

Immigrants and Precarious Work in Canada: Trends, 2006–2012

Parvinder Hira-Friesen¹ 

Published online: 20 September 2017
© Springer Science+Business Media B.V. 2017

Abstract Using the Canadian Labour Force Survey for March of 2006 through 2012, the present study examines precarious employment and trends over time between immigrants (recent and established) and their Canadian-born counterparts. The regression models are run separately for males and females as existing research shows that many precarious jobs are occupied predominantly by women. The findings of the present study show recent immigrant males and females (respondents in the sample who have lived in Canada for five years or less) are over-represented in involuntary part-time work and this trend is increasing over time. The pattern is not as pronounced for multiple-job holders nor for temporary-job holders.

Keywords Immigrants · Precarious work · Canada

Introduction

Whether it is referred to as precarious, non-standard or contingent, employment in the secondary labour market evokes images of economic struggle among members of the labour force. Work not only locates the worker within the country's stratification system but also links individuals to each other and, as Kalleberg (2008) argues, is “central to individual identity”. Many studies have highlighted the steady increase of precarious work in Canada (Vosko et al. 2003; Fudge and Vosko 2001; Schellenberg and Clark 1996). As Canadian companies adapt to changing global economies and a subsequent increase in the diversity of labour markets, work has become flexible and therefore precarious. Existing immigrant labour market outcomes research also cites immigrant wages, discrimination and credential recognition as critical in Canadian

✉ Parvinder Hira-Friesen
parv16@yorku.ca

¹ Faculty of Arts, Department of Sociology, University of Calgary, 2500 University Dr. N.W., Calgary, AB T2N 1N4, Canada

newcomers lagging in economic integration behind their Canadian-born counterparts. What these studies do not explicitly address is the prevalence of Canadian immigrants, especially recent immigrants, employed in precarious jobs. Additionally, there is little research showing possible trends of immigrant employment in precarious work over time.

The present study will address precarious employment among Canadian immigrants and contribute to the literature in several ways. First, it identifies three specific types of precarious employment (involuntary part-time work, multiple-job holders and temporary-job holders) and measures labour market participation trends over time (2006–2012) for immigrants in these three work categories. Second, the timeline used in the present study includes the recession of 2008–2009 as well as the continued influx of highly educated immigrants arriving in Canada.

As reported by LaRochelle-Côté and Gilmore (2009), Canada's economy enjoyed high employment levels until a sudden downturn in the world's economy in the late 2008. As such, there was a widespread loss of jobs for the first time since the last recession of 1990–1992. Although Canada was also affected, it did not suffer as severely as the United States of America and a majority of other countries around the world. Therefore, whether recent and/or established newcomers employed in precarious jobs are over-represented or under-represented in comparison to their Canadian-born counterparts will help Canadian policy makers better understand immigrant labour market outcomes and subsequently plan and implement future immigration selection policies.

Explaining the Persistence of Immigrant Economic Disadvantage in Canada

Wages

Currently, a majority of research on economic outcomes among Canadian immigrants focuses on wages, credential recognition and discriminatory hiring practices (Aydermir and Skuterud 2005; Banerjee 2009; Frenette and Morrisette 2005; Boyd and Thomas 2001, 2002). Hence, these researchers argue that lack of credential recognition and discriminatory hiring practices lead to low wages. I maintain that it is being employed in precarious jobs that in part create an immigrant earnings deficit although I also recognize that the combination of discriminatory hiring practice and discounting foreign education and work credentials may lead to precarious work, which in turn leads to low wages.

Existing discourse surrounding the economic integration disadvantages faced by Canadian newcomers identifies low immigrant wages as a probable outcome. In fact, a sizeable number of researchers recognize low income among Canadian newcomers as the key source of low economic integration among them. An extensive study using Canadian census data by Aydermir and Skuterud (2005) speaks to immigrant wage disparities across regions in Canada. Furthermore, Aydemir (2003) argues that not only have the earnings of newcomers been deteriorating, but so have their employment and labour force participation rates. As such, Aydemir states that even though recent Canadian immigrants are

more educated than previous cohorts, they are still not faring as well in Canada's labour markets (Aydemir 2003).

Immigrant wages are also examined by Banerjee (2009), highlighting entry wage and ability to catch up to the wages of the Canadian-born. Bannerjee uses the Survey of Labour and Income Dynamics and finds that visible-minority immigrants are unable to catch up to the earnings of Canadian-born respondents and therefore are disadvantaged economically. According to Bannerjee, white immigrants do not face similar challenges and are able to catch up to their Canadian-born counterparts. Frenette and Morrisette (2005) discuss immigrant wages and whether they will reach parity with those of the Canadian-born. They conclude that immigrant earnings would have to grow at an "abnormally high rate" in order to reach parity with their Canadian-born counterparts (Frenette and Morrisette 2005, p. 249).

Finally, Pendakur and Pendakur (1998) examine earnings differentials between whites and visible minorities and find substantial earnings differentials both between and within the white and visible-minority groupings among males and females in the sample. Although visible-minority status is not measured in the Canadian Labour Force Survey, the findings of the present study acknowledge that the visible-minority category is a useful indicator of economic discrimination. Hence, non-whites would be expected to earn less than their white counterparts.

Credential Recognition

Much has been written about the lack of credential recognition experienced by newcomers upon arrival into their host country. This is also true for Canada. According to Houle and Yassad (2010) and others (Boyd and Schellenberg 2007; Boyd and Thomas 2001, 2002), most recent immigrants possess both the most work experience and highest levels of education in Canadian immigration history. Although both characteristics should result in labour market success, it does not appear to apply to newcomers to this country, as many employers fail to acknowledge immigrant credentials. Subsequently, these newcomers are underemployed and unable to benefit from the categories they were selected for (Houle and Yassad 2010).

Worwick (2004) cites lack of credential recognition as a cause of declining immigrant wages and subsequent lack of economic integration. Picot and Sweetman (2005) acknowledge the persistence of this disparity despite the high average level of education among immigrants to Canada. Ferrer and Riddell (2008) echo this assertion and highlight the value of Canadian education and work experience over that obtained abroad with respect to earnings.

According to Houle and Yassad (2010), immigrants face challenges that may impede the recognition of their credentials as well as their work experience (Houle and Yassad 2010). This in turn, they argue, affects their labour market performance and economic integration into Canadian society. These researchers cite foreign education being viewed by Canadian employers as "less relevant to the needs of the Canadian labour market" (Houle and Yassad 2010). Newcomers, especially recent immigrants, therefore experience a higher rate of non-standard employment than established immigrants and Canadian-born workers.

