

Is Job Insecurity On The Rise? Evidence From Canadian Perception Data

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Abstract

This paper examines the unexplored issue of worker insecurity perception in Canada. Specifically, we explore for changes in worker perceptions of job security using Canadian Gallup data for the 1977-2006 period. We find that the high levels of perceived insecurity of the early to mid-1990s were only cyclical in nature, and not evidence of structural change. We also explore for differences across socio-economic groups, and find that university educated workers, full-time workers, and white-collar workers all felt relatively more secure about present and future job prospects. Interestingly, union members tend to be more concerned about job security (than non-union).

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1 Introduction

The New Economy literature has emphasized how technological change and increased international trade have changed the employer-employee relationship, resulting in a breakdown of traditional job arrangements (e.g. Autor 2003; Hacker 2006). The implication is that workers are disposable just like any other resource. While this would suggest a decrease in both job stability (i.e. a higher probability of job separations) and job security (i.e. a higher probability of involuntary job separations), the evidence does not bear this out (job stability: e.g. Brochu 2006, 2008; Heisz 2005; job security: e.g. Morissette 2004).

However, even this evidence may not tell the full story. The employer-employee relationship may have changed—even with a stable layoff rate (e.g. Hacker 2006). Morissette (2004), for example, speculates that the falling Canadian quit rate experienced since the early 1990s may in fact be a response to increased worker insecurity. Workers are now less inclined to quit due to poorer job prospects.

In this paper we examine an unexplored dimension of worker insecurity. Specifically, we look for long run changes in worker perceptions of job security using Canadian perception data. Dating back to the late 1970s, Canadian workers have been consistently asked whether their present job is safe, and whether it would be difficult to find a new job if they became unemployed. The richness of this perception data makes it possible to differentiate between cyclical and secular changes in perceived insecurity, and thus explore for changes in the employer-employee relationship along a new dimension.

Understanding changes in the perception of job insecurity is also important because of the potential impact on real economic outcomes. In a world of incomplete contracts, an increased perception of job insecurity may affect the type of human capital investment (firm-specific versus general), and be detrimental to growth (e.g. Belot *et al.* 2007). The composition of consumer spending could also be affected (e.g. Stephens 2004), as individuals in danger of suffering a job loss may purchase less in the way of big-ticket items, such as cars and houses. The wage determination process may also be affected. Workers may have less

bargaining power over wages (and other benefits) if there was an increase in the perception of job insecurity (e.g. Campbell *et al.* 2007). Finally, perception data may capture changes in the employer-employee relationship that objective data may not. A change in a firm’s “no layoff policy”, for example, could lead to heightened feelings of insecurity, and thereby reducing the level of utility for risk averse workers—even if the layoff rates did not rise ex-post.

This paper makes two contributions to the literature. It is the first paper to explore differences across groups and time in perceived job insecurity using Canadian data.¹ We can therefore determine whether group differences observed in the U.S. (e.g. Aaronson and Sullivan 1998; Schmidt 1999; Manski and Straub 2000) and in Europe (e.g. Green, Felstead and Burchell 2000; Böckerman 2004; Clark and Postel-Vinay 2008) also hold true for Canada.²

Most importantly, we address the conjecture that the labour market has changed using a fresh perspective - by focussing on perceived changes in job security. Our paper is closest to that of Aaronson and Sullivan (1998) and Schmidt (1999), in the sense that they also explore for changes in worker perceptions over the course of more than one business cycle using American GSS data (1977-1996). Our data, however, extends into the 2000s. This makes it possible to better gauge if perceived insecurity has changed following the recession of the early 1990s; particularly if the labour market was slow to fully recover—as was the case in Canada.³

We find that the high levels of perceived insecurity of the early to mid-1990s were only cyclical in nature, and not evidence of any structural change. This main finding is consistent with the findings of previous Canadian studies who used quantitative data on job stability (Heisz 2005; Brochu 2006, 2008) and layoff rates (Morissette 2004). We do find, however, some evidence of recent change for low-skilled male workers. Fears of job loss

¹The authors are aware of only two papers that have looked at perceived job insecurity in Canada. OECD (1997) compares aggregate levels of perceived insecurity across developed countries, but there is only one year of data for Canada. Williams (2003) looks at whether the threat of layoff or job loss causes stress using Canadian GSS data for 1994 and 2000.

²We can also address some of the divergent findings.

³Or if the perceptions themselves were slow to recover to pre-recession levels.

used to decline with age for these low-skilled workers, but this is no longer the case since the late 1990s.⁴ Finally, we find that university educated workers, full-time workers, and white-collar workers all feel relatively more secure about present and future job prospects. Interestingly, we also find that union members tend to be more concerned about job security than their non-union counterparts.

The remaining sections of this paper are divided as follows: Section 2 describes the two main data sets. Trends in the key variables of interest are also provided. In Section 3, we describe our empirical strategy, and discuss our results. Section 4 provides some additional exploration of change by focussing on sub-groups and sub-periods. Finally, Section 5 concludes.

2 Data

In this section, we provide an overview of the two main data sets used in this paper: Canadian Gallup Poll data (1977-2000), and Gallup International’s Voice of the People Survey data (2002-2006).

The Canadian Gallup Poll (CGP) data is gathered by Gallup Inc. - an organization that has been conducting periodic opinion polls in Canada since May 1945 (usually once per month). Each poll interviews approximately 1,000 Canadians. The CGP gathers public opinion information on such topics as politics, society and the economy. Most importantly for this study, the CGP asks respondents two job perception questions: 1) “Do you think your present job is safe, or do you think there is a chance you may become unemployed” and 2) “If you were to become unemployed, do you think you would be able to find a job fairly quickly, or do you think it might take longer”. These questions were asked in the following 15 polls: October 1977, October 1979, March 1981, March 1982, April 1985, March 1990, January 1991, August 1993, August 1994, August 1995, August 1996, August 1997, August 1998, August 1999, and August 2000.⁵ The CGP also gathers demographic,

⁴Aaronson and Sullivan (1998) and Schmidt (1999) report some evidence of structural change in the aggregate, and in particular for educated and white-collar workers.

⁵The second job perception question was not asked in the 1990 and 1991 surveys.

social, and economic characteristics including respondents' age, sex, occupation, education level, marital status, employment status and province of residence. A limitation of Gallup data, however, is the absence of industry information (i.e. it does not identify the sectoral affiliation of the employee). Nor can it identify workers who are on temporary contract, although we can identify full- and part-time status.⁶

The Canadian Gallup Poll survey with the two job perception questions was discontinued in 2000. This is problematic given the slow economic recovery which followed the recession of the early 1990s. A sufficient number of post-recession "boom" years is necessary if one is to gauge whether the labour market has truly changed.

