
SPECIAL REPORT

TD Economics



March 26, 2015

PRECARIOUS EMPLOYMENT IN CANADA: DOES THE EVIDENCE SQUARE WITH THE ANECDOTES?

Highlights

- Precarious employment is an important issue for many Canadians. Uncertainty about future employment income has many negative consequences. However, the lack of a common definition makes discussion of the issue difficult.
- We define precarious employment as having an outsized level of uncertainty, whether in terms of pay, ongoing employment, scheduling, or other dimensions.
- Types of work associated with precarious employment are typically lower paying, with an income gap of between \$11,600 and \$18,000 in 2014 relative to jobs with less uncertainty.
- To help inform the public discourse on this issue, we have constructed a TD Precarious Employment Index. The empirical evidence shows that precarious employment is currently higher than it was before the 2008 recession. However, the good news is that the trend is declining and the level of the index stands at roughly the same level as in 2006. A key question is whether the decline will be maintained, and data limitations prevent us from concluding definitively that the improvement we're seeing has staying power.

In recent weeks, there has been increased discussion both in the media and among economists about precarious employment and the state of job quality in Canada. Precarious employment is a serious issue, and clearly negative for the Canadian economy. Similarly, the quality of available jobs has important implications for the well-being of Canadians and their prosperity. However, there are a number of gaps in the discussion that need to be filled. First, a common definition of precarious employment is needed. Second, any debate should be based on verifiable facts and data, where available. Anecdotes alone are not enough to warrant action being taken on such an important issue. With these considerations in mind, this report proposes a definition of precarious employment and explores its trends. We develop a precarious employment index and provide an outlook for employment stability in Canada.

Defining precarious employment

To have a meaningful discussion of precarious employment, it is necessary to first define just what it is. The word precarious refers to a situation that is dependent on chance or uncertain developments, typified by a lack of security or stability. But, what does this mean from an economic perspective? Some characteristics of precarious employment may include:

- Job instability, as measured by separation or retention rates or the share of temporary employment;
- A lack of predictability of income, associated with seasonal and self-employment;
- Uncertainty regarding employment status, for instance among individuals waiting call-backs;
- Finally, a lack of predictability in scheduling, measured by involuntary part-time employment.

Job instability is clearly linked to precariousness of employment. Uncertainty about future income can create stress for the individual, and impact their life choices. Uncertainty can stem from the temporary nature of the job, which can be an issue for both temporary workers and self-employed individuals. Seasonal employment also brings uncertainty, particularly on year-to-year basis, as employers adjust their hiring from season to season. Uncertainty can hamper decisions to borrow or invest, and may lead to an excess of precautionary savings.

The effects of part-time employment can be equally challenging, as these workers often need to juggle uncertain working hours with the demands of their day-to-day lives. Moreover, part-time work is often lower paid relative to full-time work, resulting in lower incomes and increased income inequality. It is important, however, to distinguish between an individual working part-time out of necessity (i.e. unable to find full-time employment) and those who prefer this work arrangement, such as retirees and students.

These types of employment clearly capture areas that are of concern both from a societal point of view, and an economic perspective. It is important to keep in mind that many of these categories overlap. For instance, an individual could be working part-time involuntarily or be self-employed while also working at a temporary job. With that caveat in mind, the remainder of this report will provide an in-depth view of the trends in these numbers, as well as the outlook for precarious employment in Canada.

Trends in precarious employment and wages

Separation Rates

Certain categories of employment face a higher degree of uncertainty around the future than others. However, during economic downturns, layoffs tend to increase across nearly all industries and employment arrangements, raising the precariousness of most employment. This can be roughly measured by using the separation rate: the share of employees who leave employment in a given period (this includes those who quit their jobs, and so will tend to overstate precariousness).

As shown in Chart 1, the separation rate tends to rise during economic downturns, as layoffs become more common. After spiking during the global financial crisis, the Canadian separation rate has since been trending down, and is currently near all-time lows. At the same time, Conference Board of Canada research suggests that Canadians are stay-

ing in the jobs longer than ever, despite improving economic conditions, indicating that they remain cautious about the state of the labour market.¹ These conflicting signals, and the inability to further break down the publicly available data, makes assessing precariousness on this basis challenging.

Temporary employment

Temporary jobs are defined as those that have a pre-determined end date or are slated to end after a specific job is completed. Temporary employment can be broken down into four groups: seasonal; temporary, term or contract, including work done through a temporary help agency; casual job; and other temporary work. Temporary jobs also tend to pay lower wages, offer fewer benefits (medical and pension), are less likely to offer on-the-job training, and are more precarious in nature than permanent employment.²

In 2014, roughly 85% of Canadian employees were permanently employed (Chart 2). Indeed, while this share fell during the recession, the change was marginal, and has remained broadly unchanged for nearly two decades.

However, there has been an upward trend in temporary employment in recent years among youth (Chart 3). Canadians aged 15 to 24 are more likely to work on a temporary basis today than at any other point since the data began being collected in 1997. Temporary employment among youth rose quickly as a share of total youth employment, from 25% in 1997 to 30% in 2001. Since then it has been trending up but continued to hover around 30%, fluctuating with the ebb and flow of the business cycle. This share is much higher than for Canadians aged 25 to 54 and 55 and over (at around 10% and 11%, respectively). That said, while