Gilmore (2009) echoes Houle and Yssaad's finding that newcomers struggle with respect to gainful employment upon arrival to Canada. For example, Gilmore cites several difficulties that immigrants to Canada face in finding gainful employment. These include non-recognition of foreign credentials, comparative levels of education, degree and length of work experience, differences in quality of education, language barriers, differing strengths of social networks and familiarity with the Canadian labour market (Gilmore 2009). These issues are especially relevant, argues Gilmore, for immigrants who have arrived in Canada more recently (Gilmore 2009). While Gilmore (2009) cites "similar employment quality characteristics" of involuntary part-time work and employment in multiple jobs among immigrants and their Canadian-born counterparts, he argues these similarities do not exist when "employment quality indicators" are taken into account. As a result, states Gilmore, immigrants had a higher proportion of involuntary part-time work and temporary jobs and are less likely to have an employer pension plan compared to their Canadian-born counterparts (Gilmore 2009). He also acknowledged that the disparities between these two groups were much smaller than those between recent newcomers and their Canadian-born counterparts (Gilmore 2009).

Zietsma (2010) states that in 2006, university degrees among more recent immigrants have risen to 42% of those landing in Canada since 2001. This is a sharp contrast to only 16% of Canadian-born during this time period having achieved parallel success (Zietsma 2010). Additionally, argues Zietsma, not only are recent immigrants highly educated but they also possess foreign work experience. Unfortunately, this combination does not seem to be enough to get newcomers hired in positions that reflect their education and work credentials.

According to Houle and Yassad 2010 within four years of residing in Canada, 28% of immigrants with foreign credentials had found acknowledgment of these credentials. Interestingly, within this cohort of four-year residency, women and older newcomers were less likely to have their work experience or credentials recognized compared to men and younger immigrants (Houle and Yassad 2010). Finally, Houle and Yassad 2010 found that the source country from which the newcomers had received their education and work experience also played a significant role in credential recognition: immigrants who received their highest education level or were employed in either the United Kingdom or the United States of America were much more likely to have their credentials acknowledged.

Discriminatory Hiring Practices

Many studies have been conducted in the USA focusing on "black" sounding names and prejudicial hiring practices (Bertrand and Mullainathan 2004). This is replicated in Canada for visible minorities by Oreopoulos and Dechief (2011) to measure the prevalence of discriminatory hiring practices by Canadian employers. Oreopoulos and Dechief (2011) conducted a follow-up study to a previous investigation of discriminatory hiring practices by Oreopoulos in 2009. These researchers found sizable differences in an increase in callback rates from just changing an applicant's name. They combined findings from Toronto, Montreal and Vancouver, and found that resumés with English-sounding names are 35% more likely to receive callbacks than resumes with Indian or Chinese names (Oreopoulos and Dechief 2011). According to

this new study, the outcomes are “remarkably consistent” with earlier findings from Oreopoulos (2009) for Toronto in better economic circumstances.

Hence, low wages may be a result of lack of credential recognition and discriminatory hiring practices. It is the purpose of the present study, however, to recognize that newcomers employed in non-standard jobs possibly due to such circumstances may be the reason immigrants earn substantially less than their Canadian-born counterparts. Therefore, it is prudent to examine immigrant employment as a variant of the economic deficiencies experienced by newcomers. In this paper, I compare precarious employment among immigrants to that among native-born workers by using measures of involuntary part-time work, temporary-job holding and multiple-job holding.

Types of Precarious Work

Those employed in temporary work, those employed in involuntary part-time work and multiple-job holders face varying but similar challenges. According to a *Globe and Mail* article, temporary work is growing at a faster pace than permanent jobs (Grant 2013). The article states that there were two million temporary workers in Canada in 2012 and this type of precarious employment has grown at triple the rate of permanent positions (Grant 2013). This is echoed by Tilly (1998) regarding a similar scenario in the USA. Tilly states that the expansion of temporary work is evident in the twentyfold increase of employment in temporary agencies since the early 1960s. Tilly reports that Manpower Inc. employs more people yearly than any other private employer in the USA. Most importantly, argues Tilly, the majority of temporary workers, in contrast to their part-timer counterparts, are involuntary. Hence, these workers would prefer permanent work if it was available to them (Tilly 1998).

In an earlier article, Tilly (1991) argues that involuntary part-time workers, who would prefer full-time jobs, account for most of the growth in part-time employment in the USA since 1970. Tilly further indicates that the proportional rise of these workers may be a result of employer demand for scheduling flexibility and a work force that commands lower compensation (Tilly 1991). Part-time employment, as in many other countries, makes up a mounting proportion of jobs in the USA. Tilly sides with many sociologists and other researchers who contend that not all part-time work is a result of employers accommodating the wishes of housewives, students, retirees and others who seek out this type of employment. Again, argues Tilly (1991), since 1969, part-time jobs have increased largely because more employers see them as a way to cut labour costs. Accordingly, those who work part-time as a necessity rather than as a choice account for most of the growth in part-time employment's share of the US work force since 1969.

Multiple-job holders are also among many who hold employment out of necessity rather than choice. According to Gilmore, a 1995 survey revealed that almost 65% of Canadian multiple-job holders were engaged in such employment to supplement their income, assist with debt repayment or save for the future. Kimmel and Powell (1999) refer to multiple-job holders as “moonlighters” and concur with Gilmore on the increase in this form of employment in both Canada and the USA. Kimmel and Powell (1999) assert that the number of Canadians engaged in multiple jobs have increased by 50% over a decade and continue to climb steadily. Gilmore states that in 2008, newcomers were equally likely to be employed in multiple jobs as their

Canadian-born counterparts (Gilmore 2009). These similarities diminish with respect to the number of hours worked by each group. For example, immigrants were working 2.3 h more per week than their Canadian-born counterparts regardless of when the immigrants landed in Canada (Gilmore 2009).

Vosko et al. cite the continued presence of recent immigrants and other groups of young men are “experiencing downward pressure on earnings and conditions of work as they increasingly take jobs in occupations where women have traditionally been employed” (2003, p. 7). Therefore, argue Vosko et al. (2003), a sex-specific analysis of non-standard (precarious) work is warranted in examining precarious employment outcomes. The present study predicts significant sex differences in all the three types of precarious work. In addition, coinciding with Statistics Canada reports (Yssaad 2012), the present study also hypothesizes that recent newcomers will be the most represented in precarious employment.

Data and Methods

Data and Variables

The present study uses data from the Canadian Labour Force Survey (LFS) master file from 2006 to 2012. The LFS is a monthly household survey carried out by Statistics Canada involving around 56,000 Canadian households. Statistics Canada added five questions to the LFS to identify the Canadian immigrant population. Therefore, prior LFS waves cannot be used to study the types of immigrant labour outcomes being examined in the present study. The five Canadian immigrant questions in the 2006 LFS included the following: country of birth of the respondent, whether or not the respondent was a “landed immigrant”, the month and year the respondent became a landed immigrant and the country where the respondent received his or her highest level of education (Statistics Canada 2013).