Fortunately, Gallup International's Voice of the People End of Year Survey, which started in 2002, asks the exact same two job perception questions; even the choice of answers is identical. The Voice of the People Survey is conducted in over 100 countries by Gallup International Association (GIA), an association of 60 member agencies across the world, with the Canadian component being conducted by Leger Marketing. We focus our attention on Canadian respondents for the 2002-2006 period. It should also be noted that the Canadian component of the Voice of the People Survey is of similar size, as compared to the CGP, and also includes a similar set of socio-economic characteristics.

Starting in 2005, Gallup restricted the number of educational categories. The post secondary category now combines both university graduates and those who only attended a community college or CEGEP. Given the importance of education in the determination of labour market outcomes, we decided to restrict our regression analysis to the 1977-2004 period. We do, however use the full 1977-2006 sample period to show (unconditional) job insecurity patterns over time.⁷

As the polls do not follow individuals over time, the data are treated as repeated cross sections. We restrict our sample to paid workers aged 25 to 64. The lower age limit was imposed as to exclude students.

We first provide a comparison of our perception data with the Labour Force Survey

⁶Both issues are addressed in the next Section.

⁷The key results of no secular change are robust to the inclusion of 2005 and 2006 data.

(LFS), a more traditional source of labour data in Canada. Table 1 compares descriptive statistics from the Gallup⁸ to the LFS for the 1977-2004 period.⁹

Table 1 clearly shows that the means and standard deviations of most variables such as gender, age, region, employment status, and union membership are quite similar in the two data sets.¹⁰ Although the proportion of workers in part-time employment is slightly higher in the CGP, the more noticeable differences were in the education categories, particularly for university graduates. University graduates account for 26.2% of the CPG sample, but only 19.1% of the LFS. Although both surveys measure educational attainment, our Gallup *university* variable is more broadly defined—it includes university certificates and diplomas (the LFS variable does not). Gallup introduced a separate category for university diploma and certificate starting in 2002. This allows us to compare the mean levels for higher education using a more comparable education category; i.e. individuals with a university degree or more over the 2002-2004 period. Table 1 shows that the difference is economically insignificant. The difference is also statistically insignificant.¹¹ This finding supports our claim that the observed differences in education levels across the two surveys are the result of small differences in choice sets, and not due to a lack of representativeness of Gallup data.

Figures 1 and 2 show the job insecurity patterns over time, covering the 1977-2006 period. Figure 1 describes a worker's perceived risk of becoming unemployed, as it relates to the unemployment rate. Figure 2 describes a worker's perceived risk with respect to future employment—whether it would be difficult to find a new job if he or she were to become unemployed.

Although the figures only show unconditional (weighted) means, we believe that they

⁸For ease of terminology we use the word *Gallup* to refer to both Canadian Gallup data and Gallup International data.

⁹All means are weighted. The weights are normalized as to add up to one in each year. All subsequent estimations also rely on normalized sample weights.

¹⁰Union information is only available in the 1979-2000 Gallup, and only from 1997 onwards in the LFS. As such, 1997-2000 is the only comparable period across surveys for the *union* variable.

¹¹We used a t-test to determine whether the mean difference was statistically different from zero. The t-statistic is 1.40, and as such, one cannot reject the null hypothesis that the means are equal at the 5% level.

are revealing. First, job insecurity tends to mirror the business cycle. Job insecurity rises when the labour market worsens - as characterized by a higher national unemployment rate. This result holds true for both measures of perceived insecurity. Second, job insecurity was more pronounced in the early to mid-1990s - as compared to any other period in the sample. Insecurities about one's current job (see Figure 1) remained at historically high levels well into the late 1990s.¹² The latter finding is consistent with the perception among some labour economists that Canada experienced a "jobless recovery". Third, there is no evidence, in the aggregate at least, of an increase in perceived insecurity since the 1990s. In fact, since the late 1990s, the probability a worker feels insecure has gone back to (and even below in the latter years) levels experienced in the late 1970s.

3 Empirical Analysis

In this section we first examine how the perception of job insecurity has changed over time—once we control for confounding factors. There have been important changes in the workforce over the last 30 years, such as rising education levels, ageing of the workforce, and increased participation of women. By estimating probit models which control for compositional changes, we can better identify secular changes in perceived job insecurity. Finally, this section also explores for group differences. We want to see whether observed differences found in the U.S. (e.g. Manski and Straub 2000) and European (e.g. Böckerman 2004) literature are also present in the Canadian data.

Table 2 reports two sets of probit results.¹³ In the first set of results, i.e. columns (1) through (3), the dependent variable equals one if the worker thinks his present job is not safe. In the second set of results, i.e. columns (4) through (6), the dependent variable equals one if the worker thinks he would be not able to find a job fairly quickly if he were to become unemployed. Only the marginal effects are shown as they are the parameters of interest.¹⁴

¹²Figure 1 also shows a very steep decline starting in 1997-1998.

¹³As previously discussed, the sample is restricted to the 1977-2004 period for the regression analysis.

¹⁴We clustered the standard errors (by province and year) in all specifications that used the unemployment rate as a control variable - both in Table 2 and subsequent Tables. The fact that there are many years of

The key finding of Table 2 is that controlling for confounding factors does not alter the conclusion drawn from Figures 1 and 2.¹⁵ The recession of the early 1990s (and the slow recovery) still resulted in increased levels of insecurity. And most importantly, there is no evidence of a structural increase in perceived insecurity. The probability a worker felt insecure about his current job was only slightly higher in 1999, as compared to 1979. By 2000, job insecurity (for both measures) had fallen below levels experienced in the late 1970s, and remained this way for the remainder of the sample period.

Although cyclical in nature, the heightened insecurity of the early to mid-1990s should not be understated. For the model with a full set of controls, i.e. columns (3) in Table 2, the probability a worker feared for his or her job is 14.1 percentage points higher in 1993 than in 1979—even after having controlled for the provincial unemployment rate. This is a large increase considering that the average insecurity level in 1979 was 25.5%.¹⁶ There also remained an economically significant gap well into the 1990s—current job insecurity was still 12.8 percentage points higher in 1998 as compared to 1979.

Table 2 shows that job insecurity tends to decrease with schooling. University graduates, for example, are much less likely to feel insecure about present and future job prospects than high school dropouts. The gaps are both economically and statistically significant. These results are in accordance with the findings of the perception literature (e.g. Böckerman (2004); Manski and Straub (2000)). The results are also consistent with the findings of prior studies that rely on objective data: more educated workers tend to have better labour market outcomes, e.g. better wages (Lemieux 2006) and more stable jobs (Brochu 2008).

The age patterns match up with U.S. findings (Manski and Straub 2000). Expectations of job loss decrease with age (at least for the two older age groups), but increase with

data (and 10 provinces), generates a large number of clusters. The decision to cluster, however, does not materially affect of our findings.

¹⁵As a robustness check, we repeated our analysis for Table 2 (and all subsequent Tables) with a logit model. The results are essentially the same, and as such, confirm our qualitative findings. As an additional robustness check, we repeated our analysis using only prime aged (25 to 54) workers; the qualitative findings remain unchanged.

