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# PERSPECTIVES

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- GIS update
- Barriers to training access
- Gambling



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P	preliminary
r	revised
x	suppressed to meet the confidentiality requirements of the <i>Statistics Act</i>
E	use with caution
F	too unreliable to be published

# Highlights

*In this issue*

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## ■ GIS update

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- The number of seniors eligible for the Guaranteed Income Supplement (GIS) but not receiving it fell from 191,700 in 2000 to 159,400 in 2006.
- Between 2000 and 2006, the GIS take-up rate increased from 87% to 90% with the largest increases for those receiving annual payments of less than \$500 and \$500 to \$999—up 17 and 12 percentage points respectively.
- The GIS application rate increased from 45% to 57% with the largest improvements among those 80 and over, who saw an increase of 27 percentage points, followed by those 70 to 79 at almost 25 points.
- The probability of not applying for the GIS when eligible was significant and negatively related to annual payments in 2000 but not in 2006, suggesting that, by 2006, those receiving small amounts of GIS payments were just as likely to apply as those receiving the maximum.
- Similarly, age was no longer a statistically significant factor in 2006 once automatic applicants (those age 65) were excluded from the sample, suggesting that, by 2006, older seniors (age 70 and over) were just as likely to apply as younger seniors (age 66 to 69).

## ■ Barriers to training access

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- About 60% of all workers received at least one of three types of employer-supported training in 2005, while about 12% declined training.
- Overall, women were as likely as men to access employer-supported training. However, differences appeared when considering low-wage workers (women 43% vs. men 50%), less-educated workers (42% vs. 52%), non-union workers (57% vs. 60%), or low-wage, less-educated, non-union workers (37% vs. 47%). However, women in these four groups were less likely to decline employer-supported training, even after controlling for their lower access.

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# GIS update

May Luong

In 2006, an estimated 1.4 million eligible seniors received the Guaranteed Income Supplement (GIS). Nevertheless, approximately 159,400 eligible seniors were not receiving any GIS (Table 1). While the 2006 number reflects an improvement in the GIS take-up by historical standards, understanding the characteristics of eligible non-recipients remains important (see *GIS eligibility*).

The GIS was established in 1967 to provide additional benefits to low-income Old Age Security (OAS) recipients in Canada. The combined retirement income system comprising OAS, the GIS, the Canada and Quebec Pension Plans, and private pensions has dramatically reduced the incidence of low income among seniors over time (Myles 2000). However, in 2001, the Standing Committee on Human Resources Development and the Status of Persons with Disabilities found that a substantial number of eligible seniors were not receiving the GIS (HUMA 2001). In response, ongoing efforts by Human Resources and Skills Development Canada (HRSDC), in conjunction with the Canada Revenue Agency (CRA), have aimed to re-

duce the number of eligible non-recipients through increased outreach activities and a simplified application process (see *GIS initiatives and outreach programs*).

To be eligible for the GIS, individuals must be entitled to receive OAS and must meet specific requirements based on their annual family income. For example, as of April 2009, seniors filing their income tax returns as a single person had to have income below \$15,672. The maximum monthly benefit from April to June 2009 for singles was \$652.51 (see *GIS eligibility*).

Prior to 1999, HRSDC required individuals to re-apply for benefits every year by submitting an application form with a detailed income statement. Since 1999, recipients filing an income tax return have been automatically renewed every year. Those not filing a return must still submit an application with a detailed income statement. However, tax filers who lost their entitlement in one particular year because their income exceeded the threshold were required to re-apply. Many eligible seniors likely did not receive the GIS because they were unaware they had to re-apply

## GIS initiatives and outreach programs

Since 2002, Human Resources and Skills Development Canada (HRSDC), Service Canada (SC) and the Canada Revenue Agency (CRA) have shared information in order to reach potential beneficiaries.

In 2002, HRSDC and CRA started targeting low-income seniors whose tax returns indicated potential eligibility for GIS benefits. Since then, HRSDC has mailed out simplified application forms to these individuals with pre-filled information based on their returns. In 2003, HRSDC further simplified the process by reducing six GIS application forms to two and providing instruction sheets. In 2007, with the passing of Bill C-36, which amended the Canada Pension Plan and the *Old Age Security Act*, the requirement to re-apply once an initial application had been made was waived. Recipients who filed income tax returns would never have to re-apply and would receive GIS pay-

ments for all years that their income met the specific requirements (HRSDC 2007).

HRSDC launched a national GIS ad campaign in 2002 to increase awareness and target seniors who had not yet applied. The campaign consisted of television, radio and newspaper ads. In addition, outreach efforts were directed at the most vulnerable, for example seniors living in isolation, the homeless, people with disabilities, immigrants and Aboriginals. These efforts included booths and information kits at malls and fairs, media hot spots, targeted mailings, and providing trained service providers. Efforts were also targeted at community organizations with access to hard-to-reach seniors. Other outreach initiatives included information letters sent from CRA on behalf of HRSDC and SC to individuals 65 and older who were not receiving OAS or the GIS.

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after losing their entitlement. In 2007, with the passing of Bill C-36 amending the Canada Pension Plan and the *Old Age Security Act*, the issue of eligible seniors not applying after loss of entitlement in one year was eliminated—eligible seniors now need only file an income tax return or an income statement every year after their initial application to receive supplemental benefits for those years in which their income is below the GIS cut-off.

While the data cannot directly answer why eligible seniors do not apply, possible reasons include isolation, lack of awareness of the program and its application process, physical or mental health problems, language barriers, low literacy skills, or homelessness. In addition, a survey by HRSDC found that some seniors do not apply for the GIS for religious or moral reasons, perceiving the GIS as welfare (HUMA 2001).

Among senior families, those receiving the GIS appear to be the least well-off. A previous study found the median wealth of unattached GIS recipients to be only one-sixth that of unattached non-recipients.<sup>1</sup> GIS families were more vulnerable financially than other senior families and less able to handle an unexpected major expense (Poon 2005). In addition to having a lower income as a result of not receiving the GIS, eligible non-recipients also face secondary effects. For example, in many provinces prescription drug plans, income supplements, heating oil subsidies and home care assistance programs base eligibility on receipt of the GIS (HUMA 2001). Hence, eligible non-recipients are likely to gain not only financially from GIS benefits but possibly also from other programs.

Two sources are available to study GIS-eligible non-recipients: longitudinal administrative data and longitudinal survey data. While the administrative data provide longer time frames and much larger samples, they lack information on personal characteristics (other than age, sex and marital status) that could help explain eligibility and application patterns. Surveys generally span shorter periods and have smaller samples, but are rich in personal and socio-economic information.

Using the 1999 to 2001 Survey of Labour and Income Dynamics (SLID), an earlier study (Poon 2005) looked at eligible seniors not receiving the GIS. The current study updates the findings to 2005 and 2006. More specifically, it examines changes in the GIS take-up and application rates between 2000 and 2006. Logistic regressions estimated the probability of not applying

for the GIS even when eligible, while holding other characteristics constant. In addition, the characteristics associated with the likelihood of not applying were compared over time.

### GIS take-up increased between 2000 and 2006

The take-up rate is individuals receiving GIS benefits as a percentage of the total eligible for the GIS (see *Data sources and definitions*). Between 2000 and 2006, eligible non-recipients declined from approximately 191,700 to 159,400,<sup>2</sup> while the total senior population increased from 3.6 million to 4.0 million (Table 1). The estimate of seniors in both the Longitudinal Administrative Databank (LAD) and SLID is below the 4.3 million reported in the 2006 Census. The lower number in LAD is mainly due to the requirement for individuals to file income tax returns for two consecutive years in order to be included. Seniors are under-represented in SLID because the survey covers about 97% of the Canadian population, excluding those in the territories, in institutions, on First Nations reserves and in military barracks.

Overall, the population and the number of eligible GIS recipients and non-recipients estimates from SLID are in line with those from tax data. The differences arise mainly because LAD represents 20% of all tax filers, while SLID is a survey with a much smaller sample size. In this study, SLID is used for socio-demographic information not available in LAD. However, LAD would be more accurate for estimating the total number of eligible non-recipients.

**Table 1 GIS recipients and eligible non-recipients**

	LAD	SLID
	'000	
Total seniors	4,122.7	4,006.8
OAS recipients	4,010.3	3,861.4
GIS recipients and eligible non-recipients	1,710.6	1,577.5
Recipients	1,565.1	1,418.1
Non-recipients	145.5	159.4

Sources: Statistics Canada, Longitudinal Administrative Database and Survey of Labour and Income Dynamics, 2006.

## Models

Separate logistic regressions were run for 2000 and 2006 to examine the characteristics associated with whether an eligible individual applied during that year. The sample sizes were 895 (representing 345,800 seniors) in 2000 and 876 (369,100) in 2006. Logistic regression estimates the probability of a particular outcome (here, not applying when eligible) as a function of several explanatory variables. The association between each explanatory variable and the outcome was examined while holding all other variables constant. To account for the complex survey design, bootstrap weights were used.

To test whether coefficients were significantly different between the years, all else constant, the two data sets were stacked including the bootstrap weights. A panel dummy was created and set to 0 for respondents in 2000 and to 1 for 2006. Interaction terms between the panel dummy and specific variables were included in the model. These comprised age group, GIS amount, health status, education, and region of residence. Other variables such as economic family, sex, major activity, immigrant status, and home ownership were initially included but were subsequently dropped as they showed no statistical significance and their inclusion did not improve the model.

In 2006, take-up was higher for most groups as the overall rate rose from 87% in 2000 to 90% (Table 2). As might be expected, those entitled to higher benefits (\$2,000 or more) had the greatest take-up rate in both 2000 and 2006. And although significant increases were seen for the two lowest payment groups (less than \$500 and \$500 to \$999), their take-up rates were still significantly lower than the top group's rate. Take-up in the less than \$500 group increased from 55% to 72%, and in the \$500 to \$999 group from 70% to 82%. It may be that some eligible seniors in these low-payment groups choose not to apply for the GIS as the amounts may be too small to trigger interest or to compensate for going through the application process.

Individuals age 70 and over also experienced significant improvement in their take-up rates in 2006. Both men's and women's rates improved significantly. While women had a higher take-up rate in 2006, the increase between 2000 and 2006 was slightly greater for men.

