UI

Seasonal Employment and the Repeat Use of Unemployment Insurance

by Lesle Wesa

Human Resources Development Canada
Développement des ressources humaines Canada

UI Impacts on Worker Behaviour

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Unemployment Insurance Evaluation Series

Human Resources Development Canada (HRDC), in its policies and programs, is committed to assisting all Canadians in their efforts to live contributing and rewarding lives and to promote a fair and safe workplace, a competitive labour market with equitable access to work, and a strong learning culture.

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As part of this program of evaluative research, the Department has developed a major series of studies contributing to an overall evaluation of UI Regular Benefits. These studies involved the best available subject-matter experts from seven Canadian universities, the private sector and Departmental evaluation staff. Although each study represented a stand alone analysis examining specific UI topics, they are all rooted in a common analytical framework. The collective wisdom provides the single most important source of evaluation research on unemployment insurance ever undertaken in Canada and constitutes a major reference.

The Unemployment Insurance Evaluation Series makes the findings of these studies available to inform public discussion on an important part of Canada's social security system.

I.H. Midgley
Director General
Evaluation Branch

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Abstract

This paper compares the HRDC definition of high frequency claimants — 3 spells in the last five years, with an alternate definition which identifies high frequency claimants according to their behaviour over a longer timeframe (11 or more spells and 7–10 spells in 21 years). It estimates the share of claimants who repeatedly draw UI by gender, age group, region, and industry though time, according to each definition. Each confirms that men are more likely to be high frequency claimants than women, the Atlantic region and Quebec have larger high frequency shares than the Central and Western regions; and primary industries, construction, transportation, education, and government services have above average high frequency shares.

New data allowed the estimation of high frequency shares by age group and at two-digit SIC industry levels. The analysis indicated that the high frequency share does not vary by age among male claimants but, in the case of females, claimants in older age groups are more inclined to be high frequency claimants. Detailed industry data revealed the very large high frequency shares in some component industries. In logging, fishing, forestry services, and quarries and sand pits, more than 70 percent of claimants over 1976–92 were high frequency according to the HRDC definition. Detailed data also highlighted those industries that differed from their aggregate category. Manufacturing is not generally considered a high frequency industry, yet food, tobacco, non-metal mineral products, paper and allied and wood manufactures have high frequency shares greater than 50 percent.

Longitudinal analysis provides evidence of an increase of 25.9 percent in the high frequency share from recession to recession (1982–1990). Industries were ranked by the increase in their high frequency share over the period. A simple accounting model was used to decompose the change in the national share into three components — that due to a shifting distribution of total claimants between provinces, that due to shifting industrial distribution of claimants within provinces, and that due to increases in industry-specific high frequency shares. The latter contributed 16.9 percentage points to the total 25.9 percent increase.

Introduction

A component study of the evaluation of UI regular benefits, *State Dependence and Unemployment Insurance*[1], examined changes in the propensity of individuals to start a UI spell through time. Among their findings, Thomas Lemieux and W. Bentley MacLeod observed that between 1972 and 1992, 31 percent of claimants had only one UI spell, which accounted for 8 percent of all spells while 7 percent of claimants with 11 or more spells accounted for 22 percent of all UI spells. Furthermore, they found that the fraction of recipients who repeatedly use UI significantly increased over time.

For policy purposes, HRDC defines high frequency users as claimants with three or more claims in five years.

Their findings related only to men, were not differentiated by industry or age, and made only minimal reference to region. A by-product of their analysis, however, was a database which, despite its not being used in their research, did identify high frequency claimants by gender, industry affiliation, age group, and region of residence. Given proposals to reform UI by targeting claimants according to their frequency of use and given the special concerns of seasonal industries, it was considered useful to take advantage of the existing database and recompute statistics on repeat use for specific segments of the population.

For policy purposes, HRDC defines high frequency users as claimants with three or more claims in five years. Lemieux and MacLeod examine a longer timeframe and identify high frequency claimants as those experiencing 11 or more spells in 21 years. They further distinguish claimants as being moderately high frequency (7–10 spells) and low frequency (4–6 spells and 1–3 spells). The objective of this paper is to confirm whether the Lemieux and MacLeod definition substantiates findings with respect to repeat use by gender, age, region, and industry using the HRDC definition.

We wish also to extend the information available on high frequency users by examining their share of spells at detailed (2-digit SIC) industry levels, specifically for male and female claimants by industry, and for industry-specific provincial claimants. Not only will the paper examine the level of high frequency shares for particular groups of claimants but also changes in those shares over time.

The data allow disaggregation of the HRDC high frequency claimants into four claimant categories as defined by Lemieux and MacLeod. In this way, we can separate those frequent claimants who remain persistently in this category from those who are occasional high frequency claimants. The latter group periodically incur difficult times and are compelled to draw UI whereas the former are more likely to be seasonal claimants who draw UI quite routinely.

Finally, the paper will decompose the change in the national share of high frequency claimants over the period 1982 to 1990 to determine whether the aggregate change is due to change in industry-specific high frequency claimant shares or whether these have remained reasonably constant and the aggregate change arises simply from shifts in the distribution of claimants between high and low frequency industries or provinces. A rough assignment of industries to seasonal and non-seasonal categories permits the decomposition to differentiate these sectors.

1 See Lemieux and MacLeod (1995).

1. Data and Methodology

UI administrative data from the Status Vector file (10 percent sample of all UI claims) was combined with the T4 supplementary file of HRDC. For each individual having experienced at least one UI spell during 1972 to 1992, a longitudinal history of UI and labour income recipience was compiled for the 21-year period.

Two population samples were considered. The Lemieux and MacLeod definition required observation of individuals over the full period in order to classify them with respect to frequency. Hence, a *fixed sample* of individuals born between 1931 and 1956 was used. This sample covers persons who were potential labour force members each year during 1972–92 and estimation of the share of high frequency claimants would be unaffected by people flowing into and out of the sample.

The second sample was an *evolving* subset of individuals aged 25 years and over. This sample would be more representative of the total economy but would be influenced by persons leaving and joining the labour market. Only individuals over 25 were selected as they would have at least five years of work history on which to base the HRDC definition.

The share of high frequency claimants was computed according to each definition for the fixed sample and according to the HRDC definition for the evolving sample. The analysis was primarily descriptive wherein the high frequency claimant shares were compared for particular sectors of the population and through time. The final section of this paper has adopted a simple accounting methodology to decompose change in the national high frequency share.

2. Share of High Frequency Claimants in UI Spells at the Aggregate Level

During the period 1981–1992, 46.8 percent of UI spells experienced by persons 25 years or older were held by high frequency claimants according to the HRDC definition (i.e. three spells in five years). The fixed sample indicates a similar percentage (45.3 percent).

The Lemieux and MacLeod classification applied to the fixed sample indicates 24.2 percent as high frequency claimants and an additional 22.8 percent as moderately high frequency claimants.

Table 1
Percentage Distribution of Spells by Claimant Frequency, 1981–1992

	Evolving Sample	Fixed Sample
HRDC Definition		
1–2 spells over 5 years	53.2	54.7
3+ spells over 5 years	46.8	45.3
Lemieux and MacLeod Definition		
1–3 spells in 21 years		27.8
4–6 spells in 21 years		25.1
7–10 spells in 21 years		22.8
11+ spells in 21 years		24.3

Of the Lemieux and MacLeod categories, those with 11 or more spells in 21 years represent claimants who rely repeatedly on UI for income support. They often average well over the 11 spell minimum necessary to belong to this category and in some cases they draw UI almost routinely year after year. This group would be indicative of seasonal claimants. The bulk of these claimants would also be classified as high frequency claimants by the HRDC definition.

Table 2
Reclassification of HRDC High Frequency Claimants According to the Lemieux and MacLeod Categories, Fixed Sample, 1981–1992

	Claimants with 3+ Spells in 5 years
1–3 spells in 21 years	1.0
4–6 spells in 21 years	7.8
7–10 spells in 21 years	14.3
11+ spells in 21 years	22.2
Total	45.3

Of the moderately high frequency Lemieux and MacLeod claimants (7–10 spells in 21 years), the concentration of the spells through time will determine whether they appear in the HRDC high frequency claimant category. These claimants flow between categories — sometimes occasional (1–2 spells in 5 years) and sometimes frequent (3+ spells). Other investigations have shown this "transient" group as being about 25 percent of claimants.

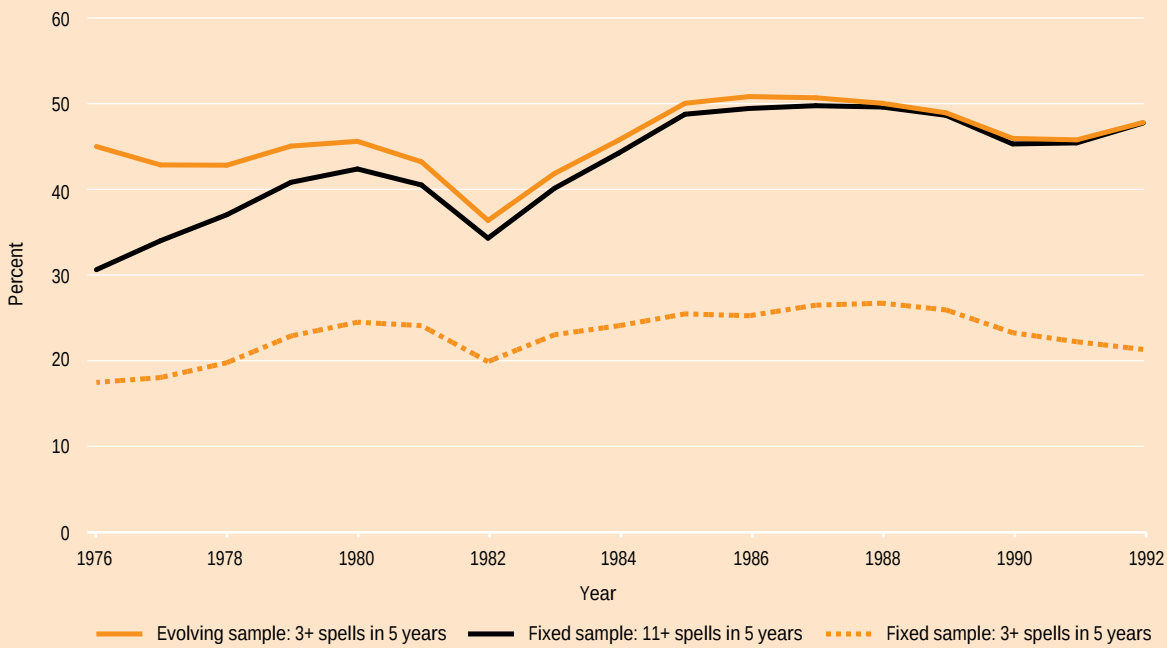
Lemieux and MacLeod claimants with 4–6 spells or 1–3 spells during 21 years may also be classified either as HRDC occasional claimants or as HRDC high frequency claimants, depending on the time distribution of the spells. These claimants are less likely to belong to seasonal jobs than those in the other two categories.

3. Longitudinal Analysis of High Frequency Claimant Share

Figure 1 traces the share of high frequency claimants through time according to the two definitions and the two samples. Using the HRDC definition, it can be seen that the share of frequent claimants in the fixed sample provides a good estimate of their share in the more representative evolving sample from 1981 forward. The discrepancy over 1976–1980 can be attributed to the inclusion of young claimants (20–24 years) in the fixed sample but their absence in the evolving sample.

Regardless of definition or sample, the share of frequent claimants exhibits evidence of the business cycle. During recessionary years (1982 and 1990), occasional claimants account for more UI spells and a dip in the high frequency share is observed.