¹⁶This percentage point increase is large irrespective of the comparison group. For example, the predicted insecurity probability evaluated at mean of the explanatory variable is only 31.3%.

age when it comes to future job prospects.¹⁷ The steepness of the latter age profile is particularly striking. The gap between young workers, i.e. age 25 to 34, and older workers, i.e. age 55 to 64, is 24.2 percentage points.

Table 2 points to a gender difference, but only with respect to future job prospects. Women seem to be more concerned about future employment; the male-female gap is both economically and statistically significant. Green, Felstead and Burchell (2000) came to a similar conclusion using British data. Manski and Straub (2000), however, do not find such a gender difference in the U.S. data.¹⁸ Differences in sample length may account for the divergent findings. Our sample covers a 28 year period (i.e. 1977-2004), while that of Manski and Straub (2000) is much shorter: it covers only a 5 year span. Given the dramatic increases in labour force attachment of women over the last thirty years, it may be unreasonable to assume that a single gender dummy can encompass all gender differences. In the next section we thoroughly explore for gender differences by running separate regressions by gender.

The introduction of the provincial unemployment rate dampens the cyclical pattern, but leaves the key results unchanged. Schmidt (1999) came to a similar conclusion using U.S. data. The inclusion of the unemployment rate also reduces regional variations in perceived insecurity. The Atlantic and Quebec dummies in specification (6), for example, become both economically and statistically insignificant after the introduction of the unemployment rate. It should be noted that there remains some (albeit small) regional differences. Workers from Western provinces tend to feel more secure than their Ontario counterparts. For future job prospects, this difference is also statistically significant.¹⁹ It should be noted, however, that Ontario-West differences became smaller when we relied on the employment rate - an

¹⁷Some European studies (e.g. Böckerman 2004; Clark and Postel-Vinay 2008) find a u-shaped age pattern. These studies, however, rely on a measure of perceived job insecurity which captures both the chance of job loss and the consequence of job loss. See Clark and Postel-Vinay (2008) for a detailed discussion of this issue.

¹⁸Schmidt (1999) also controls for worker characteristics like gender, age and education, but she does not report the marginal effect of these controls.

¹⁹It is possible that the regional dummies are picking up some of the sectoral change which we cannot measure in our dataset.

alternative measure of labour market tightness.²⁰

In Table 3, we show probit estimates for models that include job characteristics as explanatory variables. Both specifications contain a full set of controls, i.e. categorical variables for worker characteristics (gender, age, and education) and regional and year dummies. Table 3 only shows the coefficients and standard errors for the job characteristics variables. The full set of results can be found in the Appendix.

Although most probably endogenous, we include job characteristics in our model for two reasons.²¹ One, we are the first paper to explore differences in perceived job insecurity using Canada data. As such, a detailed documentation of Canadian insecurity patterns is a necessary foundation for future work that relies on Canadian perception data. Two, the Schmidt (1999) paper includes a vector of job characteristics as controls, and we want to see whether their findings also hold in the Canadian context.

The inclusion of job characteristics as controls does not alter our key findings.²² In particular, there is still no evidence of secular change in job security perceptions. This is in contrast to Schmidt (1999) who finds a rise in perceived insecurity in the U.S. data - both in the unconditional means and also in her probit results. We believe that the choice of sample period could possibly explain the difference.²³ Although both samples start in the late 1970s, the end dates differ. Her sample ends in 1996, while ours extends into the 2000s. By having data up to 2004, we can clearly show that the heightened insecurity of the early to mid-1990s was only cyclical in nature.

The part-time and white-collar coefficients have the expected signs. Part-time workers have a much higher probability of feeling insecure, while white-collar workers, on the other

²⁰Our key findings remain unchanged if one used the the provincial employment rate (instead of the provincial unemployment rate).

²¹There will be an endogeneity problem if, for example, the job characteristics are correlated with unobserved factors that affect insecurity perceptions.

²²The inclusion of job characteristics does necessitate a more restrictive sample interval, i.e. 1979-2000. There is no union or occupation information for 1977, and changes in occupation categories introduced in 2002, make any pre- and post-2002 comparison problematic. As a robustness check we re-estimated specifications (3) and (6) of Table 2 using the more restricted sample. The exclusion of the 1977, 2002, 2003 and 2004 years does not materially affect the results. The magnitudes and signs of the coefficients are essentially the same.

²³As part of our future work, we plan to explore this hypothesis by extending the sample used by Schmidt (1999).

hand, tend to feel more secure about their present and future job prospects. These results are in line with findings of the perception literature.

Table 3 shows that union members tend to be more pessimistic about future job prospects if they were to become unemployed. Researchers that have explored other labour market outcomes have also found similar results. Displaced union workers, for example, tend to suffer larger wage declines upon re-employment than their non-union counterparts (e.g. Kuhn and Sweetman 1998). Table 3 also shows that union members are more likely to fear for their present job. This result appears counter-intuitive given that an important mandate of unions is the protection of *existing* jobs. Given that we cannot control for industry structure, it is possible that the more heavily unionized industries may also be the ones that are in decline. Riddell and Riddell (2004), however, do not find any evidence to back up this structural change explanation.²⁴ In addition, Aaronson and Sullivan (1998) also find a similar puzzling result using U.S. data—even after controlling for industry composition. Aaronson and Sullivan (1998) speculate that less secure workers may self-select into the union sector resulting in an endogeneity bias. We further discuss this issue in the next sub-section.

Finally, we address two of the data limitations identified in the previous section. Changes in sectoral composition may contribute to changes in job security perception. We cannot directly address this issue - given that we do not observe sectoral affiliation of workers. Our regional dummies, however, will capture some of this effect given the strong correlation between sectoral composition and geography in Canada. It should be noted that the job characteristic controls (e.g. sales, white-collar, part-time, and union) can directly (as a substitute), or indirectly (if the two are correlated) pick up some of the industry effects. However, their introduction does not alter our key findings.²⁵

The type of job (whether contract or permanent) also matters; perceptions of insecurity tend to be more pronounced among workers on temporary contracts (e.g. Clark and

²⁴Riddell and Riddell (2004) examined the 1984-1998 period.

²⁵The same conclusion holds when we introduced the job occupation controls sequentially.

Postel-Vinay 2008).²⁶ The type of job cannot be identified in Gallup data. However, temp agency/temporary contract jobs account for only a small proportion of all paid jobs in Canada. In 1997, the first year the Canadian Labour Force Survey identified types of jobs, temp agency/temporary contract jobs only accounted for 4.6% of the workforce 25 to 64 years of age, reaching only 5.1% by 2004.²⁷ Yet, it was over this same 1997-2004 period where present job insecurities declined dramatically, reverting back to late 1970s levels. As such, we do not believe that the type of job plays an important role in the aggregate Canadian patterns.

4 Further Exploration

In this section we further explore for group differences and secular changes by estimating probit models by sub-groups and sub-periods.