The analysis is restricted to the month of March for each survey year. The month of March is significant as this is the time of year when very few workers are on holidays or in the process of changing jobs. The present study’s sample is restricted to respondents who are 20 to 59 years of age and either Canadian-born or landed immigrants. In order to further examine labour market differences between newcomers and their Canadian-born counterparts, I further divide immigrants into recent immigrants (immigrants who have resided in Canada for five years or less) and established immigrants (immigrants who have lived in Canada for more than five years). Although many studies show that the wage gaps between immigrants and their Canadian-born counterparts are reduced over time, immigrants earn significantly less upon arrival (Gilmore 2009).

The three outcome variables in the present study (involuntary part-time work, multiple-job holder and temporary-job holder) are measured dichotomously. Involuntary part-time work is defined as those seeking full-time employment but forced to work part-time. Involuntary part-time work is measured only among respondents who are employed in part-time jobs. The second outcome variable, multiple-job holders, includes respondents who are employed in more than one job. The final outcome variable recognizes those respondents who are employed in temporary jobs, and includes seasonal, temporary, term or contract employment, including work done via

a temporary help agency, a casual job and other temporary work. All three variables are coded as dummy (indicator) variables. If a respondent held these types of employment, the variables equal one; if not, they equal zero.

The explanatory variables in the present study include immigrant status (as the focal variable), survey year, sex, age, education, number of children and marital status. Immigrant status, as mentioned above, is measured by two dummy variables: one, equalling 1 if an immigrant has been in Canada five years or less, and the other, equalling 1 if an immigrant has been in the country for more than five years. Canadian-born is the reference category. Education is divided into six categories: less than high school (used as reference category), high school graduate, some post-secondary education, trades, bachelor's degree and graduate degree. Marital status is coded as follows: married (married and common-law), and single and other (single, widowed or divorced) with other as the reference category. Additionally, the number of children is coded as follows: no children (reference), one to two children and three or more children. Survey year is a continuous variable included to capture any linear increase over time in the likelihood of respondents working in precarious jobs.

Methods

The present study examines how several factors add to the change in immigrant and Canadian-born participation in the types of precarious work by grouping the data for both immigrant and Canadian-born respondents in the survey periods. Subsequently, a baseline logistic regression model is constructed separately for each outcome variable using dummy variables for both established immigrants and recent newcomers. Then, additional models are constructed using explanatory variables and interaction terms again separately for each outcome. All models in the present study are run separately for males and females. Data from the pooled survey years from the LFS for the month of March are used to estimate the following models:

$$(Base\ model :\ model\ 1)\ logit(Y) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

- Y the log odds of a respondent employed in (involuntary part-time work, multiple jobs, temporary work) precarious employment¹
 X_1 recent immigrants (immigrants residing in Canada for five years or less)
 X_2 established immigrants (immigrants residing in Canada for more than five years)
 X_3 survey year

This model shows the odds of precarious employment among recent immigrants and established immigrants with respect to the Canadian-born.

$$(Model\ 2)\ logit(Y) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \sum \beta_k X_k$$

¹ The results will be reported as odds ratios.

Model 2 represents model 1 plus all additional explanatory variables.

$$(Model\ 3)\ \text{logit}(Y) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \sum \beta_k X_k + \beta_k X_1 \times X_3 + \beta_k X_1 \times X_3$$

Interaction terms are added to model 2 to determine if a possible linear trend in precarious employment differs among recent immigrants, established immigrants and the Canadian-born.

The weighting of the data in the Labour Force Survey proved to be challenging as Statistics Canada did not provide either bootstrap weights or sufficient information regarding weighting the survey data in general. As argued by Wanner (2013), the present study does not use the regression composite method only available through Statistics Canada. Therefore, as the present study does not use monthly data points but rather one month (March) per each year of the survey, the regression composite method is not necessary (Wanner 2013).

In order to identify primary sampling units, strata, clusters and sample weights, the present study uses information provided in the Labour Force Survey Guide (Statistics Canada 2012) and Methodology documents (Statistics Canada 2008). One assumption made here is that the primary sampling unit (PSU) is a cluster (Wanner 2013). The clusters are sampled before sampling households and then are aggregated into strata (Wanner 2013). The analysis in the present study uses the survey system in Stata to adjust for weighting and sample design. As such, the design is represented in the `svyset` command (StataCorp 2013). This command identifies the data as complex survey data. Hence, this includes variables representing the PSU, sample weight and details of the design (Wanner 2013).

In addition, probability weights are used to account for the fact that, even though a random sampling method was used, cases may have unequal probabilities of being selected (Wanner 2013). According to Wanner (2013), these weights normally equal the inverse of the probability of selection. It should be noted that the basic sample weight variable in the LFS is *subwt*. These weights are calculated to provide sample estimates that more closely correspond to census population values for certain variables. Furthermore, they adjust for nonresponse and coverage error. The final weight (*finalwt*) is further adjusted using the calibration method. Calibration is unwarranted in the present study as it uses surveys six months of more apart. Therefore, the present study will use *subwt*.² Nevertheless, just using *subwt* as a *p*-weight will produce frequency counts that approximate population totals. Thus, for purposes of statistical inference, these weights must be normalized so that their mean equals 1 (Wanner 2013). Hence, the frequency counts will take on sample rather than population values. This is accomplished by dividing the weights by their mean.

² According to Wanner (2013), in the March 2007, LFS, the correlation between *subwt* and *finalwt* is approximately 0.97 and regression coefficients estimated using the two weights are equal to the fifth decimal point. Therefore, they are virtually interchangeable.

Results

As illustrated in Fig. 1, a cross-tabulation of involuntary part-time work with year of survey and immigrant status shows that those (both males and females) who arrived within the last five years or less are over-represented in terms of involuntary part-time employment, followed by immigrants who have lived in Canada more than five years with their Canadian-born counterparts being the least likely to be employed in this type of precarious work. The figure shows recently arrived males, between 2008 and 2010, having a much higher increase in involuntary part-time work compared to their female counterparts.

Moreover, the likelihood of recent immigrants employed in involuntary part-time work is increasing over time. This effect appears to be increasing across the survey years especially among recent immigrants. Hence, an investigation is needed to further examine this time trend.

Results from a cross-tabulation of multiple-job holders by survey year and immigrant status illustrate an interesting and unexpected pattern. As indicated by Fig. 2, male respondents who arrived within the last five years or less are more likely to be multiple-job holders by a slight margin except for a sizeable increase between 2009 and 2011. The pattern for female newcomers is greatly different in terms of being employed in more than one job. Figure 2 illustrates a steep increase in recent immigrant females holding multiple jobs. Males, in contrast, show a steep increase only after 2011.