Figure 1
Share of High Frequency Claimants in Annual UI Spells, Two Definitions, Two Samples

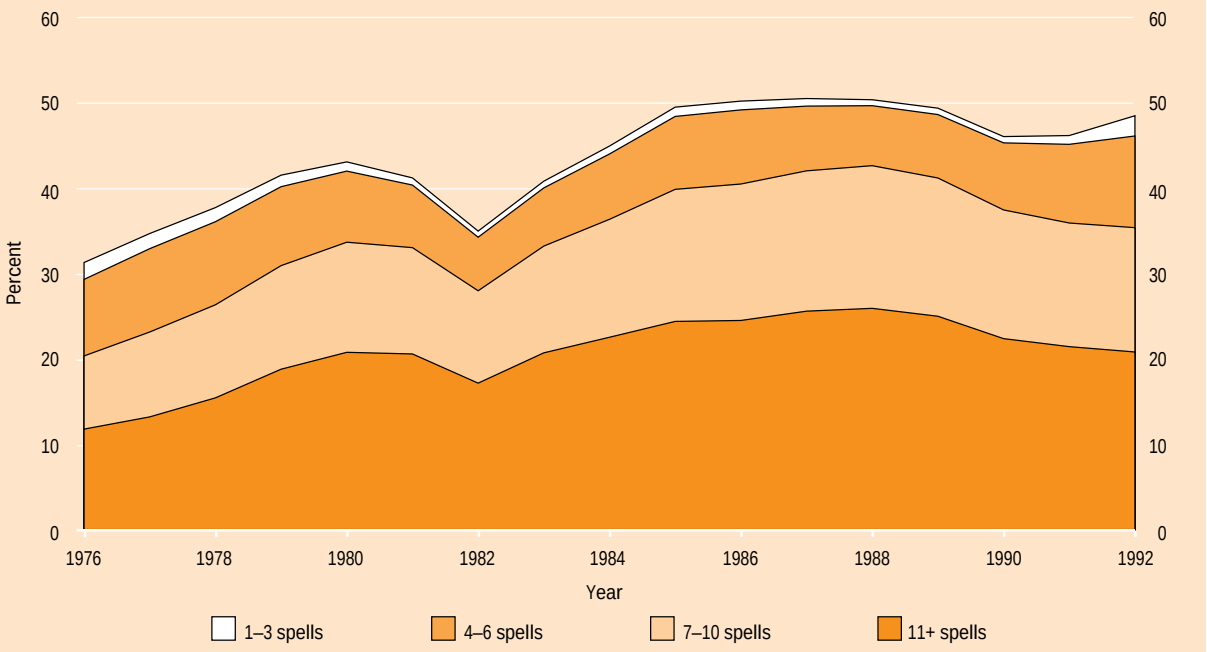


As measured from trough to trough, the share of HRDC high frequency claimants has increased by about 10 percentage points in the case of both the evolving and the fixed samples. The share of Lemieux and MacLeod frequent claimants (those who persistently turn to UI) had also increased from 1982 to 1990, however, by a smaller amount — 3.3 percent.

Figure 2 focuses on those claimants in the fixed sample identified as high frequency claimants by the HRDC definition to discover trends in the component categories, as defined by the Lemieux and MacLeod definition. During the period 1982–1990, the share of habitual frequent claimants (11+ spells in 21 years), of

intermittent high frequency claimants (7–10 spells), and of rarely high frequency claimants (4–6 claims) each increased as a proportion of annual claimants. During the early nineties, individuals with 4–6 spells and with 1–3 spells continued to push up the HRDC high frequency claimant share. The proportion of HRDC high frequency claimants with a record of 3 spells within five years increased from 0.7 percent in 1990 to 2.3 percent in 1992. These correspond to individuals (36 to 61 years of age) who have not had a UI spell since 1972 but who are, in the 1990s, experiencing three spells within the space of 5 years.

Figure 2
HRDC High Frequency Claimants Reclassified over Lemieux and MacLeod Categories, Fixed Sample



High Frequency Claimants by Gender

Both samples and definitions maintain earlier findings that men have a greater tendency to be high frequency claimants than women. Using the HRDC definition, 52 percent of men in the evolving sample were high frequency claimants during 1981–1992 while 39 percent of women were high frequency claimants. Use of the Lemieux and MacLeod definition identifies 30 percent of male claimants as high frequency claimants (11+ spells in 21 years) and an additional 25 percent as moderately high frequency claimants (7–10 spells). Among female claimants, the corresponding proportions are 16 and 20 percent.

Table 3
Percentage Distribution of Spells by Claimant Frequency, by Gender
1981–1992

	Evolving Sample		Fixed Sample	
	Men	Women	Men	Women
HRDC Definition				
1–2 spells over 5 years	48.0	61.4	49.2	62.6
3+ spells over 5 years	52.0	38.6	50.8	37.3
Lemieux and MacLeod Definition				
1–3 spells in 21 years	—	—	21.9	36.4
4–6 spells in 21 years	—	—	23.0	28.3
7–10 spells in 21 years	—	—	24.8	19.8
11+ spells in 21 years	—	—	30.3	15.5

Figures 3a and 3b indicate that the distribution of annual UI spells between high- and low-frequency claimants fluctuates with the business cycle for men but is much less cyclically-sensitive for women. As measured from trough to trough (1982 to 1990), the share of high frequency claimants (HRDC definition) has increased 11 percent for men and by 13 percent for women. The share of frequent claimants (Lemieux and MacLeod definition) has increased for men by 8 percent, but has decreased for women.

Figure 3a
Share of High Frequency Claimants in Annual UI Spells, Two Definitions, Men

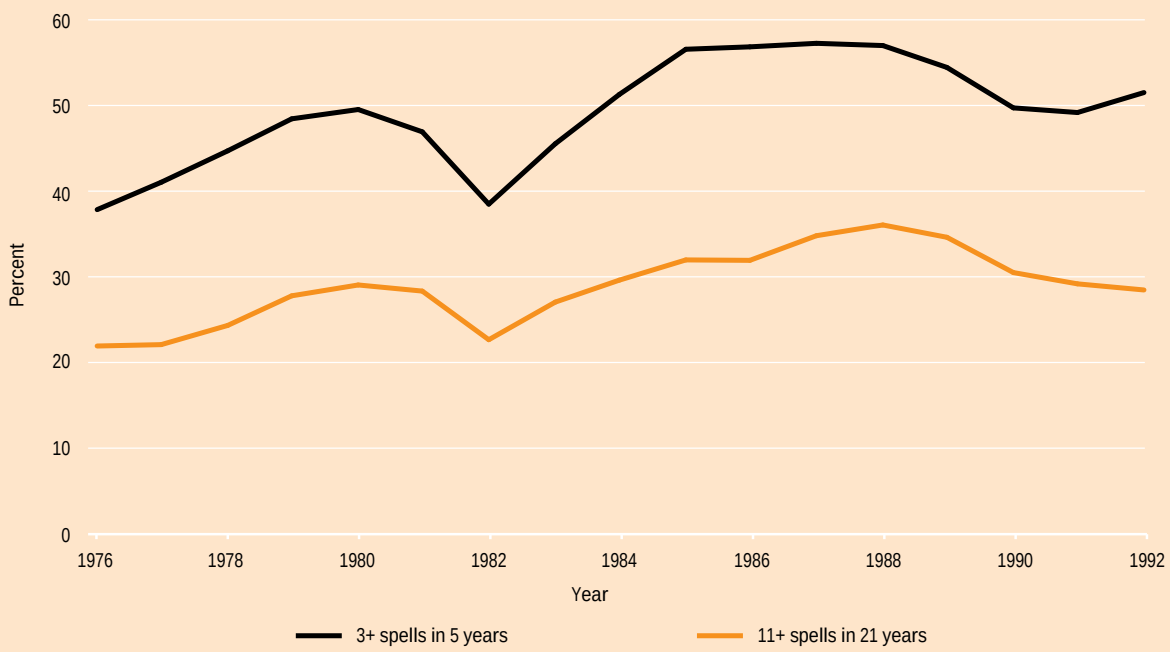
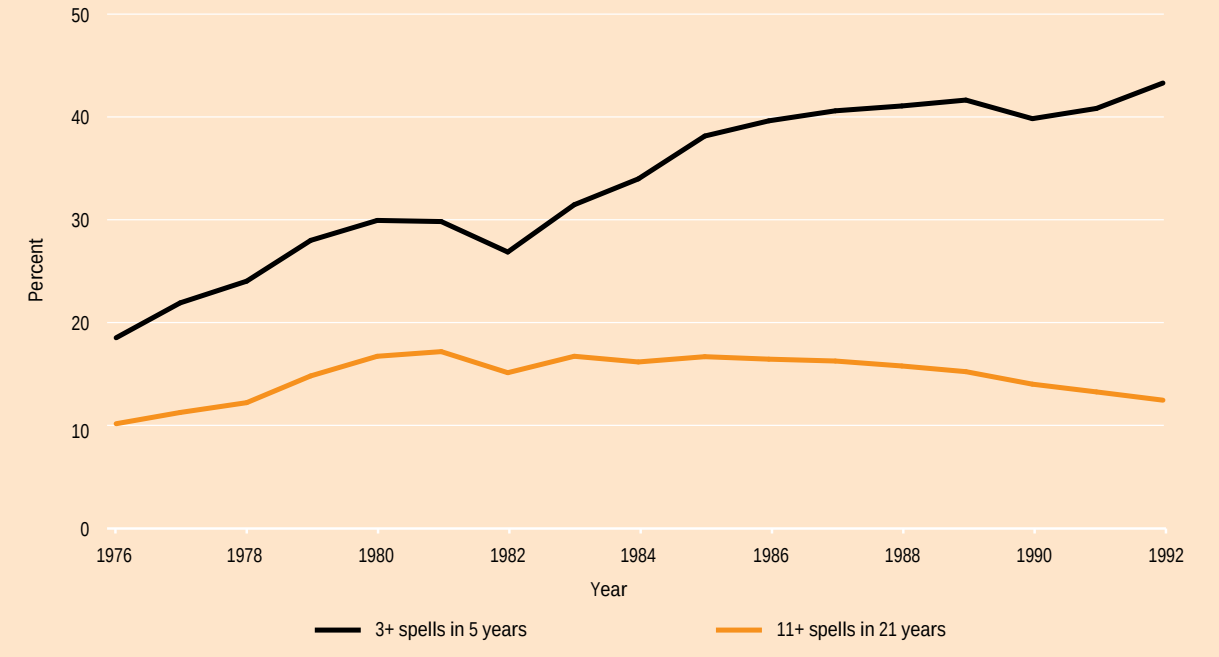


Figure 3b
Share of High Frequency Claimants in Annual UI Spells, Two Definitions, Women



Figures 4a and 4b indicate the differences in the distribution of HRDC frequent claimants over the Lemieux and MacLeod categories as between men and women. Habitual high frequency claimants assume a larger share for men than for women (28 percent versus 14 percent during 1981 to 1992). The intermittent (transient) frequent claimants (7–10 and 4–6 spells) have been driving up the share of high frequency claimants most notably among women. The percentage of female claimants with very limited exposure to UI over the twenty-one year period (4–6 spells) and finding themselves with 3 or more concentrated spells increased from 9 percent in the late 1980s to 14 percent in the early 1990s. Similarly, women with no exposure to UI during their 21-year work history but finding themselves with a case of 3 spells in five years averaged 1 percent of female claimants in the 1980s but this increased to 3 percent by 1992.

Share of High Frequency Claimants by Age

Individuals under 25 years of age have a lower share of high frequency claimants (HRDC definition) than older age groups. This follows simply from the fact that many claimants within this category do not have five years of work experience in which to incur the three UI spells. They were thus omitted from the age comparison of high frequency claimant shares.

Figure 4a
Distribution of HRDC High Frequency Claimants over Lemieux and MacLeod Categories, Men

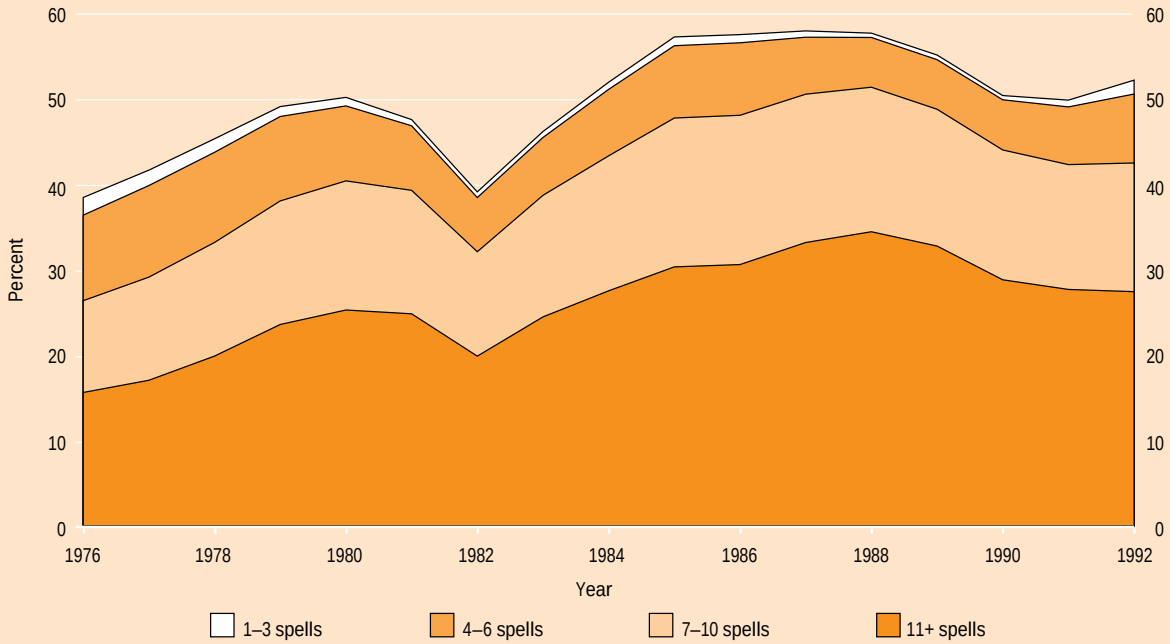


Figure 4b
Distribution of HRDC High Frequency Claimants over Lemieux and MacLeod Categories, Women