4.1 Sub-groups

Table 4 presents the probit results for both measures of job insecurity, but for men and women separately. There are a few notable differences when it comes to the perception of job loss, i.e. columns (1) and (2). Although still economically significant, the cyclical patterns of the 1990s is more muted for women. This result can also be seen in Figures 3 and 4 which plot the marginal effects by gender for present and future jobs, respectively. An important difference is in the age profiles. The male age profile mirrors that of the full sample (albeit steeper). For women, the age profile with respect to current job insecurity is essentially flat.

The human capital model can offer a possible explanation. Brochu (2008) finds a positive correlation between age and job stability. Age could therefore be seen as a proxy for job specific human capital. In such a world, firms are less inclined to layoff workers that have accumulated high levels of firm specific human capital, i.e. older workers. Women, however,

²⁶Clark and Postel-Vinay (2008) also examined the impact of employment protection laws on insecurity perceptions in Europe; their effect depended on the type of job.

²⁷The increase was also very gradual.

were much less attached to the workforce in the first half of our sample - which would introduce more noise in the age proxy. Examining a more recent sub-period, where the labour market of women is much more similar to those of men, should result in insignificant gender difference. Our examination of the 1998-2004 period confirms this hypothesis; that the gender difference in age profiles is statistically insignificant.²⁸

We estimated separate probit models for each education category.²⁹ The marginal year effects (with accompanying confidence intervals) for present and future job insecurity are plotted in Figures 5 and 6, respectively. There is no evidence of secular change in insecurity for either group.³⁰ However, less educated workers (i.e. high school or less) tended to feel more insecure during the recession of the early to mid-1990s. These heightened insecurities were also longer lasting. They were 16.5 percentage points more insecure about their present job in 1998, as compared to 1977. For the more educated categories, the gap had already become much smaller and statistically insignificant.

To better understand the union result - that present job insecurity is higher for union workers - we looked at blue and white-collar workers separately. The union marginal effect was 12.0% (and statistically significant at the 1% level) for blue-collar jobs, but only 2.6% (and statistically insignificant) for white-collar jobs. A similar type of result held when comparing high school educated workers with university graduates. Therefore, the increased insecurity of union members does not appear to be broadly based, but more focussed on low skilled and blue-collar jobs.

Finally, a note of caution must be taken when interpreting the union result. There are good reasons to believe that the union variable is in fact endogenous. Workers that are inherently less secure, for example, may be the ones that decide to join a union (i.e. worker heterogeneity). The job satisfaction literature had found a similar puzzling result—that union members were less satisfied than their non-union counterparts.³¹ Bryson, Cappellari

²⁸We estimated a probit model for the 1998-2004 period which included female-age interaction terms. We failed to reject the null hypothesis that the age profiles are the same at any reasonable level of significance.

²⁹Estimates are available upon request from the authors.

³⁰It is, however, hard to draw very precise conclusions given the size of the confidence intervals as shown in Figure 5 and 6.

³¹See Bender and Sloane (1998) and Bryson, Cappellari and Lucifora (2004) for a detailed discussion.

and Lucifora (2004) showed that accounting for worker and establishment heterogeneity made the union/non-union difference disappear. The same may hold true for our finding. Gallup data limitation, however, precludes an instrumental variable or panel approach for dealing with this endogeneity issue.

4.2 Sub-periods

There is a large body of literature suggesting that low skilled workers have fared poorly in the last 25 to 30 years (e.g. Frenette *et al.* 2007; Green and Townsend 2007). This extensive literature has tended to focus on wages (or income) as the outcome of interest. We add to this literature by focussing on perceived job insecurity. In particular, we want to see if the poor outcome of low skilled workers is also reflected in heightened job insecurity.³²

We address this issue by dividing our sample into two sub-periods, i.e. 1977-1997 and 1998-2004, and estimating probit models by gender/education groups. The year 1997 is an intuitive division point. The year dummy coefficients for the 1994-1997 period have tended to be strongly negative as in the early 1990s. This matches with the way the labour market went in that period. While we were officially out of the recession by 1993, the labour market was notoriously weak until at least 1997. In order to provide a clearer contrast, we only focus on workers with high school or less and university graduates. Tables 5 and 6 focus on present and future job insecurities, respectively.

Table 5 shows that expectations of job loss for high school educated workers decreases with age in the 1977-1997 period. This result holds for both men and women (although more muted for women). This finding, however, disappears in the more recent 1998-2004 subsample, especially for male high school educated workers. The change in profile, however, is not present for males that have graduated from university. Table 6 shows that older workers (55 to 64 years of age) have also become relatively more concerned about future employment, as compared to their younger counterparts. This result holds for both low and high skilled workers.

³²Some of our previous findings, e.g. education and gender, could be indicative of a change over time.

5 Conclusion

The examination of perceptions of job security using Gallup data has enabled us to draw the following conclusions:

We do not find any aggregate evidence of structural changes in perceived job insecurity. The high levels of perceived insecurity experienced in the early to mid-1990s were in fact only cyclical in nature. There is, however, some recent evidence of change in the age profile. For low-skilled male workers, fears of job loss used to decrease with age. This is no longer the case in the more recent sample period (1998-2004).

Some of the observed group differences found in the U.S. and European literature can also be found in the Canadian data. More educated workers, for example, tend to feel more secure about their present and future job prospects than their less educated counterparts.

Finally, we observe that job security perceptions varies by job characteristics. White-collar and full-time workers feel relatively more secure. Interestingly, union members tend to be more concerned about job security than non-union members. This last finding warrants further investigation.

Appendix

Table 7 shows the full set of results for specifications (1) and (2).

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Table 1. Summary Statistics: Means and standard deviations in brackets

Explanatory Variables	Gallup	Labour Force Survey
	1977-2004	1977-2004
<i>A. Gender</i>		
Female	0.428 (0.495)	0.431 (0.495)
<i>B. Age</i>		
25 to 34 years	0.331 (0.471)	0.327 (0.469)
35 to 44 years	0.323 (0.468)	0.318 (0.466)
45 to 54 years	0.233 (0.423)	0.241 (0.428)
55 to 64 years	0.113 (0.317)	0.114 (0.318)
<i>C. Educational Attainment</i>		
High School or less	0.525 (0.499)	0.529 (0.499)
Post Secondary (below univ.)	0.213 (0.409)	0.280 (0.449)
University	0.262 (0.440)	0.191 (0.393)
<i>D. Job Characteristics</i>		
Part-time	0.179 (0.383)	0.122 (0.327)
Union (1977-2000)	0.308 (0.462)	
Union (1997-2000)	0.286 (0.452)	0.278 (0.448)
<i>E. Regions</i>		
Atlantic	0.081 (0.273)	0.071 (0.256)
Quebec	0.251 (0.434)	0.242 (0.428)
Ontario	0.376 (0.484)	0.390 (0.488)
West	0.292 (0.455)	0.298 (0.457)
Observations	10,130	913,086
	2002-2004	2002-2004
<i>C. Educational Attainment</i>		
University degree	0.253 (0.435)	0.240 (0.427)
Observations	2,520	149,974

^aBoth samples are restricted to paid workers 25 to 64 years of age. The LFS data was restricted to the same months and years as the Gallup data.

