

# Precarious Jobs: Where are They, and How Do they Affect Well-Being?<sup>1</sup>

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## Abstract

By the end of the 20th century, there was general agreement that most labour markets were in transition and that employment was becoming less secure. However, official labour market data has not shown a dramatic increase in temporary or casual employment. This paper takes a new look at the changing characteristics of employment and offers a new method to measure employment security, the *Employment Precarity Index* (EPI). We use the EPI to assess how insecure employment associated with a "gig" economy might affect well-being and social relations, including health outcomes, household well-being and community involvement.

## Key Words

Precarious employment, measuring, household well-being, community participation.

## Introduction

By the end of the 20<sup>th</sup> century, there was general agreement that, across the globe, labour markets were in transition and that employment was becoming less secure. It was argued that the prevalence of secure full-time employment with benefits, known as the Standard Employment Relationship (SER), was in decline. Alternative forms of employment were growing, much of which was temporary and insecure. Today, there are concerns this trend is continuing, perhaps even accelerating, as new digital technology creates the foundation of a "gig" economy. A "gig" economy is one where the dominant forms of employment are short-term contract work, freelancing and self-employment. The current Canadian Minister of Finance recently advised Canadian workers to get used to "job churn" and short-term employment (National Post 2016). Some predict that, by 2020, full-time employment with benefits will become scarce in the United States and that 40% of the workforce will be freelancers, contractors or temporary workers (Intuit 2010).

This paper takes a new look at the changing characteristics of employment and offers a method to measure employment security, the *Employment Precarity Index* (EPI). The EPI is used to explore the security characteristics of different forms of the employment relationship. As well as offering a tool to measure employment security, we shed light on why official labour market data has not shown a dramatic increase in temporary or casual employment despite research that suggests employment is becoming less secure. Finally, we use the EPI to assess how insecure employment associated with a

"GIG" economy might affect well-being and social relations, including health outcomes, household well-being and community involvement.

This paper uses a unique Canadian dataset of nearly 8,000 individual observations collected in 2011 and 2014 by the Poverty and Employment Precarity in Southern Ontario (PEPSO) research group. It includes data on the form of the employment relationship and whether individuals were in full-time, temporary, contract, seasonal, part-time jobs or self-employed. It also includes data on the characteristics of each of these forms of employment and in particular those characteristics that measure the degree of employment insecurity.

### **The End of the Standard Employment Relationship?**

Research in Australia, North America and Europe published in the last decade of the 20<sup>th</sup> century began pointing to fundamental shifts in how workers were employed. Smith, studying employment trends in the "New Economy" in the United States, argued that "uncertainty and unpredictability, and to varying degrees personal risk, have diffused into a broad range of post-industrial workplaces, services and production alike. ... Opportunity and advancement are intertwined with temporariness and risk." (Smith 2001:7). Around the same time, Osterman concluded that in the United States, ". . . the ties that bind the workforce to the firm have frayed. ... New work arrangements, captured by the phrase 'contingent work' imply a much looser link between firm and employee." (Osterman 1999:3-4). Cappelli suggested "The old employment system of secure, lifetime jobs with predictable advancement and stable pay is dead." (Cappelli 1999:17).

The view that employment relationships are becoming less secure is reinforced by more recent research. Hacker (2006) argues that labour market risks are increasingly borne by workers as employers back away from long-term employment norms. Weil (2014), in a comprehensive study of economic reorganization and changing corporate forms, argues that the expansion of supply chains and the popularity of franchising have resulted in "fissured" workplaces. This has led to a decline in the prevalence of direct employment relationships, an increase in more precarious forms of employment and an erosion of labour's ability to bargain improved working conditions. Standing (2011) argues that a new class of workers, the "Precariat", has emerged; workers in insecure jobs who enjoy few employment benefits or social protections.

There is evidence of substantial changes in Canadian labour markets during the last two decades of the 20<sup>th</sup> century involving the rapid growth of non-Standard Employment Relationships (Tal 2015 and 2016; Vosko et.al. 2009; Lewchuk et.al. 2011; PEPSO 2013 and 2015). The province of Ontario's *Changing Workplace Review* is currently evaluating the need to revise the province's labour laws in light of these changes. At the core of this review is a belief that employment today is less secure. The review takes the position that the labour laws and regulations adopted in the decades following World

War II, when the Standard Employment Relationship was more prevalent, no longer serves the needs of Ontario's workers (Mitchell and Murray 2016).

For young workers, and the growing legions of immigrants searching the globe for work, these changes have been especially devastating. In many ways, it is young workers who are the "guinea pigs" for the emerging "gig" economy (Adams 2016). A recent Canadian report paints a dire picture facing young workers. They are over-represented amongst the unemployed, are often working involuntarily in part-time jobs, over one-third are employed in temporary jobs and many work without pay to gain "experience" (Canadian Labour Congress 2016). Others have shown how the prevalence of precarious employment is challenging the ability of young workers to progress through their life course as insecurity delays long-term life decisions, an issue we will return to in what follows (Chan and Tweedie 2015). The expanding global immigrant workforce can often face the dual insecurity of working in precarious employment, while at the same time facing a precarious citizenship status. A recent Canadian study has shown how employers in the service sector in Canada recruit immigrant workers into temporary positions on temporary work visas. Their performance at work then influences whether they will be given an opportunity to apply for permanent Canadian citizenship (Polanco 2016).