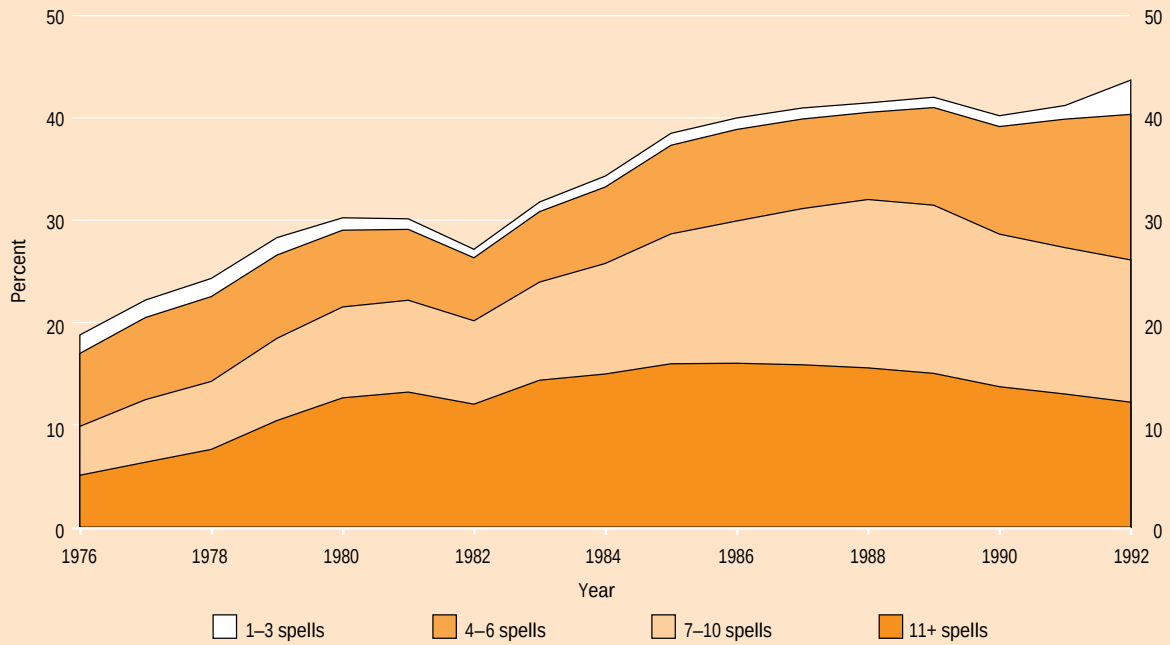
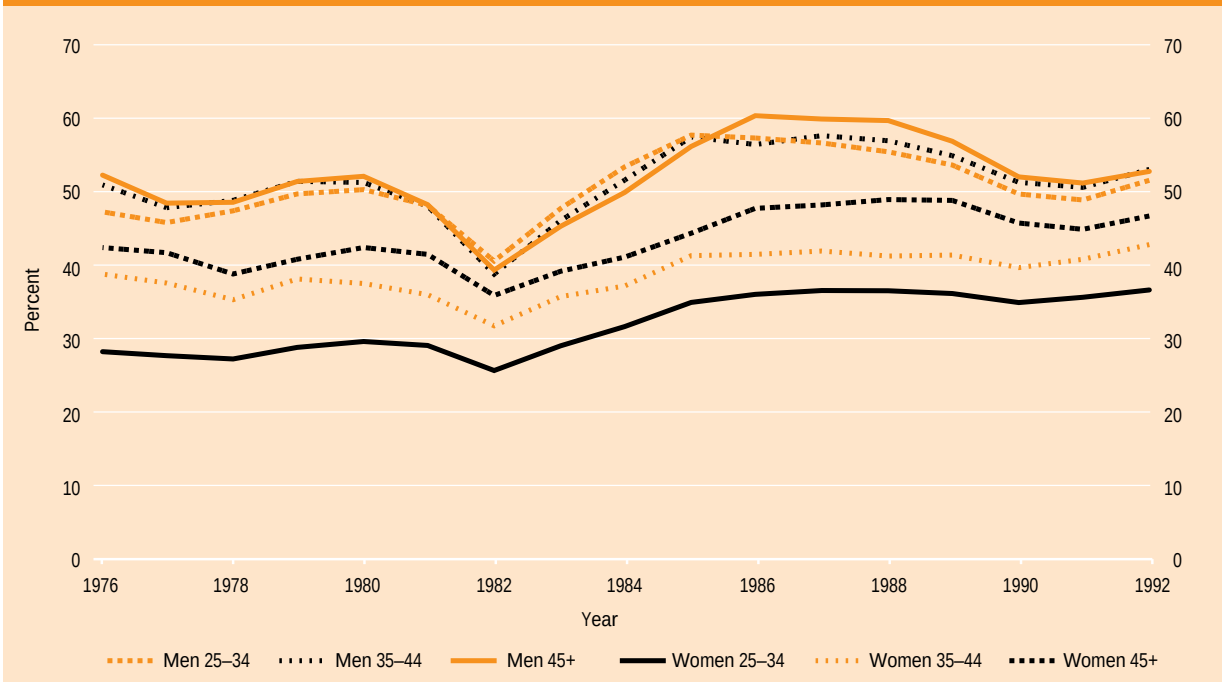


Table 4 indicates that the share of high frequency claimants was invariant for three specified age groups for male claimants. The results were quite different for women, however. The share of high frequency claimants increased noticeably with age for female claimants — ranging from 33 percent for women 25–34 years to 44 percent for women over 45 years. The relative ranking of high frequency claimant shares was approximately maintained for male and female age groups in each of the years from 1976 to 1992 (Figure 5).

Table 4
Share of UI Spells Assumed by High Frequency Claimants by Age and Gender, HRDC Definition, Evolving Sample, 1976–1992

Age Group	Men	Women
25–34	51.0	33.0
35–44	51.6	39.6
45+	52.0	44.2

Figure 5
Share of High Frequency Claimants inAnnual Spells, by Gender and Age



Findings by Region

There is substantial variation in the share of high frequency claimants between regions. Regions ranked in descending order of their share of frequent claimants in total UI spells during the 1976 to 1992 period are: Atlantic, Quebec, British Columbia, Ontario, and the Prairies.

This ranking has not been consistent over the period as shown in Figure 6. Most notably, the share of frequent claimants has followed an upward path between the two most recent recessions (1982 and 1990) in all regions except Ontario. The proportion of high frequency claimants in that province in 1990 was approximately equal to that of 1982 — giving it the lowest share during the early 1990s.

The share of frequent claimants has been compared for selected industries from province to province in Table 5. The evidence suggests that it is not simply a difference in industry weighting that generates differences in aggregate provincial frequency claimant shares. Identical industries have quite different shares of high frequency claimants from region to region.

Figure 6
Share of High Frequency Claimants by Region

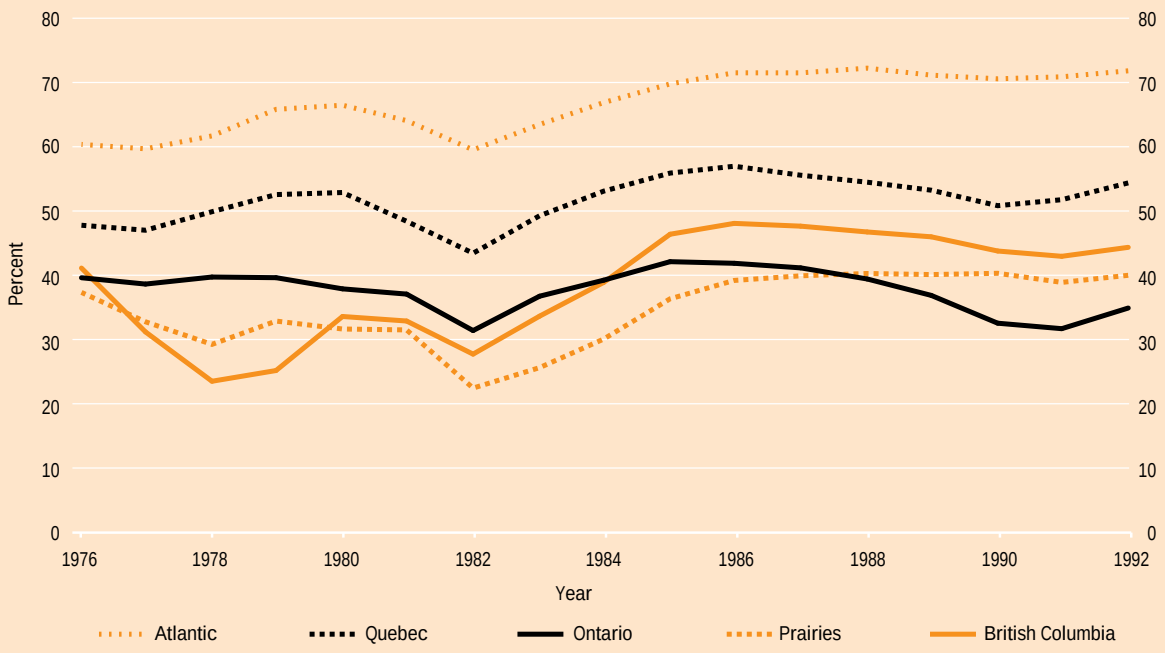


Table 5
Share of Spells Assumed by High Frequency Claimants, Selected Industries, by Region, HRDC Definition, Evolving Sample, 1976–1992

Industry	Atlantic	Quebec	Ontario	Prairies	British Columbia
Logging	87.8	85.8	67.4		68.2
Fishing & Trapping	82.2	87.0	70.2		63.7
Ind & Heavy Construction	84.8	80.4	71.6	62.2	61.7
Education	64.3	60.9	48.0	41.7	43.3
Transport Equipment & Manufacturing	59.4	45.3	38.2	30.8	44.5

Share of High Frequency Claimants by Industry

In general, primary industries and construction had the greatest concentration of high frequency claimants from 1976 to 1992, as indicated in Table 6. Education, government, transportation and storage, although having shares more than 10 percentage points lower, also had a share of high frequency claimants exceeding the average of all industries. Manufacturing, finance, insurance, services and trade witnessed greater concentrations of occasional claimants.

The Lemieux and MacLeod and the HRDC definitions agree with respect to the ranking of industries with the notable exception of education. The HRDC definition, with its emphasis on recent UI experience, places education higher on the high frequency scale than the Lemieux and MacLeod definition with its emphasis on UI experience over the longer term. Details are examined in Appendix A, Table A.1.

Disaggregation to the level of 2-digit SIC industries discloses differences in component industries. Other Primary Industries record a substantial 61 percent of claimants as being high frequency, but disaggregation reveals still higher ratios, in excess of 70 percent, in logging, fishing, forestry services, quarries and sand pits. More than half the claimants in these sectors had 11 or more spells in a 21 year period. By contrast, primary industries including mining, petroleum and natural gas, had high frequency shares below the national average.

The four industries comprising construction all had high frequency shares in excess of the overall average but here too, analysis at the detailed level reveals extremes in the constituent industries. The high frequency category was comprised of 70 percent of claimants in industrial and heavy construction. Among government services, it is at the provincial level that the share of high frequency claimants is highest at 54 percent.

Table 6
Aggregate Industries Ranked by Share of High Frequency Claimants, Two Definitions of High Frequency Claimants, Fixed Sample, 1976–1992

	Lemieux and MacLeod Definition		HRDC Definition	
Industry	Rank	Share	Rank	Share
Construction	2	41.9	1	62.4
Other Primary	1	43.2	2	61.1
Agriculture	3	36.0	3	59.3
Education	6	23.0	4	49.8
Government	4	26.9	5	48.0
Transportation & Storage	5	26.0	6	47.3
Manufacturing	7	20.5	7	40.1
FIRE	8	16.5	8	33.0
Services	9	13.3	9	32.5
Trade	10	11.0	10	26.8

By the same token, sectors not considered to have a high proportion of repeaters in the aggregate have subsectors where frequent claimants congregate. Manufacturing generally has fewer frequent claimants but food, tobacco, non-metal mineral products, paper and allied, and wood manufacturing — those associated with the primary sector — have more than half of their claimants draw UI recurringly. Among services, amusement and recreation claimants are also disproportionately more reliant on UI. High frequency claimants in accommodation services, though less than average, still number 39 percent of the total.

The share of frequent claimants among women was 33.8 percent compared to 48.7 percent for men (HRDC definition and fixed sample from 1976 to 1992). Fewer female claimants derive from construction and primary industries (with the exception of agriculture), and transportation. They are more inclined toward services, retail, and certain manufacturing. Those industries with a large share of high frequency claimants and in which women are heavily employed include food manufacturing, education, provincial government services, and accommodation services. Men typically have larger high frequency claimant shares by industry than women, except in the case of food, tobacco, beverage, and clothing manufacturing, education, food and beverage wholesale trade and food and beverage services.

Change in High Frequency Claimant Share by Industry

Table A.3 (Appendix A) ranks industries according to the percentage change in the frequent claimant share among male and female claimants during the period between the two most recent recessions, 1982 to 1990. Of the 76 two-digit SIC industries, all but ten witnessed an increase in their share. About one-third had percentage increases in excess of 10 percent — of which transportation and industrial and heavy construction are particularly significant given the already high high frequency share in 1982 and the size of these industries with respect to male employment. The increase in health and social services (10.1 percent), education (16.2), federal government service (11.1 percent), and clothing manufacturing (11.6 percent) are significant among industries which employ large numbers of women.