Improved rates were also seen for those with good or fair health, homeowners and immigrants. Although take-up rates increased in all provinces except Quebec, the increase was statistically significant only in Ontario. Overall, these improvements brought other

provinces more in line with high levels of take-up already observed in Quebec and the Atlantic provinces.

## Application rates also increased

The application rate is the proportion of GIS recipients who did not receive payments in the previous year and therefore had to apply to receive them in the current year (see *Data sources and definitions*). The take-up rate provides information on who is receiving the GIS and the application rate on who applies for the GIS when eligible. For instance, the take-up rate includes a large portion of recipients who are automatically renewed each year, but some individuals lose their eligibility in a given year if their income exceeds the GIS cut-off during that year. If their income subsequently falls below the GIS cut-off and they regain eligibility, they have to re-apply for benefits.

Overall, 45% of all eligible seniors required to apply for the GIS in 2000 submitted an application. Eligible seniors may not apply for the GIS for many reasons. For example, they may not be aware of the program or how to apply. In the current study period, Bill C-36 had yet to be passed. Those who lost eligibility may not have realized they had to re-apply when they regained eligibility. Regardless of the reasons, a parliamentary committee concluded in 2001 (HUMA 2001) that not enough was being done to reach 'non-subscribed' seniors. Since then, the application process has been simplified and several outreach programs implemented to raise awareness of the GIS (see *GIS initiatives and outreach programs*).

By 2006, the application rate had increased significantly to almost 57%. One of the most significant increases was for those with annual GIS benefits of less than \$500—between 2000 and 2006, their application rate increased more than 20 percentage points and ceased to be significantly different from the rate of those with benefits of \$2,000 or more.

In both 2000 and 2006, the application rate was highest for persons age 65 to 69. However, those 80 and over made the largest gains during the period, followed by those 70 to 79. Application rates for men and women also increased significantly, about 15 and 10 percentage points respectively.

In 2000, the application rates for persons with some secondary education, high school graduates and post-secondary studies (completed or not) were not

**Table 2 Characteristics of eligible non-recipients, overall take-up rates and application rates**

	Eligible non-recipients		Take-up rate		Application rate	
	2000 (ref.)	2006	2000 (ref.)	2006	2000 (ref.)	2006
			%			
<b>Both sexes</b>	100.0	100.0 <sup>(*)</sup>	87.0	89.9 <sup>(*)</sup>	44.6	56.8 <sup>(*)</sup>
Men (ref.)	46.3	44.5	84.1	88.2 <sup>(*)</sup>	43.9	58.6 <sup>(*)</sup>
Women	53.7	55.5	88.7*	90.9 <sup>(*)</sup>	45.1	55.3 <sup>(*)</sup>
<b>Age</b>						
65 to 69	25.3*	32.4	87.7	87.8	70.1*	68.2*
70 to 79 (ref.)	46.8	41.4	87.1	90.6 <sup>(*)</sup>	24.6	49.4 <sup>(*)</sup>
80 and over	27.9*	26.1*	85.9	90.7 <sup>(*)</sup>	17.8 <sup>E</sup>	45.0 <sup>(*)</sup>
<b>Region</b>						
Atlantic	4.7 <sup>*E</sup>	5.4 <sup>*E</sup>	94.3*	94.6*	63.8*	65.0
Quebec	19.6*	29.0 <sup>(*)</sup>	91.3*	90.8	51.5	51.5
Ontario (ref.)	41.7	35.9	82.7	88.1 <sup>(*)</sup>	40.0	59.1 <sup>(*)</sup>
Manitoba/Saskatchewan	8.9*	6.8*	86.6	90.4	36.9	59.4 <sup>(*)</sup>
Alberta	11.7 <sup>*E</sup>	9.5 <sup>*E</sup>	80.8	87.9	36.1 <sup>E</sup>	47.9
British Columbia	13.4*	13.3 <sup>*E</sup>	85.1	89.4	46.7	59.9
<b>Economic family</b>						
Unattached (ref.)	37.3	36.6	88.5	90.7	37.6	55.6 <sup>(*)</sup>
Married couple, non-senior <sup>1</sup>	3.9 <sup>*E</sup>	5.4 <sup>*E</sup>	92.2	92.9	68.1*	66.9
Married couple, senior <sup>1</sup>	40.2	40.9	83.6*	87.9*	45.3	57.1 <sup>(*)</sup>
Other	18.6*	17.1*	87.5	90.7	46.8	54.5
<b>Major activity<sup>2</sup></b>						
Working (ref.) <sup>3</sup>	4.7 <sup>*E</sup>	6.2 <sup>*E</sup>	71.9*	78.4*	54.3 <sup>E</sup>	56.7 <sup>E</sup>
Retired (ref.)	79.9	68.6 <sup>(*)</sup>	87.4	90.3 <sup>(*)</sup>	43.8	58.3 <sup>(*)</sup>
Other	8.1 <sup>*E</sup>	14.9 <sup>(*)</sup>	88.5	91.4	52.0	57.9
<b>Highest level of education<sup>2</sup></b>						
Less than grade 9 (ref.)	35.1	32.0	90.5	91.2	48.5	51.7
Some secondary	23.0*	19.0*	84.5*	88.7	40.1	63.5 <sup>(*)</sup>
High school graduate	17.4*	12.1 <sup>*E</sup>	80.4*	89.0 <sup>(*)</sup>	41.9	60.4 <sup>(*)</sup>
Some postsecondary (completed or not)	17.4*	23.9	83.3*	87.9	44.8	57.6
<b>Health status<sup>2</sup></b>						
Excellent or very good	30.5*	29.6*	86.1	88.1	47.6	52.6
Good or fair (ref.)	55.4	49.7	86.7	90.9 <sup>(*)</sup>	43.0	61.9 <sup>(*)</sup>
Poor	5.1 <sup>*E</sup>	10.1 <sup>*E</sup>	93.6*	90.3	54.3	52.2 <sup>E</sup>
<b>Immigrant status<sup>2</sup></b>						
Immigrant	26.8*	19.6*	85.6	92.3 <sup>(*)</sup>	45.0	66.7 <sup>(*)</sup>
Non-immigrant (ref.)	69.4	78.4 <sup>(*)</sup>	87.4	89.1	44.2	53.1 <sup>(*)</sup>
<b>Home ownership</b>						
Owned by member of the family (ref.)	76.0	75.0	84.7	88.2 <sup>(*)</sup>	45.2	55.8 <sup>(*)</sup>
Not owned by member of the family	24.0*	25.0*	91.2*	93.0*	42.4	59.5 <sup>(*)</sup>
<b>Annual GIS</b>						
Less than \$500	30.9	23.0*	55.3*	72.3 <sup>(*)</sup>	38.2*	58.4 <sup>(*)</sup>
\$500 to \$999	20.6	13.7 <sup>*E</sup>	70.1*	82.1 <sup>(*)</sup>	38.4*	52.1 <sup>E</sup>
\$1,000 to \$1,999	23.9	23.0*	83.7*	85.2*	41.6*	47.6*
\$2,000 or more (ref.)	24.6	40.3 <sup>(*)</sup>	94.9	94.0	56.1	61.2

\* statistically significant from the reference group (ref.) at the 5% level

(\*) cross-panel statistical significance at the 5% level

1. Based on age of major income recipient.

2. Will not add up to 100% because some figures were not available.

3. Reference for application rates.

Source: Statistics Canada, Survey of Labour and Income Dynamics.



statistically different from the rate for those with less than a grade 9 education. Nevertheless, by 2006, the application rate increased significantly for those with some secondary education and high school graduates.

Higher application rates were also noted for Ontario and Manitoba/Saskatchewan, the unattached, married elderly couples, retirees, those with good or fair health, and both immigrants and non-immigrants.

### Who's eligible but not applying?

Logistic regression provides further insight into the characteristics of eligible recipients while controlling for other characteristics. Separate models were run for 2000 and 2006 to test for the statistical significance of differences across characteristics within each panel. For cross-panel comparisons, data for 2005 to 2006 were stacked onto 1999 to 2001 data. Separate regressions were run using different reference profiles in order to test whether coefficients were statistically different between the two panels.<sup>3</sup> In addition, logistic models were tested separately by sex but few differences were found. Therefore, the models in this section include both men and women.<sup>4</sup>

In general, the samples were quite small, often leading to large standard errors, which may result in type II error.<sup>5</sup> In other words, the models may show very little statistical significance with the current sample sizes, whereas larger samples would produce more precise estimates, leading to smaller standard errors. Nevertheless, some significant differences between 2000 and 2006 were noted.

Overall, the probability of not applying for the GIS when eligible decreased significantly for the older age groups (70 to 79 and 80 and over) between 2000 and 2006 (Table 3). In other words, individuals 70 and over were much more likely to apply for the GIS in 2006 than in 2000. An increase in the likelihood of older seniors applying is particularly noteworthy since older seniors may also tend to be more isolated and financially vulnerable. Nevertheless, despite decreases in

the probability of older seniors not applying in 2006, they were still significantly more likely to not apply than those age 65 to 69.

In 2000, the probability of not applying when eligible was significantly related to the annual GIS entitlement. That is, eligible seniors qualifying for benefits of \$2,000 or more were the least likely not to have applied. However, by 2006, they were no longer statistically different from other benefit groups in their likelihood of not applying. This is likely due to the increase in the application rate of those with annual benefits of less than \$500.

Overall, the probability of not applying when eligible fell between 2000 and 2006. However, the changes were statistically different only for some variables. Nevertheless, the results of a joint-significance test for all interaction terms between each variable and a panel indicator suggest that the overall pattern of non-application changed significantly.