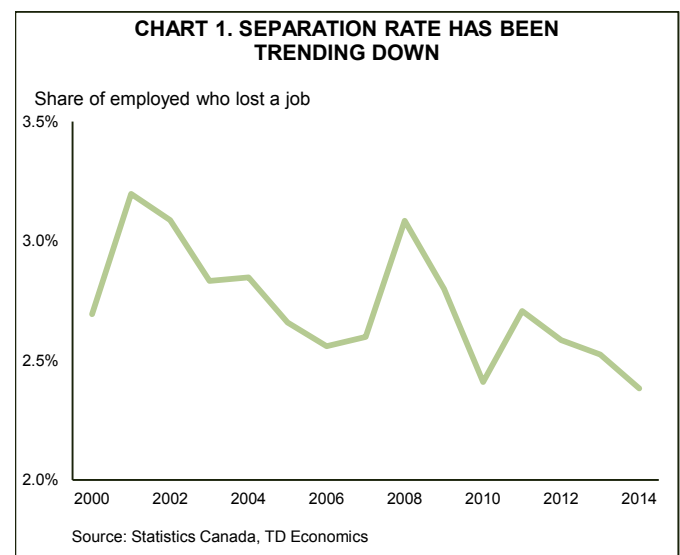
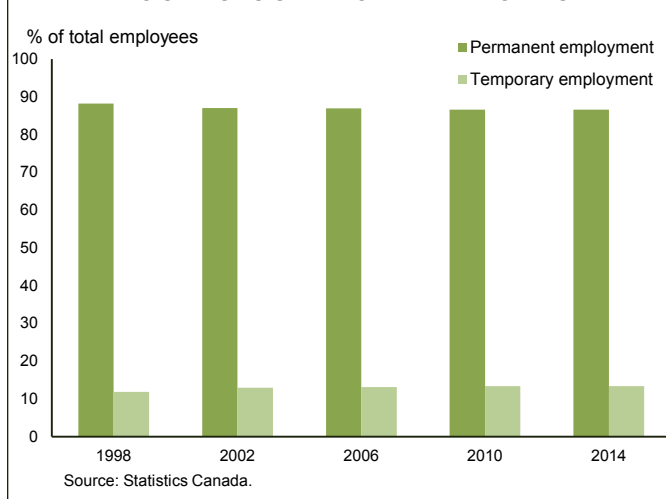
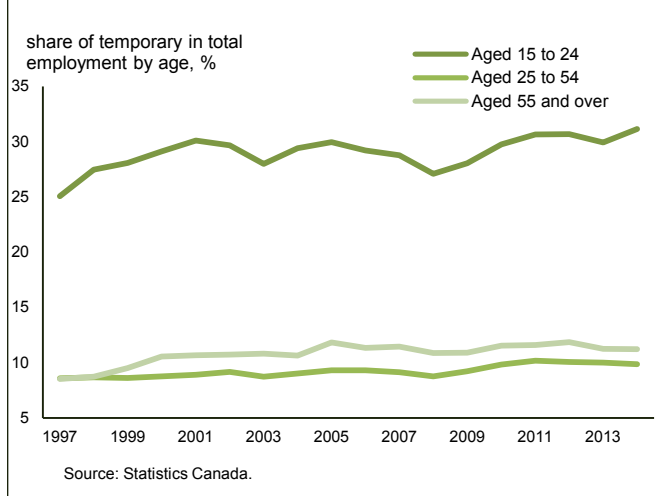


CHART 2: TEMPORARY EMPLOYMENT BARELY REGISTERS AS SHARE OF ALL EMPLOYEES


temporary employment can be reasonably thought of as precarious, among youth it may also reflect their increased likelihood of attending post-secondary institutions. Finally, the total number of temporary workers in Canada may be biased upward by the presence of temporary foreign workers in Canada, as these people are also captured in the Labour Force Survey.

Temporary employment is considered precarious because of the uncertainty around earnings beyond the contract period. However, even while employed, temporary workers earn significantly less than their full-time counterparts. Although the wage gap for these workers has been closing slowly, a significant gap remains (Chart 4). Permanent employees still earn around 30% more per hour than temporary workers, although this is down from a 36% premium at the

CHART 3: RISING TEMPORARY EMPLOYMENT BEING DRIVEN BY YOUTH


beginning of last decade.

The reasons for the falling wage premium are unclear, but demographics and the changing nature of temporary work may have played a role. As the Canadian population has aged, the share of older workers in temporary employment has risen. Older workers are generally more experienced, and thus may be able to command higher wages in temporary employment, helping reduce the wage gap. The nature of temporary employment has also shifted. As Ontario, Quebec, and other provinces have undergone a shift away from manufacturing, there is less need for repetitive or low-skilled temporary workers.³ A shift towards higher-skilled temporary work would reduce the premium as the skill mix between the two groups becomes more similar.

Regardless of what has been driving the decline in the wage premium, it remains significant. The financial impacts are also substantial. For instance, a person working 40 hours a week, for 50 weeks in 2014, would have earned \$11,600 more, on average, as a permanent employee than as a temporary employee.

Seasonal temporary employment

Most industries in Canada have some discernible element of seasonality, meaning hiring fluctuates with the changing of the seasons. For instance, employment typically increases in the retail sector in November and December, in preparation for the holiday season, which is then unwound in January and February. Another well-known example is the education sector, as many support staff, such as educational assistants, do not have work when children are at home for summer holidays.