Cases where there was a decline in the share of high frequency claimants and which are a source of a large number of claimants include transportation equipment manufacturing for men and deposit accepting intermediaries for both men and women.

Figures B.1 to B.18 (Appendix B) indicate the evolution of high frequency shares during 1976 to 1992, according to the HRDC definition (for both the fixed sample and the changing sample) and according to the Lemieux and MacLeod definition (for the fixed sample only). They support the growth rates appearing in Table A.3. Developments in the intervening years are quite different among industries. Evidence of the business cycle is pronounced in mining, construction, transportation and manufacturing. In education, health and social services, government, and accommodation services the high frequency share has pursued a more steady upward trend.

4. Decomposition of Change in the National Share of High Frequency Claimants

Although the number of claimants increased in all regions between the 1982 and the 1990 recessions, the percentage increases were the largest in the Atlantic provinces and Quebec.

The share of high frequency claimants[2] in Canada increased from 36.7 percent to 46.3 percent over the period between the two most recent recessions, 1982 to 1990. This represents a 25.9 percent increase in the ratio. Preceding sections have ranked individual industries by their increase in frequency share but a large increase does not necessarily imply that industry has generated the dramatic increase at the national level. A large increase in a very small industry will have very little impact at the aggregate level. An industry with a less extreme increase but with a heavier weight will have more impact at the national level.

At the same time, there may be an industry with absolutely no change in its share of high frequency claimants. Yet if the total number of claims in that industry is growing relative to all industries, the net result will be to move the Canadian average share of frequent claimants closer to the ratio of frequent claimants to total claimants in that particular industry. To illustrate, the high frequency share of fishing and trapping in Newfoundland changed very little during 1982 to 1990, but as workers left the industry, fishing's share of total Newfoundland claimants decreased. Consequently, despite effectively no change in the high frequency share within fishing and trapping, the diminished total number of claimants in that industry implied a negative impact on the high frequency share for the country as a whole.

In addition to the change in individual industry high frequency share and in the weight of that industry in provincial claimants, there occurred shifts in the distribution of claimants between provinces. Economic conditions vary as between provinces with consequences for the general level of claimants. Assuming no change in industry-specific frequent share and no change in industry distribution of claimants within provinces, an increased weight of one province relative to all others in total claimants will cause the high frequency share at the national level to shift toward the high frequency share of that particular province.

The contribution of change in industry-specific high frequency shares, the contribution of change in the distribution of claimants across industries within a given province and, the contribution of change in the provincial allocation of claimants to the 25.9 percent increase in the Canadian high frequency share between 1982 and 1990 will be assessed later in this section. At the same time, the analysis will allow identification of those industries which have contributed most to the 25.9 percent increase. These will not necessarily coincide with the industries ranking high in Table A.3 since industry high frequency shares will be adjusted for their significance in the total picture.

The change in the Canadian high frequency share between 1982 and 1990 will be decomposed into three components using a simple accounting procedure. The methodology does not attribute cause and effect. It only attempts to tie together the various shifts observed in earlier sections of the paper by assigning a careful system of weights to reflect the importance of the various shifts.

2 In the remainder of the paper, high frequency claimants are defined as having 3 or more UI spells in the last 5 years and cover individuals 25 years and over.

The approach is based on the following identity, expressing the national high frequency share as the sum, over all industries and regions, of the product of the industry-specific frequency share, the industry's share of all claimants in the province, and the province's share of all claimants in Canada. That is:

$$\frac{R}{C} = \sum_i \sum_r \frac{R_{ir}}{C_{ir}} \frac{C_{ir}}{C_r} \frac{C_r}{C} \qquad \textbf{(1)}$$

where,

R = the number of high frequency claimants in Canada

C = the number of claimants in Canada

R_{ir} = the number of high frequency claimants in industry i and region r

C_{ir} = the number of claimants in industry i and region r.

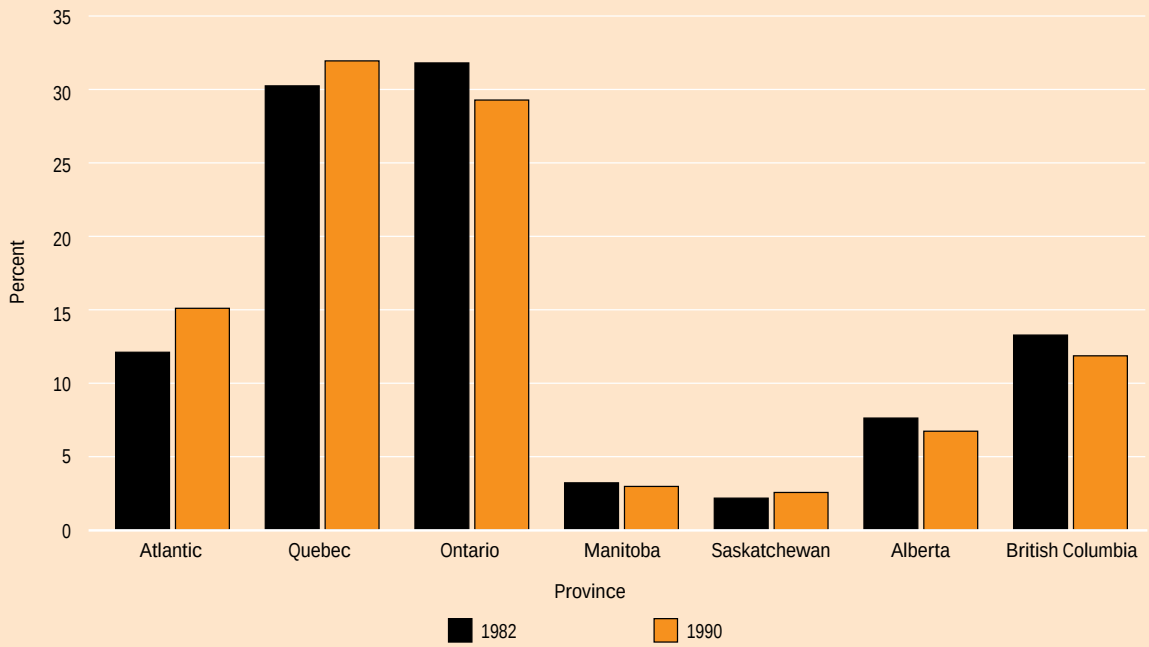
To estimate the contribution of each of the three components to overall growth in the high frequency share, it is necessary to find the appropriate weight for each. This can be done by applying a Taylor's expansion to equation (1). After some rearrangement of terms and conversion from actual to relative changes, the change in the ratio can be attributed as indicated in (2).

$$\begin{aligned}
\frac{\hat{R}}{C} = {} & \sum_i \sum_r \frac{\hat{C}_r}{C} \frac{R_{ir}}{R} \left(1 + \tfrac{1}{2} \left(\frac{\hat{C}_{ir}}{C_r} + \frac{\hat{R}_{ir}}{C_{ir}} \right) + \tfrac{1}{3} \left(\frac{\hat{C}_{ir}}{C_r} \frac{\hat{R}_{ir}}{C_{ir}} \right) \right) \\
& + \sum_i \sum_r \frac{\hat{C}_{ir}}{C_r} \frac{R_{ir}}{R} \left(1 + \tfrac{1}{2} \left(\frac{\hat{R}_{ir}}{C_{ir}} + \frac{\hat{C}_r}{C} \right) + \tfrac{1}{3} \left(\frac{\hat{R}_{ir}}{C_{ir}} \frac{\hat{C}_r}{C} \right) \right) \\
& + \sum_i \sum_r \frac{\hat{R}_{ir}}{C_{ir}} \frac{R_{ir}}{R} \left(1 + \tfrac{1}{2} \left(\frac{\hat{C}_{ir}}{C_r} + \frac{\hat{C}_r}{C} \right) + \tfrac{1}{3} \left(\frac{\hat{C}_{ir}}{C_r} \frac{\hat{C}_r}{C} \right) \right)
\end{aligned} \qquad \textbf{(2)}$$

Although the number of claimants increased in all regions between the 1982 and the 1990 recessions, the percentage increases were the largest in the Atlantic provinces and Quebec. This implied a shift in the regional distribution of claimants toward the eastern provinces (Figure 7) — provinces with traditionally larger high frequency shares. In the absence of any other change, proportionately more claimants in these provinces would push up the aggregate Canadian share of high frequency claimants. The first term on the right side of equation (2) indicates the impact of shifts in the interregional distribution of claimants on the national high frequency share.

Major shifts also occurred in the dispersion of claimants over industries within regions. The pattern was uniform for some industries, with a decreasing share of claimants associated with manufacturing in all regions but an increasing share in government, education and services. For other industries, primary and construction for example, the shifts were mixed. (Figures B.19 through B.25) The second term in equation (2) indicates the impact of shifts in the intra-regional distribution of claimants on the national high frequency share.

Figure 7
Regional Distribution of UI Claimants



Finally, changes in province and industry-specific high frequency shares were observed in Table A.3. Certain changes were dramatic but the size of the industry was such that the change had very little impact on the national ratio. Other changes were less striking but the size of the industry was considerable, rendering them more important. The third term indicates the impact of increases (and decreases) in specific high frequency shares.

Results of the decomposition analysis indicate that of the 25.9 percent increase in the share of high frequency claimants (over 25 years of age) between 1980 and 1992, 3.3 percentage points arose simply because the total number of claimants increased more in the Maritime provinces and Quebec than in the central and western provinces. A further 5.7 percentage points emanated from shifts in the industrial distribution of claimants within provinces. That is, on balance, more claimants (irrespective of whether they were repeaters or not) were drawn from industries with large high frequency shares. The remaining 16.9 percentage points (two-thirds of the total) occurred as a result of increases in industry-specific frequency shares.

The analysis allows disaggregation of the components by industry. Table A.4 provides another ranking of 2-digit SIC industries, this time according to their contribution to the national increase in the high frequency share over 1982–1990. The table lists the top 40 industry- and province-specific contributors (out of 488). To illustrate its interpretation, consider food manufacturing in the Atlantic region. This industry contributed 1.17 percentage points to the Canadian increase of 25.9 percent. The general increase in Atlantic claimants implied a corresponding increase in

food manufacturing claimants with a consequent increase in the national high frequency share of 0.7 percentage points. Furthermore, there was a shift toward more claimants from this industry (relative to all Atlantic industries) causing an additional increase of 0.2 percent. The high frequency share in Atlantic food manufacturing increased by 9 percent yielding another 0.27 percentage points. Some of the results in Table A.4 could have been anticipated by earlier findings but some are quite surprising.

Seasonal industries contributed about two-thirds to the increase in the national high frequency share.

Construction in Quebec was among the major forces in the increase in the aggregate high frequency share. This occurred despite a 3 percent *decline* in the high frequency share in trade contracting and a 1.5 percent *decline* in building, developing and general construction. The high frequency share in Quebec construction was already well above the national average and the slight decline in the ratio was inconsequential relative to the substantial increase in the number of claimants (both high and low frequency) associated with construction.

Education in Quebec played the second largest role. The general increase in Quebec claimants as compared to other parts of the country, the increase in the share of Quebec claimants derived from the education sector, and the increase in the high frequency share among education claimants contributed 0.16, 0.72, and 0.60 percentage points respectively to the 25.9 percent increase in Canada. Education in each region was a critical factor in the overall increase in the high frequency share. Seven of the 40 industries appearing in Table A.4 relate to education.

Provincial and territorial government services was another industry which contributed in a major way in several regions. They number 4 out of the highest ranking 50 industries. Of the non-eastern industries, transportation in Ontario, logging in British Columbia, services to mining in Alberta, and trade contracting and agriculture in British Columbia also had a leading impact on the change in the national high frequency share.

Industries were roughly grouped into seasonal and non-seasonal categories. Primary industries, construction, transportation, education, accommodation services, and amusement and recreation services are typically identified as seasonal and consequently the results of the decomposition exercise were combined for these industries. The remainder were considered non-seasonal. Not all claimants in the "seasonal" industries consider themselves seasonal workers and, at the same time, there are many claimants in non-seasonal industries who do consider themselves seasonal. Nevertheless, the approximate assignment of industries to these categories does allow further insight into the change in the national high frequency share.

Seasonal industries, defined as described above, contributed about two-thirds to the increase in the national high frequency share (17.4 percent seasonal versus 8.5 percent non-seasonal). The difference did not arise from an increase in the high frequency share in individual industries, however. The share of high frequency claimants increased among both seasonal and non-seasonal industries in all provinces except Ontario. Overall, seasonal and non-seasonal industry high frequency shares increased so as to lead to roughly the same contribution to the national level, 8.1 and 8.7 percentage points respectively as indicated in Table 7.