^bAll means are weighted.

Table 2. Probit Models (Marginal effects reported); Sample - 25 to 64 year old workers (1977-2004)

Explanatory Variables	Dependent variable = 1 if you think your present job is not safe, 0 otherwise			Dependent variable = 1 if you think you would not be able to find a job fairly quickly (if became unemployed), 0 otherwise		
	(1)	(2)	(3)	(4)	(5)	(6)
Female	...	0.009	0.009	...	0.105***	0.105***
	...	(0.010)	(0.011)	...	(0.011)	(0.011)
Post Secondary (non univ.)	...	-0.022*	-0.023*	...	-0.036**	-0.038***
	...	(0.012)	(0.013)	...	(0.015)	(0.014)
University	...	-0.086***	-0.086***	...	-0.103***	-0.103***
	...	(0.011)	(0.012)	...	(0.014)	(0.015)
Age 35 to 44	...	0.005	0.005	...	0.056***	0.055***
	...	(0.012)	(0.014)	...	(0.014)	(0.015)
Age 45 to 54	...	-0.025*	-0.025*	...	0.183***	0.183***
	...	(0.013)	(0.015)	...	(0.015)	(0.018)
Age 55 to 64	...	-0.063***	-0.063***	...	0.242***	0.242***
	...	(0.016)	(0.017)	...	(0.018)	(0.023)
Atlantic	...	0.032*	-0.005	...	0.111***	0.027
	...	(0.019)	(0.026)	...	(0.021)	(0.038)
Quebec	...	0.068***	0.042**	...	0.046***	-0.009
	...	(0.013)	(0.017)	...	(0.015)	(0.028)
West	...	-0.024**	-0.023*	...	-0.054***	-0.049***
	...	(0.012)	(0.012)	...	(0.014)	(0.015)
Prov. unemp. rate (as %)	...	...	0.008**	...	...	0.020***
	...	...	(0.005)	...	...	(0.007)
D1977	0.012	0.011	0.008	-0.045	-0.060*	-0.068
	(0.033)	(0.033)	(0.019)	(0.034)	(0.035)	(0.054)
D1981	-0.028	-0.030	-0.042	-0.000	0.006	-0.024
	(0.032)	(0.032)	(0.027)	(0.035)	(0.035)	(0.064)
D1982	0.070**	0.074**	0.044	0.117***	0.145***	0.082
	(0.035)	(0.035)	(0.033)	(0.035)	(0.035)	(0.058)
D1985	-0.006	-0.003	-0.046*	0.143***	0.155***	0.054
	(0.033)	(0.033)	(0.026)	(0.033)	(0.034)	(0.059)
D1990	0.022	0.021	-0.003	...	...	...
	(0.033)	(0.033)	(0.033)	...	...	...
D1991	0.126***	0.135***	0.092**	...	...	...
	(0.034)	(0.034)	(0.036)	...	...	...
D1993	0.177***	0.191***	0.141***	0.236***	0.246***	0.149**
	(0.033)	(0.034)	(0.045)	(0.029)	(0.030)	(0.073)
D1994	0.176***	0.187***	0.146***	0.184***	0.191***	0.108*

Table 2—Continued

Explanatory Variables	Dependent variable = 1 if you think your present job is not safe, 0 otherwise			Dependent variable = 1 if you think you would not be able to find a job fairly quickly (if became unemployed), 0 otherwise		
	(1)	(2)	(3)	(4)	(5)	(6)
D1995	(0.034) 0.171***	(0.034) 0.188***	(0.038) 0.153***	(0.031) 0.201***	(0.031) 0.221***	(0.060) 0.153**
D1996	(0.034) 0.169***	(0.034) 0.186***	(0.035) 0.151***	(0.031) 0.126***	(0.031) 0.141***	(0.060) 0.069
D1997	(0.034) 0.174***	(0.034) 0.187***	(0.032) 0.162***	(0.032) 0.134***	(0.033) 0.141***	(0.058) 0.089
D1998	(0.034) 0.135***	(0.034) 0.149***	(0.034) 0.128***	(0.032) 0.080**	(0.033) 0.082**	(0.059) 0.037
D1999	(0.034) 0.057*	(0.034) 0.073**	(0.027) 0.056**	(0.033) 0.007	(0.034) 0.007	(0.055) -0.031
D2000	(0.032) -0.049*	(0.033) -0.034	(0.023) -0.045*	(0.033) -0.069**	(0.033) -0.078**	(0.056) -0.106**
D2002	(0.029) -0.027	(0.030) -0.010	(0.027) -0.020	(0.032) -0.002	(0.032) -0.004	(0.051) -0.028
D2003	(0.028) -0.020	(0.029) 0.003	(0.022) -0.007	(0.031) -0.010	(0.032) -0.002	(0.055) -0.025
D2004	(0.029) -0.001	(0.030) 0.024	(0.021) 0.015	(0.031) -0.017	(0.032) -0.014	(0.055) -0.036
Observations	(0.029) 10,005	(0.030) 10,005	(0.022) 10,005	(0.031) 8,751	(0.032) 8,751	(0.057) 8,751

^aRobust standard errors are in brackets. Standard errors in specification (3) and (6) are clustered by year and province.

^bFor specifications (1) and (4), the omitted year is 1979. For specifications (2), (3), (5) and (6), the omitted group consists of male workers aged 25 to 34 who have a high school degree or less, and live in Ontario in 1979.

^cThe 1990 and 1991 Gallup surveys did not ask respondents whether they thought they could find a job fairly quickly if they were to become unemployed.

^d* significant at 10% level, ** significant at 5% level, *** significant at 1% level (all two-tailed test).

Table 3. Probit Models (Marginal effects reported); Sample - 25 to 64 year old workers (1979-2000)

Explanatory Variables	Dependent variable = 1 if you think your present job is not safe, 0 otherwise	Dependent variable = 1 if you think you would not be able to find a job fairly quickly (if became unemployed), 0 otherwise
	(1)	(2)
Sales	-0.060*** (0.016)	-0.069*** (0.019)
White-collar	-0.089*** (0.016)	-0.100*** (0.019)
Part-time	0.175*** (0.018)	0.121*** (0.020)
Union	0.072*** (0.016)	0.123*** (0.015)
Observations	6,581	5,480

^aStandard errors are in brackets. Standard errors are clustered by year and province.

^bSpecifications (1) and (2) include a full set of controls, i.e. dummies for worker characteristics (gender, age, and education), regional dummies, the provincial unemployment rate, and year dummies. The omitted group consists of male workers who work full time in non-unionized blue collar jobs, and are 25 to 34 years of age, with a high school degree or less, living in Ontario in 1979.

