in seniority.
12. Even when individuals who were studying full-time in one or the other of two consecutive months are excluded from the sample, results show that youth are more likely than adults to transition from unemployment to employment.

Table 2
Changes in status from one month to the next, unemployed persons, 2007 to 2012

	1977 to 1989	1990 to 1999	2000 to 2006	2007	2008	2009	2010	2011	2012
				percent					
Aged 15 to 24									
Employed	23.2	21.1	27.1	29.8	27.4	21.9	22.1	22.2	23.2
Still unemployed	57.3	55.4	45.7	44.3	45.4	52.2	50.8	50.8	49.1
Left the labour force									
Full-time studies	8.2	13.1	17.0	15.9	15.9	16.1	16.7	16.9	17.4
Other reasons	11.4	10.3	10.3	9.9	11.3	9.8	10.3	10.1	10.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Aged 25 to 54									
Employed	19.7	18.2	23.8	24.3	23.6	19.8	19.3	20.3	20.6
Still unemployed	65.7	68.0	60.3	60.0	60.8	66.0	67.1	64.9	64.3
Left the labour force									
Full-time studies	F	F	F	F	F	F	F	F	F
Other reasons	13.9	12.4	14.2	13.8	13.8	12.3	11.9	12.8	13.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Aged 55 or older									
Employed	14.1	13.2	18.0	17.8	17.8	15.0	15.3	15.0	15.8
Still unemployed	64.8	67.0	58.9	60.2	61.0	66.0	66.9	66.1	65.3
Left the labour force									
Full-time studies	F	F	F	F	F	F	F	F	F
Other reasons	20.7	19.3	22.4	21.2	20.3	18.3	17.4	18.6	18.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Estimates for the percentage of unemployed individuals aged 25 to 54 and aged 55 or older who return to full-time education are too small and therefore too unreliable to be published.

Source: Statistics Canada, Labour Force Survey.

In 2012, an average of 23.2% of workers aged 15 to 24 who were unemployed one month found work the following month. This is a higher percentage than that observed among workers aged 25 to 54 (20.6%) and workers aged 55 or older (15.8%). Even in 2009, coming out of the recession, the outflow rates from unemployment to employment were higher for youth than for the other two age groups.

Each month, workers, particularly young workers, can terminate their spell of unemployment by leaving the labour force. In 2012, that proportion was 27.7% for youth compared to 15.1% for workers aged 25 to 54 and 19.0% for workers aged 55 or older.

However, most unemployed youth who leave the labour force are full-time students who will likely rejoin the labour market after a period of time. The proportion of unemployed youth leaving the labour force to attend school full-time has increased significantly over the years. While this proportion was, on average, 8.2% between 1977 and 1989, it was 17.4% in 2012. In contrast, there has been little change over time in the proportion of unemployed youth who leave the labour force without becoming full-time students, with that proportion always remaining below the corresponding proportion for unemployed workers aged 25 to 54.

New spells of unemployment are more likely to be short for youth

The unemployment outflow rates presented so far are averages for all unemployed workers, regardless of the initial duration of unemployment. In this section, the outflow rates within three months of new spells of unemployment are examined. A new unemployment spell can be the result of a layoff, a resignation, or a new entry into the labour market. The goal is to evaluate the extent to which new spells of unemployment among youth and adults are likely to be of short duration.

For all age groups, most new unemployment spells last less than three months. However, youth are proportionally more likely than adults to experience relatively short spells of unemployment. In 2012, 79.4% of youth who became unemployed were no longer unemployed less than three months later. In comparison, that proportion was 67.6% for workers aged 25 to 54 and 70.6% for workers aged 55 or older (Chart 7). Every year since 1982, the outflow rates within three months of new spells of unemployment have been higher for youth than for adults.

Youth who become unemployed are more likely than adults to find employment quickly

The end of an unemployment spell can coincide with the start of a new job or with an exit from the labour force, for example, when a young person stops looking for work in order to return to school. Even when excluding unemployment outflows that result in leaving the labour force, outflow rates within three months of new spells of unemployment are higher among youth than adults. In 2012, 67.6% of youth who became unemployed and who did not subsequently leave the labour force found a job in less than three months. For workers aged 25 to 54 and workers aged 55 or older, these percentages were, respectively, 58.0% and 54.9% (Chart 8). Outflow rates within three months of new unemployment spells, excluding transitions out of the labour force, have been higher for youth than for adults every year since 1978.[13]