Table 7
Contribution of Seasonal and Non-Seasonal Industries to the Change in the Share of High Frequency UI Claimants in Canada, 1982–1990

	Contribution Due to:			
Industry Type	Regional Redistribution of Claimants (C_p / C)	Industrial Redistribution of Claimants (C_{ip} / C_p)	Change in Industry-Specific High Frequency Shares (R_{ip} / C_{ip})	Total
Non-seasonal	2.32	-2.60	8.74	8.46
Seasonal	1.00	8.29	8.15	17.44
Total	3.32	5.69	16.89	25.90

The impetus for the differing impact of seasonal and non-seasonal industries came from the greater proportion of all claimants coming from seasonal industries. With relatively more seasonal claimants (typically having a larger high frequency share), the national high frequency share was nudged upward. Shifting industry distribution of claimants toward seasonal industries contributed 8.29 percentage points. On the other hand, the share of non-seasonal industry claimants declined. Since non-seasonal industries have a lower high frequency share, the moderating influence of non-seasonal industries on the aggregate was mitigated.

Redistribution of total claimants across the country generated a small positive net effect from both seasonal and non-seasonal industries.

5. Conclusion

Longitudinal data displayed an increase in the high frequency share from recession to recession (1982 and 1990).

In general, application of an alternate definition of high frequency claimants based on a longer timeframe supports findings derived using the HRDC definition of high frequency claimants based on 3 or more spells in 5 years. Men are more likely to repeatedly rely on UI than women; the share of high frequency claimants is sensitive to the business cycle, decreasing in recessions and increasing during expansions; the Atlantic region and Quebec have larger high frequency shares than the central and western regions; and primary industries, construction, transportation, education, and government services have above average high frequency shares.

Disaggregation of HRDC frequent claimants into four component categories based on the Lemieux-MacLeod definition, i.e. habitual high frequency claimants (11 or more spells in 21 years), intermittent or transient high frequency claimants (7–10 spells), and seldom high frequency claimants (4–6 spells and 1–3 spells), lends insight to the HRDC definition. The distribution of the four categories over the 1981 to 1992 period was 49 percent, 32 percent, 17 percent and 2 percent, respectively. The share of habitual claimants is much higher for men than for women. Intermittent and seldom claimants have been increasing the female high frequency share in the early 1990s. Women who never had a UI spell in their 21-year work history but who had a severe bout of 3 spells within 5 years increased from 1 to 3 percent between the eighties and the nineties. Women with some previous exposure (4–6 spells) and who had a concentrated stretch of 3 spells in 5 years increased from 9 percent in the 1980s to 14 percent in the early 1990s.

New data allowed estimation of high frequency shares by age group. They indicated that the high frequency share does not vary by age among male claimants. In the case of females, however, claimants in older age groups are more inclined to be frequent claimants.

Detailed industry data indicated very large high frequency shares in some component industries. In logging, fishing, forestry services, quarries and sand pits, more than 70 percent of claimants from 1976 to 1992 were high frequency according to the HRDC definition. More than 50 percent had in excess of 11 spells in 21 years. Detailed data also indicated those industries that differed from their aggregate category. Manufacturing is not generally considered a high frequency industry yet, food, tobacco, non-metal mineral products, paper and allied and wood manufactures have high frequency shares greater than 50 percent.

Longitudinal data displayed an increase in the high frequency share from recession to recession (1982 and 1990). For men, the share increased by 11 percentage points and for women by 13 percentage points (HRDC definition). All regions exhibited an increase with the exception of Ontario. Out of 76 detailed industries, 66 showed evidence of an increase. Table A.3 ranked 2-digit industries by their increase in frequency share.

The overall high frequency share increased by 25.9 percent from 1982 to 1990. Just because an industry ranked high in Table A.3 (i.e. had a very large increase in its high frequency share) does not imply that industry was inordinately responsible for the increase in the frequency share at the national level. The weight of

claimants in that industry among all claimants was a determining factor. An industry with only a moderate increase in an already large high frequency share and with a significant number of claimants may have had a much larger impact on the change in the aggregate high frequency share. A simple accounting model was used to tie all the information of the preceding sections together. Of the 25.9 percent increase, 3.3 percentage points were due to a shifting distribution of total claimants between provinces, 5.7 percentage points were due to shifting industrial distribution of claimants within provinces, and 16.9 percentage points were due to increases in industry-specific high frequency shares. Those industries contributing most included construction in Quebec and the Atlantic, education in Quebec, Ontario and in fact all provinces, and provincial government services in the East. Approximate assignment of claimants to seasonal and non-seasonal industries has shown that increases in the high frequency shares of each industry group have contributed about the same to the national increase in the high frequency share. A tendency for more total claimants to derive from seasonal industries has, however, been an important force in increasing the national high frequency share.

Appendix A: Selected Industries by Share of High Frequency Claimants — Tables

Table A.1
Detailed Industries Ranked by Share of High Frequency Claimants, Two Definitions of High Frequency Claimants, Fixed Sample — 1976–1992

	Lemieux and MacLeod Definition		HRDC Definition	
Industry	Rank	Share	Rank	Share
Logging	2	59.2	1	75.4
Fishing & Trapping	1	62.3	2	75.2
Forestry Services	4	52.1	3	74.2
Quarry & Sand Pit	5	50.3	4	70.2
Ind & Heavy Constr	3	52.1	5	70.1
Trade Contracting	9	38.5	6	60.3
Agriculture	11	36.5	7	60.0
Bldg, Dev & Gen Contr	8	39.3	8	59.6
Food Manuf	6	44.0	9	58.8
Tobacco Manuf	7	40.7	10	55.3
Prov & Terr Govt Serv	12	34.7	11	54.5
Non-Met Min Pr Manuf	13	32.9	12	54.4
Serv to Agric	15	31.1	13	53.3
Paper & Allied	10	36.7	14	52.6
Wood Manuf	14	32.1	15	52.3
Transportation	16	29.2	16	50.6
Amusement & Recr Ser	19	24.2	17	50.0
Education	21	23.0	18	49.8
Serv Incidental to Mining	23	22.5	19	49.3
Services Incid to Constr	18	25.8	20	46.4
Local Govt Service	22	22.6	21	46.3
Storage & Warehousing	24	22.2	22	45.1
Other Utility	25	20.4	23	44.7
Farm Products, Wholesale	17	26.4	24	44.4
Transport Equip Manuf	36	13.8	25	39.3
Accommodation Service	30	18.1	26	39.0
Federal Govt Service	32	17.3	27	38.8
Food, Bev, Tob, Wholesale	20	23.7	28	38.2
Other Serv	31	17.3	29	37.6
Deposit Accepting Intermed	27	19.1	30	36.8
Fabricated Metal	35	16.2	31	36.3
Beverage Manuf	39	12.4	32	36.1
Other Products, Wholesale	26	20.1	33	35.7
Mining	33	17.1	34	35.0
Leather Products	47	10.4	35	34.8
Clothing Manuf	42	12.0	36	34.5
Metals, Hardw, Wholesale	34	16.5	37	34.1
Investment Intermediary	29	18.5	38	33.6
Membership Org	37	13.1	39	33.0
Machinery Manuf	48	9.8	40	32.2

Table A.1 *(continued)*
Detailed Industries Ranked by Share of High Frequency Claimants, Two Definitions of High Frequency Claimants, Fixed Sample — 1976–1992

	Lemieux and MacLeod Definition		HRDC Definition	
Industry	Rank	Share	Rank	Share
Petrol Prod, Wholesale	41	12.3	41	32.0
Non-store Retail	56	7.9	42	30.7
Ref Petr & Coal Prod	28	18.8	43	30.3
Food & Beverage Service	38	12.5	44	30.3
Business Service	44	11.3	45	29.6
Personal & Hshld Serv	43	12.0	46	29.3
Real Estate Operator	40	12.3	47	29.3
Other Retail Store	45	11.1	48	29.2
Auto Veh, Sales & Serv	46	10.6	49	28.6
Other Manuf Ind	51	9.4	50	28.3
Furniture & Fixtures	52	9.3	51	28.3
Chem & Chem Pr Manuf	53	9.0	52	26.2
Plastic Products	62	5.7	53	25.6
Primary Metal	57	7.5	54	24.8
Pipeline Trnsp	54	8.7	55	24.7
Primary Textiles	60	6.5	56	24.6
Textile Products	64	5.5	57	24.6
Food, Bev, Drug, Retail	50	9.5	58	24.3
Petroleum & Nat Gas	49	9.6	59	24.2
Health & Social Serv	59	6.7	60	24.1
Furniture, Appl, Retail	58	6.9	61	23.9
Rubber Prod Manuf	68	4.6	62	23.0
Communication	67	5.2	63	21.7
Shoe, Apparel, Retail	63	5.6	64	21.6
Apparel, Wholesale	65	5.5	65	21.0
Electrical Prod Manuf	70	4.5	66	20.8
Printing & Publishing	72	3.9	67	20.8
Mach, Equip, Wholesale	61	6.4	68	20.7
Motor Veh Parts, Wholesale	69	4.5	69	20.2
Gen Retail Merchandising	55	7.9	70	19.4
Hshld Goods, Wholesale	66	5.4	71	18.8
Cons & Bus Fin Intermed	71	4.1	72	17.2
Intern & Other Govt Service	74	2.8	73	16.7
Ins & Real Estate Agent	73	2.9	74	13.6
Insurance	76	1.6	75	12.3
Other Financial Intermed	75	1.7	76	10.0

Table A.2
Share of High Frequency Claimants Among Male and Female Claimants, Selected Industries — HRDC Definition, Fixed Sample, 1976–1992

	Men		Women	
Industry	Share	Weight in all Spells	Share	Weight in all Spells
Logging	76.6	2.60	52.3	0.22
Fishing & Trapping	77.4	0.54	72.2	0.58
Forestry Services	76.8	0.22	63.5	0.08
Quarry & Sand Pit	71.6	0.40	51.6	0.05
Ind & Heavy Constr	71.2	5.80	40.6	0.36
Trade Contracting	61.8	12.26	31.7	1.03
Agriculture	61.3	1.45	58.5	1.99
Bldg, Dev & Gen Contr	61.5	5.50	30.8	0.56
Food Manuf	54.1	2.29	62.3	4.87
Tobacco Manuf	43.4	0.04	65.7	0.07
Prov & Terr Govt Serv	63.3	3.94	42.0	4.27
Non-Met Min Pr Manuf	57.3	1.54	30.4	0.28
Serv to Agric	57.5	0.17	48.1	0.21
Paper & Allied	55.6	2.34	33.5	0.56
Wood Manuf	54.3	2.93	35.1	0.52
Transportation	51.9	5.45	46.6	2.49
Amusement & Recr Ser	53.1	1.14	46.8	1.66
Education	45.0	2.24	51.2	11.37
Serv Incidental to Mining	50.9	0.84	28.9	0.10
Services Incid to Constr	54.3	0.10	23.7	0.05
Local Govt Service	52.9	1.85	33.0	1.39
Storage & Warehousing	47.7	0.14	36.3	0.06
Other Utility	48.6	0.56	32.9	0.28
Farm Products, Wholesale	45.3	0.14	42.8	0.12
Transport Equip Manuf	40.9	4.28	30.0	1.14
Accommodation Service	42.3	1.08	37.4	3.48
Federal Govt Service	42.3	2.27	34.8	2.94
Food, Bev, Tob, Wholesale	35.6	0.61	40.7	0.99
Other Serv	45.7	2.75	26.9	3.19
Deposit Accepting Intermed	47.5	3.43	25.1	4.84
Fabricated Metal	38.8	2.48	25.1	0.76
Beverage Manuf	35.0	0.25	38.7	0.15
Mining	36.1	1.39	23.0	0.20
Clothing Manuf	30.4	0.49	35.3	4.09
Metals, Hardw, Wholesale	38.4	1.09	18.4	0.45
Investment Intermediary	41.0	0.74	24.6	0.93
Membership Org	37.9	0.41	30.1	1.06
Food & Beverage Service	28.8	1.80	31.0	5.56
Business Service	34.6	3.42	24.0	4.68
Personal & Hshld Serv	36.4	0.38	27.0	1.77
Other Retail Store	35.8	0.87	24.6	1.86
Food, Bev, Drug, Retail	27.3	0.89	22.8	2.68
Health & Social Serv	31.9	1.07	22.4	7.68
Shoe, Apparel, Retail	23.2	0.29	21.2	1.87
Gen Retail Merchandising	21.6	0.62	18.5	2.45

Table A.3
Percentage Change in the Share of High Frequency Claimants between 1982 and 1990 — Selected Industries — HRDC Definition, Evolving Sample