^c* significant at 10% level, ** significant at 5% level, *** significant at 1% level (all two-tailed test).

Table 4. Probit Models (Marginal effects reported); Sample - 25 to 64 year old workers (1977-2004)

Explanatory Variables	Dependent variable = 1 if you think your present job is not safe, 0 otherwise				Dependent variable = 1 if you think you would not be able to find a job fairly quickly (if became unemployed), 0 otherwise			
	Male		Female		Male		Female	
	(1)	(2)	(3)	(4)	(3)	(4)	(4)	
Post Secondary (non univ.)	-0.015	(0.017)	-0.032*	(0.018)	-0.032	(0.020)	-0.048**	(0.019)
University	-0.086***	(0.017)	-0.085***	(0.015)	-0.085***	(0.019)	-0.129***	(0.021)
Age 35 to 44	-0.007	(0.018)	0.023	(0.017)	0.047**	(0.021)	0.068***	(0.017)
Age 45 to 54	-0.049**	(0.021)	0.007	(0.019)	0.177***	(0.025)	0.190***	(0.021)
Age 55 to 64	-0.088***	(0.019)	-0.024	(0.027)	0.253***	(0.032)	0.222***	(0.028)
Atlantic	-0.003	(0.034)	-0.010	(0.041)	0.031	(0.047)	0.019	(0.049)
Quebec	0.029	(0.024)	0.060**	(0.026)	0.014	(0.034)	-0.043	(0.032)
West	-0.010	(0.014)	-0.038**	(0.019)	-0.058***	(0.017)	-0.041**	(0.020)
Prov. unemp rate (as %)	0.010	(0.007)	0.008	(0.006)	0.016**	(0.008)	0.024***	(0.008)
D1977	0.032	(0.033)	-0.038	(0.054)	-0.052	(0.060)	-0.099	(0.064)
D1981	0.012	(0.035)	-0.133***	(0.031)	-0.014	(0.072)	-0.040	(0.056)
D1982	0.076*	(0.040)	-0.019	(0.044)	0.098	(0.064)	0.060	(0.056)
D1985	0.009	(0.035)	-0.140***	(0.039)	0.069	(0.070)	0.037	(0.060)
D1990	0.049	(0.046)	-0.086**	(0.037)				
D1991	0.133***	(0.049)	0.012	(0.048)				
D1993	0.179***	(0.053)	0.066	(0.063)	0.151*	(0.081)	0.150**	(0.070)
D1994	0.169***	(0.045)	0.088	(0.055)	0.102	(0.069)	0.119*	(0.060)
D1995	0.175***	(0.042)	0.099*	(0.060)	0.133	(0.081)	0.179***	(0.047)
D1996	0.131***	(0.042)	0.147***	(0.051)	0.019	(0.063)	0.134**	(0.055)
D1997	0.205***	(0.044)	0.086**	(0.042)	0.059	(0.071)	0.127**	(0.054)
D1998	0.180***	(0.032)	0.041	(0.039)	0.034	(0.064)	0.045	(0.046)
D1999	0.095***	(0.029)	-0.014	(0.035)	-0.061	(0.063)	0.015	(0.048)
D2000	-0.045	(0.034)	-0.076**	(0.037)	-0.114*	(0.059)	-0.084*	(0.049)
D2002	0.032	(0.028)	-0.099***	(0.030)	-0.034	(0.062)	-0.011	(0.049)
D2003	0.053*	(0.028)	-0.095***	(0.033)	-0.002	(0.063)	-0.040	(0.052)
D2004	0.065	(0.045)	-0.065	(0.050)	-0.033	(0.066)	-0.023	(0.048)
Observations	5,418		4,587		4,714		4,037	

^aStandard errors are in brackets. Standard errors are clustered by year and province.

^bAll Specifications include a full set of controls, i.e. dummies for worker characteristics (age and education), regional dummies, the provincial unemployment rate, and year dummies. The omitted group consists of workers who are 25 to 34 years of age, with a high school degree or less, living in Ontario in 1979.

^c* significant at 10% level, ** significant at 5% level, *** significant at 1% level (all two-tailed test).

Table 5. Probit Models (Marginal effects reported); Sample - 25 to 64 year old workers (1977-2004)

Dependent variable = 1 if you think your present job is not safe, 0 otherwise								
Explanatory Variables	Male				Female			
	1977-1997		1998-2004		1977-1997		1998-2004	
	(1)		(2)		(3)		(4)	
<i>A. High School or less</i>								
Age 35 to 44	-0.035	(0.026)	0.079	(0.055)	0.017	(0.029)	0.049	(0.048)
Age 45 to 54	-0.094***	(0.028)	0.088	(0.059)	-0.022	(0.027)	0.023	(0.047)
Age 55 to 64	-0.111***	(0.024)	-0.020	(0.054)	-0.026	(0.051)	-0.081*	(0.045)
Observations	2,024		817		1,430		738	
<i>B. University graduates</i>								
Age 35 to 44	-0.038	(0.042)	0.004	(0.040)	-0.023	(0.053)	0.041	(0.043)
Age 45 to 54	-0.105***	(0.041)	-0.091**	(0.042)	-0.023	(0.059)	0.012	(0.054)
Age 55 to 64	-0.133***	(0.047)	-0.112***	(0.039)	0.040	(0.094)	0.066	(0.073)
Observations	806		674		547		696	

^aStandard errors are in brackets. Standard errors are clustered by year and province.

^bAll Specifications include age dummies, regional dummies, the provincial unemployment rate, and year dummies. The omitted group consists of workers who are 25 to 34 years of age, living in Ontario in 1979.

^c* significant at 10% level, ** significant at 5% level, *** significant at 1% level (all two-tailed test).

Table 6. Probit Models (Marginal effects reported); Sample - 25 to 64 year old workers (1977-2004)

Dependent variable =1 if you think you would not be able to find a job fairly quickly (if became unemployed), 0 otherwise				
Explanatory Variables	Male		Female	
	1977-1997 (1)	1998-2004 (2)	1977-1997 (3)	1998-2004 (4)
<i>A. High School or less</i>				
Age 35 to 44	0.023 (0.030)	0.060 (0.050)	0.042 (0.026)	0.084** (0.040)
Age 45 to 54	0.098*** (0.034)	0.262*** (0.059)	0.143*** (0.040)	0.261*** (0.037)
Age 55 to 64	0.240*** (0.043)	0.347*** (0.059)	0.186*** (0.043)	0.299*** (0.054)
Observations	1,637	800	1,120	724
<i>B. University graduates</i>				
Age 35 to 44	0.095* (0.051)	0.041 (0.045)	0.106** (0.052)	0.075 (0.051)
Age 45 to 54	0.246*** (0.054)	0.208*** (0.053)	0.231*** (0.045)	0.175*** (0.057)
Age 55 to 64	0.167** (0.071)	0.311*** (0.078)	0.113 (0.085)	0.192*** (0.072)
Observations	653	658	447	684

^aStandard errors are in brackets. Standard errors are clustered by year and province.