**Table 3 Probability of not applying when eligible**

	2000		2006		Joint model p-value
	Coef-ficient	Predicted probability	Coef-ficient	Predicted probability	
<b>Intercept</b>	-0.402	% 40	-0.925	% 28	0.286
<b>Age</b> (ref. 65 to 69)					
70 to 79	1.918*	82	0.850*	48	0.001*
80 and over	2.458*	89	1.064*	53	0.001*
<b>Annual GIS</b> (ref. less than \$500)					
\$500 to \$999	-0.049	39	0.347	36	0.825
\$1,000 to \$1,999	-0.022	40	0.456	38	0.926
\$2,000 and more	-0.768*	24	0.011	29	0.567
<b>Health status</b> (ref. excellent or very good)					
Good or fair	-0.022	40	-0.408	21	0.053
Poor	-0.368	32	0.069	30	0.897
<b>Region</b> (ref. Ontario)					
Atlantic	-0.750*	24	-0.133	26	0.858
Quebec	-0.204	35	0.485	39	0.743
Manitoba/Saskatchewan	-0.118	37	-0.119	26	0.345
Alberta	0.001	40	0.448	38	0.902
British Columbia	-0.364	32	0.150	32	0.989

\* statistically significant from the reference group (ref.) at the 5% level

Source: Statistics Canada, Survey of Labour and Income Dynamics.

### Eligible seniors more likely to apply in 2006

Given that at age 65 seniors applying for OAS can simultaneously apply for the GIS, their application process is much simpler than for those who lose their eligibility and are required to re-apply in a subsequent year. In order to understand the factors associated with re-applying for the GIS, 65 year-olds were dropped. In addition, the exclusion of those age 65, who likely were first-time applicants, allowed for an examination of the pure age effect.

Between 2000 and 2006, the number of eligible seniors age 66 and over who applied almost doubled (from 78,000 to 151,600),

while the number eligible but not applying fell (from 189,000 to 146,400).

Logistic regressions were repeated for this sub-sample of eligible seniors.<sup>6</sup> The smaller sample size decreased the precision of the estimates, resulting in larger standard errors and p-values.

Overall, the results were similar to the full-sample model (Table 4). However, the probability of not applying when eligible was much higher. In contrast with the full-sample model, the age effect was no longer significant in 2006 once the 65 year-olds were dropped, suggesting that the age effect found in the full model probably resulted from individuals age 65 being

more likely to apply since they can apply for the GIS in conjunction with the OAS.

A joint-significance test, where all interaction terms and the panel dummy were tested, yielded results similar to the full-sample analysis: the overall pattern of non-application changed significantly between the 2000 and 2006 cohorts.

### Summary

Since the GIS was established, many seniors with little or no income other than OAS have benefited from the extra income. The GIS in conjunction with the combined retirement income system has been instrumental in reducing the number of seniors living in low income. Nevertheless, a previous study found that, in 2000, a large number of eligible seniors were not receiving the GIS (Poon 2005). In response to the recommendations of a House of Commons standing committee, HRSDC and the Canada Revenue Agency addressed this issue by simplifying the application process and initiating outreach efforts to increase awareness of the GIS program. In addition, HRSDC and CRA have shared information in order to reach potential beneficiaries.

Between 2000 and 2006, the number of eligible non-recipients fell as take-up rates rose. The largest increases were for those receiving annual GIS payments of less than \$500 and \$500 to \$999—up 17 and 12 percentage points respectively—possibly because of the simplified application process. Seniors may now be more inclined to go through the application process even for small GIS payments since the time cost of the less complex application process is now lower.

**Table 4 Logistic regressions of eligible seniors not applying, age 66 and over**

	2000		2006		Joint model p-value
	Coef-ficient	Predicted probability	Coef-ficient	Predicted probability	
		%		%	
<b>Intercept</b>	0.261	56	-0.162	46	0.450
<b>Age</b> (ref. 66 to 69)					
70 to 79	0.853*	75	0.381	55	0.089
80 and over	1.385*	84	0.530	59	0.027*
<b>Annual GIS</b> (ref. less than \$500)					
\$500 to \$999	0.133	60	0.602	61	0.945
\$1,000 to \$1,999	-0.214	51	0.704*	63	0.392
\$2,000 and more	-0.783*	37	-0.054	45	0.547
<b>Highest level of education</b> (ref. less than grade 9)					
Some secondary	0.258	63	-0.274	39	0.107
High school graduate	0.443	67	-0.389	37	0.043*
Some postsecondary (completed or not)	0.120	59	-0.061	44	0.250
<b>Health status</b> (ref. excellent or very good)					
Good or fair	0.110	59	-0.463*	35	0.067
Poor	0.207	61	0.113	49	0.520

\* statistically significant from the reference group (ref.) at the 5% level  
Source: Statistics Canada, Survey of Labour and Income Dynamics.

## Data sources and definitions

The **Survey of Labour and Income Dynamics (SLID)** covers roughly 97% of the Canadian population, excluding those in the territories, in institutions, on First Nations reserves or in military barracks. Each panel of respondents, approximately 15,000 households and 30,000 adults, is surveyed for six consecutive years. A new panel is introduced every three years, so two panels always overlap. This study used the combined overlapping samples for 1999 to 2001 and 2005 to 2006. While three years were available for the initial analysis (1999 to 2001), only two years were available for the update (2005 to 2006) as 2007 was not yet available. However, since 2001 was used only for the imputation of a limited number of cases, the lack of 2007 data likely had a minimal effect on the overall conclusions of the study.

The **Longitudinal Administrative Databank (LAD)** consists of a 20% sample of Canadian tax filers. Once selected, individuals are in the sample for every year they file a return. In addition, part of each year's sample includes individuals appearing for the first time, making the sample current and cross-sectionally representative. In 2000, LAD carried nearly five million individuals.

**Eligible non-recipients** are individuals age 65 and over deemed eligible for GIS benefits but not receiving any payments for the reference year. They are divided into four groups: single, married to a non-pensioner, married to a pensioner, or married to an 'Allowance' recipient. (The Spousal Allowance provides money for low-income seniors age 60 to 64 whose spouse or common-law partner is receiving or entitled to OAS and the GIS. Allowance recipients must be a Canadian citizen or a legal resident at the time the Allowance is approved or when they last lived in Canada. They must also have lived in Canada for at least 10 years since age 18.) Since one criterion for eligibility is receiving OAS, OAS non-recipients are automatically classified as GIS non-eligible.<sup>7</sup> Income as defined for the GIS was then calculated for each record based on 1999 or 2005 income. For married or common-law couples, the combined

income of the pensioner and the spouse or partner was taken into account. Family-level cut-offs were then used to determine eligibility in 2000 and 2006. The cut-offs published by HRSDC are for those receiving the maximum OAS; for those not receiving the maximum, the cut-offs depend on the individual's OAS benefits.<sup>8</sup> Records were checked to see if the GIS was received in 2000 and 2006 to classify respondents into three groups: not eligible, eligible and receiving, and eligible but not receiving.<sup>9</sup> Theoretical payment amounts were calculated for eligible non-recipients while actual payment amounts were used for recipients.

The **take-up rate** is GIS recipients as a percentage of those eligible.

$$\text{Take-up rate} = \frac{\text{GIS recipients in current year}}{\text{GIS recipients} + \text{eligible non-recipients}}$$

The **application rate** is GIS recipients in 2006 (2000) not receiving GIS in 2005 (1999) as a percentage of the total GIS recipients in 2006 (2000) not receiving GIS in 2005 (1999) plus the eligible non-recipients in 2006 (2000).

For example:

$$\text{Application rate (2006)} = \frac{\text{recipients in 2006 not receiving GIS in 2005}}{\text{recipients in 2006 not receiving GIS in 2005} + \text{eligible non-recipients in 2006}}$$

GIS recipients in 2006 (2000) who did not receive the GIS in 2005 (1999) were assumed to represent those applying for the GIS in 2006 (2000)—they were not automatically renewed since they received no payments the previous year. The eligible individuals in 2006 (2000) who were not receiving the GIS in 2005 (1999) represented those who could have applied in 2006 (2000).

At the same time, the number of seniors applying for the GIS rose from approximately 154,200 to 209,700, representing an increase of 36%. The largest improvements were among those 80 and over, who saw an increase of 27 percentage points, followed by those 70 to 79 at almost 25 points. Regionally, Manitoba/Saskatchewan and Ontario had the largest increases (23 and 19 points respectively).

Overall, the statistical models corroborate the descriptive analyses. The models indicate that although annual GIS payment amounts in 2000 were negatively related to the likelihood of not applying, this was no longer the case in 2006. This is likely due to the significant jump in the GIS application rate among those receiv-

ing less than \$500 in 2006. Overall, the results suggest that, by 2006, those receiving small GIS payments were just as likely to apply as those receiving the maximum.

The probability of not applying also fell significantly between 2000 and 2006 for the two oldest age groups (70 to 79 and 80 and over). And when first-time automatic applicants (age 65) were excluded, the probabilities for the two oldest groups were no longer statistically different from the youngest age group (66 to 69), suggesting that, by 2006, older seniors were just as likely to apply as younger seniors.

Significant increases were seen in the GIS take-up and application rates during the 2000 to 2006 period as HRSDC implemented a number of initiatives and

## GIS eligibility

To be eligible for the GIS, an individual must be entitled to OAS and meet the income requirements. Individuals are eligible for OAS if they are 65 or over, a Canadian citizen or a legal resident, and have lived in Canada for at least 10 years after age 18 if currently living in Canada, or for 20 years after age 18 if living outside Canada.

The maximum annual incomes used for this study are different from those listed here (Table 5) since the reference periods were 2000 and 2006. The maximum annual income and monthly benefit increase every quarter to reflect inflation. For example, in 2006, the maximum annual income for single persons was \$14,352.

**Table 5 Income cut-offs and benefit rates for GIS, April to June 2009**

	Maximum annual income	Maximum monthly benefit
		\$
Single person	15,672	652.51
Spouse of pensioner	20,688	430.90
Spouse of non-pensioner	37,584	652.51
Spouse of Allowance recipient	37,584	430.90

Source: Human Resources and Skills Development Canada.

changes in the GIS application process. Now, with the passing of Bill C-36, seniors need apply only once to receive GIS payments for all years of eligibility. The impact on take-up and application rates will be seen when more recent data become available.

## Perspectives

### Notes

1. GIS non-recipients, including both OAS recipients and non-recipients.
2. The estimated number of eligible non-recipients in Poon 2005 is slightly different than in this study, mainly because Poon used current-year income to estimate current-year eligibility for those whose income was missing in the previous year, while this study simply excluded individuals with missing previous-year income. Nevertheless, the results for the models and the descriptive statistics are almost identical.
3. Bootstrap weights for the two data sets were also stacked and utilized in the regression.