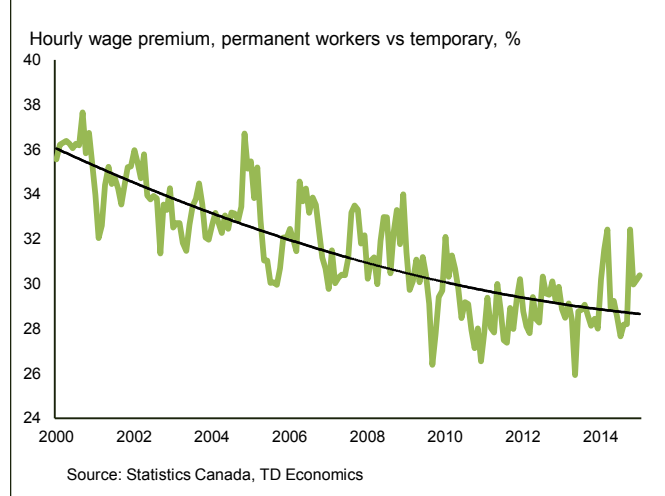
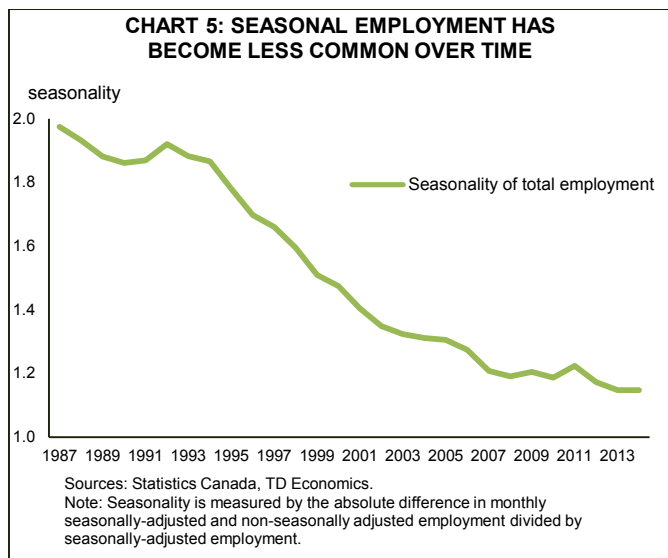
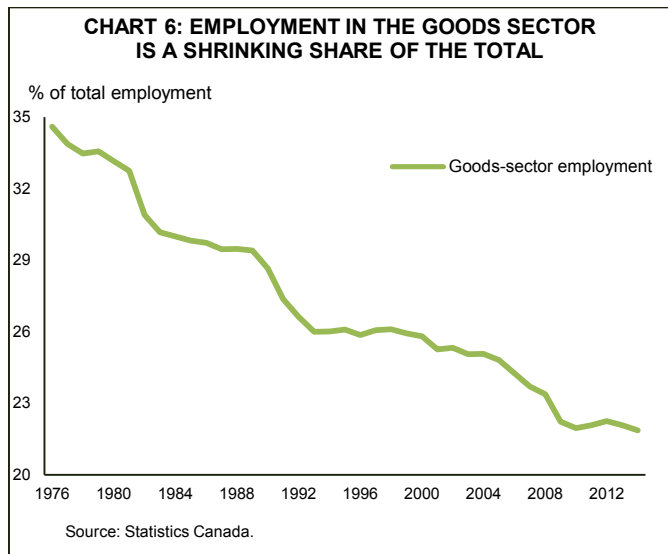
CHART 4. PERMANENT EMPLOYEES RECEIVE A SIZEABLE WAGE PREMIUM


CHART 5: SEASONAL EMPLOYMENT HAS BECOME LESS COMMON OVER TIME



Compensation and job security across seasonally-sensitive professions can vary markedly, as the examples of the retail and education sectors illustrate. However, seasonal employment is generally considered to be precarious as yearly fluctuations in shopping and weather patterns can mean a job available one year may not be the next. Looking over history, the seasonality of employment has been in decline (Chart 5). The explanation appears to relate to the changing nature of employment in Canada. Specifically, seasonality in the goods-producing sector is four to six times that of the services-producing sector (depending on the year), although the influence of seasonality in the goods-producing sector has been declining over time. More importantly, the size of the goods-producing sector has also been declining over time as a share of total employment, reducing the overall seasonality of employment (Chart 6).

CHART 6: EMPLOYMENT IN THE GOODS SECTOR IS A SHRINKING SHARE OF THE TOTAL



Self-employment

Self-employment is often considered to be a precarious form of employment, as it is perceived as less secure than paid employment. With the exception of some short-term volatility, self-employment as a share of total employment has remained stable at around 15% since 2001, with the exception of a short-lived increase during the 2008-09 recession (Chart 7). Indeed, the period that saw the most dramatic rise in self-employment was from the late-1970s through to the late-1990s.

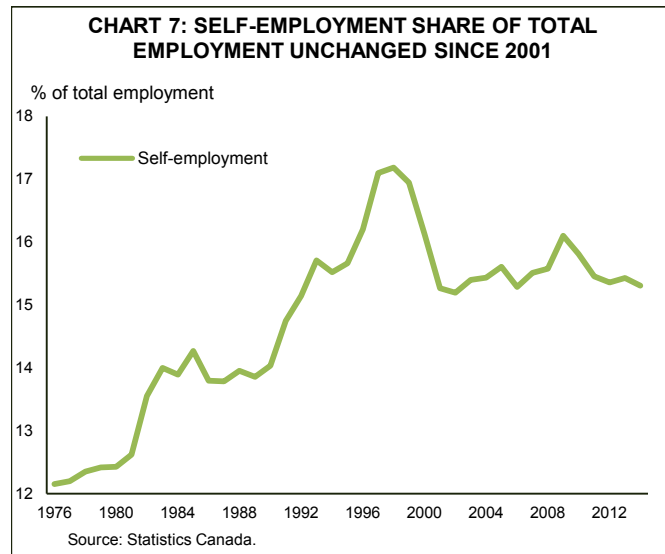
Earnings data for self-employed Canadians are not readily available. It is likely that, like other forms of precarious employment, self-employment income is likely to not only be less predictable, but also lower than comparable regular employment income.

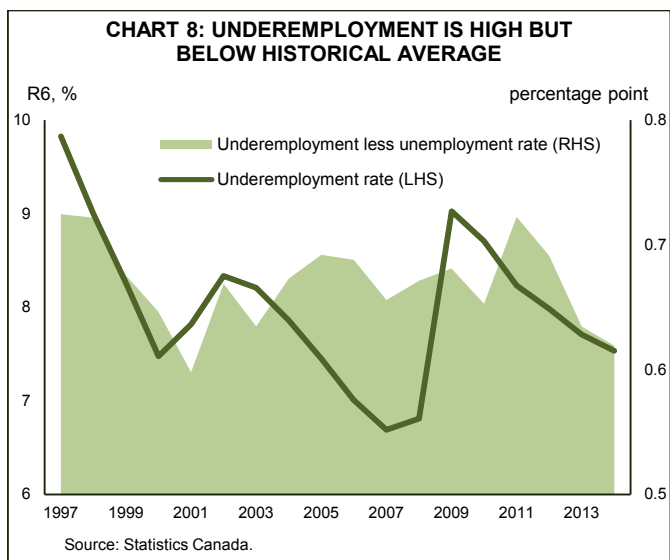
Similarly, there is unfortunately little data available that explain the reasons people become self-employed. Some Canadians are self-employed that would prefer to be an employee. However, many also choose to be self-employed, as it often allows for greater flexibility than full- or part-time employment as well as increased opportunity for tax avoidance.