A growing body of research on economic restructuring points to how it is leading to a broad decline in employment security. A recent report to the ILO documented the prevalence of insecurity in the apparel economy and in the H&M global value chain where much of the work is precarious, low paid and often unhealthy (Workers Voices 2016). Others have argued that as employment disappears in old sectors of the economy, what replaces it is often highly insecure (Burrows 2013). Much of the above research has focused on groups of workers who are the most likely to be in insecure forms of employment. However, in thinking about precarious employment it is important to understand that as young workers, immigrant workers, and displaced workers in see precarious employment as their only option, the bargaining position of those who remain in "permanent" employment is undermined. As argued by Cooper (2014), a permanent job today has become less of a guarantee of a permanent job tomorrow for many workers who still see themselves in secure employment.

However, despite this body of literature, all arguing there has been a decline in the prevalence of the Standard Employment Relationship, and the acceptance of its conclusions by many policy makers, there is a significant minority view that the core features of labour markets in developed countries have not changed significantly and have been relatively unaffected by the economic events of the last several decades (Doogan 2009; Bernhardt 2014; Cross 2015; DePratto and Bartlett 2015; Pyöriä and Ojala 2016). Their analysis points to continuity rather than disruption in employment relationships.

One indicator of continuity is the relatively small change in the prevalence of temporary forms of the employment relationship reported in official labour market statistics. This raises question whether or not the official statistics capture fully the prevalence of sub-

contracting, agency work, faux self-employment etc. Wooden and Richardson have recently reviewed the evidence on the share of casual employment in Australia. They conclude that while this figure increased in the late 1980s and early 1990s, it has remained relatively unchanged since (Wooden and Richardson 2016). This is surprising as most of the growth in "gig" work through online job sites such as Airtasker, Etsy, Nvni, TaskRabbit, UBER and Airbnb has occurred since 2000. Bernhardt (2014) makes a similar argument for the United States suggesting, "At least with aggregate national data, it has been hard to find evidence of a strong, unambiguous shift toward nonstandard or contingent forms of work." (Bernhardt 2014:15). Doogan (2009), examining official data on trends in the United Kingdom and the United States, argues the increase in temporary employment has been modest and that official data do not support the thesis that the Standard Employment Relationship is unravelling. Focussing on changes over the last two decades, Cross (2015) argues that Canada has not moved to a "contingent" workforce and that observed increases in self-employment and part-time employment reflect demographic shifts and changing lifestyle choices rather than structural changes in how labour markets function (Cross 2015:4-7). A recent report from the TD Bank research unit also argues that Canadian data on the prevalence of different forms of the employment relationship does not support the thesis of major structural changes in the relationship between employers and employees (DePratto 2015:3). Using Finnish data and an index of employment characteristics that includes the form of the employment relationship, Pyöriä and Ojala (2016) reach the same conclusion.

How can labour markets be in the midst of a fundamental restructuring according to some authors yet official labour market data indicates change has been relatively modest, at least as measured by the decline of full-time forms of employment and the growth of temporary forms of employment? Part of the answer likely rests on appreciating that work under capitalism has never been all that secure for many workers; thus the current period is not as different from the past as some would have us believe. Yet, it is hard to accept that nothing has changed given the sheer volume of research all pointing to a decline in secure employment since the 1980s.

The next section of the paper seeks to understand more clearly what the form of the employment relationship actually measures. Official labour market data rarely provides more than simple binary measures such as are you working full-time or part-time. Is your job permanent or temporary? Are you self-employed? We argue that one reason for the diverging opinions regarding labour market trends is that these simple measures fail to capture the broader changes across all forms of employment that have taken place since the 1980s. While official labour market data does point to a modest increase in the prevalence of temporary jobs, it is unable to describe potential changes in the characteristics of notionally permanent jobs or how some of these jobs have many of the characteristics of temporary employment. The paper makes use of an *Employment Precarity Index*, composed of 10 different indicators of an employment relationship's characteristics. The findings suggest that the form of the employment relationship as reported in official labour market data is a misleading proxy variable for either the Standard Employment Relationship or for precarious employment. A surprising number

of jobs that respondents described as permanent in our study in fact have the characteristics of temporary employment, including uncertainty about future employment prospects, variable earnings and changing work schedules.

One interpretation of our findings is that while official labour market data treats permanency and temporariness as binary categories (you either are permanent or temporary), in reality there is a continuum between the two extremes. The transition that researchers argue has taken place in labour markets over the last few decades might better be described as a shift along this continuum with a large number of workers moving towards more temporariness but only a small number seeing themselves as having moved across a line where they would self-report being in temporary employment. To fully understand the changes that have taken place in labour markets, researchers need to focus on more than the increased prevalence of temporary employment. Researchers need to explore changes in the security of jobs that official labour market data, and workers themselves, continue to report as permanent.

**Is Precarious Employment Growing?**

In the North American context, the Standard Employment Relationship is generally understood to be permanent full-time employment with a single employer that includes reasonable wages and benefits including supplemental health costs and pensions (Vosko 2000:24). There is no agreed definition of precarious employment other than employment that offers less employment security and fewer benefits than the Standard Employment Relationship. Assessing labour market trends is complicated by the lack of direct measures of the Standard Employment Relationship. Official labour market data provides two potential indicators of the Standard Employment Relationship: the prevalence of full-time employment and the prevalence of permanent employment. These indicators only partially capture the characteristics of the Standard Employment Relationship. Using official labour market data to measure the prevalence of precarious forms of employment is equally problematic. The prevalence of self-employment has been measured since the 1970s, however most countries only began collecting data on the number of workers in short-term, casual, or temporary employment in the 1990s.

