

WERE 1990s LABOUR MARKETS REALLY DIFFERENT?



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In the early 1990s, observers of the labour market often pointed to emerging new phenomena. How many of these trends have survived the strong economic expansion of 1997 to 1999? The rise of self-employment, which was thought to result from a decline in full-time paid employment, has continued through the buoyant labour market of recent years. Job tenure has risen, not fallen, and the number of firms people can reasonably expect to work for over their career is, as a result, lower, not higher. The participation and employment rates of younger workers have remained below their former peaks, but this seems mainly due to more young people staying in school. Finally, quit rates remain lower than might be expected at this point in the economic cycle, a fact which may reflect increased employment anxiety, despite the low unemployment rate.

Au début des années 1990, les observateurs du marché du travail signalaient souvent l'émergence de phénomènes nouveaux. Ont-ils tous survécu à la vigoureuse expansion des années 1997-1999? La croissance du travail autonome, que l'on imputait au déclin des emplois rémunérés à temps complet, s'est poursuivie malgré le raffermissement que le marché du travail a connu ces dernières années. La durée d'emploi s'est prolongée et le nombre d'entreprises pour lesquelles une personne est susceptible de travailler est moins grand qu'avant. Chez les jeunes travailleurs, le taux de participation et le taux d'embauche sont restés inférieurs aux sommets jadis atteints, mais cela semble dû principalement au fait que les jeunes sont aujourd'hui plus nombreux à poursuivre des études. Enfin, les taux de démission demeurent inférieurs à ceux auxquels on pourrait s'attendre à ce stade-ci d'un cycle économique; cela témoigne peut-être d'une plus grande incertitude quant à la possibilité de trouver un nouvel emploi, malgré le bas taux de chômage.

There is a general sense that the 1990s labour market was unique. It has been characterized by notions such as “downsizing,” “technological revolution,” “the rise in the knowledge-based economy,” and “rising job instability.” During the recovery of the early 1990s the decade did appear unique in some ways, particularly in comparison with the 1980s. Both hiring and quit rates were depressed in the face of slow growth in paid employment. Workers were turning to self-employment at a rapid rate, and job opportunities for youth fell, as did their real and relative wages.

During this period of reduced labour mobility and hiring, concerns about information flows increased. Young people found themselves in a very competitive labour market and sought every possible advantage to secure employment. Not only were some organizations downsizing, particularly in the public sector, but workers were increasingly reluctant to leave their jobs, thereby decreasing the number of openings for which young people could compete.

To the extent that these patterns were driven by the weak economic growth of 1992-96, one would expect some

reversal in the more recent past. Real GDP growth averaged 2.4 per cent per year during the 1993-96 recovery, but increased substantially during the period 1997-99. Along with this came an increase in employment growth, from 1.4 per cent on average between 1993 and 1996, to 2.6 per cent during the past three years. This more rapid recovery might have been expected to significantly increase hiring and quit rates, thereby opening up employment opportunities for young people and allowing their employment/population ratio to recover from the historically low level experienced during most of the 1990s. In this environment, youth wages also could have been expected to show some recovery, while increasing labour mobility might have reduced job tenure. Finally, the tendency of workers to turn to self-employment rather than paid employment might be expected to have been dampened or reversed. The goal of this paper is to ask whether these outcomes were in fact observed.

Through most of the 1990s economic recovery was weak, with little sustained growth (that is, growth of more than a year) until 1997. Since then, however, the economy

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has posted substantial growth. Real GDP grew over the last three years at an annual average of 3.8 per cent, following an average of 2.9 per cent during the weaker recovery of 1993-96. Employment growth tracked GDP growth. Over the 1980s business cycle as a whole, GDP grew at an annual average of around 3 per cent, and total employment expanded by 2 per cent. Over the recession and weak recovery of the 1990s (1990-96), GDP expanded at an annual average rate of 1.5 per cent, and employment at only around 0.5 per cent. As noted, the more rapid growth of 1997-99 resulted in significant employment growth of 2.6 per cent annually. Economic growth drove total employment growth to a great extent during the 1990s, while structural changes in the nature of work or the way firms engage labour may have affected the type of employment created.

The business sector led the growth in income and expenditures. In 1999, at least, corporate profits before taxes were very strong by historical standards. They increased by about 25 per cent in that year, lifting their share of GDP to 10.7 per cent, a level not seen since the business cycle peak of the late 1980s. During 1997 and 1998 corporate profits registered at about 9.4 per cent of GDP, a level substantially higher than during the early years of the recovery (1993 and 94), when they were in the 5.5 to 8.3 per cent range.

Business investment in machinery and equipment, particularly computers and other office equipment, was strong during 1997-99, especially in comparison with the rest of the decade. From 1993 to 1996, investment in machinery and equipment averaged \$42 billion per year (in \$1992). In 1997-99 it averaged \$66 billion per year. In 1993-96, business investment in machinery and equipment was only 5.6 per cent of GDP; during 1997-99 it rose to an average 7.8 per cent.

While the business sector forged ahead, the household sector made lesser gains over the 1997-99 period as compared with earlier in the decade. Total hours worked increased markedly from a very low growth rate during the first half of the 1990s, but real wage increases have remained elusive. As reported in the Labour Force Survey (LFS), real weekly wages grew by less than one per cent per year in 1998 and 1999.

To obtain a better measure of changes in the average purchasing power of Canadians, we turn to real disposable income per capita. From 1993 to 1996 it declined an average of 0.4 per cent per year, though it rose to 1.3 per cent growth each

year in 1997-99. This compared to 2.6 per cent growth near the peak of the 1980s business cycle.