Waiting for work

There are several measures of underemployment in Canada, with one of the alternatives (the so-called 'R6') including Canadians that are unemployed, waiting for recalls, replies or long-term future starts. This is an important aspect of precarious employment, as individuals waiting for a callback or recall face significant uncertainty as to whether these will lead to the employment they have been searching for.

CHART 7: SELF-EMPLOYMENT SHARE OF TOTAL EMPLOYMENT UNCHANGED SINCE 2001

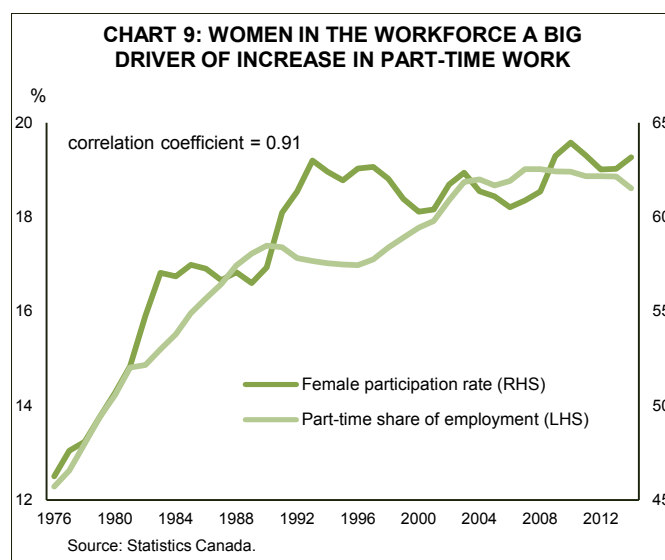




This measure of underemployment fell to its lowest level on record in 2007, as the economy roared along at a pace well above its potential (Chart 8). During the recession, the number of people trapped in ‘limbo’, waiting for confirmation of employment rose substantially, although it managed to stay below historic peaks. Since the recession, this category has come down notably, following a similar (albeit higher) path to the unemployment rate, to land just below its historical average in 2014.

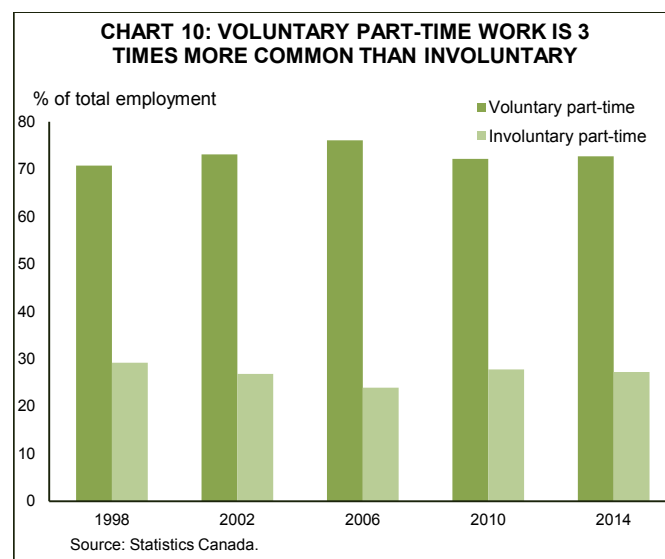
Part-time employment

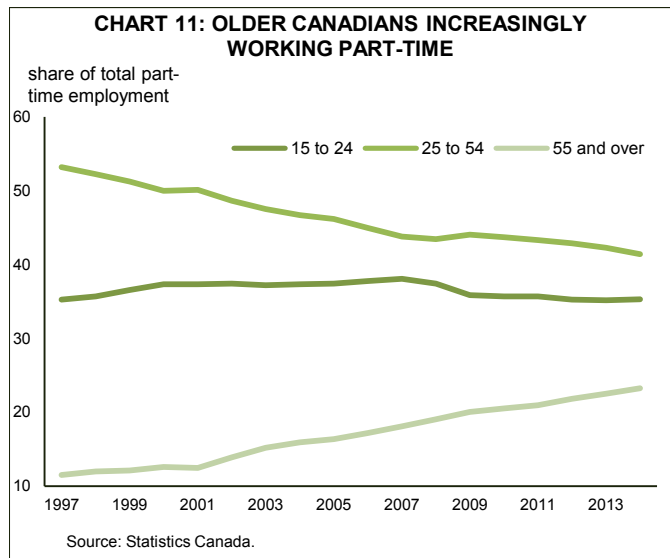
Part-time employment is often considered to be precarious. As we outlined in our report [Part-Time Nation: Is Canada Becoming a Nation of Part-Time Employed?](#), part-time employment has come down since its recent recessionary peak, although it remains elevated relative to pre-recession levels. In a historical context, much of the increase in part-time employment occurred during the 1970s and 1980s, commensurate with the increased presence of women in the labour force (Chart 9). While the disaggregated data only go back to 1997, we know that since then women have consistently made up about 70% of part-time employment. Indeed, it is Canada’s status as the country in the G7 with the highest female labour force participation rate that has provided us with a growth advantage during periods of weak labour productivity growth. More distressing is the decline in the prime-aged (25 to 54) female labour force participation rate since reaching its peak in December 2012, the possible reasons for which are discussed in [Falling Female Participation Rate: A Concern](#).