4. Other variables tested but subsequently dropped for lack of statistical significance and explanatory power were sex, education, immigrant status, home ownership, major activity, and economic family type. The exclusion of these variables did not greatly affect the coefficients of the remaining independent variables. Health status and region were included despite their lack of statistical significance because their exclusion greatly affected the coefficients of the other remaining variables. However, their inclusion did not change the statistical significance of the other variables and the general conclusion of the models.
5. A type II error is not rejecting the null-hypothesis of no statistical significance when it should have been rejected.
6. Similar to the full-sample model, other variables were tested but subsequently dropped as they did not show any statistical significance within panel or over time.
7. Those who have not applied for OAS, have had their OAS clawed back or are not eligible for OAS (i.e. do not meet the residence requirements) are all considered GIS non-eligible.
8. In general terms, the GIS for those receiving partial OAS benefits will be higher by an amount equivalent to the difference between the maximum OAS and their OAS benefits. This was not accounted for in the analysis. However, partial OAS recipients make up only a small portion of domestic recipients (4% in 2000 and 6% in 2006).
9. A number of assumptions were made to account for the difference in payment year (July to June) versus calendar year: an eligible non-recipient remained a non-recipient for the entire year; an individual receiving the GIS in 2000 or 2006 but not eligible based on 1999 or 2005 income was classified as being not eligible and not receiving if they reported GIS in 1999 or 2005; an individual receiving the GIS in 2000 or 2006 but not eligible based on their 1999 or 2005 income and reporting no GIS in 1999 or 2005 was classified as being an eligible recipient who received an option (under certain circumstances, like retirement, an individual can request that an income estimate be used rather than their actual income). These assumptions were not expected to have a significant effect on the results.

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# Barriers to training access

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Many researchers contend that a well-trained labour force is a way to achieve and maintain a competitive advantage in today's global business market (Aragon-Sanchez et al. 2003, Industry Canada 2002, and Turcotte and Rennison 2004). Thus, providing training has been advocated as sound social policy for competitiveness (Conference Board of Canada 2008 and OECD 2006). Recently, the Conference Board of Canada (2008) reported that Canada does not have a focused strategy to ensure that work-based skills training and lifelong education are prioritized. Furthermore, Canadian employers are low investors in workplace training programs on an absolute basis (Betcherman et al. 1998) and relative to their European counterparts (Goldenberg 2006).

Others argue that working conditions in Canada are polarized (Betcherman and Lowe 1997). Simply put, a substantial number of individuals are in jobs featuring relatively poor pay, benefits, security and stability (Chaykowski 2005, and Morissette and Zhang 2005). Moreover, this dichotomy seemingly extends to the receipt of employer-supported training opportunities, with some receiving much more training than others (Peters 2004, Saunders 2003 and Sussman 2002).

An abundance of Canadian and international studies indicate that less-educated workers are much more likely than others to have low-paid jobs (e.g. Cooke 2007, and OECD 2005 and 2006). Not surprisingly, these workers are among those with relatively poor access to training (Zeytinoglu et al. 2008). Historically,

unionization has led to improved conditions of work, and recent studies suggest that unionization continues to be associated with higher wages (Fang and Verma 2002). While the benefits of unionization are potentially shrinking in today's era of open and global markets, recent evidence suggests that unionized workers continue to have better access to training than non-union workers (Boheim and Booth 2004, Cooke 2007, and Turcotte et al. 2003), although the effects are potentially different for men and women (Hurst 2008).

Women are over-represented among those in lower-quality jobs (Cranford et al. 2003 and McGovern et al. 2004). These authors also indicate that women continue to be disadvantaged even among those with poor employment. This is consistent with the historical notion that women have faced additional barriers in the labour market, intentional or otherwise (e.g. Padavic and Reskin 2002). In terms of training in particular, previous research on women's receipt of employer-supported training is inconclusive.

Some studies show that, relative to their male counterparts, women are less likely to receive employer-supported training (e.g. Frazis et al. 2000, Knoke and Ishio 1998, OECD 2006 and Sussman 2002), while others report either unsubstantial differences, or slightly better access for women (e.g. Peters 2004, Turcotte et al. 2003, Underhill 2006, and Simpson and Stroh 2002). Moreover, differences in the receipt of employer-supported training, when comparing men and women, are not always apparent unless the effects of other related factors in the workplace are

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controlled for (Knoke and Ishio 1998). Consequently, it can be argued that among the key characteristics associated with a poor-quality job, all else being equal, are earning low wages, having a lower education, not having the protection of a trade union, and, in particular, being a woman. To be consistent with existing research (e.g. Saunders 2003, Chaykowski 2005 and Vallée 2005), individuals with these characteristics are referred to as ‘vulnerable’ workers in this article. While workers with vulnerable characteristics are clearly not a homogeneous group, the literature suggests that workers with these characteristics are, on average, relatively vulnerable compared with other workers.

Using the 2005 and 2003 Workplace and Employee Survey (WES), this article explores the receipt of employer-supported training among these potentially vulnerable workers (see *Data source and definitions*). Training increases earning potential and access to higher-quality employment opportunities (OECD 2005 and 2006, Morissette and Zhang 2005, and Vallée 2005). Having a highly trained workforce also benefits employers in terms of productivity and adaptability, particularly given the emerging shortage of skilled workers in Canada (e.g. Aragon-Sanchez et al. 2003 and Goldenberg 2006). It is therefore important to ascertain whether certain identifiable subgroups of workers receive tangibly different levels of training from their employers. Secondly, the proportion of these workers declining employer-supported training is also considered. Although reasons for declining training are undoubtedly numerous, they can provide general insight into the importance of training to the various workers.<sup>1</sup>

In terms of the theoretical foundation for employer-supported training, Becker’s labour economics theory (1964) suggests that workers should pay for any general training that leads to the acquisition of new skills and earning higher wages, and employers should pay only for firm-specific training. Empirical evidence, however, suggests that Becker’s theory is more a way of understanding the investment in human capital in its pure form than a description of what can be observed in practice (Acemoglu and Pischke 1998 and 1999, and Ahlstrand et al. 2003). In practice, employers train for three purposes: to increase the productivity or performance of workers; to achieve organizational goals; and to invest in workers to succeed in the unpredictable and turbulent business environment (Belcourt et al. 2000). The potential result is that employers might

direct their training resources towards their most valued workers for strategic business reasons and away from less privileged workers (Rainbird 2000).

This study examines five overlapping groups of workers: all workers; low-wage workers; less-educated workers; non-union workers; and low-wage, less-educated, non-union workers. All five were also split by sex. In the multivariate analysis, employer-supported training was the dependent variable and sex, wage level, attained education, and unionization were examined as independent variables, along with interaction variables where appropriate. Several other individual, work, workplace and industry factors can, independently and collectively, influence an employer’s tendency to provide training. Many of these are included as control variables: employment status, occupation, marital status, presence of dependent children, workplace tenure, worker age, workplace size, industry, and workplace profitability.<sup>2</sup>

### **Receipt of employer-supported training among all workers**

About 60% of all workers receive employer-supported training, while about 12% decline it (Table 1). This figure is similar to other estimates when considering that the broad definition of access includes three types of employer-supported training received as well as those offered but declining this training. A previous study found that about one-half of Canadian workers receive employer-supported training in a given year (Turcotte et al. 2003). According to the current study, 33% of workers received on-the-job training, 37% received classroom training, and a small number received ‘outside’ training supported by their employer. And about one in eight declined training in the past year.

Slightly more than one-half of the respondents were women, while one-quarter were categorized as low-wage. In terms of education, 1 in 10 had not completed high school, while 1 in 6 had high school but no postsecondary education. About 1 in 5 workers had a university degree, while slightly more than one-half had some postsecondary education but no degree. For some analyses, the 27% of workers with at most a high school education were also grouped as being less educated, while the other 73% had at least some postsecondary education. Finally, almost three-quarters of workers were non-union (i.e. not covered by a collective agreement).

**Table 1 Characteristics of all workers**

	%
<b>Dependent variables</b>	
Received employer-supported training	60.1
On-the-job	32.9
Classroom	36.5
Outside	4.4
Declined training	12.2
<b>Independent variables</b>	
Women	52.2
Low-wage	25.6
Education	
Less than high school	10.0
Completed high school	16.6
Postsecondary, non-university	52.3
University degree	21.1
Non-union	73.1
Low-wage, less-educated, non-union	8.7
<b>Control variables: Worker</b>	
Non-permanent	9.1
Part-time	15.7
Occupation	
Manager	12.6
Professional	17.2
White collar	22.8
Blue collar	47.4
Marital status	
Married/common-law	68.4
Other	31.6
Dependent children	43.5
Workplace tenure <sup>1</sup>	8.7
Workplace tenure squared <sup>1</sup>	152.9
Worker age <sup>1</sup>	40.9
Worker age squared <sup>1</sup>	1,814.7
<b>Control variables: Workplace</b>	
Workplace size (employees) <sup>1</sup>	482.7
Workplace size (log form) <sup>1</sup>	1.8
Industry	
Primary	1.7
Manufacturing and related	31.8
Retail trade	24.3
Finance and insurance	4.7
Education and health	21.8
Other services	15.6
Profitable workplace	66.5

1. Indicates the mean among all workers. All other figures indicate the proportion of workers having a particular characteristic.  
Source: Statistics Canada, Workplace and Employee Survey, 2005.