	Men		Women		High Frequency Share Exceed
Industry	Rank	% Change	Rank	% Change	Average
Serv Incidental to Mining	3	34.4	4	23.9	yes
Investment Intermediary	4	32.9	2	33.5	
Mining	6	25.0	23	10.4	
Non-Met Min Pr Manuf	8	20.5	54	3.5	yes
Health & Social Serv	9	17.7	24	10.1	
Other Products, Wholesale	10	16.6	63	-3.5	
Transportation	11	16.5	21	11.1	yes
Local Govt Service	12	15.1	22	10.6	yes
Quarry & Sand Pit	13	14.3	6	23.1	yes
Food Manuf	16	13.2	39	6.0	yes
Fabricated Metal	17	11.8	57	2.3	
Education	18	11.4	9	16.2	yes
Ind & Heavy Constr	22	10.9	10	16	yes
Mach, Equip, Wholesale	23	10.4	55	3.0	
Real Estate Operator	24	10.1	45	5.4	
Chemical and Prod Manuf	25	9.8	66	-4.4	
Machinery Manuf	26	9.5	19	11.4	
Primary Metal	27	9.4	3	26.5	
Logging	28	8.6	8	16.6	yes
Bldg, Dev & Gen Contr	29	8.4	30	8.4	yes
Accommodation Service	30	8.3	26	9.7	
Furniture, Appl, Retail	31	8.3	29	8.5	
Serv to Agric	32	8.3	15	12.6	
Other Manuf Ind	33	8.0	41	5.8	
Other Utility	34	7.9	5	23.3	
Federal Govt Service	35	7.8	20	11.1	
Metals, Hardw, Wholesale	36	7.7	35	6.9	
Agriculture	39	7.1	69	-8.6	yes
Wood Manuf	40	6.9	11	15.7	yes
Auto Veh, Sales & Serv	41	6.9	27	9.3	
Business Service	43	6.2	28	9.0	
Trade Contracting	44	4.9	42	5.7	yes
Other Retail Store	46	4.6	47	5.1	
Food, Bev, Drug, Retail	47	4.6	34	7.0	
Personal & Hshld Serv	48	4.2	18	11.3	
Plastic Products	49	4.0	58	2.1	
Food, Bev, Tob, Wholesale	50	4.0	68	-6.6	
Communication	51	3.9	32	7.3	
Clothing Manuf	52	3.2	17	11.6	
Membership Org	53	2.9	16	11.7	
Forestry Services	54	2.7	25	9.8	yes

Table A.3 *(cont.)*
Percentage Change in the Share of High Frequency Claimants between 1982 and 1990 — Selected Industries — HRDC Definition, Evolving Sample

	Men		Women		High Frequency Share Exceed
Industry	Rank	% Change	Rank	% Change	Average
Prov & Terr Govt Serv	55	2.7	36	6.7	yes
Other Serv	56	2.4	56	2.9	
Food & Beverage Service	57	2.3	33	7.1	
Fishing & Trapping	58	2.3	67	-6.4	yes
Amusement & Recr Serv	59	1.9	48	4.7	yes
Electrical Prod Manuf	60	1.5	53	3.6	
Paper & Allied	61	0.9	14	13.5	yes
Motor Veh Parts, Wholesale	62	0.5	62	-2.3	
Primary Textiles	63	0.2	50	4.5	
Ins & Real Estate Agent	64	-0.1	60	1.4	
Furniture & Fixtures	65	-0.3	51	4.1	
Transport Equip Manuf	67	-1.0	61	1.4	
Petrol Prod, Wholesale	68	-1.4	64	-3.6	
Shoe, Apparel, Retail	69	-2.6	38	6.5	
Rubber Prod Manuf	70	-8.8	70	-19.7	
Tobacco Manuf	71	-13.0	31	7.6	yes
Deposit Accepting Intermed	72	-34.0	65	-4.1	

Table A.4
Industries Contributing Most to the Increase in the Share of High Frequency UI Claimants in Canada, 1982–1990

Industry	Province	Regional Redistribution of Claimants (C_p / C)	Industrial Redistribution of Claimants (C_{ip} / C_p)	Change in Industry-Specific High Frequency Shares (R_{ip} / C_{ip})	Total
Trade Contracting	Quebec	0.25	1.66	-0.14	1.77
Education	Quebec	0.16	0.72	0.60	1.47
Bldg, Dev, & General Construction	Quebec	0.10	1.29	-0.03	1.37
Food Manufacturing	Atlantic	0.70	0.20	0.27	1.17
Provincial & Terr Govt Services	Atlantic	0.43	0.48	0.22	1.14
Education	Ontario	-0.14	0.70	0.51	1.08
Provincial & Terr Govt Services	Quebec	0.12	1.07	-0.15	1.04
Health & Social Services	Quebec	0.06	0.42	0.36	0.84
Trade Contracting	Atlantic	0.44	0.15	0.15	0.74
Bldg, Dev, & General Construction	Atlantic	0.26	0.28	0.12	0.66
Transportation	Ontario	-0.13	0.51	0.24	0.62
Agriculture	Quebec	0.04	0.53	0.01	0.58
Logging	Quebec	0.06	0.54	-0.02	0.58
Federal Govt Service	Atlantic	0.19	0.28	0.09	0.57
Logging	British Columbia	-0.11	0.51	0.16	0.56
Education	Atlantic	0.15	0.29	0.10	0.55
Provincial & Terr Govt Services	Ontario	-0.06	0.54	0.00	0.48
Agriculture	Atlantic	0.12	0.33	0.03	0.48
Food & Beverage Services	Quebec	0.06	0.27	0.14	0.47
Food & Beverage Services	Atlantic	0.14	0.22	0.11	0.47
Services Incidental to Mining	Alberta	-0.05	0.15	0.37	0.47
Logging	Atlantic	0.21	0.18	0.08	0.47
Education	British Columbia	-0.07	0.17	0.36	0.46
Trade Contracting	British Columbia	-0.13	0.20	0.37	0.44
Agriculture	British Columbia	-0.05	0.41	0.07	0.44
Business Services	Quebec	0.07	0.25	0.09	0.41
Personal & Household Services	Atlantic	0.06	0.26	0.08	0.41
Health and Social Services	Atlantic	0.10	0.15	0.15	0.40
Education	Manitoba	-0.03	0.27	0.15	0.40
Education	Alberta	-0.04	0.17	0.25	0.39

Table A.4 *(cont.)*
Industries Contributing Most to the Increase in the Share of High Frequency UI Claimants in Canada, 1982–1990

Industry	Province	Regional Redistri-bution of Claimants (C_p / C)	Industrial Redistri-bution of Claimants (C_{ip} / C_p)	Change in Industry-Specific High Frequency Shares (R_{ip} / C_{ip})	Total
Amusement & Recreation Services	Quebec	0.04	0.32	0.02	0.39
Business Services	British Columbia	-0.04	0.08	0.30	0.35
Federal Government Service	Quebec	0.02	0.19	0.12	0.33
Education	Saskatchewan	0.03	0.17	0.13	0.33
Food, Bev, Retail	Atlantic	0.08	0.18	0.06	0.32
Quarries and Sand Pits	Quebec	0.01	0.26	0.04	0.32
Clothing Manufacturing	Quebec	0.08	-0.15	0.38	0.31
Wood Manufacturing	British Columbia	-0.09	0.09	0.31	0.31
Transportation	Atlantic	0.22	-2.40	0.32	0.30
Ind & Heavy Construction	Alberta	-0.09	-0.06	0.45	0.30
All Industries	Canada	3.32	5.69	16.88	25.90