The final graph (Fig. 3) depicts results from a cross-tabulation of temporary-job holders by survey year and immigrant status. Figure 3, hence, shows male and female respondents who arrived within the last five years or less are considerably over-

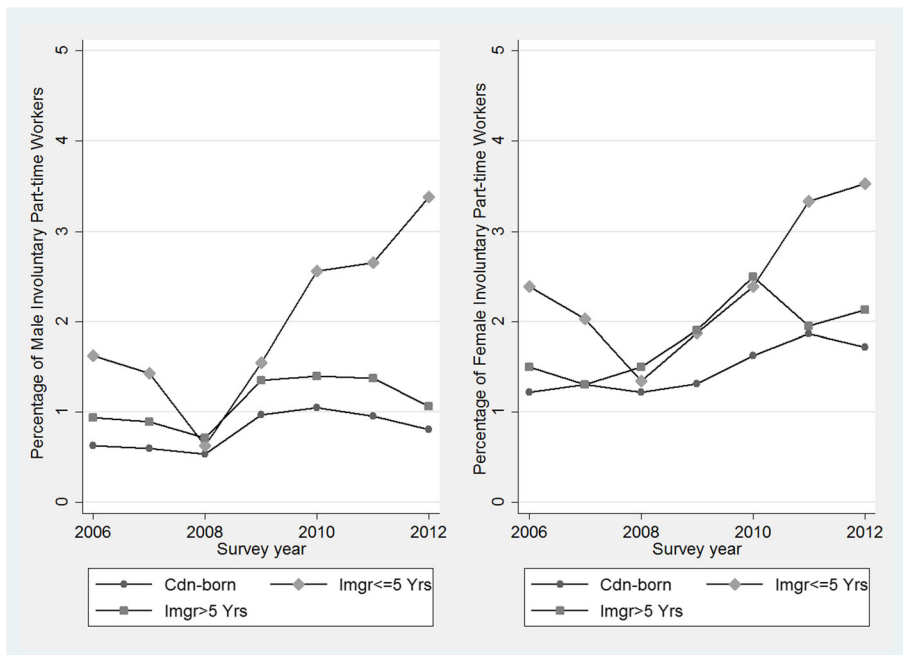


Fig. 1 Involuntary part-time work by year and immigrant status, males and females, 2006–2012, Canada

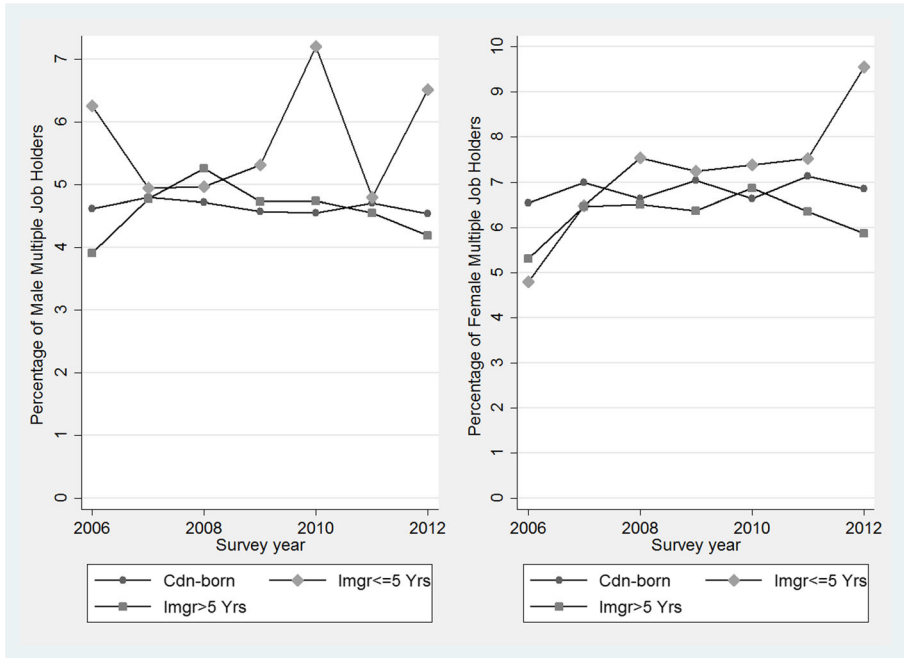


Fig. 2 Multiple-job holders by year and immigrant status, males and females, 2006–2012, Canada

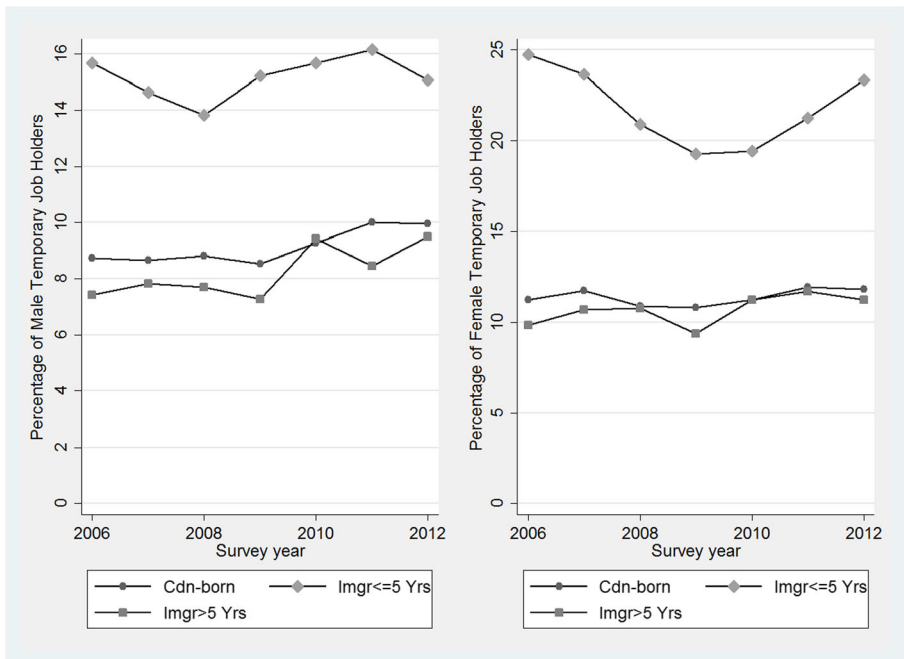


Fig. 3 Temporary-job holder by year and immigrant status, males and females, 2006–2012, Canada

Table 1 Proportion of males and females by immigrant status employed in precarious work (2006–2012)

Type of precarious work	Canadian-born		Recent immigrants		Established immigrants	
	Male	Female	Male	Female	Male	Female
Involuntary part-time workers	0.13	0.08	0.25	0.16	0.17	0.13
Multiple-job holders	0.05	0.07	0.06	0.06	0.04	0.06
Temporary-job holders	0.09	0.11	0.16	0.23	0.08	0.10

N = 56,299

represented in temporary employment, particularly females. In addition, there is very little difference between the established immigrants and the Canadian-born.