Shorter spells of unemployment for youth aged 15 to 19 than for workers aged 20 to 24

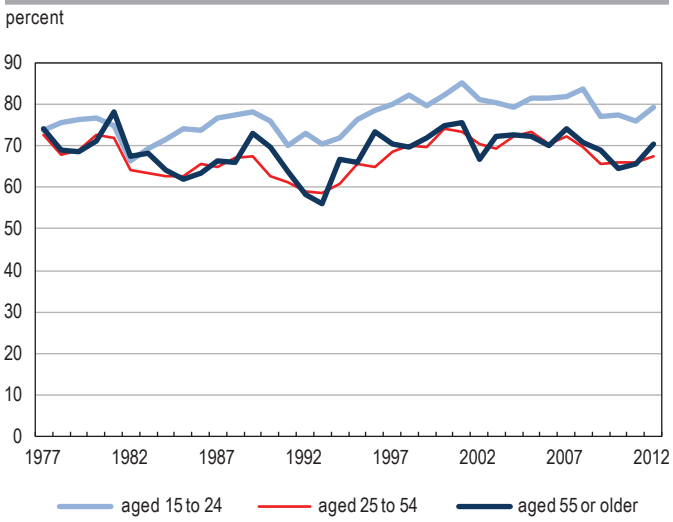
Higher outflow rates are observed for both youth ages 15 to 19 and workers aged 20 to 24, the latter age group being composed of a greater number who have completed their education.

In 2012, the outflow rates within three months of new unemployment spells, excluding transitions out of the labour force, were 65.5% for youth 15 to 19 years of age and 70.0% for workers 20 to 24 years of age (Chart 9). Both of these rates were higher than the 58.0% rate posted for workers aged 25 to 54. Since the early 1990s, outflow rates within three months of new spells of unemployment for youth aged 15 to 19 and workers aged 20 to 24 have followed similar trends.

Spells of unemployment are more likely to last longer during a recession

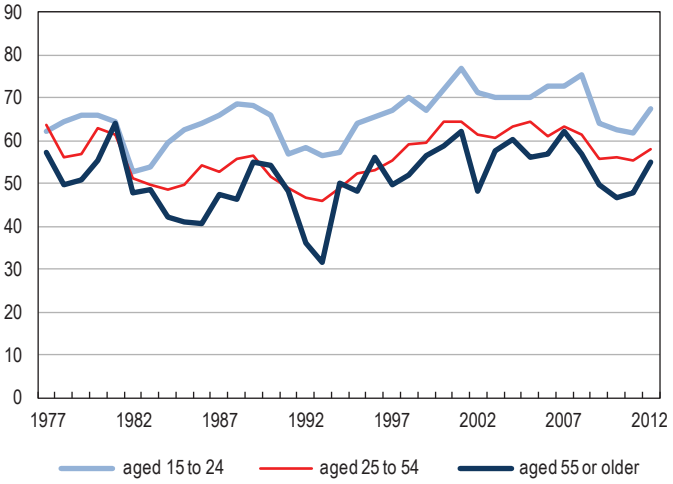
For both youth and adults, outflow rates within three months of new spells of unemployment tend to decline during recessions and increase during times of economic growth.[14] The lows during the recession of 2008-2009 for the three age groups were not, however, as low as those observed during previous recessions. On the other hand, the outflow rates posted in 2012 for the three age groups were all still below those recorded prior to the 2008-2009 recession.

Chart 7
Outflow rates after three months of new spells of unemployment, 1977 to 2012



Source: Statistics Canada, Labour Force Survey.

Chart 8
Outflow rates after three months of new spells of unemployment, excluding transitions out of the labour force, 1977 to 2012



Source: Statistics Canada, Labour Force Survey.

13. The same observation applies to both men and women. Both young women and young men have outflow rates within three months of new spells of unemployment that are higher than those of their older counterparts.
14. This finding is consistent with that of a recent study showing that outflow rates from unemployment to employment are procyclical in Canada and in the United States (Campolieti 2011).