In sum, the 1997-1999 period witnessed rapid growth in real GDP and substantial growth in corporate profits and investment in the business sector. Growth in real personal disposable income per capita remained sluggish during the latter period, but personal expenditures expanded. These events set up a period of significant improvement in the labour market, reversing some of the trends observed in the earlier 1990s. Unemployment dropped significantly, returning to an annual average of 7.6 per cent in 1999, equal to the levels observed during the 1980s peak. Full-time paid employment also demonstrated strong sustained growth for the first time in the 1990s, expanding at an average of 3.2 per cent in 1998 and 1999.

The rise in self-employment in both the 1980s and 1990s has been well documented. Average annual growth in self-employment was 3.7 per cent during the 1980s, and 3.4 per cent during the 1990s. Various explanations for its growth have been offered. In a 1998 report, the OECD argued that the rise in self-employment in Canada was highly correlated with the level of labour market slack (the difference between structural and actual unemployment). With structural unemployment declining during the 1990s, and the aggregate unemployment rate at more or less the same level as in the 1980s, labour market slack increased, resulting in more workers turning to self-employment. But the degree of slack would have fallen significantly over the 1997-99 period, as unemployment fell from 9.7 per cent in 1996 to 7.6 per cent in 1999, reaching the 6.8 per cent range by the end of 1999. By contrast, the lowest level of unemployment seen in the 1980s cycle was 7.5 per cent in 1989. If self-employment really was a result of labour market slack, its growth should have slowed as the labour market recovered.

But it didn't. In the three years of rapid economic growth 1997-99, self-employment grew at an annual average rate of 4.6 per cent. This compares with 3.5 per cent over the 1981-89 cycle and just 2.9 per cent during 1989-96. The proportion of Canadians aged 15+ who were in self-employed jobs continued to expand, increasing from 7 per cent in 1981, to 8.2 per cent by 1989, 9.2 per cent in 1996 and 10.1 per cent in 1999. A glance at Figure 1 indicates that this growth was quite independent of changes in either unemployment or the paid-employment rate over the

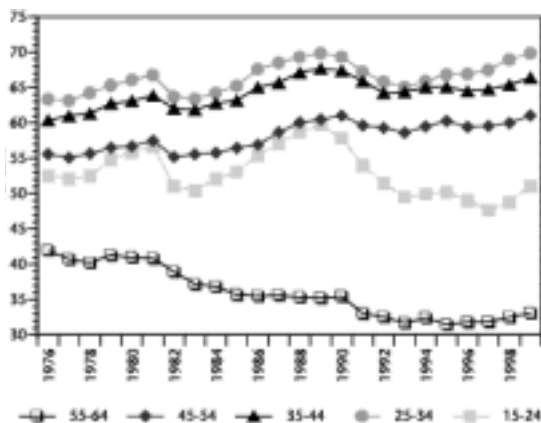
Figure 1
Employment and unemployment rates
(per cent)



last two business cycles, a finding that has been confirmed econometrically.

It should be emphasized that this increase in self-employment occurred during a period of expanding paid employment. The full-time paid-employment rate (that is, full-time paid employment relative to the population 15+) increased from 39.8 per cent in 1997 to 41.4 per cent in 1999, though it remained well below the levels of the 1980s business cycle peak. The shortfall was largely related to lower paid-employment rates among the young, however. Among other age groups paid-employment rates equaled or exceeded their 1989 level (see Figure 2). In sum, during the late 1990s, full-time paid jobs expand-

Figure 2
Paid-employment rates, by age
(per cent)



ed, unemployment fell rapidly to levels observed during the 1980s business cycle peak, and yet self-employment continued its climb.

Furthermore, the self-employed jobs created during the recent expansion resembled those created earlier in the 1990s when recovery was slower. For example:

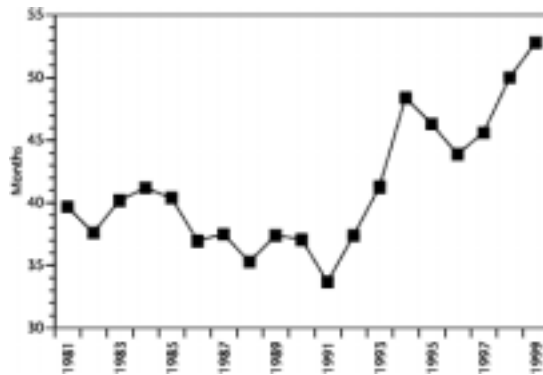
- The self-employment jobs created during the recent expansion continue to be predominantly full-time jobs (83 per cent), many in sectors with above-average wages (including 43 per cent in business services).
- Self-employment jobs created in the 1990s are largely “own-account” self-employed, and had no employees associated with them (96 per cent over the 1989-97 period, 85 per cent more recently). By contrast, the self-employed jobs created during the 1980s were much less likely to be own-account (only 51 per cent were).
- Self-employed jobs were more likely to be created by men than women. During 1997-99, 62 per cent of jobs created were filled by men, compared to around 50 per cent earlier in the decade and during the 1980s.
- Self-employed jobs continue to be created primarily in the 35-54 age group (which accounted for approximately three-quarters of new jobs of this type).

To summarize, there is little evidence that the recent expansion of full-time jobs and falling unemployment has been associated with a decline in the growth rate of self-employment, let alone the absolute decline in the number of self-employed that one might have expected if many self-employed workers had only been waiting for an opportunity to get a full-time paid job. Other factors appear to be driving the expansion of self-employment in Canada.