Appendix B: Share of High Frequency Claimants in Annual Spells — Figures

Figure B.1
Fishing and Trapping, Men

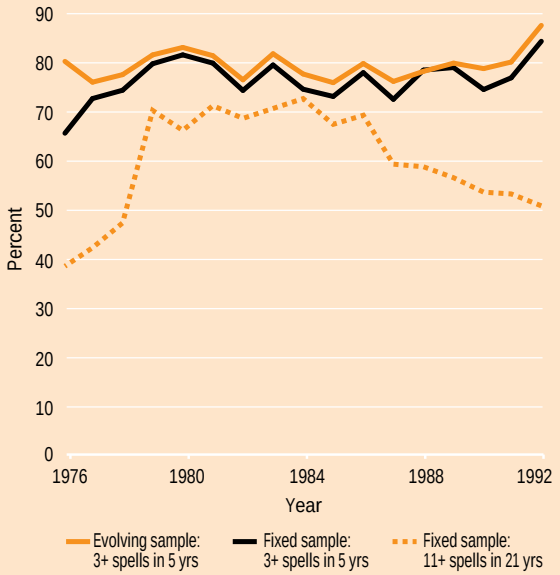


Figure B.2
Logging, Men

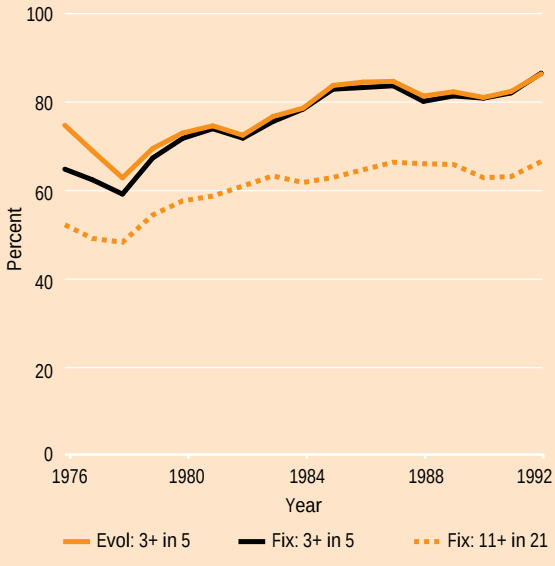


Figure B.3
Metal, Non-Metal and Coal Mining, Men

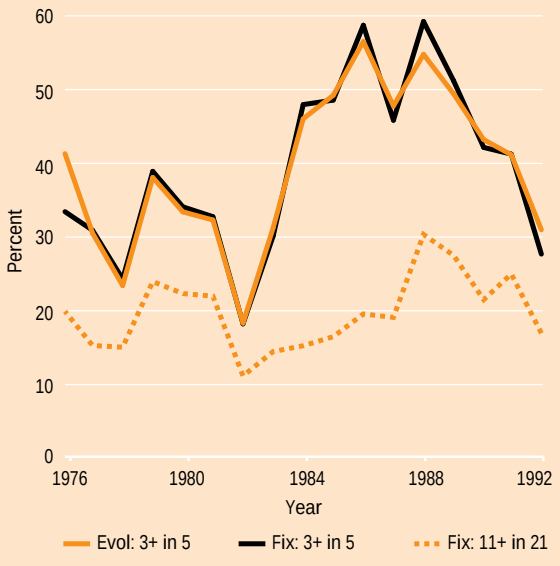


Figure B.4
Construction, Men

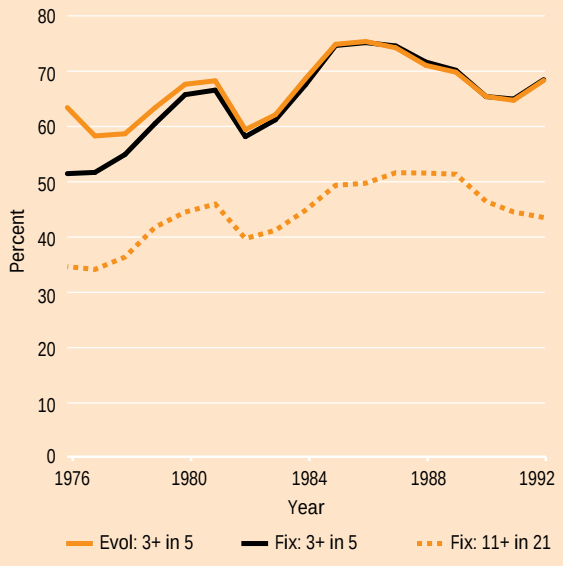


Figure B.5
Transportation, Men

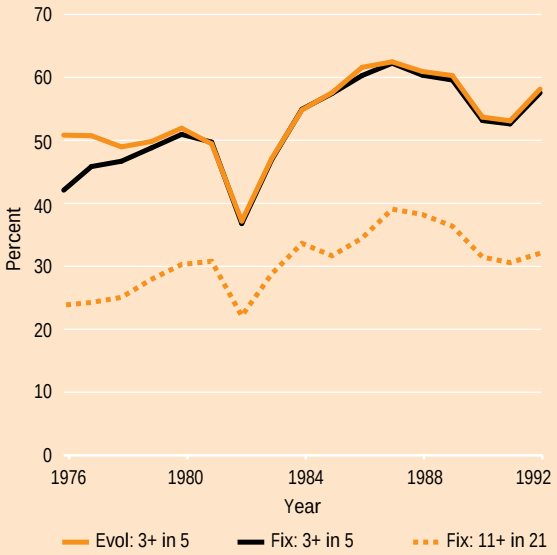


Figure B.6
Manufacturing, Men

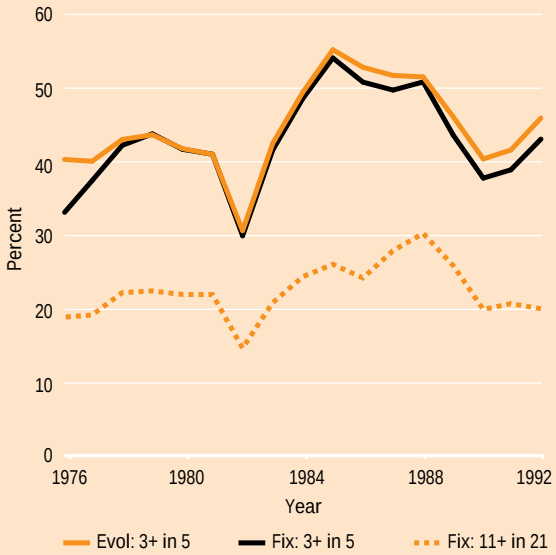


Figure B.7
Retail and Wholesale Trade, Men

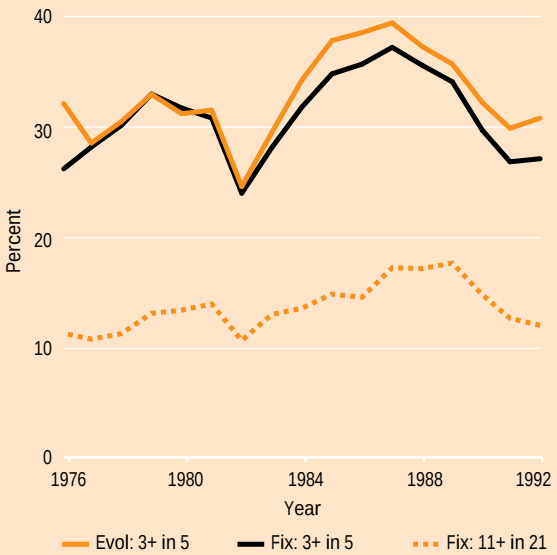


Figure B.8
Finance, Insurance, Real Estate, Men

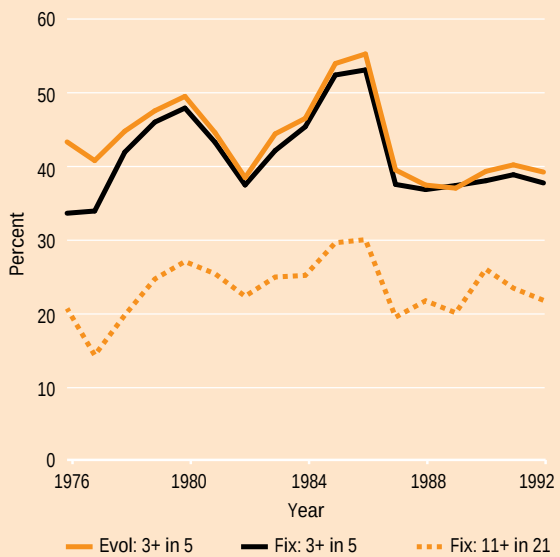


Figure B.9
Education, Women

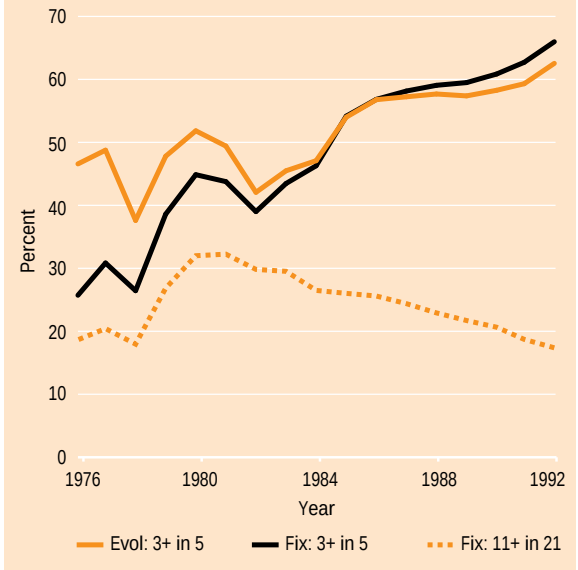


Figure B.10
Health and Social Services, Women

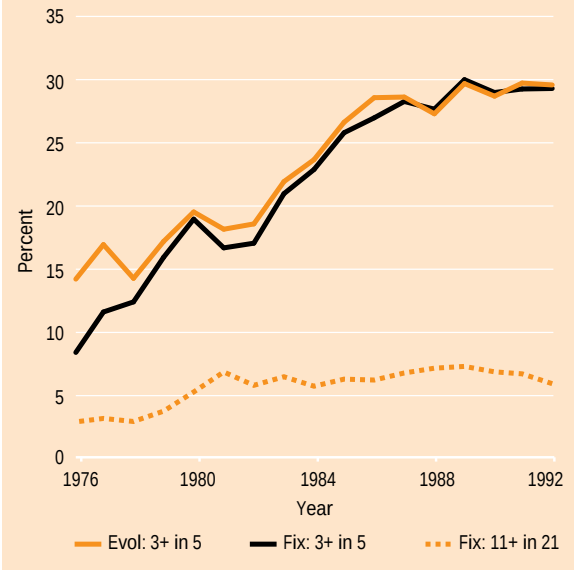


Figure B.11
Provincial Government Services, Women

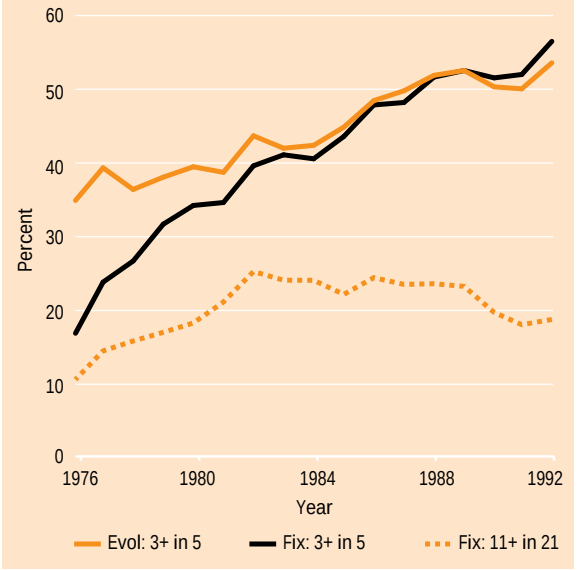


Figure B.12
Federal Government Services, Women

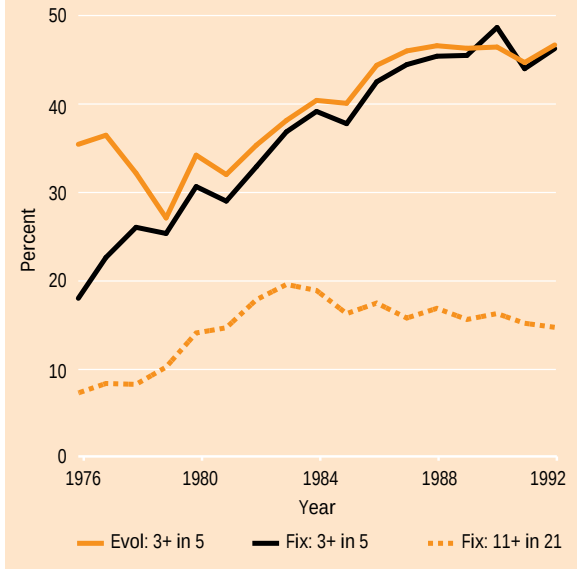


Figure B.13
Food and Beverage Services, Women

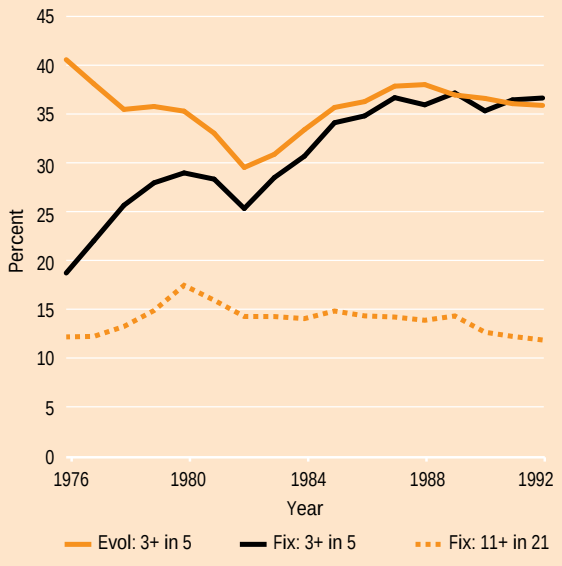


Figure B.14
Accommodation Services, Women

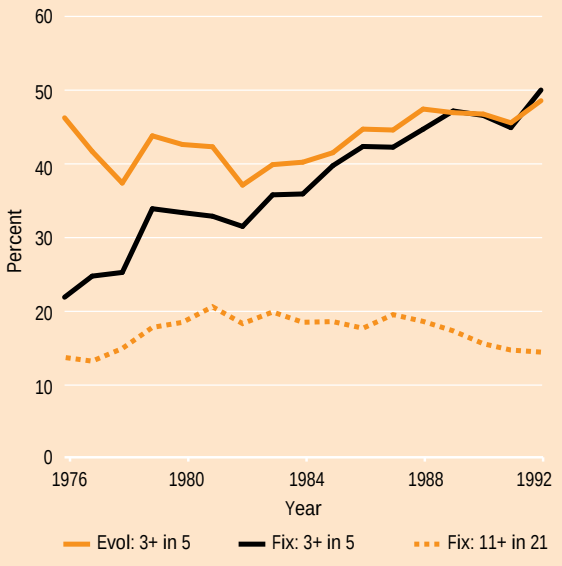


Figure B.15
Amusement and Recreation Services, Women

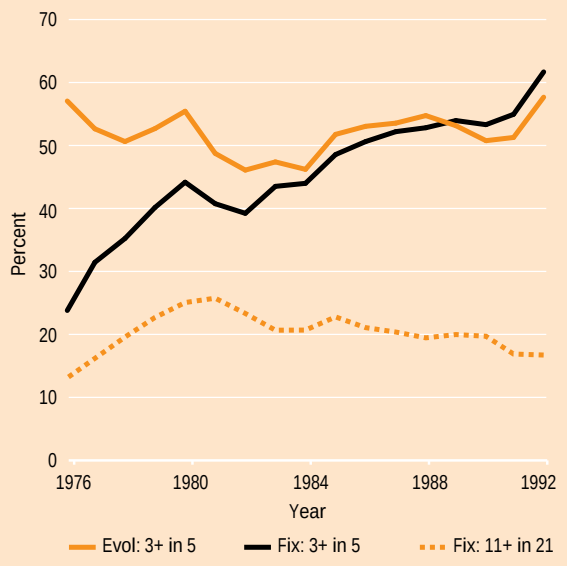


Figure B.16
Personal and Household Services, Women

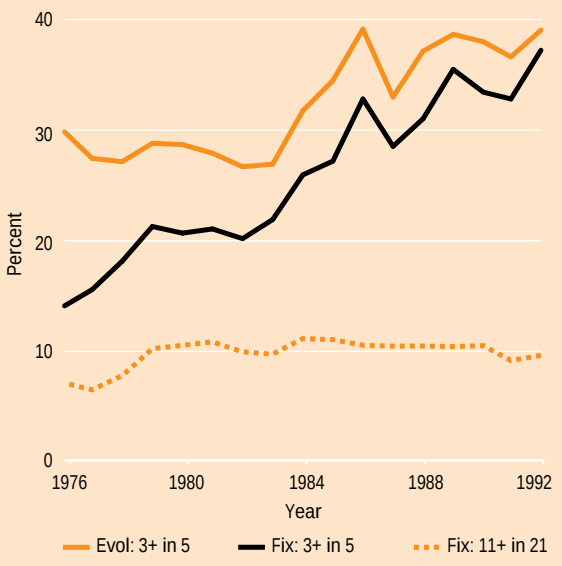


Figure B.17
Transportation, Women

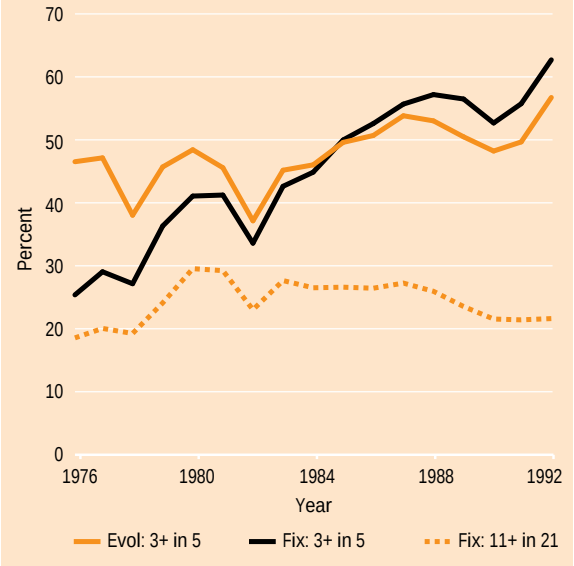
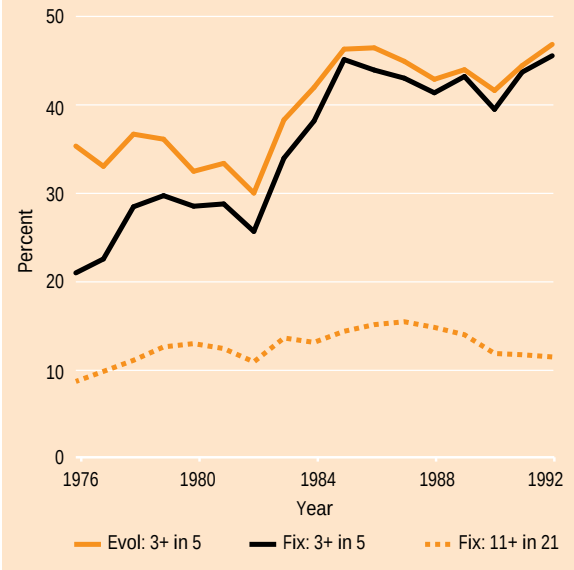