## Uncovering the gender barrier in training

Among all workers, women were insignificantly less likely than men (60% vs. 61%) to receive employer-supported training (Chart A). However, that difference became significant when considering only

## Limitations

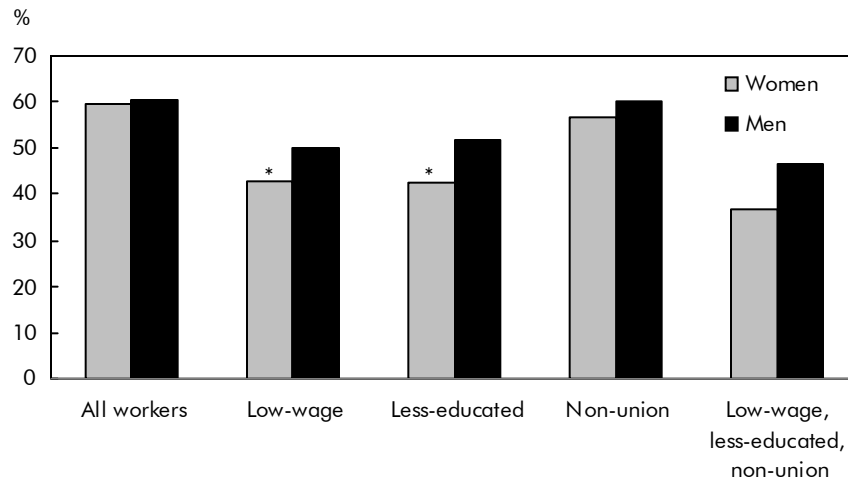
While the Workplace and Employee Survey covers much of the Canadian labour market, it somewhat under-represents non-permanent workers because only employees receiving T4 slips from their employer are included. Thus, agency temporary workers are included only if the agency itself is included as an employer. Moreover, casual and on-call workers could identify themselves as being 'regular' employees, even though they are more accurately categorized as non-permanent.

Second, it is reasonable to presume that omitted-variable bias exists in the models. Simply put, many workplace and worker factors likely affect the receipt of training. While several of these factors were included and controlled for, all of the influential ones may not have been taken into account. For instance, an employer's perception of the 'talent' of a worker could affect the likelihood of training. A related issue is the hierarchical or clustered nature of WES data—respondents were randomly chosen from within selected organizations. Nonetheless, an assumption underlying the regression models was that all observations (i.e. individuals) were independent. This would not be the case if workplace variables (e.g. employer strategies) affected the receipt of training. Finally, it was not possible to separate workers according to province of employment.<sup>3</sup> This would have been helpful since small but noticeable (and apparently shrinking) differences in the receipt of training have been noted by province (Peters 2004).

Although these limitations are important, the results should still hold. If anything, the regression results would likely have been stronger with controls for geography and other omitted variables. The most potentially problematic issue is the hierarchical nature of the WES data, since it could result in an over-estimation of the relationship between workplace variables and the receipt of training. Overall, the model choice, while common in the literature and able to provide insight into training issues, is a significant simplification of the full set of factors affecting training.

low-wage workers (43% vs. 50%) or only less-educated workers (42% vs. 52%). The difference was insignificant but nonetheless present among non-union workers (57% vs. 60%) and low-wage, less-educated, non-union workers (37% vs. 47%). Two main observations can be made. First, low-wage, less-educated, *or* non-union workers received less employer-supported training relative to all workers, although only slightly so in the third case. Moreover, this disparity was particularly substantive when comparing low-wage, less-educated, *and* non-union workers to all workers. The second observation is that although women and men received essentially equivalent shares of employer-supported training overall, women were less likely to receive training than their male counterparts in the four smaller subsamples.



**Chart A Women in some groups less likely to receive employer-supported training**

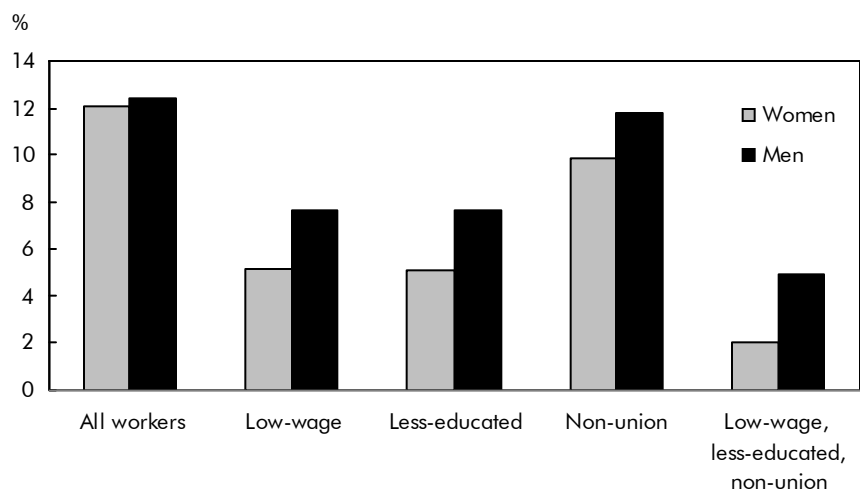
\* statistically significant difference at the 0.10 level or better  
 Source: Statistics Canada, Workplace and Employee Survey, 2005.

Although not shown, similar differences also existed in 2003. These persistent differences between women and men for multiple subsamples and multiple years could be an indication of a 'gender training barrier.' (For more details on the substantive or statistical significance of these differences, see *Data source and definitions*).

By way of corroboration of the existence of the training barrier, the proportions of workers who declined employer-supported training in the past year were calculated. If women, on average, are disadvantaged by relatively low access to employer-supported training, one would expect them to be less likely to decline it (Chart B). Among all workers, women were only marginally less likely than men to decline employer-supported training (12.0% vs. 12.4%), but among low-wage workers, the difference increased (5.2% vs. 7.7%). A similar difference existed among less-educated workers (5.1% vs. 7.6%). The difference shrank but

remained apparent among non-union workers (9.9% vs. 11.8%). Finally, among the low-wage, less-educated, non-union workers, the difference was small in absolute size, but very substantive on a relative basis (at 2.0% vs. 4.9%). Overall, workers in the four subsamples received less employer-supported training and were less likely to decline that training. Also, within each subsample, women were less likely than men to receive training, and were also less likely to decline it, particularly among low-wage, less-educated and non-union workers.

Although the pattern among those declining training was distinct, one possible explanation is that these workers were less likely to decline training because they were less likely to receive it. A training 'vulnerability proxy' (the ratio of the proportion receiving employer-supported training to the proportion declining training) was created to test this

**Chart B Women less likely to decline employer-supported training**

Source: Statistics Canada, Workplace and Employee Survey, 2005.

## Data source and definitions

The Workplace and Employee Survey (WES) 2005 sample comprised 24,197 employees from 6,693 workplaces with response rates of 81.2% and 77.7% respectively. Weighted, this represented 12.2 million workers. The WES covers all business locations in Canada except employers in Yukon, Nunavut and the Northwest Territories, and employers in crop production, animal production, fishing, hunting and trapping, private households, religious organizations and public administration. (For more on sampling and sample design, see Statistics Canada 2008). Although all presented results are from the 2005 WES dataset, 2003 was also used.

Employer-supported training is classroom, on-the-job or 'outside' training supported or provided by an employer in the last 12 months. Although not shown, the receipt of each of these three types is positively correlated to the others.

Although no standard definition of vulnerability has emerged, the one used here is consistent with several recent Canadian studies (e.g. Saunders 2003, Chaykowski 2005 and Vallée 2005)—workers with some or all of the following characteristics: female, low wages, less education, not unionized. These vulnerability characteristics constitute the set of independent variables. For wages, a boundary of \$13.00 per hour was established. This emerged from an analysis of the distribution of wages in this dataset. Since a standard definition of a low-wage worker does not exist, the cut-off point was set to permit identification of the lowest-paid quartile of workers. These workers should or could face different working conditions than their better-paid counterparts. Large-enough cell counts were also provided when concurrently sorting workers by education and union status. Workers were sorted into four categories according to attained education. The first two were those with less than high school and those completing only high school. To avoid small cell counts in some cases (e.g. wage level), these two were combined. The other two categories were those with at least some postsecondary education (but no degree), and those with at least a bachelor's degree. Again, in some analyses it was necessary to combine these two.

In all regression analyses, in addition to vulnerability proxy variables, controls for the possible effects of a number of other factors were also used: employment status, occupation, marital status, presence of dependent children, workplace tenure, worker age, workplace size, industry, and workplace profitability. Employment status distinguished between permanent and non-permanent jobs, and those with a full-time or part-time schedule (using 30 hours per week as the boundary). Four occupational categories were defined:

managerial, professional, lower white collar (i.e. marketing, sales, clerical or administrative), and blue collar (i.e. technical, trades, production workers, operations and maintenance). Marital status was married (including common-law) or other (i.e. separated, divorced, widowed or single). Presence of dependent children indicated an individual responsible for at least one child. Workplace tenure indicated the number of years since employees started working for their current employer. Workplace tenure squared was also included in case the relationship between workplace tenure and training was non-linear. Worker age and worker age squared were measured in years using birthdates. Workplace size was the number of employees at the employer's location. The logarithmic form of this variable was utilized to normalize its distribution. Six industry categories were defined: primary (forestry, mining, and oil and gas extraction), manufacturing and related (construction, transportation, warehousing, communication and other utilities), retail trade, finance and insurance, education and health, and other. The final control variable, workplace profitability, identified employers whose gross revenue exceeded gross expenditures for that location.

An odds ratio can be interpreted as how many times higher (or lower, if less than 1) the examined group's odds of access to employer-supported training are. Goodness of fit was measured with the pseudo  $R^2$  and Wald chi-square. The analysis used weighted micro data accessed via the Statistics Canada Research Data Centres. Regression results were bootstrapped using Statistics Canada's recommended set of weights via the Stata function (Chowhan and Buckley 2005).

Statistical significance refers to the situation where the arithmetic likelihood indicates that a given result would be very likely to occur by random chance. On the other hand, substantive significance refers to the magnitude or importance of a given result. Researchers have high confidence if a given result, like the detected gender training barrier, is consistently shown to be both statistically and substantively significant. If, on the other hand, a result is statistically significant but not substantive, then the importance of the finding is low, and a result that is substantively significant but not statistically significant could be considered to be merely an interesting anomaly. In this paper, the male-female differences are tangible and repeatable over multiple years. However, the statistical significance in the bar charts (and via t-tests) and the odds ratios in the multiple regressions are somewhat lower in 2005 than in 2003, but nonetheless exist in multiple instances in both years, essentially indicating more variation in these key variables in 2005.

hypothesis. About five workers received employer-supported training for each one that declined it among all men and all women (Chart C). However, among low-wage, less-educated, non-union men, about nine accessed employer-supported training for every one that declined it. This suggests that these men were more

reluctant, on average, than those not sharing these attributes to decline employer-supported training. However, among similar women, 18 accessed training for every 1 declining. Thus, if the presumption is correct regarding those most likely to accept employer-supported training, then low-wage, less-educated,

**Chart C Ratio of accessing versus declining employer-supported training higher among women**



Source: Statistics Canada, Workplace and Employee Survey, 2005.

non-union women are the most vulnerable. This is also consistent with themes in recent academic literature exploring the plight of so-called 'vulnerable' workers (e.g. Saunders 2003, Chaykowski 2005 and Vallée 2005).