There was an emerging perception in the 1990s that in the “new economy” workers would hold a large number of different jobs during their careers. In fact, employment gains during the late 1990s were associated with an increase in job tenure (defining job tenure to be tenure with a single firm). The expected tenure of a new job with an employer rose throughout the 1990s, including the late 1990s. Using LFS data, we calculate that average expected completed tenure rose from 34 to 44 months between 1991 and 1996, and from 45 to 53 months between 1997 and 1999 (see Figure 3). This increase is observed among both men and women, across all age groups and among the more highly educated

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Figure 3
Average expected completed duration
of a new job



The proportion of jobs that are shorter term is now *falling*; indeed, it fell through most of the 1990s recovery. The economy has been producing fewer, not more, short-term jobs.

(see Table 1). Only the least educated have not experienced increased job tenure in the late 1990s, although tenure does not appear to have fallen for this group. Data on the permanent separation rate available from the Worker Longitudinal File (WLF) shows a similar trend towards increasing job stability in the 1990s—up to 1995, at least, when available data ceases.

At the same time, the incidence of entry of workers into firms appears not to have risen during the 1990s, as it presumably would have if workers were moving from job to job more frequently. The incidence of entry is proxied here by the number of jobs that have lasted less than either one month, or six months, as a proportion of the working age population. Both of these

series tell the same story (see Figure 4). The decline observed during the recessionary early 1990s shows no sign of recovery, even into the late 1990s. (These data are based on the LFS, and there is a potential for discontinuity between 1996 and 1997 as a result of changes to the questionnaire. Hence the discrete change in the chart for the incidence statistic based upon job tenure of less than or equal to one month. A discontinuity is not evident for the incidence statistic based upon job tenure less than or equal to six months. After accounting for possible discontinuities, no recovery in the incidence of entry to firms is observed.) Most of the increase in paid employment therefore appears to be associated with rising job tenure, not increased entry rates.

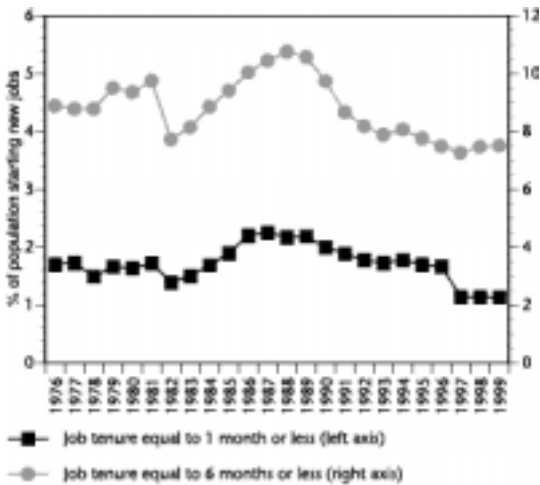
One can think about these results in another way. In addition to changes in average tenure, significant changes in the distribution of jobs by tenure may also be taking place. There has been a sense that the share of jobs that are short-term has been increasing, as firms engage workers on a “just-in time” basis. Earlier work showed that in fact that was exactly what was happening during the 1980s. This trend changed during the 1990s, however. The proportion of jobs that are shorter term is now *falling*; indeed, it fell through most of the 1990s recovery. The economy has been producing fewer, not more, short-term jobs. In 1991 55 per cent of the matches between workers and firms in paid

Table 1
Average job tenure (months)
Expected completed tenure for new job

	1981-86	1987-89	1990-96*	1997-99	1997-99/1987-89
All	39	37	41	50	136%
Men	37	36	39	49	136%
Women	40	36	43	51	142%
Age					
15-24	36	30	35	36	119%
25-34	49	48	51	65	135%
35-44	45	47	44	59	127%
45-54	35	32	33	44	138%
55-64	21	18	18	27	149%
Education					
High school or less		37	34	38	102%
Some post-secondary		43	54	58	135%
University or higher		67	59	74	111%

* 1995-96 only for education groups.

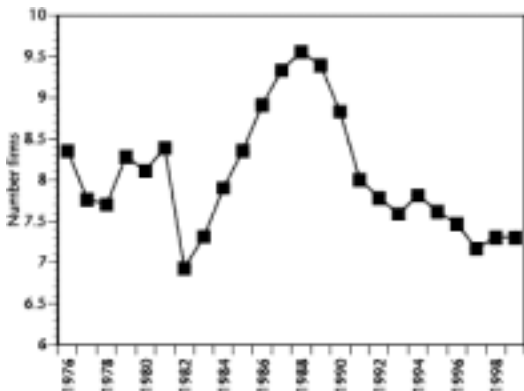
Figure 4
Incidence of entry into jobs



employment had an expected completed tenure of less than six months; by 1996 this was down to 48 per cent (the level observed in the late 1970s). Between 1997 and 1999 this proportion continued to fall, from 42 per cent to 38 per cent.

As mentioned, there is a notion abroad that people are moving among jobs and firms more rapidly now than during previous decades. “Lifelong” employment is often said to have disappeared, and firms either are laying workers off more often, or workers are quitting and moving to different jobs and firms. The data belie this notion. In fact, labour mobility is low in the 1990s as compared to the 1980s. The movement of labour among firms is not high by historical standards. One way of expressing this is to compute the expected number of job starts with any company that a person would have over their

Figure 5
Expected number of firm-starts over a lifetime (based on firm-entry rates of the year indicated)



lifetime, assuming today’s age-specific hiring rates continue to hold. Note that this measure does not attempt to forecast possible changes in hiring practices over the coming, say, 30 years.