^bAll Specifications include age dummies, regional dummies, the provincial unemployment rate, and year dummies. The omitted group consists of workers who are 25 to 34 years of age, living in Ontario in 1979.

^c* significant at 10% level, ** significant at 5% level, *** significant at 1% level (all two-tailed test).

Table 7. Probit Models (Marginal effects reported); Sample - 25 to 64 year old workers (1979-2000)

Explanatory Variables	Dependent variable = 1 if you think your present job is not safe, 0 otherwise		Dependent variable = 1 if you think you would not be able to find a job fairly quickly (if became unemployed), 0 otherwise	
	(1)		(2)	
Female	-0.010	(0.013)	0.110***	(0.014)
Post Secondary (non univ.)	0.008	(0.017)	-0.017	(0.017)
University	-0.046***	(0.016)	-0.064***	(0.021)
Age 35 to 44	0.013	(0.017)	0.052***	(0.020)
Age 45 to 54	-0.024	(0.018)	0.184***	(0.022)
Age 55 to 64	-0.066***	(0.020)	0.228***	(0.029)
Atlantic	-0.011	(0.029)	0.063	(0.043)
Quebec	0.029	(0.020)	-0.023	(0.038)
West	-0.026*	(0.015)	-0.073***	(0.019)
Sales	-0.060***	(0.016)	-0.069***	(0.019)
White-collar	-0.089***	(0.016)	-0.100***	(0.019)
Part-time	0.175***	(0.018)	0.121***	(0.020)
Union	0.072***	(0.016)	0.123***	(0.015)
Prov. unemp rate (as %)	0.008	(0.006)	0.015*	(0.008)
D1981	-0.052**	(0.025)	-0.016	(0.072)
D1982	0.034	(0.028)	0.091	(0.060)
D1985	-0.041	(0.030)	0.090	(0.062)
D1990	0.010	(0.036)		
D1991	0.107***	(0.040)		
D1993	0.166***	(0.049)	0.188***	(0.071)
D1994	0.160***	(0.040)	0.134**	(0.064)
D1995	0.153***	(0.038)	0.185***	(0.064)
D1996	0.142***	(0.035)	0.088	(0.062)
D1997	0.179***	(0.033)	0.126**	(0.060)
D1998	0.139***	(0.031)	0.055	(0.058)
D1999	0.067***	(0.023)	-0.023	(0.062)
D2000	-0.035	(0.029)	-0.093	(0.056)
Observations	6,581		5,480	

^aStandard errors are in brackets. Standard errors are clustered by year and province.

^bThe omitted group consists of male workers who work full time in non-unionized blue collar jobs, and are 25 to 34 years of age, with a high school degree or less, living in Ontario in 1979.

^c* significant at 10% level, ** significant at 5% level (two-tailed test), *** significant at 1% level (all two-tailed test).