What does official labour market data indicate are the trends in the prevalence of the Standard Employment Relationship? Table 1 reports the incidence of full-time employment as a share of total employment as reported to the OECD. The largest decline was reported in Australia followed by Canada with both countries experiencing the bulk of this decline prior to 2000. The reported decline was less significant in the United States.

**Table 1: Incidence of Full-time Employment: Australia, Canada, United States (%)**

	<b>Australia (35+hours per week)</b>	<b>Canada (30+hours per week)</b>	<b>United States (35+hours per week)</b>
<b>1970</b>	89.4	-	84.8

<b>1976</b>	85.4	87.5	83.3
<b>1989</b>	79.5	83.4	83.0
<b>2000</b>	71.7	81.7	82.9
<b>2007</b>	70.4	80.7	80.5
<b>2011</b>	69.1	81.1	81.6
<b>2015</b>	73.7	81.9	83.2

OECD. OECD.Stat. Incidence of FT and PT Employment.

[http://stats.oecd.org/viewhtml.aspx?datasetcode=FTPNTN\\_landlang=en](http://stats.oecd.org/viewhtml.aspx?datasetcode=FTPNTN_landlang=en).

The US Government Accountability Office, recently released a report that estimates both the number of workers in permanent full-time employment. It draws on several US workplace surveys, provides estimates between 1995 and 2010 and suggests that permanent full-time employment increased by 1.6 percentage points between 1995 and 2005 and then fell by 5.1 percentage points from 2006 to 2010 (US Government Accountability Office April 20, 2015). Table 1 and the analysis from the Accountability Office point to a decline in full-time employment since the 1970s of 5 percentage points in Canada, a bit more in Australia and a bit less in the United States, with the pace of change appearing to have slowed since 2000.

It is more challenging to assess trends in the prevalence of precarious forms of employment from official labour market data. The US Bureau of Labor Statistics only began collecting data on "contingent"<sup>2</sup> employment in 1995 and even then only collects this data periodically. The last US Current Population Survey that included the Contingent Work Supplement took place in 2005<sup>3</sup>. Statistics Canada followed the US example in 1997 when they started asking workers annually if they were employed on a contract with a fixed end-date including employment that was seasonal, temporary, term or casual.<sup>4</sup>

The US Bureau of Labor Statistics report referred to above also provides an estimate of the number of workers in job categories it considers as precarious. Their estimates are reported in Table 2 and suggest that precarious employment may have decreased between 1995 and 2005 before growing between 2005 and 2010. Their analysis suggests that over the entire period, precarious employment increased between 20 and 25% (US Government Accountability Office April 20, 2015; 14 and 16). A preliminary analysis of data from the RAND-Princeton Contingent Worker Survey, that replicates the US Contingent Work Survey for 2015, points to a continuation of this trend, with alternative work arrangements<sup>5</sup> increasing by 50% between 2005 and 2015. (Katz and Kruger 2016; 7).

**Table 2: US Estimates of Precarious Employment (%)**

	1995	2005	2010
Core contingent*	5.9	5.6	7.1
Independent contractors	6.7	7.4	13.5

Self-employed workers	5.9	4.4	2.8
TOTAL	18.5	17.4	23.4

Source: US Government Accountability Office April 20, 2015;14 and 16.

\* The core precarious workforce includes agency, temporary, on-call and company contract workers.

The relevant Canadian data is presented in Table 3. The precarious forms of employment include those in temporary employment and the self-employed without employees. The best available estimate suggests that the prevalence precarious employment increased about 50% in the 1990s, but is virtually unchanged since.

**Table 3: Percentage of Workers in Precarious Forms of Employment: Canada (total employed, all classes of workers, age 14+) (%)**

	1976	1989	1997	2007	2011	2014	2015
<b>Temporary employment</b>	-	6.5*	9.4	11.0	11.6	11.3	11.3
<b>Self-employed no paid employees</b>	6.3	7.2	10.7	10.3	10.5	10.5	10.5
<b>Total precarious employment</b>	-	13.7	20.1	21.3	22.1	21.8	21.8

Sources: Statistics Canada tables 282-0012 and 282-0080.

\*1989 temporary employment Vosko et.al. 2009 p. 30 (ages 15-64 only).

A similar pattern can be found in other countries (Heery and Salmon 2000; Burchell, Ladipo and Wilkinson 2002). Campbell and Burgess (2001) reported that, between 1983 and 1998, temporary employment increased in 12 of the 15 OECD countries and in four (Australia, France, Netherlands and Spain), the increase exceeded 50 percent. OECD data indicates a gradual increase in the prevalence of temporary employment from around 5 percent for men and 7 percent for women in Europe in 1983 to around 15 percent for both men and women by 2006 (Goudswaard and Andries 2002: 11; OECD nd.; Benach et.al. 2004:316). Australia has seen a particularly strong trend towards less permanent forms of employment. Casual employment plus self-employment increased from 28 percent of all employment in 1982 to 40 percent in 1999 (Burgess and de Ruttyer 2000; Louie et.al. 2006; Campbell et.al. 2009). During the same period, self-employment, which many researchers associate with precarious employment, also increased in many economies (Arum and Müller 2004).