Extrapolating the hiring patterns of the reference year, the expected lifetime number of new starts with firms rose during the 1980s, from an average of around eight firms during 1976-80, to a peak of 9.5 by 1988, when (at the business cycle peak) hiring and quit rates and overall labour turnover were all high. Since 1989, there has been a steady decline in this number, so that by 1999 it had fallen to almost seven firms over a lifetime, the level observed in the 1970s (see Figure 5). The gap between men and women in the expected number of firms worked for over a lifetime has fallen; the difference was about three in 1976, but only one in 1999. Women are spending more time in the labour market now, and can expect to work with more firms.

Not surprisingly, most moves among firms occur when workers are young. In the 1999 cohort, the expected number of starts with firms over a lifetime is just over seven; almost four of these new starts will have occurred by age 30. On average, there are relatively few moves among firms after workers reach age 30. In this respect, the 1999 cohort more closely resembles those of the late 1970s or 1981, rather than that of 1989, when inter-firm mobility was very high.

Of course, these statistics are averages for all workers in the entire economy. Individual experience differs markedly. Small pockets of workers in particular segments of the economy change jobs and companies often and account for most of the mobility, while for other workers mobility is quite rare. These two groups are combined in these averages.

The aggregate job tenure data suggest that the incidence of entry to firms remained low, as employment growth was fueled more by rising job tenure than rising entry rates. Does other information substantiate this observation? We know that labour flows, particularly hiring and quits, were depressed during the early 1990s—which is not surprising given the weak job growth of those years. In the face of poor job opportunities, quit rates were also low. Permanent layoffs did not rise in the 1990s compared to the 1980s, and hence with lower hiring and quit rates, labour turnover fell in the weak 1990s recovery compared to comparable periods in the 1980s. But what of the more recent period?

There are a number of data sources on quits

“Lifelong” employment is often said to have disappeared, and firms either are laying workers off more often, or workers are quitting and moving to different jobs and firms. The data belie this notion.

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and hires, each with its own shortcoming. The best source of data on labour flows, the Worker Longitudinal File is based on administrative data but is available only to 1996. To obtain current data one must turn to a series on hires and quits initiated in the 1998 LFS. Alternatively, quits and hiring rates can be computed from SLID (the survey of Labour Income Dynamics), but only for 1993-1998. There is no single adequate source for current hiring and quit rates.

The hiring rate used here is the number of hires (in paid jobs) as a proportion of total employment in paid jobs. None of the various estimates available points to a significant recovery during 1997-99. The hiring rates from SLID (annual) and the LFS (monthly) show a flat hiring rate for 1997, 1998, and 1999 (indeed, SLID is flat from 1993 to 1998, and the LFS from 1998 to 1999). Recall also that the proxy for the job entry rate used earlier from the LFS (the share of jobs with tenure of less than one month) also displayed no recovery at the end of the 1990s. In spite of more rapid economic growth and rising corporate profits, the aggregate hiring rate has not risen.

In general, firms hire for two reasons: to meet replacement demand (stemming from quits and permanent layoffs), and to expand, usually in response to expanding product demand. One can derive a very basic decomposition of the hiring rate into these two components simply by observing that, between two years the number of hires in firm *i* is:

$$H_i(t,t+1) = [E_i(t+1) - E_i(t)] + S_i(t)$$

where *E*(*t*) is employment at year *t* and *S*(*t*) is the number of permanent separations from firms during that period. The first term on the right-hand side of the equation represents hiring related to expansionary demand, the second hiring related to replacement demand. Again, the best data source for this decomposition is the Worker Longitudinal File, since it provides data on employment and permanent separations at the level of the firm.

The amount of hiring is driven primarily by replacement demand. During the expansionary phase of the 1980s cycle, when expansion demand was at its highest, it accounted for only

Table 2
Hiring rates

Year	Hiring rate (a)	Permanent separation rate (b)	Expansionary hiring rate (c)=(a-b)	Per cent of hiring that is expansionary hiring (c)/(a)
	%	%	%	
1978		21		
1979	23	22	2	6
1980	22	21	1	3
1981	27	23	5	17
1982	14	21	-6	-44
1983	21	19	3	12
1984	22	21	1	4
1985	26	22	4	14
1986	25	22	3	12
1987	26	23	3	13
1988	26	24	2	9
1989	26	23	3	10
1990	22	23	-1	-6
1991	18	21	-2	-13
1992	18	20	-2	-12
1993	19	19	0	-2
1994	21	20	1	7
1995	20	19	1	3
1996	19			

Source: Worker Longitudinal File.

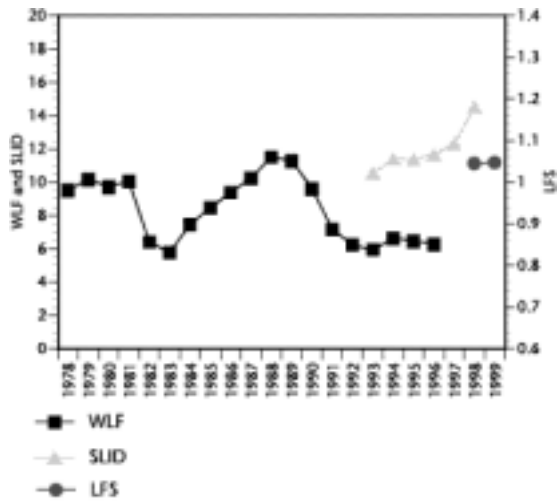
10 to 15 per cent of the total hiring rate (see Table 2). During recessions, this component is often negative, as employment falls in many firms. On average, expansionary hiring accounted for less than five per cent of all hiring over the period. Firms clearly hire primarily to replace people who have left, whether voluntarily or involuntarily. If separations are low by historical standards, the hiring rate can also be expected to be low.