Multivariate regressions were used to see whether the descriptive patterns were replicated while controlling for other possibly influential worker and workplace variables (Table 2). Model 1 showed the relative effect of each vulnerability characteristic. Model 2 added variables to isolate the interaction of sex with each of the low-wage, less-education, and non-union variables. Model 3 was the same as Model 1 except that a single interaction variable was added to understand the combined effect of the low-wage, less-education and non-union characteristics. To recap, previous research on women's receipt of training seemed inconclusive. While

some studies showed women to be less likely than men to receive employer-supported training, others reported either unsubstantial differences or slightly better access to training among women. In this study, women were less likely to receive employer-supported training (about 93% as likely as men), although the effect was not statistically significant. In Model 2, low-wage, less-educated or non-union women were all less likely to receive training, as shown by the odds ratios for the interaction variables. In particular, less-educated women were significantly less likely to receive employer-supported training than those without these characteristics. On the other hand, women who were not low-wage, less-educated or non-union were 22% more likely than men to receive training (although this difference was not statistically significant).

Low-wage workers were only about two-thirds as likely as higher-wage workers to receive employer-supported training, with this gap statistically significant for all three models. In addition, less-educated workers were three-quarters as likely as better-educated workers to receive employer-supported training, with this gap statistically significant for two of the three models. In Model 2, less-educated women were significantly less likely than those without these characteristics to receive employer-supported training, while less-educated men did not face a similar circumstance. All three models showed non-union workers to be significantly more likely than unionized workers to receive employer-supported training, and by a factor of 16% or more after controlling for other factors. Finally, Model 3 showed that low-wage, less-educated, non-union workers did not receive significantly less employer-supported training than other workers. Nonetheless, each of those traits was individually related to the receipt of employer-supported training, with low wages and less education negatively related, and non-union status positively related.

Given the large number of control variables included in the regression results, only general observations are possible. The control variables statistically related to employer-supported training in this study were: employment status, occupation, marital status, workplace tenure, worker age, workplace size, and industry. Non-permanent workers were less likely to receive employer-supporting training relative to permanent workers, while lower-level white-collar and blue-collar workers were less likely than professionals to receive this

**Table 2 Odds ratios associated with employer-supported training among all workers**

	Model 1	Model 2	Model 3
	Odds ratio		
<b>Independent variables</b>			
Women (ref. men)	0.93	1.22	0.94
Low-wage (ref. higher-wage)	0.61*	0.68*	0.62*
Less-educated (ref. better-educated)	0.74*	0.85	0.74*
Non-union (ref. unionized)	1.16*	1.26*	1.17*
Women and low-wage	...	0.84	...
Women and less-educated	...	0.73*	...
Women and non-union	...	0.84	...
Low-wage, less-educated, non-union	...	...	0.94
<b>Control variables</b>			
Non-permanent (ref. permanent)	0.66*	0.65*	0.66*
Part-time	0.89	0.90	0.89
Occupation (ref. professional)			
Manager	0.94	0.95	0.94
White collar	0.53*	0.54*	0.53*
Blue collar	0.74*	0.74*	0.74*
Other marital status (ref. married)	0.82*	0.82*	0.82*
Dependent children	0.99	1.00	0.99
Workplace tenure	0.97*	0.97*	0.97*
Workplace tenure squared	1.00	1.00	1.00
Worker age	0.94*	0.94*	0.94*
Worker age squared	1.00*	1.00*	1.00*
Workplace size	1.52*	1.52*	1.52*
Industry (ref. manufacturing and related)			
Primary	1.43*	1.42*	1.43*
Retail trade	1.01	1.01	1.01
Finance and insurance	3.23*	3.18*	3.22*
Education and health	1.65*	1.59*	1.65*
Other services	1.16	1.16	1.16
Profitable workplace	0.87*	0.87	0.87*

\* statistically significant for the reference group (ref.) at the 0.10 level or better

Source: Statistics Canada, Workplace and Employee Survey, 2005.

training. Married/common-law workers were more likely to receive employer-supported training than workers with another marital status. Controlling for other factors, workplace tenure and age were negatively related to receiving employer-supported training, although the effect was very small in both cases. In terms of order of magnitude, the two seemingly most influential variables were workplace size and industry. Those in larger workplaces were significantly more likely than those in smaller workplaces to receive employer-supported training, while those in primary industries, finance and insurance, or education and health were much more likely than those in

manufacturing and related industries to receive training. Somewhat surprisingly, working in a profitable workplace was associated with less employer-supported training. This is counterintuitive since profitable organizations have more resources for training, and training investments have generally been shown to have a favourable impact on organizational outcomes (Turcotte and Rennison 2004).

### Do vulnerable workers access employer-supported training?

The regressions were also run for the four subsamples. Among low-wage workers, the least educated ones (i.e. with less than a high school education) were significantly less likely to receive employer-supported training, and by a substantive margin (Table 3). None of the other key characteristics were statistically significant for this group. Among less-educated workers, women were less likely than men to receive employer-supported training, and low-wage workers were less likely than those with higher wages to receive training. And the non-unionized in the group were more likely than the unionized to receive training, albeit at only a weak level of significance. In the regression results for non-union workers, the lower-waged were less likely than their higher-paid counterparts to receive employer-supported training, while those with less than a high school education received less training than those with more education. Among low-wage, less-educated, non-union workers, women were 25% less likely than men to receive employer-supported training, although this difference was not statistically significant.

Several control variables were significantly associated with training in one or more of the models. More specifically, workplace tenure was negatively associated with employer-supported training in all four subsamples, meaning that low-tenure workers were less likely than those with higher tenure to receive training. Workplace size was again positively and significantly related to employer-supported training, meaning that those in larger workplaces were more likely to receive training. Workers in finance and insurance or education and health also had much better odds of receiving training than those in manufacturing and related industries. Other variables sometimes significantly associated with receiving employer-supported training were non-permanent employment status, occupation and worker age, although no particular pattern was seen across multiple subsamples. Workers with non-permanent employment status, a part-time schedule or a profitable workplace had relatively low



**Table 3 Odds ratios associated with employer-supported training among worker subsamples of interest**

	Low-wage	Less-educated	Non-union	Low-wage, less-educated, non-union
Odds ratio				
<b>Independent variables</b>				
Women (ref. men)	0.77	0.72*	0.88	0.75
Low-wage (ref. higher-wage)	...	0.64*	0.58*	...
Education (ref. some postsecondary)				
Less than high school	0.58*	...	0.63*	...
Completed high school	1.04	...	0.89	...
University degree	1.08	...	1.14	...
Non-union (ref. unionized)	1.07	1.34*	...	...
<b>Control variables</b>				
Non-permanent (ref. permanent)	0.73	0.91	0.72*	0.88
Part-time	0.85	0.78	0.92	0.67
Occupation (ref. professional)				
Manager	1.56	1.52	0.93	4.48
White collar	0.72	0.95	0.60*	1.10
Blue collar	0.92	1.22	0.81*	1.32
Other marital status (ref. married)	0.76*	0.82	0.83*	0.91
Dependent children	0.98	1.10	1.00	1.35
Workplace tenure	0.91*	0.96*	0.96*	0.87*
Workplace tenure squared	1.00	1.00	1.00*	1.00
Worker age	0.94*	0.95	0.93*	1.00
Worker age squared	1.00	1.00	1.00*	1.00
Workplace size	1.61*	1.61*	1.64*	1.91*
Industry (ref. manufacturing and related)				
Primary	2.08	0.89	1.69*	5.46*
Retail trade	1.31	0.87	1.12	1.58*
Finance and insurance	3.92*	4.21*	3.50*	11.06*
Education and health	2.56*	1.50*	1.62*	2.81*
Other services	1.40*	1.41	1.20	2.41*
Profitable workplace	0.82	0.75	0.87	0.68

\* statistically significant for the reference group (ref.) at the 0.10 level or better  
Source: Statistics Canada, Workplace and Employee Survey, 2005.

odds of receiving employer-supported training, although significantly so in only one case.

### Sensitivity analyses: Another look at training for men and women

The regression models were generated separately for men and women to assess whether the roles of the other independent variables differed between the sexes (Table 4). In both subsamples, those with low wages and those with the least education were sub-

stantially and significantly less likely to receive employer-supported training. That said, the odds ratios show that having less than a high school education was associated with much lower receipt of training among women than among men. Other education levels and non-union status had insignificant effects with similar odds for both sexes.

Turning to control variables, those with different associations for women and men were employ-

ment status, occupation and industry. Although non-permanent workers were generally less likely to receive employer-supported training, the effect was insignificant for men, but women in non-permanent jobs were only about one-half as likely as those with a permanent job to receive training. Among men, occupation was not significantly related to employer-supported training. Conversely, professional women were roughly twice as likely as women in other occupations to receive employer-supported training. Finally, regardless of sex, workers in finance and insurance were about three times as likely as those in manufacturing and related industries to receive employer-supported training. While no other significant differences were seen by industry among men, women in education and health were also much more likely to receive training. The results suggest that while similarities exist between men and women regarding the factors associated with employer-supported training, a much more sizeable variation is seen among women for two structural factors—employment status and occupation. In other words, having a non-permanent job or a non-professional occupation was associated with sharply lower odds of receiving training among women, but not among men.