Taking a closer look at the reasons that Canadians work part-time, it is clear that the majority working part-time do so voluntarily (73% in 2014) while just over one quarter work part-time involuntarily (Chart 10). While these relative shares of voluntary versus involuntary part-time employment are little changed over history, the share of involuntary part-time employment increased during the last recession and that share has yet to meaningfully decline.

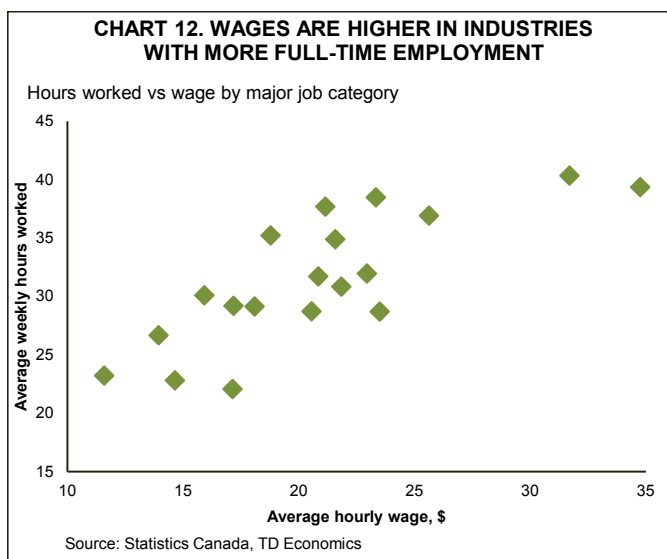
Notably, the reasons most often cited for working part-time include ‘Going to school’ and ‘Personal preference’, which together include over 50% of part-time employed. This is intuitive, as youth continue to maintain an unwavering and significant share of part-time employment in Canada. Meanwhile, older workers are increasingly likely to work part-time, a majority of which (roughly 70%) cite





personal preference as their motivation (Chart 11). As was highlighted in our report [Young and Restless: A Look at the State of Youth Employment in Canada](#), aggregate youth labour market outcomes are in line with the current state of the business cycle but remain elevated, in large part due to weakness in the labour market of Canadians aged 15 and 16 years.

Part-time employment is typically associated with lower wages, less generous benefits and weaker outcomes across other compensation metrics when compared with full-time work. This association is borne out by the data. As Chart 12 illustrates, industries that tend to have more full-time work associated with them (captured by average weekly hours worked) generally have higher average wages. The trend is further borne out in the aggregate wage data. Since 2000,



full-time workers have made an average of about 52% more per hour than those in part-time employment (Chart 13). It is possible that a shift toward higher paying industries (such as oil and gas extraction) that require both specialized labour, which commands a higher wage, as well as continuous work, results in the pattern observed.⁴

What is clear however is that across the broader economy, full-time workers command higher wages. The different outcomes for these workers can be significant. A person working 40 hours a week, 50 weeks of the year at the average full time wage would have earned \$18,000 more than someone working the same number of hours spread across multiple part-time jobs.

Unionization

While union status is not explicitly associated with precarious employment, labour organizations have long been associated with higher-paying, more stable jobs. Unionized workers still tend to earn more than their non-unionized counterparts, with a 22% premium observed in 2014, although this premium has been trending downwards (Chart 14). At the same time, the unionization rate has also been declining, as an increasing share of workers are employed outside of collective bargaining agreements.⁵

It is difficult to square the matching downward trends in both unionization rates and the wage premium. A few avenues appear likely, however. Globalization, particularly in the manufacturing sector, has resulted in increased competitive pressures, reducing the bargaining position of unions. Indeed, several prominent collective agreements, particularly at automotive manufacturers, have resulted

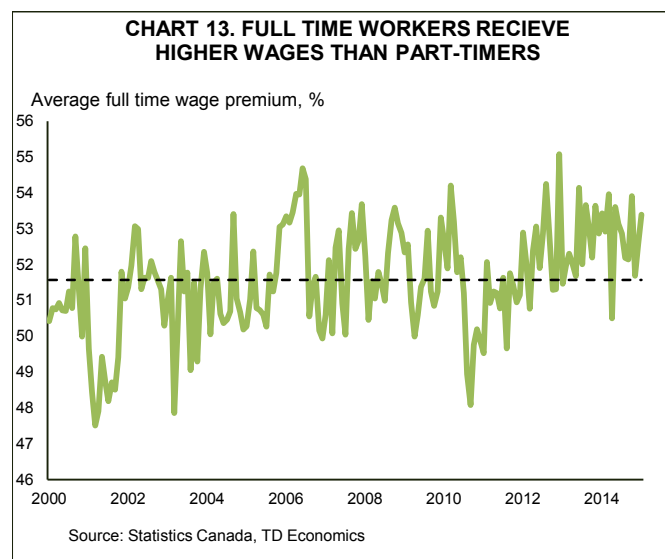
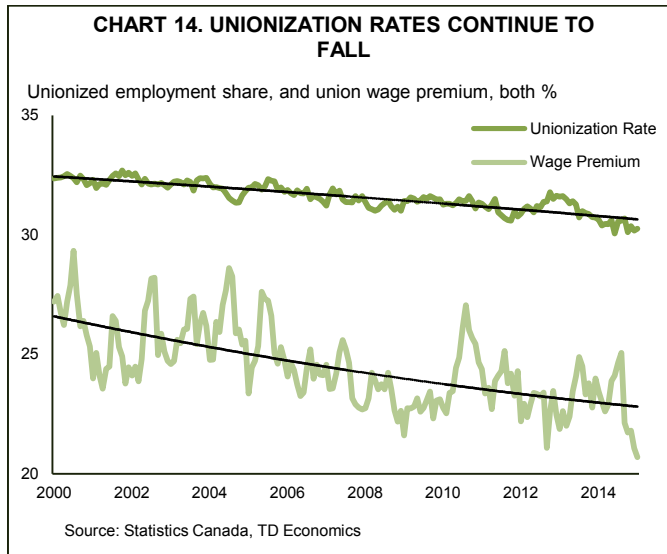