Overall movement from one labour force status to another is driven largely by permanent layoffs and quits. Earlier work showed that permanent layoffs were not higher in the early part of the 1990s recovery than during comparable years in the 1980s business cycle, in spite of concerns about decreasing job stability. The data necessary to update this work to 1999 do not yet exist, but it is likely that permanent layoffs would have fallen over the past three years as the recovery strengthened, thereby reducing overall labour mobility. If mobility were to increase significantly, it would be driven by the quit rate.

Current data on quit rates (defined as the number of quits divided by person-jobs) is even more scarce than data on hiring rates. There are three sources, again each with its shortcomings (see Figure 6). The longest time series comes from the Worker Longitudinal File, where quits are based on the record of employment. Through 1996, the latest year for which data are available, this series shows no recovery in quit rates. For the period 1993-97, SLID data show a recovery (a 40 per cent gain), but a small one compared to the decline between the 1980s peak and the 1990s (when the quit rate was reduced by one-half). By contrast, the quit rate computed from the new LFS series shows no substantial increase in 1999, contrary to what would be expected in that year's strong labour market. In sum, the picture is mixed. The job tenure data reported earlier, which were based on both LFS and WLF data, are consistent with there being little increase in the quit rate.

In spite of the recent growth in GDP and paid employment, workers apparently remain cautious about leaving jobs to seek new ones. This suggests they are not responding to changes in economic growth in the same way as they have in past cycles. They appear more reluctant to leave their firms to seek new opportunities. This may well be a reflection of what has been a prolonged period of economic insecurity, and a resulting widespread sense that job stability remains precarious.

Figure 6
Quit rates from various surveys



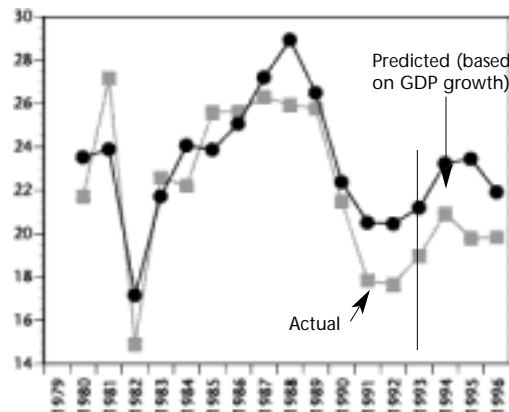
For a more rigorous assessment of whether workers and firms did or did not respond to economic growth during the late 1990s in the same way as they did during the 1980s, we turn to econometric modeling. Briefly, we estimate the progression of the hiring and quit rates over the 1993-99 period based upon the assumption that the relationship between GDP and labour flows that existed between 1979 and 1992 continued into the later 1990s. Comparing these estimates to the actual hiring and quit rates allows us to see if labour flows are lower in the 1990s than in the 1980s after controlling for differences in the state of the economy. We measure GDP in both percentage growth, and deviation from trend terms. The former represents the change in economic activity from year to year, while the latter shows the economy's position relative to the cyclical peak.

Hiring and quit rates were below the levels one might expect in the 1990s, even given the state of the economy. In Figure 7 we show expected (based upon our econometric model) and actual hiring rates. For the "actual" series we show hiring rates from the WLF from 1980-1996 which we extend to 1997-1999 based upon information from SLID and LFS data. The expected hiring rate rose significantly during the 1997-99 period. While not yet back at the peak values observed during 1989, these results suggest that one would have expected a significant improvement in hiring rates. However, the actual data suggests that such a recovery in the rates has not been observed.

The results are similar for the quit rate, but not as strong (Figure 8). As with the hiring rate,

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Figure 7
Actual and predicted hiring rates
(predictions based on 1980-1992 data)



Perhaps the most significant change in labour market outcomes during the slow-growth 1990s was the dramatic fall in the youth participation rate. Of the overall decline in the rate, the vast majority was concentrated among younger workers.

we show actual quit rates from the WLF from 1979-1995, extended through 1996-1999 using information from SLID and LFS data. The “expected” quits are seen to rise, which is not surprising for this stage of the cycle. Based on the WLF data up to 1995, however, this increase was not observed. The 1998 rise in the quit rate seen in the SLID data suggests that the quit rate may have recovered to its expected point by 1998, but it returned to nearly one percentage point below expectation in 1999. In general, both these labour flows appeared slow to recover from the 1990s recession, and remained sluggish despite the growth in the later 1990s.

Perhaps the most significant change in labour market outcomes during the slow-growth 1990s was the dramatic fall in the youth participation rate. Of the overall decline in the rate, the vast majority was concentrated among younger workers. Fully 70 per cent of the shortfall in the overall participation rate during the mid-1990s (relative to the 1989 peak) was due to a significant decline in the youth participation rate. The participation rate for 15-24-year-olds fell from 71 per cent in 1989, bottomed out at 61.5 per cent in 1997 and rose to 63.5 per cent by 1999. The decline was due both to falling participation rates among students and to an increased tendency of students to stay in school. These events could have been caused in turn by deteriorating labour market conditions (which have recently improved) or increasing returns to education (and hence higher school enrollment rates and lower labour force participation rates).