The available official labour market data points to a modest decline in permanent and full-time employment and an equally modest increase in precarious employment. Most of the change appears to have occurred prior to 2000, although data from the US suggests that there may have been a further increase in precarious employment after 2005. The magnitude of the changes appears relatively small in most countries, other than Australia, France, Netherlands and Spain. Changes of these magnitudes could very well be explained by demographic shifts and worker preferences as suggested by

Cross above. They do not seem to be of the magnitude one would expect given the consensus view of significant changes in the labour market discussed in the introduction. Nor is there much evidence of a post-2000 change related to the growth of the "gig" economy. Katz and Krueger estimate that only about half a percent of US workers were employed through online intermediaries in 2015 (Katz and Krueger 2016:3)

More recent research is revealing the limitations of relying on official labour market data and data on the form of the employment relationship to measure either the prevalence of the Standard Employment Relationship or the prevalence of employment precarity. Weil (2014), in describing the changing boundaries of the modern corporation and the increasing reliance on supply chains, franchising and freelancers, suggests that the official statistics on the form of the employment relationship are misleading as an indicator of employment precarity. He writes:

Fissured employment represents both a form of employment (for example, temporary agency employment, independent contracting) and a relationship between different business enterprises (subcontracting, franchising). It reflects not only who does the work, but also the structure of contracts and the relative power between those enterprises that contract for and those enterprises that are contracted to do the work. (Weil 2014:270)

As a result of changing power relationships between what he calls "lead" firms and the firms who contract to do work for lead firms, many workers who claim to be employed in permanent jobs are actually quite precarious. He wrote:

Though workers in those subordinate businesses may be classified as employed on a standard, full-time basis, the relationship between lead firms and those where these workers are employed may be fissured and therefore likely to have the **characteristics of precarious employment**. (Weil 2014:273)

The next section of the paper takes up the challenge presented by Weil's assessment of the impact of fissuring by looking in more detail at the employment characteristics of workers in the PEPSO sample who self-report being in either permanent or temporary employment.

### **The Form of the Employment Relationship as an Indicator of Employment Precarity**

The continued controversy over whether labour markets are transitioning away from the Standard Employment Relationship to a model of employment that is less secure speaks to the need to explore in more detail how to measure employment precarity and what exactly the form of the employment relationship is measuring. There are several ongoing efforts to develop measures of employment precarity that go beyond simply measuring the form of the employment relationship (See Vosko 2006; Goldring and Landolt 2009; Vives et.al. 2010; Lewchuk et.al. 2011; Puig-Barrachina et.al. 2014; Bohle

and Quinlan et.al. 2015; Gallie et.al. 2017). In an interesting recent paper, Gallie et.al. (2017) have suggested measuring two related components: job tenure insecurity and job status insecurity. They argue that job tenure insecurity refers to characteristics of employment that measure "anxiety about loss of employment" while job status insecurity measures "the threat of loss of valued features of the job." We see this as a useful development and is in keeping with Weil's argument that jobs can become less secure without necessarily becoming temporary. Our own research points to an increase in "precarious" employment but also a deterioration in the quality of jobs that survey respondents still described as permanent. It is beyond the scope of this paper to take up this issue in detail.

To begin answering what is the relationship between the form of the employment relationship and the employment characteristics that make employment precarious, we use a unique Canadian data set collected by the Poverty and Employment Precarity in Southern Ontario (PEPSO) research group. In 2011 and in 2014, PEPSO commissioned phone surveys with participants selected via random digit dialing. The sample is representative by sex, age and the different regions that make up the Greater Toronto and Hamilton study area. The data base includes just over 8,000 individual surveys, half collected in 2011 and half in 2014. Respondents were between the ages of 25 and 65. For the purposes of this paper, we drop the 291 respondents who reported they were self-employed with employees, leaving 7,908 observations. The average length of the survey was 15 minutes and was conducted in English.<sup>6</sup> The survey asked participants to identify the form of their employment relationship, including whether they were employed casually, on a short-term contract, self-employed, in permanent part-time employment or in permanent full-time employment. We also asked a series of questions detailing the characteristics of employment relationships. To offer a more accurate measure of employment security, we developed the *Employment Precarity Index (EPI)*. The *Index* is made up of 10 indicators based on PEPSO survey questions. Each indicator was assigned the same weight in the *Index*.<sup>7</sup> *Index* scores range from 0 to 95. The mean score is 23.7 and the standard deviation is 21.4. The questions that make up the *Index* include:

- Do you usually get paid if you miss a day's work?
- Do you have one employer, whom you expect to be working for a year from now, who provides at least 30 hours of work a week, and who pays benefits.
- In the last 12 months, how much did your income vary from week to week?
- How likely will your total hours of paid employment be reduced in the next six months?
- In the last three months, how often did you work on an on-call basis?
- Do you know your work schedule at least one week in advance?
- In the last three months, what portion of your employment income was received in cash?
- What is the form of your employment relationship (short-term, casual, fixed-term contract, self-employed, permanent part-time, permanent full-time)?
- Do you receive any other employment benefits from your current employer(s), such as a drug plan, vision, dental, life insurance, pension, etc.?

- Would your current employment be negatively affected if you raised a health and safety concern or raised an employment-rights concern with your employer(s)?

Scores on the *Employment Precarity Index* are used to divide the sample into four relatively equal sized employment security categories (*Secure, Stable, Vulnerable, Precarious*). There are substantial differences in *Index* scores between the categories (See Table 4).

**Table 4: *Employment Precarity Index* Scores by Employment Security Categories (#)**

	<b>Average</b>	<b>s.d.</b>	<b>n</b>
<b>Secure</b>	0.6	1.03	1,842
<b>Stable</b>	10.4	4.14	2,116
<b>Vulnerable</b>	28.4	5.93	1,768
<b>Precarious</b>	53.4	10.71	2,098
<b>TOTAL</b>	23.7	21.42	7,824

Source: PEPSO 2011 and 2014.