CHART 14. UNIONIZATION RATES CONTINUE TO FALL


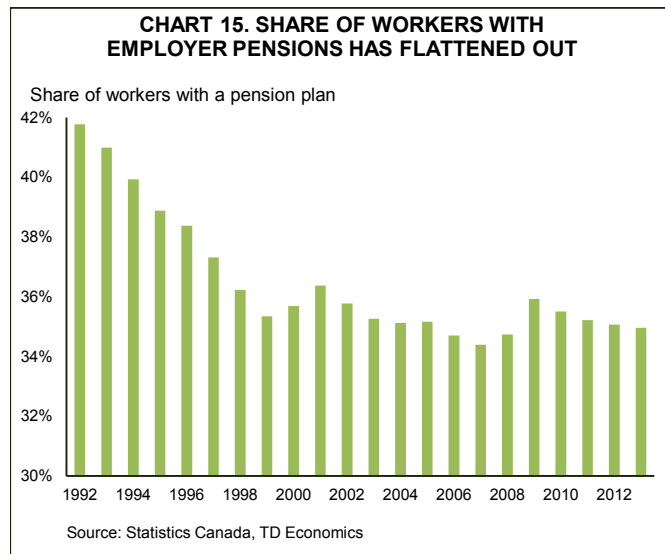
in a dual-wage structure, where new employees are on a different, lower pay scale than their more senior counterparts. Through time, retirement and hiring will result in a larger share of the unionized labour force on the lower scale, reducing the average wage received. At the same time, technological changes, including automation and new production techniques, continue to reduce the number of workers needed to produce any level of output.

Another trend has been the unionization of service and retail industries, such as hotel workers. These additional workers have helped to slow the decline in the overall rate of unionization, but at the same time are in industries with lower wages than traditional strongholds of unionization such as manufacturing and the public sector. This shift in the composition of the unionized labour force will push the overall union wage premium lower, though it is worth noting that unionized workers still continue to receive a sizeable wage premium on average.

Employer pension plans

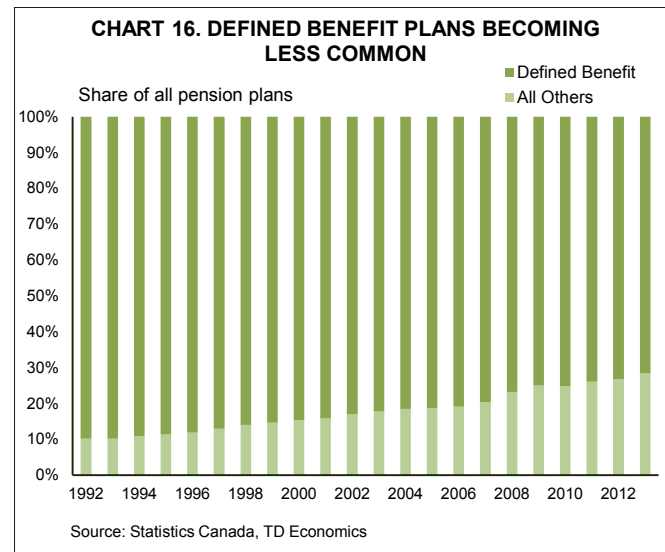
Precarious employment is closely associated with uncertainty. Taking a longer-term perspective, uncertainty about retirement, particularly retirement income and the lifestyle it affords, is another type of precariousness. Moreover, this is a type of precariousness that can affect all workers, regardless of their employment situation. Registered pension plans provide an additional measure of certainty for workers, knowing that they will have some steady level of income in retirement beyond government plans and their own savings.

The longer-term trend within Canada has been a decline in the share of the working population covered by these plans

CHART 15. SHARE OF WORKERS WITH EMPLOYER PENSIONS HAS FLATTENED OUT


(Chart 15). In particular, the 1990s saw a sharp decline in the share of workers covered by employer pensions plans, as employment patterns shifted, particularly for men.⁶ From about 2000 onward, the coverage rate has remained fairly steady at around 35% of employed Canadians.

Looking beyond the coverage rate, different types of pension plans provide differing outcomes for plan members. The most common type of plan is defined-benefit. In this type of plan, workers are guaranteed a certain income in retirement, commonly based on some fraction of their employment income. Employees pay into the plan throughout their working years, and the employer is required to fill any gaps between the promised benefits and the value of contributions. However, these types of plans are on the decline (Chart 16). Between 1992 and 2013, these plans fell

CHART 16. DEFINED BENEFIT PLANS BECOMING LESS COMMON


from more than 90% of coverage, to around 71%. Other plan types have filled the gap, such as defined contribution, where retirement benefits are based on the performance of contributions over working years, which consequently have more uncertainty associated with them. On this metric, it would appear that employment has become more precarious with time, although this issue is somewhat less pressing than other areas we have examined, such as involuntary part-time employment.