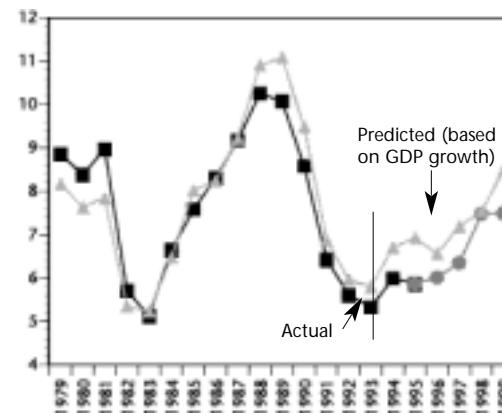
Lower hiring rates during the 1990s (relative to the late 1980s cyclical peak) would likely

influence the labour market participation of young people, who are the major job-seekers in the economy. In a 1999 paper, economists Thomas Lemieux, Paul Beaudry and Daniel Parent showed that the general decline in economic conditions was a principal cause of the decline in participation rates, particularly for young men who were not in school during the 1990s (although most of the decline was not among this group). During the strong recovery of 1997-99, the participation rates of most age groups returned to their 1989 cyclical peaks, or surpassed them (see Figure 9). The exception was among older workers and the young. Young workers’ participation rates remained 7.5 percentage points below the 1989 value.

Since our emphasis in this paper is on trends in hiring and employment we focus on the employment rate (the number of workers employed as a share of the age-group population). We believe it is a better measure of the ultimate outcome for workers: Jobs are what we—and they—are concerned with, and the proportion of young people who hold them.

In fact, the change in the youth employment rate resembled the change in their participation rate. It peaked in 1989 at 63.2 per cent, fell precipitously during the 1990s, bottomed out at 51.5 per cent in 1997, and rose to 54.6 per cent by 1999. To determine what influences these rates, we decompose the change in the youth employment rate into three components. They are the change associated with: (1) the changing employment rates among non-students, (2) changing employment rates among students and (3) the changing share of young people who are students (i.e. changing school enrollment rates). The dominant factor

Figure 8
Actual and predicted quit rates
(predictions based on 1979-1992 data)



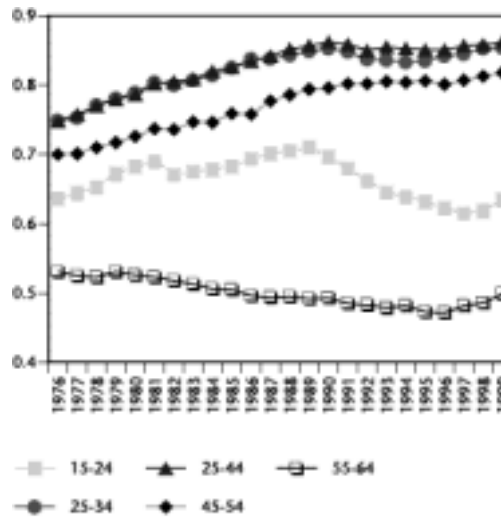
over the past 20 years has been the increased tendency of young people to remain in school. Between the cyclical peak of 1981 and 1999, this phenomenon has led to a steady downward trend in the share of young people who are employed, pushing the rate down by fully 6.2 percentage points (see Figure 10 and Table 4). There has been virtually no change in the tendency of non-students to hold jobs over this period, while the proportion of students holding jobs actually rose one percentage point between 1981 and 1999 (although it remains below its 1989 peak).

If the increasing tendency of young people to remain in school is the main driving force of the decline in the youth participation rate over the past 20 years, then where can one expect this rate to go in the near future? Has there been a permanent downward shift in the employment rate? To answer this question, one has to know why the school enrollment rates rose. In their 1999 paper, Lemieux, Beaudry and Parent addressed this issue, and concluded that notions such as increasing demand for highly skilled labour or poor labour market prospects are not the principal explanations. They conclude, rather, that most of the variation over the past 25 years, and in particular the increases during the 1980s and early 1990s, are associated with the changing size of the school-age cohort.

There presumably is some form of capacity constraint—at the post-secondary level in particular. When school-aged cohorts are decreasing in size (due to falling births many years earlier), such as was the case during the 1980s and early 1990s, then school enrollment rates among 15-24 year olds rise. If the cohort size levels off or rises marginally (as it did in the late 1990s), then the increase in school enrollment rates ceases, or is reversed, as has been the case recently. According to this explanation, the increasing importance of education in the “knowledge-based economy” has little to do with the rise in school enrollment rates, and neither do deteriorating labour market conditions.

If this explanation is valid, what does the future hold? In the near future, the size of the 18-23-year-old cohort will be driven largely by births that occurred between 1981 through 1986. There was little increase in the size of the birth cohort between that period and the previous five years, which largely governed the cohort’s current size. To be precise, the average number of births rose 2.5 per cent between 1976-81 and 1981-86. Hence, if the explanation holds, the enrollment rate of young people will

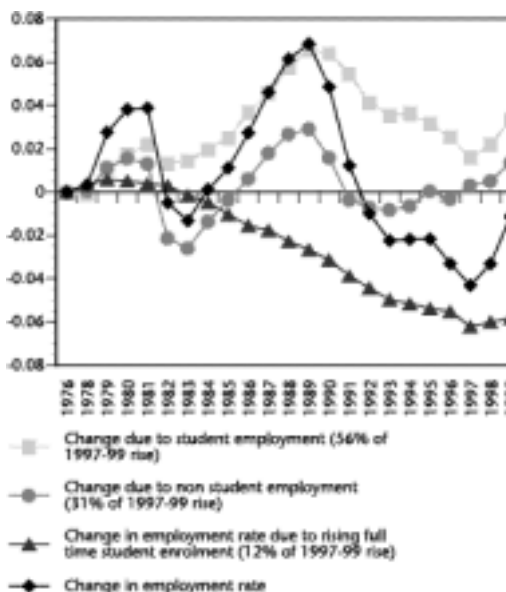
Figure 9
Participation rates by age



not fall markedly, which in turn means there will be no significant increases in the overall youth employment rate.