It is important to note that all three graphs indicate an effect for 2008–2009 representing the downturn in employment due to a recession in Canada. According to Cross (2010), the economy declined in 2008 and 2009 and labour productivity fell slightly.

Table 1 shows that 25% of recent male immigrants and 23% of recent female immigrants make up the majority in terms of precarious employment.

According to Table 2, recent male and female immigrants (immigrants who have resided in Canada for five years or less) are more likely to be employed in involuntary part-time work than their Canadian-born counterparts. For immigrant males, the odds are more than twice as likely, and for immigrant females, the effect is slightly less at approximately 2.1 times.

This significant outcome for recent immigrant males and females shown in Table 3 decreases only slightly once the control variables are added to the model. Additionally, male immigrants residing in Canada for more than five years also show a significant although a smaller likelihood of being employed in involuntary part-time jobs in comparison to those respondents born in Canada. Conversely, immigrant females who have resided in Canada for more than five years are more likely to be employed in involuntary part-time work than immigrant males in the same cohort.

Table 2 Logistic regression models predicting involuntary part-time work, Canadian part-time employees 2006–2012, males and females (base model)

	Male	Female
Recent immigrant	2.332*** (- 5.41)	2.078*** (- 5.98)
Established immigrant	1.407*** (- 4.11)	1.648*** (- 8.35)
Survey year	1.088*** (- 5.35)	1.099*** (- 7.88)
Number of cases	11,999	11,987
<i>F</i> -adjusted test statistic	$F(8,10930) = 55.541***$	$F(9,10917) = 7.547***$

Exponentiated coefficients; standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

There are several outcomes worth noting in Table 3. For instance, both sexes are slightly more than one and a half times more likely to be employed in involuntary part-time work with the exception of married women. Married women are more than half as likely to be working part-time when they would rather have full-time employment. This appears to be also true for single men and women and women with one or two children. The effect is more pronounced among women with three or more children. The interaction terms between survey year and immigrant status do not yield significant results for either sex.

According to Table 4, established Canadian immigrants are less likely to be holding multiple jobs than the Canadian-born (about 20% less likely for men and approximately 30% for women) but not as large as those employed in involuntary part-time work.

As shown in Table 5, both sexes of recent and established immigrants are about half as likely to be employed in multiple jobs. Furthermore, married and single women show significant results in terms of holding more than one job. For example, married and single women are more than half as likely to be working in multiple jobs compared to their widowed, divorced and separated counterparts. This is also true for women with one to two children. The men, on the other hand, are more than one and a half times as likely to be employed in multiple jobs in comparison to men without any children. Interestingly, as education levels increase, so does the likelihood of being employed in multiple jobs.

There is a slight increase for males with three or more children and a sizable increase for education. These results indicate that both males and females with a trades diploma are almost twice as likely to be employed in multiple jobs as respondents with a less high school education. This trend is also reflected in both sexes with community college credentials as well as those with a bachelor's degree and those with graduate degrees. As Table 5 shows, females with graduate degrees are more than three times as likely to be employed in multiple jobs as those with less than high school education. This outcome is even more pronounced for males with graduate degrees as they are more than four times as likely to have more than one job compared to the respondents with less than high school.

According to Table 6, only recently immigrating females are more than one and a half times more likely to be employed in temporary jobs than their Canadian-born counterparts.

The significant effect of recent female immigrants employed in temporary positions is reduced only slightly when controls are added to the model. Similar odds are reflected for the 20–29-year-old respondents for both sexes. With respect to education, males with a university certificate are more than one and a half times as likely to be employed in temporary jobs and females are slightly less than one and a half times as likely. The trend continues with males and females with a bachelor's degree and is most pronounced in those with graduate degrees. For instance, males with graduate degrees are more than two and a half times as likely to be employed in temporary jobs, and females with similar credentials are also more than twice as likely. Finally, Table 7 illustrates a similar trend to Table 5 in terms of education and temporary employment. In addition, the interaction terms between immigrant status and education established immigrant males are almost twice as likely to be employed in temporary jobs compared to all others, and this same category of respondents with a bachelor's degree are 2.3 times more likely to be working in temporary jobs.

Table 3 Logistic regression models predicting involuntary part-time work, Canadian part-time employees 2006–2012, males and females (with explanatory variables and interactions)

	Male		Female	
	Male	Female	Male	Female
Recent immigrant	2.094*** (- 4.69)	1.903*** (- 5.1)	1.644 (- 1.19)	2.126* (- 2.26)
Established immigrant	1.326*** (- 3.37)	1.690*** (- 8.56)	1.676*** (- 2.67)	2.084*** (- 5.07)
Survey year	1.088*** (- 5.31)	1.097*** (- 7.75)	1.098*** (- 5.26)	1.110*** (- 7.98)
20–29	1.145 (- 1.17)	1.808*** (- 6.38)	1.15 (- 1.21)	1.813*** (- 6.41)
30–39	1.589*** (- 4.23)	1.964*** (- 7.82)	1.595*** (- 4.27)	1.966*** (- 7.83)
40–49	1.594*** (- 4.44)	1.953*** (- 9.06)	1.604*** (- 4.5)	1.960*** (- 9.1)
Married/common-law	0.771 (- 1.96)	0.547*** (- 8.18)	0.775 (- 1.92)	0.547*** (- 8.18)
Single	0.689* (- 2.55)	0.627*** (- 4.79)	0.688* (- 2.55)	0.627*** (- 4.79)
1–2 children	1.117 (- 1.16)	0.685*** (- 5.97)	1.114 (- 1.13)	0.686*** (- 5.95)
≥ 3 children	1.378 (- 1.85)	0.491*** (- 6.62)	1.375 (- 1.83)	0.490*** (- 6.64)
HS graduate	0.807 (- 1.94)	0.820* (- 2.17)	0.808 (- 1.93)	0.821* (- 2.17)
Trades training	0.973	1.021	0.974	1.02

Table 3 (continued)