Table 5 reports the *Employment Precarity Index* scores for the three main types of self-reported forms of the employment relationship. The form of the employment relationship is a reasonable proxy for employment insecurity and is correlated with the EPI. The EPI rises as one moves from the most secure category (permanent full-time) to the least secure category (temporary). The range is between the most secure and the least secure category is less than in Table 4 above.

**Table 5: *Employment Precarity Index* Scores by Form of the Employment Relationship (#)**

	<b>EPI score</b>	<b>s.d</b>	<b>n</b>
<b>Permanent full-time</b>	14.1	15.0	5,574
<b>Permanent part-time</b>	38.6	14.1	692
<b>Temporary*</b>	51.4	14.4	1,558

\* Temporary includes: agency, temporary, seasonal, contract, own account self-employed.

However, further analysis revealed that the permanent full-time category includes two significantly different categories of workers: an SER and a non-SER category. To identify who was in an SER, we use three further questions on the survey. Survey respondents who reported they were in permanent full-time employment also have had to answer yes to a question asking if they had one employer who provided at least 30 hours of work per week and with whom they expected to be working with for at least 12 months. They also have had to respond yes to a question asking if they received benefits other than a wage. Of the 5,574 respondents who reported they were in permanent full-time employment in the PEPSO survey, just over 900 were unsure if they would still be with their current employer in 12 months. An additional 500 reported they would be with their current employer in 12 months but that they received no benefits other than a wage from their current employer.

Table 6 takes this information and revises the findings reported in Table 5, dividing the permanent full-time category into an SER and non-SER category. The findings are a caution to anyone using self-reported data on permanent full-time employment as a proxy for employment security or the Standard Employment Relationship. The non-SER category, all of whom reported they were in permanent full-time employment, have EPI scores significantly different than the SER category. Their scores were actually closer to the scores of workers in the temporary employment category than the SER category.

**Table 6: Employment Precarity Index scores by form of the employment relationship (#)**

	<b>EPI Score</b>	<b>s.d</b>	<b>n</b>
<b>Permanent SER</b>	7.1	8.34	3,999
<b>Permanent non-SER</b>	31.7	13.8	1,575
<b>Permanent part-time</b>	38.6	14.1	692
<b>Temporary*</b>	51.4	14.4	1,558

Source: PEPSO 2011 and 2014.

\* Temporary includes: agency, temporary, seasonal, contract, own account self-employed.

What are the characteristics of workers in the SER, the non-SER and temporary employment categories? Table 7 provides several key indicators:

- There are relatively small differences in the percentage who are male or female.
- The SER category includes fewer younger and older workers. Its members are the most likely to be in jobs that require a university degree and are also more likely to have a degree. They are as likely as the temporary category to work in the knowledge sector or the service sector. They have higher earnings and live in households with higher incomes.
- The non-SER category are the most racialized, the least likely to be in the knowledge sector and the most likely to be in the service sector. They are the least likely to work in jobs that require a university degree and the most likely to be in jobs that only require on-the-job training. They are the least likely to have a university degree. Their income and household income falls between that of the temporary category and that of the SER category.
- Workers in the temporary category are as likely as the SER category to be in the knowledge or service sector. They are more likely than the non-SER category but less likely than the SER category to be in a job that requires a university degree. They are as likely as the non-SER category to require only on-the-job training but marginally more likely to have a degree. They earn the least and live in households with the lowest household income.

**Table 7: Characteristics of SER and Non-SER Categories**

	<b>SER</b>	<b>Non-SER</b>	<b>Temporary</b>
<b>% female</b>	50.3	48.3	51.3
<b>% racialized</b>	31.0	40.2	36.2
<b>% 25-34</b>	21.9	27.5	29.5
<b>% 55+</b>	16.3	18.0	20.6
<b>% knowledge sector</b>	45.2	32.4	45.1
<b>% service sector</b>	38.4	47.0	40.5
<b>% need a degree</b>	56.6	34.6	40.1
<b>% only require on-the-job training</b>	8.2	22.1	20.1
<b>% have a degree</b>	57.0	43.8	46.3
<b>Average income</b>	\$73,913	\$53,534	\$45,126
<b>Average household income*</b>	\$98,093	\$79,623	\$75,378

Source: PEPSO 2011 and 2014.

\* Omits respondents who live alone.

The final step in assessing the validity of employment forms as a measure of employment security is reported in Table 8. Table 8 uses data on the form of the employment relationship to assess the composition of the four employment security categories based on the EPI. Both the Secure and the Stable categories correspond closely to the SER category. The results show less agreement between the employment forms and the employment security categories in the case of the Vulnerable and Precarious categories. Only 60% of the Precarious category would be made up of workers who self-report being in temporary employment. Nearly one-quarter of this category would be workers who self-reported being in permanent full-time employment.

The finding in Table 8 suggests that part of the confusion over recent labour market trends is that a significant number of workers who report they are in permanent full-time employment are in fact employed in relationships with many of the characteristics of precarity. It is beyond the scope of this paper, to test what percentage of these workers are in fissured workplaces, as described by Weil, and whether this category is growing. We can speculate that at least part of the public anxiety over current conditions in labour markets is because many permanent full-time jobs are not what they used to be, and certainly have few of the characteristics of an SER. The form may look like an SER but the experience of employment is likely to be more like that of a temporary or contract worker.