Even if the capacity constraint story is not entirely correct, it seems unlikely that the perceived relative return to higher education will fall in the near future, or that, as a result, students will turn away from higher education. Hence, overall youth employment or participation rates should not return to the levels seen 20 years ago.

Figure 10
Decomposition of youth employment rates, 1976 to 1999
(Change in employment rates due to three components; change measured from 1976)



The dominant factor over the past 20 years has been the increased tendency of young people to remain in school. There has been virtually no change in the tendency of non-students to hold jobs over this period, while the proportion of students holding jobs actually rose one percentage point between 1981 and 1999.

Table 3
Decomposition of the change in the youth employment rate

During the stronger economic recovery of 1997-99 an increasing proportion of youth were employed.	Total change	Associated with change in...		
		the non-student employment rate (%)	the student employment rate (%)	full-time student enrollment (%)
Period				
1981-99	-5.0	0.0	1.1	-6.2
1981-89	3.0	1.6	4.4	-3.1
1989-97	-11.2	-2.6	-5.0	-3.5
1997-99	3.2	1.0	1.8	0.4
1989-99	-8.0	-1.6	-3.3	-3.2

This was due, not to a drop in the share of young people remaining in school, however, but to increased employment among students.

During the stronger economic recovery of 1997-99 an increasing proportion of youth were employed. This was due, not to a drop in the share of young people remaining in school, however, but to increased employment among students. About 56 per cent of the 3.2 percentage point increase in the youth employment rate between 1997 and 1999 was due to this latter factor (see Table 3). A shift away from school accounted for only about 13 per cent of the increase, and a rise in employment among non-students accounted for the rest (31 per cent). In short, there does appear to have been a structural change in the employment pattern of young people over the past 20 years. During both expansions and recoveries alike, the increased tendency of 15-24-year-olds to remain in school has driven down their aggregate employment rate (Figure 10).

During the recent expansion the partial recovery of the youth employment rate has been primarily the result of more students working. Among both students and non-students the proportion of young people holding jobs has returned to the level of the 1981 cyclical peak, but remains well below the 1989 peak values (see Figure 10). Because of the significant change in school attendance patterns, young people's aggregate employment (or participation) rates seem unlikely to return to the levels observed 20 years ago.

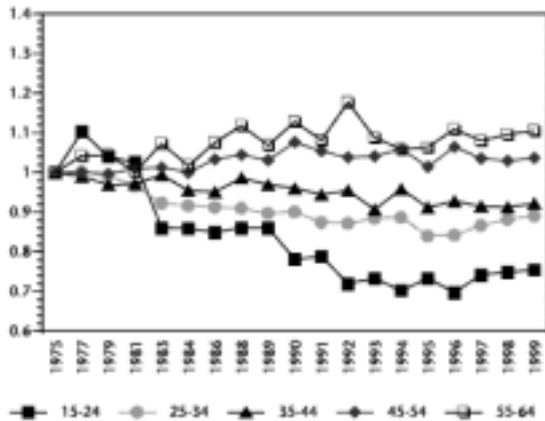
The decline in real and relative earnings of the young through the 1980s and 1990s has been well documented. Each successive cohort of young workers entering the labour market in the last two decades has earned less than the previ-

ous cohort. The decline, which is particularly evident among male workers, seems widespread, occurring in most industries and occupations, and among the less and more highly educated alike. The reasons for it are not yet well understood.

The pattern appears to be one of a significant decline during recessions, with no recovery during expansions. This trend seems to be persisting during this latest three-year period of growth. Figures 11 and 12 follow an index of real weekly wages by age group, for men and women, from 1977 to 1999. Average weekly wages among the young are 75 to 80 per cent of what they were in the late 1970s, and there is no sign of any significant recovery during 1997-99. There was little real wage growth among young males during those years, although there was a stronger upward trend among young women, whose weekly earnings rose an annual average 2.1 per cent. In neither case, however, was there a strong recovery relative to earlier declines.

On the other hand, there is some evidence of increases in average weekly earnings among university-educated young people. The increases are in both real and relative wages (relative to the less educated, that is). Figure 13 shows real weekly wages for the 1997-99 period as measured by the LFS. Among both men and women, 20-to-34-year-olds with less than a university education saw no wage change in spite of the improving labour market conditions. On the other hand, the university educated registered a gain of 6.6 per cent for men, and 4.7 per cent for women. Although not shown here, among workers 35-54 no wage

Figure 11
Real weekly wages, men



gains of any significance at any level of education were observed in these data. Hence, the one group whose wages seem to be rising as a result of the stronger recovery are highly-educated youth. Labour market conditions may be improving most significantly among this group.

To summarize: Job tenure, hiring and the successful entry of young people into the labour market have been issues of concern throughout the 1990s. Weak economic growth through 1996 resulted in lower job prospects for the young, particularly, it seems, for new entrants to the labour force. The years 1997-99 were years of substantial economic growth, however, and some of the trends of the early 1990s were reversed while others continued:

- In the face of high GDP growth, full-time full-year employment expanded significantly and the aggregate unemployment rate fell to levels at or even below that observed during the 1980s peak.
- There was no sign of a decline in self-employment, or even a slowdown in its growth, in spite of the increasing opportunities in full-time paid employment. This observation is consistent with earlier work which found that the growth of self-employment over the past 20 years has not been related to economic conditions.
- The available evidence suggests that through the early and mid-1990s both quit and hiring rates were depressed. But our analysis suggests that these rates may have been even lower than expected, given GDP levels. This may have been related to high levels of uncertainty among workers regarding job

availability and stability. The available evidence for the late 1990s suggests that this syndrome may be continuing, although the absence of a consistent time series renders such a judgment difficult. While hiring driven by expansionary demand has increased, the hiring rate is largely driven by replacement demand, which may have remained low by historical standards, and may be below expected, given GDP.