Figure 1: Perception of Job Insecurity

Existing Job

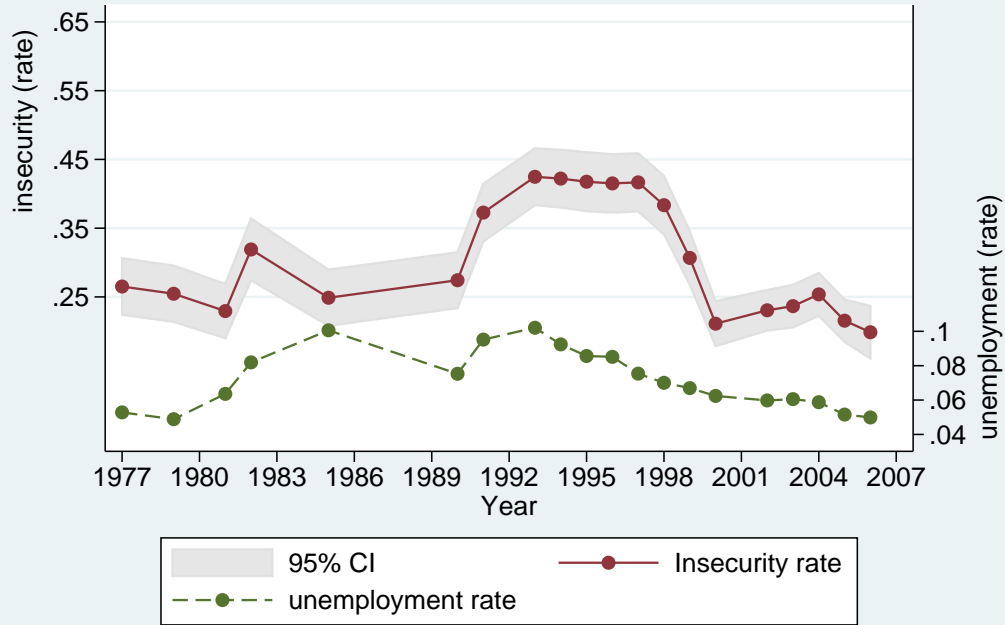


Figure 2: Perception of Job Insecurity

Finding a New Job

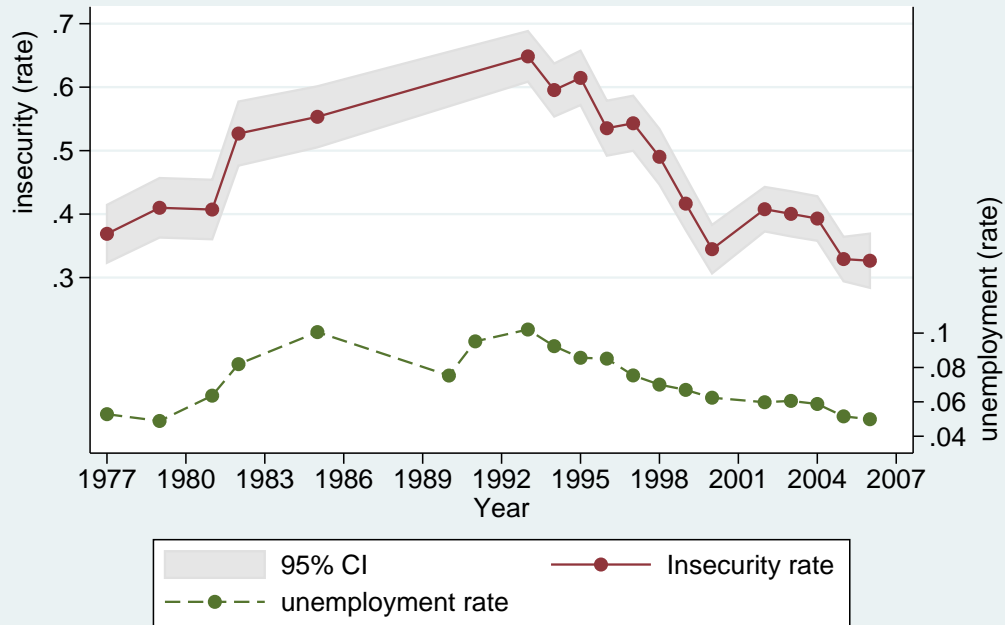


Figure 3: Perception of Job Insecurity
Existing Job

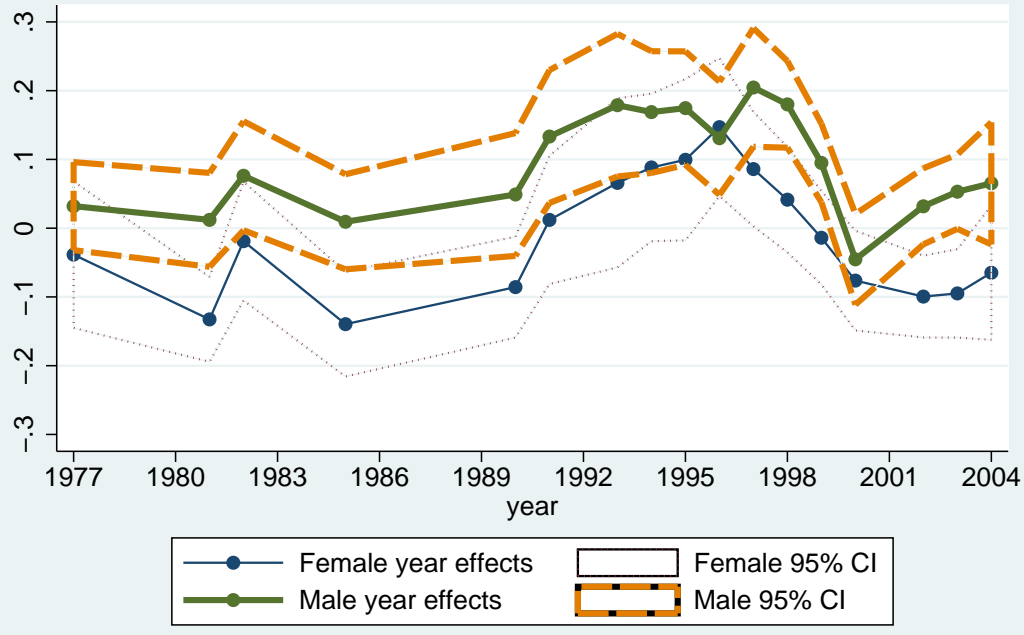


Figure 4: Perception of Job Insecurity
Finding a New Job

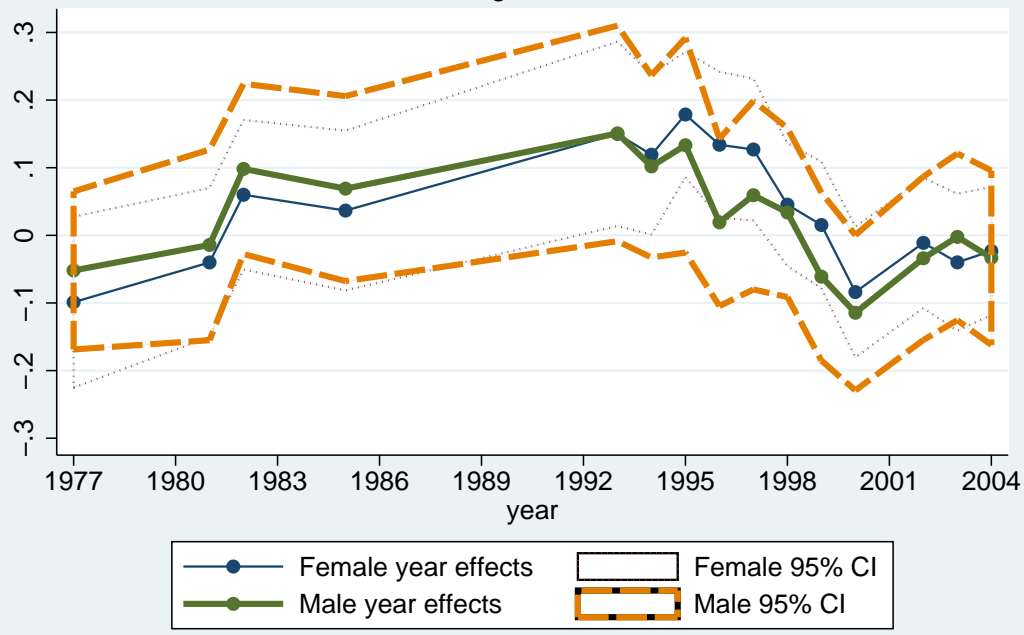


Figure 5: Perception of Job Insecurity
Existing Job

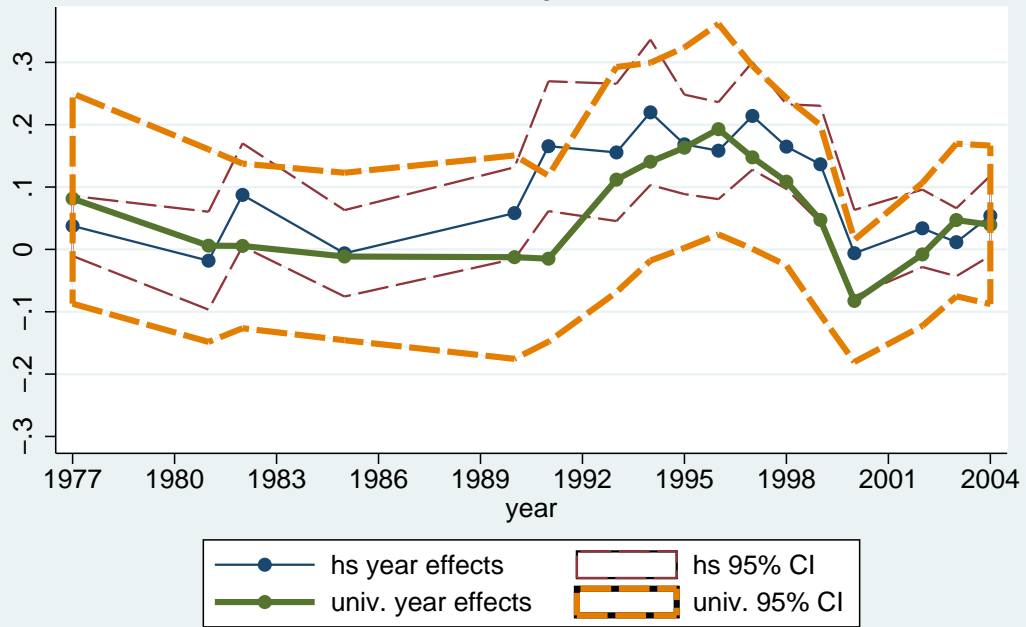


Figure 6: Perception of Job Insecurity
Finding a New Job