Generally, outflow rates within three months of new unemployment spells show greater cyclical variability when transitions out of the labour force are excluded. This result is due to the fact that transitions to employment are more closely tied to economic conditions than are transitions out of the labour force.[15]

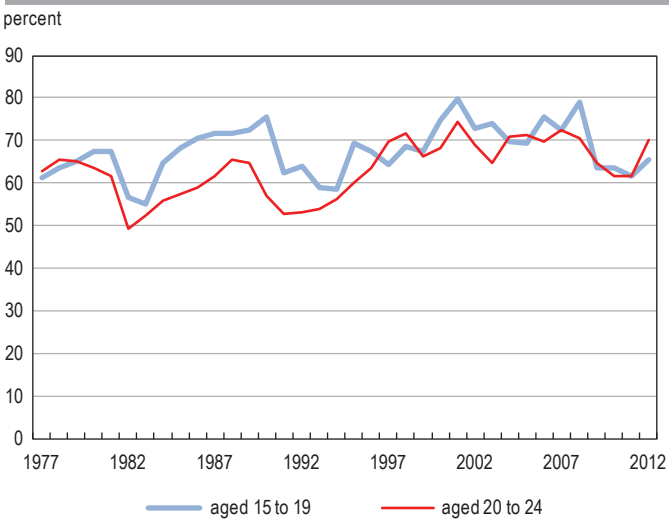
Conclusion

The findings presented in this article demonstrate that there are marked differences in the incidence and duration of unemployment between youth and adults. Youth spend less time unemployed than adults, in part because they are more inclined to leave the labour force in order to return to full-time education and in part because they are more likely than unemployed adults to find a job within a short time.

The gap in unemployment rates of youth and adults is due more to the higher unemployment inflow rates among youth, a phenomenon linked largely to their higher risk of layoff and their periodic departures from the labour force to attend school full-time. Their higher risk of layoff is explained in large part by their lower seniority with employers.

Having a job does not mean that that job is well paid or well matched to competencies acquired through education.[16] Furthermore, this study does not examine the causes of the variations in unemployment inflow rates and outflow rates. A recent study showed that fluctuations in unemployment were related more to fluctuations in the duration of unemployment than to variations in the incidence of unemployment, especially in the case of youth (Campolieti 2011). A more in-depth analysis of the factors associated with changes in the duration of unemployment would therefore provide additional insight into the dynamics of youth unemployment.

Chart 9
Outflow rates after three months of new spells of unemployment, excluding transitions out of the labour force, youth aged 15 to 24, 1977 to 2012



Source: Statistics Canada, Labour Force Survey.

15. It is nevertheless necessary to interpret the significant annual variations observed among adults aged 55 or older with caution given the smaller size of the sample of persons in this age group who remain in the labour force for three consecutive months.
16. A recent study analyzes the various measures of youth under-employment (CGA-Canada 2012), while another presents the trends in youth and adult wages over the last three decades (Morissette, Picot, and Lu 2013).

References

Baker, M., M. Corak, and A. Heisz. 1998. "The Labour Market Dynamics of Unemployment Rates in Canada and the United States." *Canadian Public Policy* 24 (Supplement 1): S72–S89.

Bloskie, C., and G. Gellatly. 2012. *Recent Developments in the Canadian Economy: Fall 2012*. Economic Insights, no. 19. Statistics Canada Catalogue no. 11-626-X. Ottawa: Statistics Canada.

Campolieti, M. 2011. "The ins and outs of unemployment in Canada, 1976-2008." *Canadian Journal of Economics* 44 (4): 1331–1349.

Certified General Accountants Association of Canada (CGA). 2012. *Youth Unemployment in Canada: Challenging Conventional Thinking?* CGA-Canada.

Chan, P.C.W., R. Morissette, and M. Frenette. 2011. *Workers Laid-off During the Last Three Recessions: Who Were They, and How Did They Fare?* Analytical Studies Branch Research Paper Series, no. 337. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.

Dubé, V. 2004. "Sidelined in the labour market." *Perspectives on Labour and Income* 5 (4): 5–11. Statistics Canada Catalogue no. 75-001-X.

Elsby, M., B. Hobijn, and A. Sahin. 2008. *Unemployment Dynamics in the OECD*. NBER Working Paper Series, no. 14617. Cambridge, Massachusetts: National Bureau of Economic Research.

Morissette, R., G. Picot, and Y. Lu. 2013. *The Evolution of Canadian Wages over the Last Three Decades*. Analytical Studies Branch Research Paper Series, no. 347. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.

Topel, R.H., and M.P. Ward. 1992. "Job Mobility and the Careers of Young Men." *The Quaterly Journal of Economics* 107 (2): 439–479.

Tille, C. 1998. "Decomposition of the Unemployment Gap between Canada and the United States: Duration or Incidence?" *Canadian Public Policy* 24 (Supplement 1): S90–S102.