**Table 8: Employment Relationship Categories by Form of the Employment Security Categories (%)**

	<b>Secure</b>	<b>Stable</b>	<b>Vulnerable</b>	<b>Precarious</b>
<b>Permanent SER</b>	100.0	81.8	22.9	1.0

<b>Permanent non-SER</b>	0.0	14.0	45.6	22.5
<b>Permanent part-time</b>	0.0	3.5	15.8	16.2
<b>Temporary*</b>	0.0	0.7	15.7	60.3

Source: PEPSO 2011 and 2014.

\* Temporary includes: agency, temporary, seasonal, contract, own account self-employed.

## The Social Effects of Precarious Employment

In the final section of this paper, we use the *Employment Precarity Index* to explore the social impact of insecure employment. If "gig" work does become more prevalent, the majority of "gig" workers would have the characteristics of the Precarious category based on the EPI.

Table 9 provides an indication of the potential health effects of precarious employment. Survey respondents were asked to self-assess their health. After controlling for age, sex, race and education, those in the Precarious category were significantly more likely to report their general health was less than very good than those in Secure employment. They were even more likely to report their mental health was less than very good.<sup>8</sup>

**Table 9: Health Effects of Precarious Employment (odds ratios)**

	<b>Health less than very good</b>	<b>Mental health less than very good</b>
<b>Secure</b>	1.00	1.00
<b>Stable</b>	1.16 (**)	1.23(**)
<b>Vulnerable</b>	1.35 (***)	1.39 (***)
<b>Precarious</b>	1.45 (***)	1.81 (***)

Source: PEPSO 2011 and 2014; Controlled for age, sex, race and education.

\*  $p \leq .10$ ; \*\*  $p \leq .05$ ; \*\*\*  $p \leq .001$

Table 10 presents findings from several questions that provide an indication of how precarious employment might affect household well-being and social relations. Survey respondents in the Precarious category were more than twice as likely to report that anxiety about their employment relationship interfered with personal and family life. For the younger workers in the sample, there was also evidence that they were significantly more likely to delay forming relationships and more likely to delay having children. The question exploring friendships at work suggests that not having a permanent workplace makes it more difficult to form workplace-based friendships that could be called on in time of need. The findings in Table 10 are consistent with recent research into the social effects of precarious employment in Australia by Chan and Tweedie (2015), Wilson and Ebert (2013), Chan (2013) and Woodman (2013). This research concludes that

precarious employment creates social stress and anxiety that taxes families and makes forming friendships challenging.

**Table 10: Household Well-Being and Precarious Employment (%)**

	<b>Anxiety about employment interferes with personal or family life</b>	<b>Delayed forming a relationship (age 25-34 only)</b>	<b>Delayed having children (age 25-34 only)</b>	<b>Don't have friends at work who might be a source of support</b>
<b>Secure</b>	22.2	4.2	10.6	22.2
<b>Stable</b>	33.4	6.6	14.1	33.4
<b>Vulnerable</b>	36.8	11.2	21.0	36.8
<b>Precarious</b>	48.4	22.6	27.0	48.4

Source: PEPSO 2011 and 2014.

Table 11 provides a final insight into how precarious employment and the spread of a "gig" economy might affect social relations. The EPI is used to divide the sample into an insecure category and a secure category. The insecure category corresponds to the Vulnerable and the Precarious categories and the secure category corresponds to the Secure and Stable categories. We further divide the sample into three income categories: <\$40,000; \$40,000-79,999; \$80,000+.

Table 11 indicates that while rising income can mitigate some of the negative effects of precarious employment, even workers in middle income positions earning between \$40,000 and \$80,000 are more likely to report anxiety, delayed household formation and challenges forming friendships at work. While low paying and insecure employment is the most likely to lead to negative social outcomes, workers in middle income and insecure employment are more likely to report negative outcomes than workers in middle income and secure employment. They are also likely to report more social challenges than workers in low income and secure employment.

The policy implications of Tables 10 and 11 are profound. They suggest that, even if "gig" economy positions are well paid, our households and our society are likely to come under significant stress. Tension at home is likely to increase, family formation is likely to slow, and friendships are likely to be less common.

**Table 11: Anxiety about Employment Interferes with Personal or Family Life by Employment Security and Income (%)**

	<b>Anxiety about employment interferes with personal or family life</b>	<b>Delayed forming a relationship (age 25-34 only)</b>	<b>Delayed having children (age 25-34 only)</b>	<b>Don't have friends at work who might be a source of support</b>
<b>High income/secure</b>	25.8	4.8	14.0	11.7
<b>High income/insecure</b>	35.5	7.1	11.8	22.0
<b>Middle income/secure</b>	29.7	4.3	10.6	16.3
<b>Middle income/insecure</b>	42.3	11.0	21.9	26.7
<b>Low income/secure</b>	34.9	9.6	14.3	19.4
<b>Low income/insecure</b>	46.2	22.1	28.2	36.9

Source: PEPSO 2011 and 2014.

\* Low income < \$40,000; Middle income \$40,000-79,999; High income \$80,000+.

## **Conclusions**

The goal of this paper has been to understand why, on the one hand, there is general consensus that labour markets are undergoing a transition and that employment is becoming less secure while official labour market data points to relatively modest changes in the prevalence of full-time, permanent and temporary employment. It has been argued that official labour market data masks a change that is taking place within the full-time/permanent form of employment that is making many of these jobs less permanent, less full-time and less secure even though the holders of these jobs self-report they are in permanent full-time employment. The evidence for this came from the PEPSO database which allowed an analysis of the characteristics of different forms of the employment relationship. It has been shown that a substantial number of respondents in the PEPSO sample who reported they were in permanent full-time employment had employment characteristics that were much closer to insecure temporary employment than they were to workers in a Standard Employment Relationship.