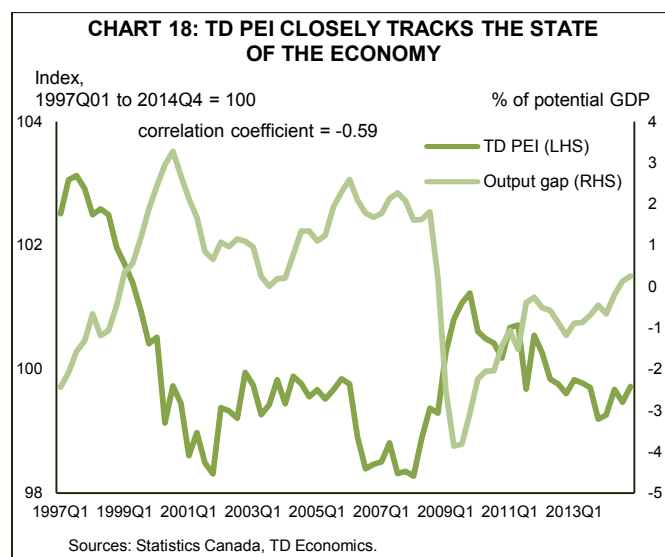
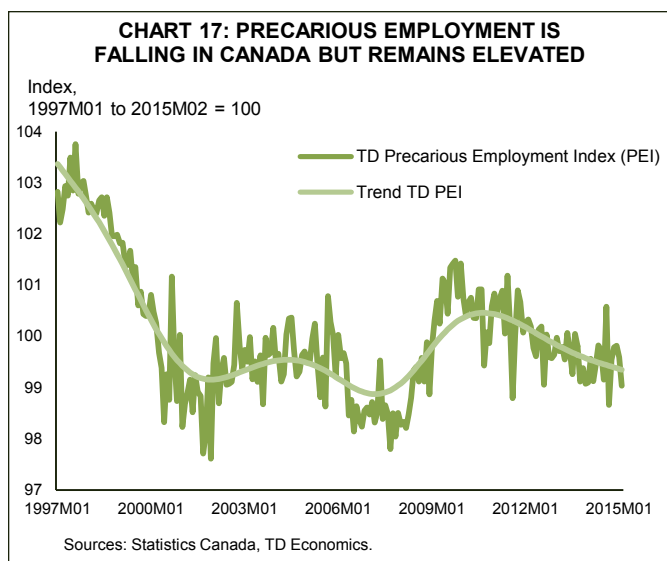
Measuring precarious employment in Canada

Views differ markedly as to the level of precarious employment in Canada and how it has evolved over time. Without a single metric to look to, it is challenging for commentators to move beyond individual stories. This should come as little surprise, as the data available from Statistics Canada can be overwhelming and measures of precarious employment can at times appear contradictory, with some measures suggesting circumstances have improved while others point in the opposite direction. Furthermore, measures of precarious employment often overlap. For instance, a person that is self-employed or working part-time involuntarily may also be employed on a temporary basis. Furthermore, the waiting group, as proxied by the difference between the R6 and the unemployment rate, can overlap with individuals that are included in the separation rate. The same consideration holds true for unionization rates and availability of employer pension plans. Therefore, comparing two series can essentially incorporate an element of double counting. Unfortunately, data limitations often prevent us from disentangling these overlapping groups. However, we assume

that the underlying trends exhibited by these measures of precarious employment would be similar. Another important caveat to keep in mind is the limited timespan that we are able to analyze. While precarious employment is near recent lows, we are unable to compare the current level with periods prior to 1997, such as the 1970s and 1980s.

To track the evolution of precarious employment in Canada, we have adapted an approach similar to that used to create the TD Labour Market Index (LMI) to develop a Precarious Employment Index (PEI).⁷ The TD PEI is comprised of three of the indicators of precarious employment previously discussed, selected on the basis that they include different information from one another, thereby avoiding double counting. These include: involuntary part-time employment (as a share of total employment); self-employment (as a share of total employment); and underemployment (relative to the unemployment rate).

The TD PEI demonstrates that there was a sharp decline in precarious employment between 1997 and 2000, a period when the economy was growing quickly and the unemployment rate was falling sharply (Chart 17). The TD PEI was stable in the 2001-2006 period but fell just before the 2008 recession, a period that coincided with a 30-year low in the unemployment rate. The 2008-09 recession saw the precarious employment jump sharply, but then trend back towards the levels in the 2003-2006 period. Hence the TD PEI is negatively correlated with the business cycle, as estimated by the output gap (Chart 18). And, the trend in both measures is clear: the economy is close to having recovered from the 2008-09 recession, and precarious employment is retreating along with it. In addition, we have also compared the TD



PEI to the Index of Economic Well-Being published by the Centre for the Study of Living Standards, and have found a similarly close, albeit negative, relationship.⁸

The future of precarious employment

As this report has shown, precarious employment is an important issue, as when a person is unable to plan ahead, there can be serious economic consequences. With that in mind, what is next for this type of employment? To answer this question, we have developed two stylized models to help explain some of the trends in particular types of precarious employment.

Looking at involuntary part-time employment first, we found that there are three key determinants. First, the current level of involuntary employment depends on past levels. Secondly, the share of the population aged 20 to 24 (the typical age of college and university graduates) is positively associated with this type of employment. Finally, the level of the (lagged) unemployment rate is also associated with involuntary part-time employment.⁹ By projecting these variables forward, we can generate an expected path for involuntary part-time employment.