Figure B.18
Clothing Manufacturing, Women



Appendix C: Proportion of UI Claimants in Selected Industries — Figures

Figure C.1
Primary Industries

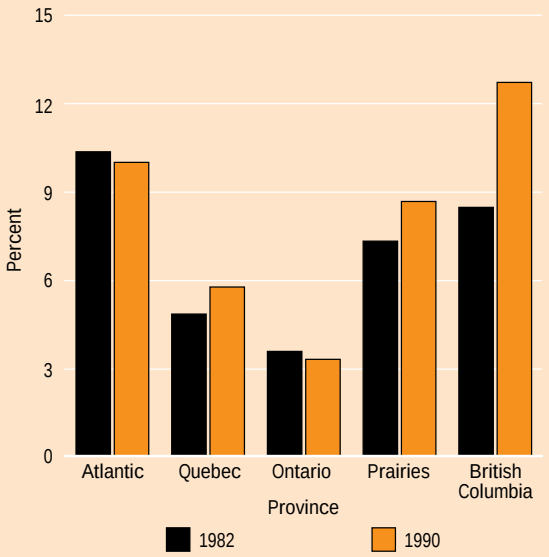


Figure C.2
Construction

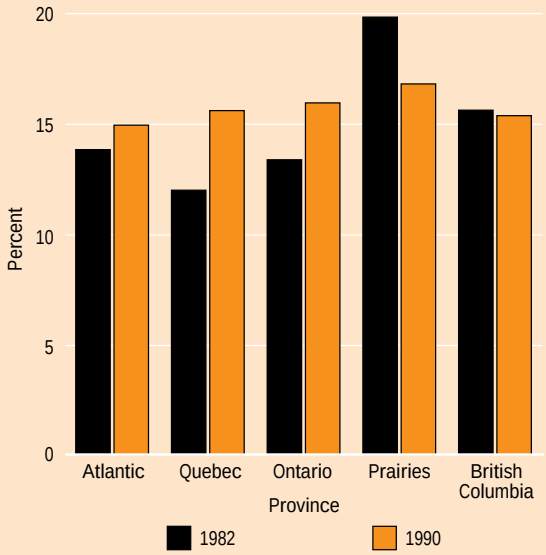


Figure C.3
Manufacturing

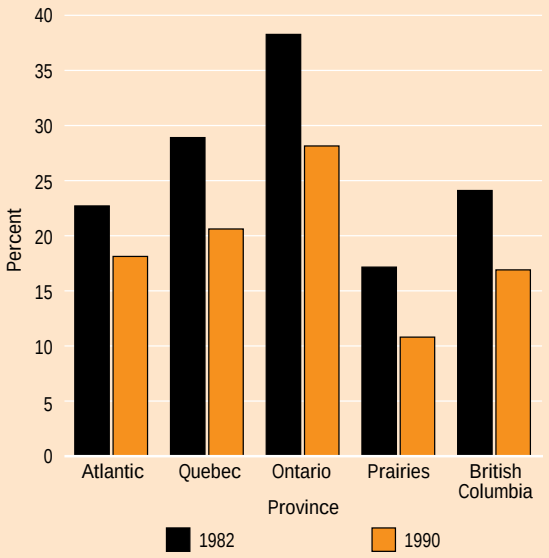


Figure C.4
Government

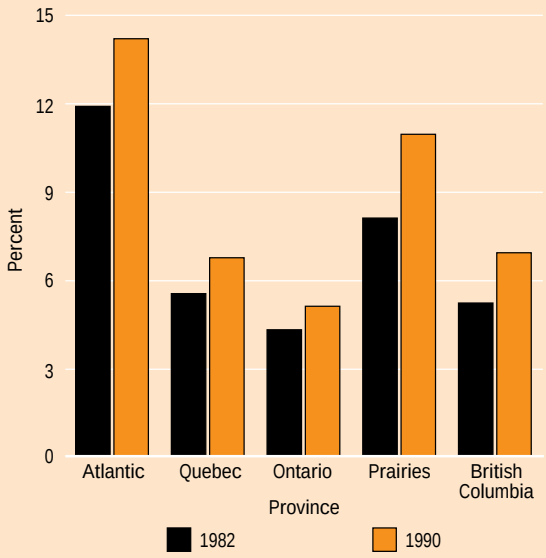


Figure C.5
Education

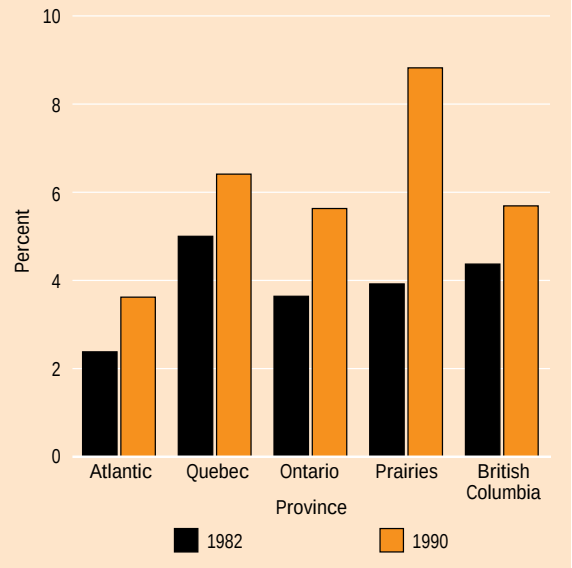
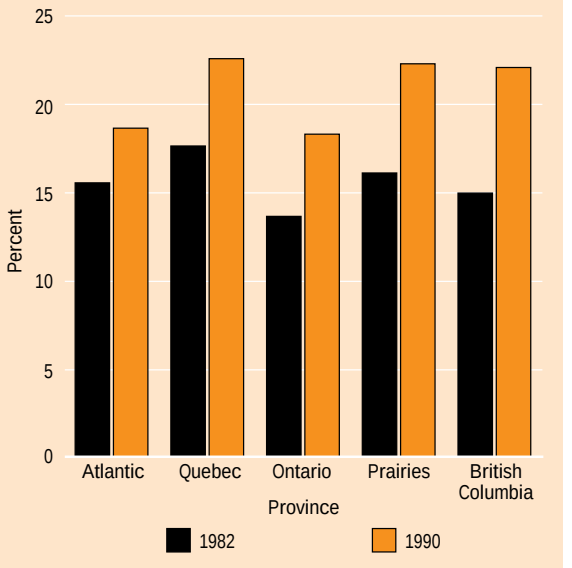


Figure C.6
Services



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LEMIEUX, Thomas, and W. Bentley MacLeod (1995). “State Dependence and Unemployment Insurance”, UI Evaluation Technical Report, Human Resources Development Canada

List of UI Evaluation Technical Reports

Unemployment Insurance Evaluation

In the spring of 1993, a major evaluation of UI Regular Benefits was initiated. This evaluation consists of a number of separate studies, conducted by academics, departmental evaluators, and outside agencies such as Statistics Canada. Many of these studies are now completed and the department is in the process of preparing a comprehensive evaluation report.

Listed below are the full technical reports. Briefs of the full reports are also available separately. Copies can be obtained from:

Human Resources Development Canada
Enquiries Centre
140 Promenade du Portage
Phase IV, Level 0
Hull, Quebec K1A 0J9 Fax: (819) 953-7260

UI Impacts on Employer Behaviour

- **Unemployment Insurance, Temporary Layoffs and Recall Expectations**
  M. Corak, Business and Labour Market Analysis Division, Statistics Canada, 1995. *(Evaluation Brief #8)*
- **Firms, Industries, and Cross-Subsidies: Patterns in the Distribution of UI Benefits and Taxes**
  M. Corak and W. Pyper, Business and Labour Market Analysis Division, Statistics Canada, 1995. *(Evaluation Brief #16)*
- **Employer Responses to UI Experience Rating: Evidence from Canadian and American Establishments**
  G. Betcherman and N. Leckie, Ekos Research Associates, 1995. *(Evaluation Brief #21)*

UI Impacts on Worker Behaviour

- **Qualifying for Unemployment Insurance: An Empirical Analysis of Canada**
  D. Green and C. Riddell, Economics Department, University of British Columbia, 1995. *(Evaluation Brief #1)*
- **Unemployment Insurance and Employment Durations: Seasonal and Non-Seasonal Jobs**
  D. Green and T. Sargent, Economics Department, University of British Columbia, 1995. *(Evaluation Brief #19)*
- **Employment Patterns and Unemployment Insurance**
  L. Christofides and C. McKenna, Economics Department, University of Guelph, 1995. *(Evaluation Brief #7)*

- **State Dependence and Unemployment Insurance**
  T. Lemieux and B. MacLeod, Centre de Recherche et Développement en Economique, Université de Montréal, 1995. *(Evaluation Brief #4)*

- **Unemployment Insurance Regional Extended Benefits and Employment Duration**
  C. Riddell and D. Green, Economics Department, University of British Columbia, 1995. *(To be released when available)*

- **Seasonal Employment and the Repeat Use of Unemployment Insurance**
  L. Wesa, Insurance Programs Directorate, HRDC, 1995. *(Evaluation Brief #24)*

UI Macroeconomic Stabilization

- **The UI System as an Automatic Stabiliser in Canada**
  P. Dungan and S. Murphy, Policy and Economic Analysis Program, University of Toronto, 1995. *(Evaluation Brief #5)*

- **Canada's Unemployment Insurance Program as an Economic Stabiliser**
  E. Stokes, WEFA Canada, 1995. *(Evaluation Brief #6)*

UI and the Labour Market

- **Unemployment Insurance and Labour Market Transitions**
  S. Jones, Economics Department, McMaster University, 1995. *(Evaluation Brief #22)*

- **Unemployment Insurance and Job Search Productivity**
  P.-Y. Crémieux, P. Fortin, P. Storer and M. Van Audenrode, Département des Sciences économiques, Université du Québec à Montréal, 1995. *(Evaluation Brief #3)*

- **Effects of Benefit Rate Reduction and Changes in Entitlement (Bill C-113) on Unemployment, Job Search Behaviour and New Job Quality**
  S. Jones, Economics Department, McMaster University, 1995. *(Evaluation Brief #20)*

- **Jobs Excluded from the Unemployment Insurance System in Canada: An Empirical Investigation**
  Z. Lin, Insurance Programs Directorate, HRDC, 1995. *(Evaluation Brief #15)*

- **Effects of Bill C-113 on UI Take-up Rates**
  P. Kuhn, Economics Department, McMaster University, 1995. *(Evaluation Brief #17)*

- **Implications of Extending Unemployment Insurance Coverage to Self-Employment and Short Hours Work Week: A Micro-Simulation Approach**
  L. Osberg, S. Phipps and S. Erksoy, Economics Department, Dalhousie University, 1995. *(Evaluation Brief #25)*

- **The Impact of Unemployment Insurance on Wages, Search Intensity and the Probability of Re-employment**
  P.-Y. Crémieux, P. Fortin, P. Storer and M. Van Audenrode, Département des Sciences économiques, Université du Québec à Montréal, 1995. *(Evaluation Brief #27)*

UI and Social Assistance

- **The Interaction of Unemployment Insurance and Social Assistance**
  G. Barrett, D. Doiron, D. Green and C. Riddell, Economics Department, University of British Columbia, 1995. *(Evaluation Brief #18)*
- **Job Separations and the Passage to Unemployment and Welfare Benefits**
  G. Wong, Insurance Programs Directorate, HRDC, 1995. *(Evaluation Brief #9)*
- **Interprovincial Labour Mobility in Canada: The Role of Unemployment Insurance and Social Assistance**
  Z. Lin, Insurance Programs Directorate, HRDC, 1995. *(Evaluation Brief #26)*

UI, Income Distribution and Living Standards

- **The Distributional Implications of Unemployment Insurance: A Micro-Simulation Analysis**
  S. Erksoy, L. Osberg and S. Phipps, Economics Department, Dalhousie University, 1995. *(Evaluation Brief #2)*
- **Income and Living Standards During Unemployment**
  M. Browning, Economics Department, McMaster University, 1995. *(Evaluation Brief #14)*
- **Income Distributional Implications of Unemployment Insurance and Social Assistance in the 1990s: A Micro-Simulation Approach**
  L. Osberg and S. Phipps, Economics Department, Dalhousie University, 1995. *(Evaluation Brief #28)*
- **Studies of the Interaction of UI and Welfare using the COEP Dataset**
  M. Browning, P. Kuhn and S. Jones, Economics Department, McMaster University, 1995.

Final Report

- **Evaluation of Canada's Unemployment Insurance System: Final Report**
  G. Wong, Insurance Programs Directorate, HRDC, 1995.