In order to assess fully the potential social cost of a "gig" economy and the implications of the changing nature of employment described by numerous researchers, it is essential to assess properly who is permanent and who is precarious. Official labour market data that relies on a binary classification (you are either permanent or temporary) has the advantage of simplicity and is widely available. The research

presented in this paper suggests that this data can be a misleading indicator of employment insecurity. Using a more nuanced measure of employment insecurity such as the Employment Precarity Index allows a more precise allocation of workers to employment security categories and allows a deeper understanding of the potential social costs associated with employment trends in labour markets. Our research suggests that increased overall employment insecurity in labour markets will be associated with poorer health outcomes, increased anxiety at home, delayed household formation and greater social isolation.

## Bibliography

Adams, Christopher. (2016) Companies exploit millennials, pushing them toward poverty. *National Observer*.

<http://www.nationalobserver.com/2016/08/31/news/companies-exploit-millennials-pushing-them-toward-poverty>

Arum, R. and Müller, W. (eds.) (2004) *The Re-emergence of Self-Employment: A comparative Study of Self-Employment Dynamics and Social Inequality*, Princeton University Press, Princeton.

Benach, J., Gimeno, D., Benavides, F. G., Martínez, J.M., and Torné, D.M. (2004) 'Types of Employment and Health in the European Union: Changes from 1995-2000', *European Journal of Public Health*, 14, pp. 314-321.

Bernhardt, A. (2014) 'Labor Standards and the Reorganization of Work: Gaps in Data and Research', *IRLE Working Paper*, No. 100-14.

<https://ideas.repec.org/p/cdl/indrel/qt3hc6t3d5.html>.

Burchell, B., Ladipo, D. and Wilkinson, F. (eds.) (2002) *Job Insecurity and Work Intensification*, Routledge, London.

Burgess, J., and De Ruytner, A. (2000) 'Declining Job Quality in Australia: Another Hidden Cost of Unemployment', *Economic and Labour Relations Review*, 11 (2), pp. 246-269.

Burrows, S. (2013) 'Precarious work, neo-liberalism and young people's experiences of employment in the Illawarra region', *Economic and Labour Relations Review*, 24(3), pp. 380-396.

Campbell, I., Whitehouse, G. and Baxter, J. (2009) 'Australia: Casual employment, part-time employment and the resilience of the male-breadwinner model', in Vosko, L., MacDonald, M. and Campbell, I. (eds.) *Gender and the Contours of Precarious Employment*, London: Routledge: pp. 60-75

Canadian Labour Congress. (2016) *Diving Without a Parachute: Young Canadians Versus a Precarious Economy*, Canadian Labour Congress, Ottawa.

Cappelli, P. (1999) *The New Deal at Work: Managing the Market-Driven Workforce*, Harvard University Press, Boston.

Chan S. and Tweedie D. (2015) 'Precarious Work and Reproductive Insecurity', *Social Alternatives*, 34(4), pp. 5-13.

- Chan, S. (2013) ' "I am King": Financialisation and the paradox of precarious work', *Economic and Labour Relations Review*, 24(3), pp. 362–379.
- Cooper, M. (2014) *Cut Adrift: Families in Insecure Times*, University of California Press, Berkeley.
- Cross, P. (2015) 'The recession's impact on Canada's labour market', *University of Calgary, School of Public Policy, Research Papers*, 8 (28), pp. 1-29.
- DePratto, B. and Bartlett, R. (2015) 'Precarious Employment in Canada: Does The Evidence Square with The Anecdotes?', *Special Report, TD Economics*.
- Doogan, K. (2009) *New Capitalism: The Transformation of Work*, Polity Press, Cambridge.
- Goudswaard, A. and Andries, F. (2002) *Employment status and working conditions*, European Foundation for the Improvement of Working and Living Conditions, Dublin.
- Hacker, J.S. (2006) *The Great Risk Shift: The Assault on American Jobs, Families, Health Care and Retirement and How You Can Fight Back*, Oxford University Press, Oxford.
- Heery, E. and Salmon, J. (eds.) (2000) *The Insecure Workforce*, Routledge, London.
- Intuit. (2010) 'Intuit 2020 report', [https://http-download.intuit.com/http.intuit/CMO/intuit/futureofsmallbusiness/intuit\\_2020\\_report.pdf](https://http-download.intuit.com/http.intuit/CMO/intuit/futureofsmallbusiness/intuit_2020_report.pdf)
- Katz, L.F and Krueger A.B. (2016) *The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015*. [https://krueger.princeton.edu/sites/default/files/akrueger/files/katz\\_krueger\\_cws\\_-\\_march\\_29\\_20165.pdf](https://krueger.princeton.edu/sites/default/files/akrueger/files/katz_krueger_cws_-_march_29_20165.pdf)
- Lewchuk, W, Clarke, M. and de Wolff, A. (2011) *Working Without Commitments: Precarious Employment and Health*, McGill Queen's University Press, Montreal.
- Louie, A. Ostry, A.S., Quinlan, M., Keegel, T., Shoveller, J., and LaMontagne, A.D. (2006) 'Empirical Study of Employment Arrangements and Precariousness in Australia', *Relations Industrielles/Industrial Relations*, 61(3), pp. 465-89.
- Mitchell, M.C. and Murray, J.C. (2016) *Changing Workplaces Review: Special Advisors' Interim Report*, Ontario Ministry of Labour, Toronto.
- National Post. (October 22, 2016) 'Get used to the 'job churn' of short-term employment and career changes, Bill Morneau says', <http://news.nationalpost.com/news/canada/get-used-to-the-job-churn-of-short-term-employment-and-career-changes-bill-morneau-says>

OECD. (nd) *OECD.Stat Extracts*, Organisation for Economic Co-operation and Development, Paris. <http://stats.oecd.org/wbos/Index.aspx>

Osterman, P. (1999) *Securing Prosperity: The American Labor Market: How it has Changed and What to Do About It*, Princeton University Press, Princeton.