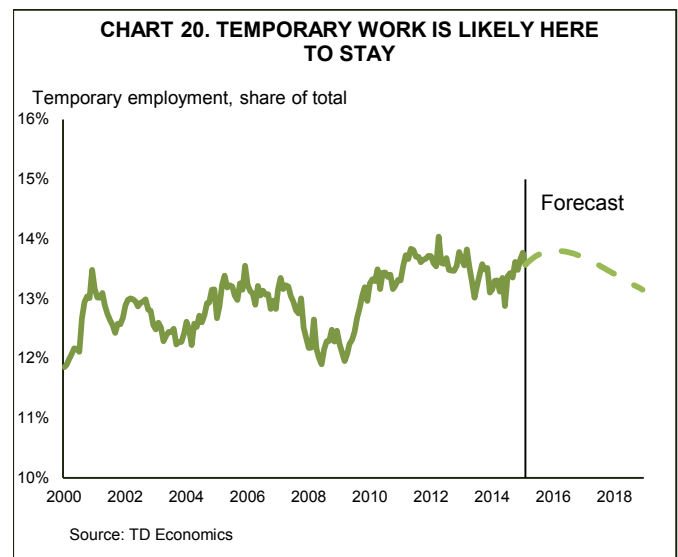
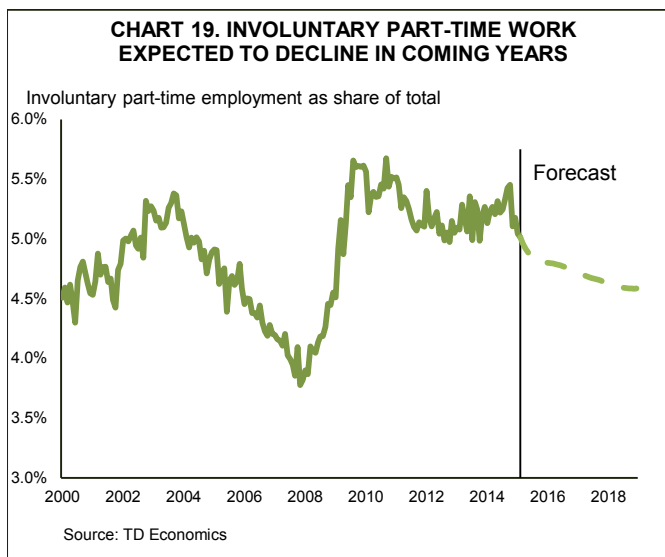
The outlook is fairly positive. As Chart 19 illustrates, as the economy continues to grow, the share of Canadians working part-time involuntarily will gradually decline. This is expected to occur roughly in line with the decline in the unemployment rate. At the same time, population aging will result in a shrinking share of 20 to 24 year olds. The combined effect will be a gradual decline in the rate of involuntary part-time employment over the coming years.¹⁰

This result is consistent with the fact that involuntary part-time employment appears to be a counter-cyclical variable (that is, it rises when economic output falls, and vice-versa). The modest expected growth in the economy will slowly translate into a falling share of involuntary part-time work.¹¹

In contrast, temporary employment has been much more stable, showing less cyclical than involuntary part-time employment. Consistent with this observation, we were unable to find a statistically significant relationship between the share of temp work and measures of the economy, such as growth or unemployment.

As a result, the share of temporary employment is highly dependent on its past level, as well as the share of the population aged 20 to 24.¹² Temporary employment is expected to remain elevated for some time as a result, before beginning to decline late next year (Chart 20). Despite this decline, temporary employment is anticipated to nevertheless remain above its historic average level by the end of 2018 (the last period we project).

On balance then, the outlook for precarious employment in Canada is mixed. Over the next two years, the overall level will remain elevated. Improvement in the rate of precarious employment is anticipated to begin only in late 2017, when the rate of temporary employment begins to decline. In addition, there will be regional differences in precarious employment over the forecast. As we have discussed, precarious employment is related to the business cycle. Regions likely to experience slower growth and increasing unemployment in the coming years, such as the oil-producing provinces, are likely to see increased levels of precarious employment.



Bottom line

Precarious employment is negative for the Canadian economy. Without the assurance of the income security that comes along with stable employment and hours, and the matching wages and benefits, consumers lack the confidence to spend. Consequently, profits remain below where they could be, reducing the confidence of investors to invest. Further, tax revenues are lower and government expenditures are higher to support those that find themselves frequently without employment or the ability to make ends meet. The stress of this insecurity can have the unfortunate result of spilling over into the home, often with negative consequences.

That said, while it is unfortunate that some Canadians find themselves in a situation where their employment is

precarious, we should not confuse anecdotes with evidence. Currently, as we have defined it, precarious employment is more elevated than it was before the 2008-09 recession, when the economy was operating at an unsustainable pace, but is roughly where it was in the mid-2000s and well above the levels of the late 1990s. Furthermore, the trend is toward falling precarious employment, as the labour market continues to heal along with the economy. That said, there remains a persistent gap between the earnings of Canadians with 'good jobs' and those that are precariously employed. However, we must also recognize that the wage gap is closing, albeit slowly. Finally, the future looks brighter, with precarious employment ultimately expected to decline, as a share of total employment, from current levels. However, we must remain vigilant to ensure that the Canadian economy grows to the benefit of all Canadians.

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ENDNOTES

1 See <http://www.conferenceboard.ca/topics/humanresource/questions.aspx>

2 <http://www.td.com/document/PDF/economics/special/JobInCanada.pdf>

3 This is not to suggest that manufacturing is a low-skilled industry, rather that temporary employment in this area is likely to be for lower-skilled roles.

4 Unfortunately, data on part-time vs full-time wages within industries is unavailable.

5 It should be noted that in absolute terms, the number of workers covered by collective bargaining agreements has risen since 2000 by about 600K positions.

6 Drolet and Morissette (2014) discuss trends in coverage further. See <http://www.statcan.gc.ca/pub/75-006-x/2014001/article/14120-eng.htm>

7 One Indicator to Rule Them All: TD Labour Market Indicator Provides Balanced Snapshot of Job Conditions. http://www.td.com/document/PDF/economics/special/Labour_Market_Indicator.pdf

8 Beyond GDP: Measuring Economic Well-Being in Canada and the Provinces, 1981-2010. <http://www.csls.ca/reports/csls2011-11.pdf>.

9 Specifically, the estimated specification is $Involuntary\ Part\ Time\ Share_t = 0.820 \cdot Involuntary\ Part\ Time\ Share_{(t-1)} + 0.048 \cdot Moving\ Average\ of\ 20\ to\ 24\ year\ old\ population\ share_t + 0.082 \cdot unemployment\ rate_{(t-3)}$

10 It is important to remember that this model is for the share of the population in involuntary employment. Despite the predicted decline in share, population growth means it is likely that the number of people in this category will remain elevated or grow.

11 As with all projections, it should be cautioned that the estimated relationship could change through time. For instance, today's 20-24 year olds may prefer certain work arrangements, and carry them forward into subsequent age groups.

12 For this model, the estimated equation is:

$Temporary\ Share_t = 0.931 \cdot Temporary\ Share_{(t-1)} + 0.135 \cdot Moving\ Average\ of\ 20\ to\ 24\ year\ old\ population\ share_t$

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