- The low quit rate observed during the 1990s and the resulting lower labour mobility has resulted in rapidly rising job tenure among paid workers. Expected tenure at a “new” job rose throughout the 1990s, including the late 1990s. This was related mainly to a decline in the share of jobs that are very short in duration. The expansion of paid employment during the recent period may have been driven more by rising job duration than by any increase in the incidence of job starts. This suggests that workers remain cautious in terms of seeking new job opportunities in most segments of the economy. There will be industrial sectors and types of workers that are an exception to this pattern, but overall this appears to be the case, at least to the end of 1999.
- There has been concern during a period of increased “contingent work” and “just-in-time hiring” that the proportion of jobs that are short-term has been on the rise. Though this was true in the 1980s, the 1990s saw this trend reversed. Through the strong expansion of 1997-99 the proportion of paid jobs that are short-term has been falling. This is the main reason why the expected tenure of “new” jobs has been increasing.

The one group whose wages seem to be rising as a result of the stronger recovery are highly-educated youth. Labour market conditions may be improving most significantly among this group.

Figure 12
Real weekly wages, women

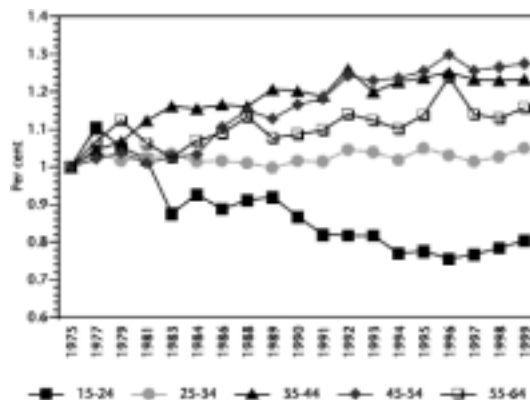
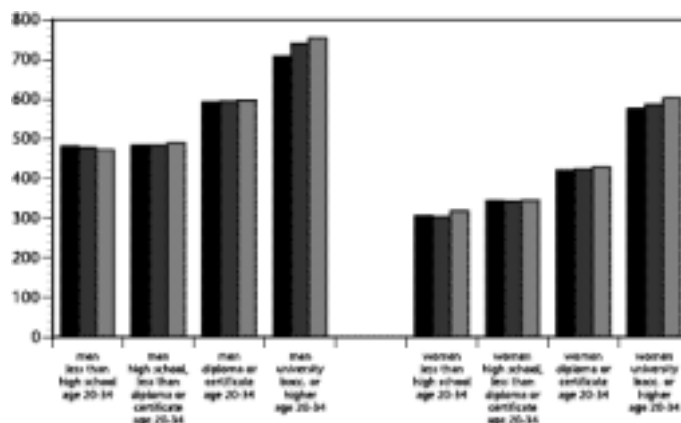


Figure 13
Real weekly wages, 1997-1999



Average real wages among the young have changed little during the recovery. This is also true of their wages relative to older workers.

- These results can be expressed in another way: Under current hiring patterns, the number of firms a worker can expect to work for over his or her lifetime has fallen from the peak of the 1980s and now resembles the pattern observed in the 1970s. During the late 1970s, hiring rates were such that on average workers could expect to work for roughly eight firms over their lifetime. During the late 1980s this rose to over nine and by the late 1990s it had fallen back to almost seven.
- The suppressed hiring (and increased job tenure) seemed to influence the youth labour market. Employment and participation rates among the young fell precipitously during the 1990s. While there has been some recovery, both rates remain well below the value observed at the 1989, or even 1981 cyclical peak. However, this long-term decline is associated primarily with the increased tendency of young people to remain in school. It is unlikely that this rising enrollment rate will be quickly reversed, whether its cause is lower cohort size or a perceived increased return to

higher education relative to other levels of education. Hence, the decline in youth employment rates is likely structural, and a return to the levels of earlier cyclical peaks is not to be expected. Among non-students, the employment rate has returned to its 1981 peak, although it remains below the level of its 1989 peak.

- Average real wages among the young have changed little during the recovery. This is also true of their wages relative to older workers: They remain low following substantial declines during the recessions of the 1980s and 1990s. The only group to display any real or relative gains in weekly earnings are university-educated youth (those aged 20-35).
- Overall, the 1990s labour market has been characterized by decreased labour mobility, as workers have chosen to remain with their firms longer than during the 1980s expansion, perhaps even longer than one might have expected, even given the weak GDP performance up to 1996. Preliminary and partial evidence suggests that this reduced labour mobility (given economic conditions) may have continued into the late 1990s. Overall unemployment has been quickly reduced, and employment expanded. While this has been occurring in the world of paid employment, self-employment continues to expand. Self-employment tends to be concentrated among more mature workers, that is, those over 35.

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The OECD on Ireland At first glance it is astonishing that a nation could have moved all the way from the back of the pack to a leading position within such a short period, not much more than a decade in fact. It is therefore of great interest to seek the reasons for the turnaround and look for any lessons for other OECD Member countries. Unfortunately, it would seem that there has been no "silver bullet"—no single overriding policy that could be adopted elsewhere in order

to emulate Irish experience. Rather the breaks in trend, first around 1987, when the deterioration ceased and performance improved, and then around 1994, when the boom began, are attributable to the confluence of a series of favourable changes in the environment and other exogenous factors (some of which were specific to Ireland and are unlikely to be replicated elsewhere).

Economic Survey of Ireland, May 1999