### Conclusion

Consistent with human capital theory and existing research, better-educated, higher-wage workers would be expected to have better access to training by their employer (Becker 1964, Underhill 2006 and Hurst 2008). Based on existing studies (e.g. Boheim and Booth 2004, and Turcotte et al. 2003), non-union workers were also ex-

**Table 4 Odds ratios associated with employer-supported training among all workers by sex**

	Women	Men
	Odds ratio	
<b>Independent variables</b>		
Low-wage (ref. higher-wage)	0.64*	0.65*
Education (ref. some postsecondary)		
Less than high school	0.42*	0.73*
Completed high school	0.79	0.90
University degree	1.08	1.22
Non-union (ref. unionized)	1.15	1.17
<b>Control variables</b>		
Non-permanent (ref. permanent)	0.57*	0.79
Part-time	0.99	0.71*
Occupation (ref. professional)		
Manager	0.59*	1.42
White collar	0.38*	0.91
Blue collar	0.56*	1.06
Other marital status (ref. married)	0.90	0.71*
Dependent children	1.04	0.95
Workplace tenure	0.97	0.97
Workplace tenure squared	1.00	1.00
Worker age	0.92*	0.94*
Worker age squared	1.00*	1.00
Workplace size	1.53*	1.56*
Industry (ref. manufacturing and related)		
Primary	1.65	1.34*
Retail trade	0.99	1.06
Finance and insurance	3.42*	2.92*
Education and health	1.82*	1.07
Other services	1.21	1.11
Profitable workplace	0.92	0.80*

\* statistically significant for the reference group (ref.) at the 0.10 level or better

Source: Statistics Canada, Workplace and Employee Survey, 2005.

pected to have relatively low access to employer-supported training. Finally, after controlling for other individual, job and workplace characteristics, it was expected that training access for women would be poorer than for men even though recent studies had yielded mixed results. This expectation was based on literature suggesting that women are over-represented among workers considered vulnerable (e.g. Saunders 2003) and in poorer-quality employment (e.g. Cranford et al. 2003, and Padavic and Reskin 2002). This study used existing literature (Saunders 2003, Chaykowski 2005 and Vallée 2005) to select some of the key characteristics of ‘vulnerable’ workers: female, low wages, less education and non-union.

Workers in the four ‘vulnerable’ groups were less likely to receive, and also less likely to decline, employer-supported training. Also, within each group, women were less likely than men to receive, and also less likely to decline, employer-supported training, particularly among those theoretically most ‘vulnerable’—low-paid, less-educated and non-union workers. These persistent differences between women and men across multiple groups and multiple years indicate a ‘gender training barrier.’

Overall, the regression results consistently showed that, controlling for other factors, low-wage and less-educated workers were less likely to receive employer-supported training. Unexpectedly though, non-union workers generally had better odds than their unionized counterparts of receiving training. This was also contrary to the findings of other training studies. Although more analysis is required, one possible explanation is that unionization generally results in better wages, permanent employment status and a full-time schedule. Controlling for those factors disconnects the benefits of unionization. The odds ratios consistently indicated that women were less likely to receive employer-supported training, although the effect was statistically significant in only two of the six models. That said, in the subsamples of workers using the vulnerability characteristics, women were roughly one-quarter less likely than comparable men to receive training.

The separate regression models for women and men yielded two potentially important findings. First, having low education seems to be more problematic for women since the odds ratios showed that less than a high school education was associated with much lower odds of receiving training for women than for men. Second, non-permanent employment or a non-professional occupation was associated with sharply lower odds of receiving employer-supported training among women, but not among men. These results provide a further indication that women are potentially disadvantaged with respect to training, although it would be prudent to see whether these results are replicated in other studies. Like other research (Turcotte et al. 2003 and Peters 2004), this study found that, in the aggregate, men and women receive similar shares of training. The reason for women’s lower share of training here but not elsewhere is that the difference is revealed only in the groups with ‘vulnerable’ characteristics.

The partial lack of statistical significance by sex in the regression results does not mean that the training barrier found in the descriptive statistics is illusory. On the contrary, the robustness of those differences indicates that the barrier is real. Thus, the somewhat differing results when controlling for other factors help clarify the results. More specifically, the results as a set suggest that the receipt of training varies not only on the basis of sex, but also on some or all of wage, education, unionization, employment status, occupation, workplace tenure, worker age, and industry. This is generally consistent with other studies (e.g. Turcotte et al. 2003, Hurst 2008 and Peters 2004).

Since it is well-established that women are over-represented in poor-quality jobs and some of the characteristics of poor jobs are associated with less training, it is as much a philosophical as a computational issue to quantify the effects of sex on the receipt of training. In any case, based on the overall results, workers having so-called vulnerable characteristics are indeed less likely to receive employer-supported training in Canada. That said, it remains unclear whether the training barrier is due to being female specifically, or whether those women are over-represented among workers having difficulty receiving training from their employer. While the answer remains elusive, the evidence is compelling that vulnerable workers are less likely to receive training and that women are relatively more disadvantaged among those workers. (For a more philosophical discussion of this dilemma, see Cooke and Zeytinoglu 2006).

To shed more light on this issue, the roles of employment status, worker age and workplace tenure on receiving training also deserve further investigation. In addition, the reasons various groups of workers accept or decline training warrant additional investigation. It is also reasonable to expect that some workers want training more than others, and that workers in certain industries or occupations will need more training than others. Thus, more research into the management decision-making process would be beneficial to clarify how and why employers allocate training resources among workers.

### Perspectives

#### Notes

1. Since declining training is defined to capture the instance where workers opt out of training offered by their employers, the 'unmet need' for training is explored according to Peters (2004).
2. For additional details, see *Data source and definitions*. Recent studies exploring the relationships between training and various worker and workplace variables in Canada are available in Turcotte et al. 2003, Hurst 2008 and Peters 2004. For an international view of the value of skills attainment for workers, see OECD 2005.
3. Although the WES dataset contains provincial identifiers, this information is not contained in the version of the dataset that is available to researchers via the Statistics Canada Research Data Centres.

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# PERSPECTIVES

ON LABOUR AND INCOME

## Gambling

July, 2009

- Net revenue from government-run lotteries, video lottery terminals (VLTs), casinos and slot machines not in casinos rose steadily from \$2.73 billion in 1992, before levelling off and remaining at over \$13 billion since 2005, but then dropping for the first time in 2008, to \$13.67 billion from \$13.70 in 2007.<sup>1</sup>
- Net revenue from pari-mutuel betting (horse racing) dropped from \$532 million to \$378 million over the same period (1992 to 2008).
- Casinos and slot machines outside casinos (mainly at racetracks) continued to increase their share of the gambling industry in 2008 (reaching 34% and 22% respectively) while revenue and representation dropped for lotteries (24%) and VLTs (20%).
- Average gambling revenue per person 18 and over in 2008 ranged from \$114 in the three territories to \$825 in Saskatchewan, with a national average of \$528.<sup>2</sup>
- Compared with workers in non-gambling industries, those in gambling were more likely to be non-unionized (74% versus 69%), paid by the hour (81% versus 65%), and paid less (\$19.85 hourly versus \$21.30) and receiving tips at their job (33% versus 7%).
- Men increased their share of employment in gambling industry from 35% in 1992 to 51% in 2008. Similarly the rate of full-time jobs increased from 60% to 84% between the two years.<sup>3</sup>
- Just under half of women and men living alone reported spending money on at least one gambling activity; however, the men spent 50% more than women—\$814 compared with \$516.<sup>4</sup>
- Gambling participation and expenditure rates increased with household income. For example, 34% of households with incomes of less than \$20,000 gambled in 2007 and spent an average of \$678, while equivalent figures for those with incomes of \$80,000 or more were 58% and \$798.

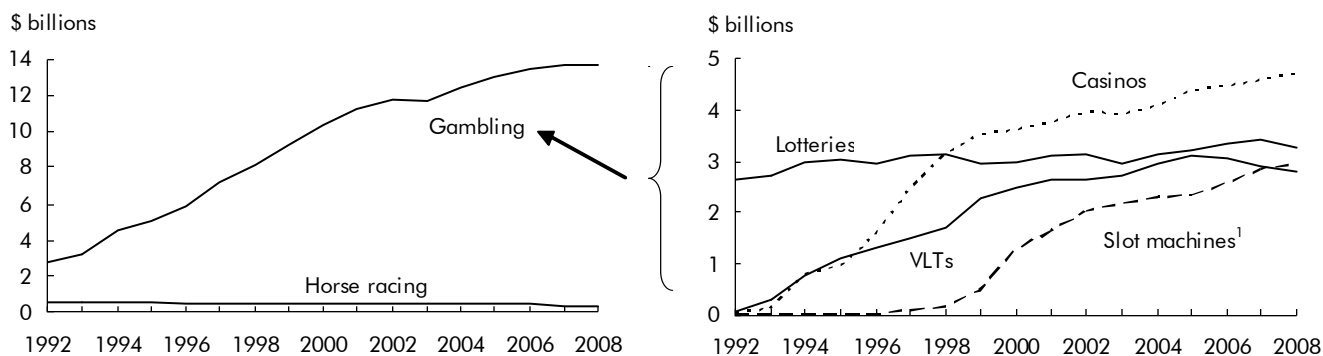
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**Chart A Net revenue from government-run gambling has increased steadily**

1. Refers to ones found outside government-run casinos.

Source: Statistics Canada, National Accounts.

**Table 1 Gambling revenues and profits**

	Gambling revenue <sup>1</sup>		Gambling profit <sup>2</sup>		Share of total revenue <sup>3</sup>		Revenue per capita (18 and over) <sup>4</sup>	
	1992	2008	1992	2008	1992	2006	1992	2008
	\$ millions (current)				%		\$	
<b>Canada</b>	<b>2,734</b>	<b>13,926</b>	<b>1,680</b>	<b>7,144</b>	<b>1.9</b>	<b>4.8</b>	<b>128</b>	<b>528</b>
Newfoundland and Labrador	80	197	42	99	2.3	4.1	189	477
Prince Edward Island	20	46	7	16	2.7	3.3	209	413
Nova Scotia	125	324	72	143	2.8	4.5	180	426
New Brunswick	117	219	49	129	2.7	3.3	209	363
Quebec	693	2,790	472	1,539	1.8	3.9	128	449
Ontario	853	4,841	529	1,680	1.9	5.2	106	475
Manitoba	153	645	105	358	2.5	5.3	186	696
Saskatchewan	62	641	39	325	1.1	5.4	86	825
Alberta	225	2,254	125	1,759	1.6	5.5	118	809
British Columbia	403	1,962	239	1,089	2.2	5.2	153	556
Yukon, Northwest Territories and Nunavut	5	9	1	7	0.3	0.3	82	114

1. Total revenue from wagers on government-controlled lotteries, casinos and VLTs, minus prizes and winnings. Revisions to provincial estimates will occur in November 2009.