PEPSO. (2015) *The Precarity Penalty: The impact of employment precarity on individuals, households and communities—and what to do about it*. Report available at [www.PEPSO.ca](http://www.PEPSO.ca).

PEPSO. (2013) *It's More than Poverty: Employment precarity and household well-being*. Report available at [www.PEPSO.ca](http://www.PEPSO.ca).

Polanco, G. (2016) 'Consent behind the counter: aspiring citizens and labour control under precarious (im)migration schemes', *Third World Quarterly*, 37(8), pp. 1332–1350.

Puig-Barrachina, V., Vanroelen, C., Vivesb, A., Martínez, J., Muntaner, C., Levecque, Benach, J. and Louckx, F. (2014) 'Measuring employment precariousness in the European Working Conditions Survey: The social distribution in Europe' *Work*, 49, pp. 143–161.

Pyöriä, P. and Ojala, S. (2016) 'Precarious work and intrinsic job quality: Evidence from Finland, 1984-2013', *Economic and Labour Relations Review*, 27(3), pp. 349-367.

Quinlan, M. (2012) 'The 'Pre-Invention' of Precarious Employment: The Changing World of Work in Context', *Economic and Labour Relations Review*, 23(4), pp. 3–24.

Smith, V. (2001) *Crossing the Great Divide: Worker Risk and Opportunity in the New Economy*, Cornell University Press/ILR Press, Ithaca, NY.

Standing G. (2011) *The Precariat: The New Dangerous Class*, Bloomsbury, New York.

Tal, B. (2015) 'Employment Quality—Trending Down. Canadian Employment Quality Index', *CIBC Economics*.

Tal, B. (2016) 'On The Quality of Employment in Canada', *In Focus: CIBC Economics*.

Vosko, L. (2000) *Temporary Work: The Gendered Rise of a Precarious Employment Relationship*, University of Toronto Press Toronto.

Vosko, L., MacDonald, M., and Campbell, I. (eds.) (2009) *Gender and the Contours of Precarious Employment*, Routledge London.

Weil, D. (2014) *The Fissured Workplace: Why Work Became So Bad for So Many and What Can Be done to Improve It*, Harvard University Press, Cambridge.

Wilson, S., and Ebert, N. (2013) 'Precarious work: Economic, sociological and political perspectives', *Economic and Labour Relations Review*, 24(3), pp. 263–278.

Wooden, M. and Richardson, R. (2016). 'FactCheck: has the level of casual employment in Australia stayed steady for the past 18 years?', *The Conversation*. <http://theconversation.com/factcheck-has-the-level-of-casual-employment-in-australia-stayed-steady-for-the-past-18-years-56212>

Woodman, D. (2013) 'Young people's friendships in the context of non-standard work patterns', *Economic and Labour Relations Review*, 24(3), pp. 416–432.

Workers Voices from the Global Supply Chain. (2016) *Report to the ILO on Precarious Work in the H&M Global Value Chain*. <http://asia.floorwage.org/workersvoices/reports/precarious-work-in-the-h-m-global-value-chain>

US Government Accountability Office. (April 20, 2015) *Contingent Workforce: Size, Characteristics, Earnings, and Benefits*, GAO-15-168R Contingent Workforce.

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<sup>2</sup> The US BLS uses the term "contingent" to label precarious employment. This paper uses the term precarious employment which has become more of an international standard.

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<sup>3</sup> In 2017, the US Bureau of Labor Statistics announced their intention to conduct a new round of the Contingent Work Supplement.

<sup>4</sup> The Canadian Labour Force Survey was developed after World War II. It became a monthly survey in 1952 and was revised in 1976 and again in 1997 when questions on temporary employment were added. Statistics Canada. 2012. *Guide to the Labour Force Survey 71-543-G*, p. 5. On the collecting of data on temporary employment in the United States, see US Government Accountability Office April 20, 2015.

<sup>5</sup> Katz and Krueger (2016) define alternative work arrangement to include temporary help agency workers, on-call workers, contract workers, and independent contractors or freelancers. Unfortunately, their report does not allow a direct comparison between their figures for 2005 and those reported by the US Government Accountability Office in 2015.

<sup>6</sup> For details on how the sample was collected see PEPSO 2013 and 2015. A case could be made for leaving the self-employed worker with employees in the sample as there is likely little difference between the self-employed without employees who we keep and the self-employed with one or two people as assistants who we exclude. We drop the self-employed with employees as we have no way of identifying how many workers they employ. A total of 7,908 provide responses to at least some of the questions reported in this paper. Only 7,824 provided answers to all the questions needed to calculate the Employment Precarity Index.

<sup>7</sup> The questions that the Index is calculated from and the scoring template is available at [www.PEPSO.ca](http://www.PEPSO.ca) under "Publications".

<sup>8</sup> The same regression was run using the form of the employment relationship (full-time/part-time/temporary) in place of the employment security categories in Table 9. There was no relationship between general health and the form of the employment relationship and only a weak relationship in the case of mental health.