	Male	Female	Male	Female
Some PSE	(-0.23) 0.550*** (-5.59)	(-0.2) 0.746*** (-3.43)	(-0.22) 0.550*** (-5.60)	(-0.19) 0.746*** (-3.43)
Bachelor's degree	0.710** (-2.70)	0.966 (-0.38)	0.708** (-2.72)	0.966 (-0.38)
Graduate degree	0.607** (-3.11)	0.987 (-0.11)	0.610** (-3.09)	0.987 (-0.11)
cyearxnewImmgr			1.056 (-0.64)	0.975 (-0.37)
cyearxImmgr			0.946 (-1.34)	0.953 (-1.58)
Number of cases	11,999	11,987	11,999	11,987
F-adjusted test statistic	$F(9,10929) = 79.990$	$F(9,10917) = 4.922$	$F(9,10929) = 75.962$	$F(9,10917) = 5.339$

Exponentiated coefficients; standard errors in parentheses

Coefficients between males and females are significantly different at $p < 0.05$

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4 Logistic regression models predicting multiple-job holders, Canadian employees 2006–2012, males and females (base model)

	Male	Female
Recent immigrant	0.88 (– 0.54)	0.751 (– 1.96)
Established immigrant	0.758** (– 2.71)	0.703*** (– 5.66)
Survey year	0.948** (– 3.13)	1.01 (– 1.01)
Number of cases	11,999	11,987
<i>F</i> -adjusted test statistic	$F(9,10929) = 4.283***$	$F(8,10918) = 1.796***$

Exponentiated coefficients; standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Conclusions and Discussion

The present study examines the involvement in precarious employment of recent Canadian immigrants compared to their Canadian-born counterparts within Canadian labour markets. This is a timely analysis as one of the most notable shifts in Canadian immigration over the past few decades has been an influx of well-educated newcomers to this country. Moreover, from the early 1970s onward, the government of Canada has aimed its immigration policies to reflect labour market conditions, particularly occupational demand, as well as “characteristics that are deemed important for long term success of immigrants” (Aydemir 2002). Therefore, it is important to recognize labour market participation among Canadian immigrants as an integral part of immigrant employment outcomes. Even though those entering under the point system possess predominantly university credentials, the present study demonstrates increasing precarious employment trends over time among Canadian immigrants. However, the economic stream now includes those who may not previously have had a chance to enter Canada, such as trades people. These individuals are those recruited through the Provincial Nominee Program (PNP). The PNP was created between the provincial and federal governments to address labour shortages and shifted the type of immigrant entering Canada. This program allows participating provinces to recruit and nominate potential immigrants who are likely to meet provincial labour requirements (Pandey and Townsend 2011). Persons who immigrate to Canada under the Provincial Nominee Program have the skills, education and work experience needed to make an immediate economic contribution to the province or territory that nominates them. They are ready to establish themselves successfully as permanent residents in Canada (CIC 2011).

The results of the present study indicate that the odds of recent immigrants being employed in involuntary part-time work are much higher than those of their established immigrants and Canadian-born counterparts for both sexes. For example, recent immigrant males’ odds are more than twice as high, and for recent immigrant females, the effect is slightly less than double relative to the Canadian-born. This significant outcome decreases only slightly once the control variables are added to the model,

Table 5 Logistic regression models predicting multiple-job holders, Canadian employees 2006–2012, males and females (with explanatory variables and interactions)

	Male		Female	
	Male	Female	Male	Female
Recent immigrant	0.597* (- 2.07)	0.653** (- 2.85)	1.403 - 0.69	0.558 (- 1.52)
Established immigrant	0.624*** (- 4.46)	0.667*** (- 6.40)	0.8 (- 1.04)	0.645** (- 3.08)
Survey year	0.948** (- 3.12)	1.004 - 0.4	0.964* (- 2.00)	1.002 - 0.19
20–29	1.071 - 0.59	1.159* - 2.2	1.071 - 0.59	1.159* - 2.19
30–39	1.389** - 2.77	1.296*** - 3.68	1.392** - 2.78	1.296*** - 3.68
40–49	1.458** - 3.23	1.445*** - 6.01	1.457** - 3.22	1.444*** - 6.01
Married/common-law	1.113 - 0.66	0.655*** (- 6.45)	1.115 - 0.67	0.655*** (- 6.45)
Single	0.864 (- 0.84)	0.721*** (- 3.97)	0.866 (- 0.83)	0.721*** (- 3.96)
1–2 children	0.983 (- 0.16)	0.792*** (- 4.36)	0.985 (- 0.14)	0.792*** (- 4.37)
≥ 3 children	1.579** - 2.66	0.756*** (- 3.36)	1.567** - 2.63	0.756*** (- 3.36)
HS graduate	1.920*** - 4.18	1.417*** - 3.78	1.912*** - 4.16	1.417*** - 3.78
Trades training	2.009***	1.829***	2.006***	1.829***

Table 5 (continued)

	Male	Female	Male	Female
Some PSE	-4.08 2.233***	-5.97 2.038***	-4.07 2.225***	-5.96 2.038***
Bachelor's degree	-5.6 3.344***	-8.31 2.725***	-5.57 3.352***	-8.31 2.725***
Graduate degree	-7.75 4.174***	-10.85 3.189***	-7.76 4.164***	-10.84 3.189***
cyearxnewImmgr	-8.04	-10.75	-8.01	-10.75
cyearxImmgr			0.794*	1.037
Number of cases	11,999	11,987	(-2.22)	-0.46
F-adjusted test statistic	$F(9,10929) = 22.625^{***}$	$F(9,10917) = 3.070^{***}$	0.938	1.008
			(-1.33)	-0.26
			11,999	11,987
			$F(9,10929) = 22.849^{***}$	$F(9,10917) = 3.128^{***}$

Exponentiated coefficients; standard errors in parentheses

Coefficients between males and females are significantly different at $p < 0.01$

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6 Logistic regression models predicting temporary-job holders, Canadian employees 2006–2012, males and females (base model)

	Male	Female
Recent immigrant	1.082 (− 0.54)	1.691*** (− 5.07)
Established immigrant	0.977 (− 0.30)	1 (− 0.01)
Survey year	1.002 (− 0.17)	1.023** (− 2.71)
Number of cases	11,888	11,752
<i>F</i> -adjusted test statistic	$F(8,10822) = 65.042^{***}$	$F(8,10683) = 8.848^{***}$

Exponentiated coefficients; standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

and actually increases with the addition of interaction terms. Accordingly, recent immigrant males are more than three times as likely to be employed in involuntary part-time work in comparison to their Canadian-born counterparts. Recent immigrant females are almost two and a half times as likely to be employed in similar jobs. Furthermore, this trend of over-representation of recent immigrants is increasing over time. This is a compelling finding and provides evidence of why newcomers' wages may be lower as argued by Aydermir and Skuterud (2005). In fact, Aydemir (2003) contends that not only is there an earnings deficit among Canadian immigrants but also a decline in these individuals' labour market participation rates. Hence, the results of the present study support the contention that it is type of employment such as involuntary part-time work that leads to lower immigrant wages.