2. Net income of provincial governments from total gambling revenue, less operating and other expenses (see Data sources and definitions).

3. The 2006 share of total revenue calculation is based on 2006 gambling revenue and 2006 total provincial revenue. The 2007 provincial revenue will be available autumn 2009.

4. Persons 18 and over were selected as this is the legal age of gambling in most provinces.

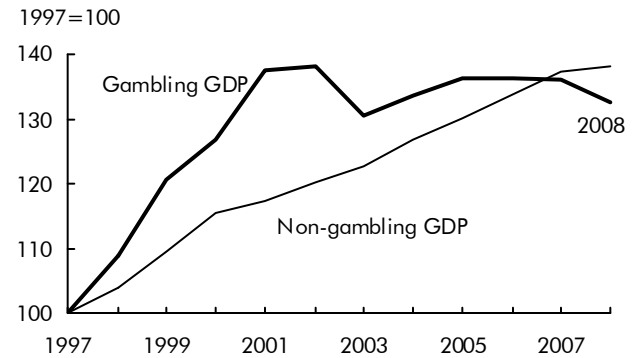
Sources: Statistics Canada, National Accounts, Public Institutions (Financial management statistics) and post-censal population estimates.

**Table 2 Characteristics of workers**

	Gambling <sup>1</sup>		Non-gambling	
	1992	2008	1992	2008
<b>Total employed</b>	<b>11</b>	<b>41</b>	<b>12,720</b>	<b>17,084</b>
		thousand		
<b>Sex</b>		%		
Men	35	51	55	53
Women	65	49	45	47
<b>Age</b>				
15 to 34	57	42	45	37
35 and over	43	58	55	63
<b>Education</b>				
High school or less	66	47	57	41
Postsecondary certificate or diploma	21	34	27	35
University degree	13	19	16	24
<b>Work status</b>				
Full-time	60	84	81	82
Part-time	40	16	19	18
<b>Provinces</b>				
Atlantic provinces	8	3	7	6
Quebec	F	16	24	23
Ontario	28	39	39	39
Prairie provinces	30	20	17	18
British Columbia	25	22	13	13
<b>Class of worker</b>				
Employee	99	98	85	85
Self-employed	F	F	15	15

1. Employment at racetracks and 'racinos' (racetracks with slots and/or other gaming activities) is excluded. These activities are coded under 'spectator sports'.

Source: Statistics Canada, Labour Force Survey.

**Chart B Growth in gambling has leveled off**

Note: The price, at basic prices, of the goods and services produced. The GDP figures for the gambling industry refer strictly to wagering activities, such as lottery ticket sales, VLT receipt sales, and bets at casinos. Other economic spinoffs, such as hotel and restaurant business, security services, or building and equipment maintenance are not included.

Source: Statistics Canada, National Accounts.

**Table 3 Characteristics of jobs**

	Gambling		Non-gambling	
	1997	2008	1997	2008
<b>Employees<sup>1</sup></b>	<b>33</b>	<b>41</b>	<b>11,323</b>	<b>14,456</b>
		thousand		
		%		
Unionized <sup>2</sup>	29	26	34	31
Non-unionized	71	74	66	69
Permanent job	91	91	89	88
Temporary job	9	9	11	12
Usually receive tips	27	33	7	7
No tips	73	67	93	93
Paid by the hour	80	81	61	65
Not paid hourly	20	19	39	35
<b>Average hourly earnings<sup>3</sup></b>				
			\$	
Men: full-time	13.50	23.00	17.85	24.30
Women: full-time	13.05	18.70	14.80	20.80

1. More detailed questions on employees were introduced with the 1997 revision of the Labour Force Survey.

2. Includes persons who are not union members, but whose jobs are covered by collective agreements.

3. Includes tips and commissions.

Source: Statistics Canada, Labour Force Survey.

**Table 4 Household expenditures on gambling activities**

	At least one gambling activity		Government lotteries		Other lotteries/raffles, etc.		Casinos, slot machines and VLTs		Bingos	
	\$	%	\$	%	\$	%	\$	%	\$	%
<b>All households</b>										
2000	492	74	239	63	82	31	523	21	729	9
2001	513	72	249	61	94	29	536	20	797	9
2002	570	73	252	63	123	30	679	21	901	7
2003	506	74	237	64	95	28	649	19	800	8
2004	514	71	262	61	100	28	653	19	802	6
2005	549	69	251	60	141	26	712	17	946	6
2006	493	73	254	64	109	28	686	19	521	6
2007 <sup>1</sup>	646	52	282	48	123	17	850	17	792	4
<b>One-person households<sup>2</sup></b>										
Men	814	49	312	44	226	12	1,438	15	892	2
18 to 44	578	49	155	41	118	12	1,033	19	F	F
45 to 64	1,084	54	384	51	163	14	2,895	11	F	F
65 and over	874	42	545	38	780	8	772	13	F	F
Women	516	40	165	36	87	13	795	14	717	4
18 to 44	285	39	147	35	80	16	246	18	F	F
45 to 64	679	50	176	47	87	15	1,586	14	657	4
65 and over	530	35	167	29	96	9	739	11	978	5
<b>All households</b>										
Newfoundland and Labrador	567	52	303	48	97	25	611	8	701	11
Prince Edward Island	525	54	258	47	107	26	385	13	918	9
Nova Scotia	599	55	266	50	96	26	498	12	1,278	9
New Brunswick	440	54	246	51	116	21	512	7	683	7
Quebec	456	55	284	53	63	11	585	12	521	5
Ontario	726	50	297	45	142	17	905	21	671	3
Manitoba	709	56	243	49	83	26	736	25	1,044	7
Saskatchewan	731	55	264	49	115	31	748	24	1,058	6
Alberta	927	48	282	42	183	24	1,246	20	950	4
British Columbia	628	52	264	48	114	17	847	17	1,060	3
<b>Income after tax</b>										
Less than \$20,000	678	34	198	30	234	7	1,624	8	621	4
\$20,000 to \$39,999	602	49	271	45	101	13	794	15	734	6
\$40,000 to \$59,999	587	55	277	50	98	18	761	17	766	5
\$60,000 to \$79,999	558	61	306	57	99	22	592	21	562	4
\$80,000 and over	798	58	311	54	149	25	951	23	1,309	3

1. New screening questions were added in 2007 to reduce response burden, but for some categories, including games of chance, the response rate was lower than expected. These screening questions will be modified for 2008. See catalogue no. 62F0026M, no. 1 for more details.

2. Using one-person households allows examination of individual characteristics. Persons 18 and over were selected as this is the legal age for gambling in most provinces.

Note: Expenditures are per spending household. Unless otherwise indicated, figures are for 2007.

Source: Statistics Canada, Survey of Household Spending.



## Data sources and definitions

**Labour Force Survey:** a monthly household survey that collects information on labour market activity, including detailed occupational and industrial classifications, from all persons 15 years and over.

**National Accounts:** The quarterly Income and Expenditure Accounts (IEA) is one of several programs constituting the System of National Accounts. The IEA produces detailed annual and quarterly income and expenditure accounts for all sectors of the Canadian economy, namely households, businesses, governments and non-residents.

**Survey of Household Spending (SHS):** an annual survey that began in 1997 and replaced the Family Expenditure Survey and the Household Facilities and Equipment Survey. The SHS collects data on expenditures, income, household facilities and equipment, and other characteristics of families and individuals living in private households.

**Gambling industries:** This industry group covers establishments primarily engaged in operating gambling facilities, such as casinos, bingo halls and video gaming terminals; or providing gambling services, such as lotteries and off-track betting. It excludes horse race tracks and hotels, bars and restaurants that have casinos or gambling machines on the premises.

**Gambling profit:** net income from provincial and territorial government-run lotteries, casinos and VLTs, after prizes and winnings, operating expenses (including wages and salaries), payments to the federal government and other overhead costs are deducted.

**Gambling revenue:** all money wagered on provincial and territorial government-run lotteries, casinos and VLTs, less prizes and winnings. Gambling revenue generated by and for charities and on Indian reserves is excluded.

**Government casino:** a government-regulated commercial casino. Permits, licences and regulations for casinos, both charity and government, vary by province. Government casinos, now permitted in several provinces, also vary by the degree of public and private involvement in their operations and management. Some government casinos are run entirely as Crown corporations, while others contract some operations—for example, maintenance, management or services—to the private sector.

**Video lottery terminal (VLT):** a coin-operated, free-standing, electronic game of chance. Winnings are paid out through receipts that are turned in for cash, as opposed to cash payments from slot machines. Such terminals are regulated by provincial lottery corporations.

**Table 5 Household expenditure on all gambling activities by income groups, 2007**

	Average expenditure		Percentage reporting <sup>1</sup>	Gaming as % of total income	
	All households	Reporting households		All households	Reporting households
	\$			%	
<b>Income after tax</b>	<b>336</b>	<b>646</b>	<b>52</b>	<b>0.5</b>	<b>0.8</b>
Less than \$20,000	229	678	34	1.7	4.8
\$20,000 to \$39,999	296	602	49	1.0	2.0
\$40,000 to \$59,999	320	587	55	0.6	1.2
\$60,000 to \$79,999	340	558	61	0.5	0.8
\$80,000 and over	465	798	58	0.4	0.7

1. New screening questions were added in 2007 to reduce response burden, but for some categories, including games of chance, the response rate was lower than expected. These screening questions will be modified for 2008. See catalogue no. 62F0026M, no. 1 for more details.

Source: Statistics Canada, Survey of Household Spending.

## Notes

- Refers to total money wagered on non-charity lotteries, casinos and VLTs, minus prizes and winnings.
- Survey of Household Spending (SHS) and National Accounts rankings of provincial expenditures differ, in part because the SHS includes both charity and non-charity gambling activity.
- Employment at racetracks and 'racinos' (racetracks with slots and/or other gaming activities) is excluded. These activities are coded under 'spectator sports'.
- New screening questions were added in 2007 to reduce response burden, but for some categories, including games of chance, the response rate was lower than expected. These screening questions will be modified for 2008. See catalogue no. 62F0026M, no. 1 for more details.