This trend of immigrants employed in precarious work continues as the analysis is expanded to respondents employed in multiple jobs. The effect is more pronounced in the outcomes of established Canadian immigrants. The most interesting, and subsequently policy-related, result of being employed in multiple jobs is associated with education. Results of the present study indicate that as education levels increase, so does the likelihood of being employed in multiple jobs. Those with graduate degrees are more than three times as likely to be employed in multiple jobs as those with less than high school education. Again, type of employment among Canadian immigrants is clearly a precursor to lower immigrant wages. For instance, Bannerjee's study using the Survey of Labour and Income Dynamics reveals the economic disadvantage faced by Canadian immigrants not only upon entry into that country but also their inability to ever catch up to the earnings of their Canadian-born counterparts. As such, many newcomers are compelled to take multiple jobs in order to meet their economic needs.

Another area identified by current labour market research involving Canadian immigrants is the lack of credential recognition faced by many newcomers to this country. Although the majority of the immigrants arriving in Canada hold high levels of education and extensive work experience, they still struggle within the Canadian job markets. As cited earlier, Houle and Yassad (2010) found that Canadian employers are refusing to acknowledge immigrant credentials. This failure to recognize immigrant

Table 7 Logistic regression models predicting temporary-job holders, Canadian employees 2006–2012, males and females (with explanatory variables and interactions)

	Male		Female		Male		Female	
Recent immigrant	0.989 (- 0.07)	1.596*** (- 4.26)	0.651 (- 1.14)	1.954* (- 2.48)				
Established immigrant	0.936 (- 0.82)	1.043 (- 0.8)	1.014 (- 0.08)	1.117 (- 0.93)				
Survey year	1.003 (- 0.21)	1.015 (- 1.7)	1.003 (- 0.17)	1.019* (- 2.04)				
20–29	1.284** (- 2.67)	1.561*** (- 7.97)	1.288** (- 2.7)	1.564*** (- 8)				
30–39	0.929 (- 0.70)	1.069 (- 1.08)	0.931 (- 0.68)	1.07 (- 1.1)				
40–49	0.955 (- 0.44)	1.019 (- 0.34)	0.962 (- 0.38)	1.021 (- 0.37)				
Married/common-law	0.875 (- 0.92)	0.876* (- 2.00)	0.878 (- 0.91)	0.876* (- 2.00)				
Single/never married	0.994 (- 0.04)	1.270** (- 3.14)	0.995 (- 0.04)	1.268** (- 3.13)				
One to two kids	1.079 (- 0.8)	0.885** (- 2.69)	1.074 (- 0.75)	0.886** (- 2.68)				
≥ 3 kids	0.94 (- 0.34)	1.009 (- 0.12)	0.94 (- 0.35)	1.009 (- 0.12)				
High school graduate	0.895 (- 1.09)	1.082 (- 1.04)	0.896 (- 1.08)	1.082 (- 1.04)				
Trades training	1.132	1.205*	1.131	1.206*				

Table 7 (continued)

	Male	Female	Male	Female
Some PSE	(- 1) 1.054 (- 0.56)	(- 2.09) 1.309*** (- 3.78)	(- 1) 1.053 (- 0.55)	(- 2.09) 1.308*** (- 3.76)
Bachelor's degree	1.623*** (- 4.25)	1.980*** (- 8.84)	1.618*** (- 4.23)	1.980*** (- 8.83)
Graduate degree	2.512*** (- 6.58)	2.297*** (- 8.8)	2.520*** (- 6.6)	2.297*** (- 8.8)
cyearXnewImmgr			1.104 (- 1.25)	0.954 (- 0.84)
cyearXImmgr			0.98 (- 0.49)	0.984 (- 0.63)
hsXImmgr			1.876* (1.99)	1.164 (0.74)
bachXImmgr			2.251* (2.53)	0.911 (- 0.45)
Number of cases	11,888	11,752	11,888	11,752
F-adjusted test statistic	$F(9,10821) = 51.561^{***}$	$F(9,10682) = 5.369^{***}$	$F(9,10821) = 51.059^{***}$	$F(9,10682) = 6.613^{***}$

Coefficients between males and females are significantly different at $p < 0.05$

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

education and work experience leads to underemployment of Canadian newcomers, and subsequently, they are unable to benefit from the categories they were selected for (Houle and Yassad 2010). As a result, many Canadian immigrants are employed in temporary jobs. In the present study, however, the effect of immigrant status on temporary employment is not as pronounced as on the other two types of precarious employment. The effect was substantial in females as they were almost 1.4 times as likely to be employed in temporary jobs compared to their Canadian-born counterpart. Similar significant odds ratios greater than one were found for the 20–29-year-old respondents for both sexes. With respect to education, males with a university certificate are more than one and a half times as likely to be employed in temporary jobs and females are slightly less than one and a half times as likely. The trend continues with males and females with a bachelor's degree and is most pronounced in those with graduate degrees. For instance, males with graduate degrees are almost three times as likely to be employed in temporary jobs and females with similar credentials are twice as likely.

There are several important policy implications arising from the present study. For example, immigration policies in terms of immigrant selection may need to consider credentials in addition to education. The current policy of admitting highly educated immigrants to Canada for the purpose of economic integration is falling short especially for recent immigrants. This appears to be the case even with the introduction of the PNP in 1998. Furthermore, introducing job matching programs to coincide with education and work experience credentials may help offset newcomer struggles experienced in Canadian labour markets.

It is important to note that the present study does not examine the effects of specific labour markets, nor does it examine the implications of being employed in precarious work for wages. These will be addressed in the subsequent papers of this research program. The paper addressing specific labour markets will use multi-level models to study precarious employment among Canadian immigrants and their Canadian-born counterparts. Hence, the subsequent study measures employment effects at both the individual level and the census metropolitan area (CMA) level. Finally, the last installment in this research program examines immigrant and Canadian-born wage outcomes using ordinary least squares (OLS) regression analysis.

My findings that recent Canadian immigrants are struggling within Canadian labour markets are based on the Canadian Labour Force Survey over seven years. While the LFS data allowed me to study labour market trends over time, I believe my conclusions would have been strengthened with access to a larger time span. In addition, using a measure of entry class, which is not provided in the dataset, would also have reinforced my findings. Hence, adding such variables to the LFS may allow for further exploration of immigration and precarious employment within Canadian labour markets.

References

- Aydemir, A. (2002). *Effects of selection criteria and economic opportunities on the characteristics of immigrants*. Ottawa: Statistics Canada.
- Aydemir, A. (2003). Effects of business cycles on the labour market assimilation of immigrants. In C. Beach & G. Alan (Eds.), *Canadian immigration policy for the 21st century*. Kingston: Queen's University Press.

- Aydermir, A., & Skuterud, M. (2005). Explaining the deteriorating entry earnings of Canada's immigrant cohorts: 1966-2000. *Canadian Journal of Economics*, 38, 641-672.
- Banerjee, R. (2009). Income growth of new immigrants in Canada: evidence from the survey of labour and income dynamics. *Relations Industrielles/Industrial Relations*, 64(3), 466-508.
- Bertrand, M., & Mullainathan, S. (2004). Association are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *The American Economic Review*, 94(4), 991-1013.
- Boyd, M., & Schellenberg, G. (2007). Re-accreditation and occupations of immigrant doctors and engineers. *Canadian Social Trends*, 84, 2-10.
- Boyd, M., & Thomas, D. (2001). Match or mismatch? The labour market performances of foreign-born engineers. *Population Research and Policy Review*, 20, 107-133.
- Boyd, M., & Thomas, D. (2002). Skilled immigrant labour: country of origin and the occupational locations of male engineers. *Canadian Studies in Population*, 29(1), 71-79.
- Citizenship and Immigration Canada. (2011). Retrieved from <http://www.cic.gc.ca/english/resources/publications/discover/DC-eng.epub>. Accessed 4 September 2017.
- Cross, P. (2010). How did the 2008-2010 recession and recovery compare with previous cycles? *Canadian Economic Observer*, Statistics Canada. <http://www.statcan.gc.ca/pub/11-010-x/2011001/part-partie3-eng.htm>. Accessed 4 September 2017.
- Ferrer, A., & Riddell, W. C. (2008). Education, credentials, and immigrant earnings. *The Canadian Journal of Economics*, 41(1), 186-216.
- Frenette, M., & Morrisette, R. (2005). Will they ever converge? Earnings of immigrant and Canadian-born workers over the last two decades. *International Migration Review*, 39(1), 228-257.
- Fudge, J., & Vosko, L. (2001). Gender, segmentation and the standard employment relationship in Canadian labour law and policy. *Economic and Industrial Democracy*, 22, 271-310.
- Gilmore, J. (2009). *The 2008 Canadian immigrant labour market: analysis of quality of employment*. Ottawa: Statistics Canada.
- Grant, T. (2013). Canada's shift to a nation of temporary workers. *Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/report-on-business/economy/jobs/canadas-shift-to-a-nation-of-temporary-workers/article11721139/>
- Houle, R. and Yassad, L. (2010). Recognition of newcomers' foreign credentials and work experience. *Perspectives* (Catalogue no. 75-001-X), 18-33. <http://www.statcan.gc.ca/pub/75-001-x/2010109/article/11342-eng.htm>. Accessed 4 September 2017.
- Kalleberg, A. (2008). Precarious work, insecure workers: employment relations in transition. In *Paper presented at the 2008 PRESIDENTIAL ADDRESS*. Chapel Hill: University of North.
- Kimmel, J., & Powell, L. (1999). Moonlighting trends and related policy issues in Canada and the United States. *Canadian Public Policy*, 25(2), 207-231.
- LaRochelle-Côté, S. & Gilmore, J. (2009). Canada's employment downturn. *Perspectives* Catalogue no. 75-001-X. Retrieved from <http://statcan.gc.ca/pub/75-001-x/2009112/pdf/11048-eng.pdf>. Accessed 4 September 2017.
- Oreopoulos, P. (2009). Why do skilled immigrants struggle in the labor market? A field experiment with six thousand resumes (No. w15036). National Bureau of Economic Research. <http://www.nber.org/papers/w15036>. Accessed 4 September 2017.
- Oreopoulos, P., & Dechief, D. (2011). *Why do some employers prefer to interview Mathew, but not Samir? New evidence from Toronto, Montreal and Vancouver*. Vancouver: Metropolis British Columbia: Center of Excellence for Research on Immigration and Diversity.
- Pandey, M., & Townsend, J. (2011). Quantifying the effects of the provincial nominee programs. *Canadian Public Policy*, 37(4), 495-512.
- Pendakur, K., & Pendakur, R. (1998). The colour of money: earnings differentials among ethnic groups in Canada. *The Canadian Journal of Economics*, 31, 518-548.
- Picot, G., & Sweetman, A. (2005). *The deteriorating economic welfare of immigrants and possible causes: update 2005*. Ottawa: Statistics Canada.
- Schellenberg, G., & Clark, C. (1996). *Temporary employment in Canada: profiles, patterns and policy considerations*. Ottawa: Centre for International Statistics at the Canadian Council on Social Development.
- StataCorp (2013). Stata Statistical Software: Release 13. College Station, TX: Statacorp LP.
- Statistics Canada (2008). Guide to the Labour Force Survey 2008 (Vol. Catalogue no. 71-543-G): Statistics Canada. Retrieved from http://publications.gc.ca/collections/collection_2008/statcan/71-543-G/71-543-GIE2008001.pdf. Accessed 4 September 2017.

- Statistics Canada (2012). Guide to the Labour Force Survey 2012 (Vol. Catalogue no. 71-543-G): Statistics Canada. Retrieved from <http://www.statcan.gc.ca/pub/71-543-g/71-543-g2012001-eng.pdf>. Accessed 4 September 2017.
- Statistics Canada (2013). Guide to the Labour Force Survey 2013 (Vol. Catalogue no. 71-543-G): Statistics Canada. Retrieved from <http://www.statcan.gc.ca/pub/71-543-g/71-543-g2013001-eng.pdf>.
- Tilly, C. (1991). Reasons for the continuing growth of part-time employment. *Monthly Labour Review* 114 no. 3 (pp. 10–18). U.S. Department of Labor, Bureau of Labor Statistics. <https://www.bls.gov/opub/mlr/1991/03/art2full.pdf>. Accessed 4 September 2017.
- Tilly, C. (1998). Part-time work: a mobilizing issue. *New Politics*, 6(4), 19–26.
- Vosko, L.F., Zukewich, N., & Cranford, C. (2003). Precarious jobs: a new typology of employment. *Perspectives on labour and income*, 15(4), 16–26.
- Wanner, R. (2013). Adjusting for the complex sample design in the Canadian Labour Force Survey using Stata. Unpublished Working Paper. Prairie Regional Data Centre.
- Worwick, C. (2004). Adaptation and inequality: children of immigrants in Canadian schools. *Canadian Journal of Economics*, 37(1), 53–77.
- Yssaad, L. (2012). *The immigrant labour force analysis series*. Ottawa: Statistics Canada.
- Zietsma, D. (2010). Immigrants working in regulated occupations. *Perspectives on Labour and Income*, 22(1), 51.