



Office of the Superintendent of
Financial Institutions Canada

Bureau du surintendant des
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Office of the Chief Actuary

Bureau de l'actuaire en chef



2016 ACTUARIAL REPORT

on the

EMPLOYMENT INSURANCE PREMIUM RATE

Office of the Chief Actuary

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Commissioners of the Canada Employment Insurance Commission

Dear Commissioners,

Pursuant to section 66.3 of the *Employment Insurance Act*, I am pleased to submit the 2016 report which provides actuarial forecasts and estimates for the purposes of sections 4, 66 and 69 of the *Employment Insurance Act*. Please note that the estimates presented in this report are based on the Employment Insurance provisions as of 22 July 2015.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Michel Millette', with a stylized, cursive script.

Michel Millette, F.C.I.A., F.S.A.
Chief Actuary, Employment Insurance Premium Rate-Setting
Office of the Chief Actuary
Office of the Superintendent of Financial Institutions Canada

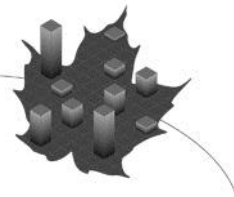
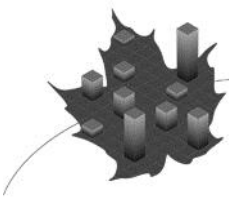


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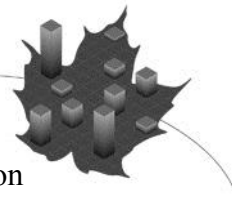
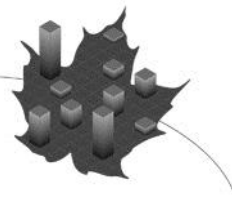


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I. Executive Summary

A. Purpose of the Report

This Actuarial Report prepared by the Chief Actuary, Employment Insurance Premium Rate-Setting (“Chief Actuary”), is the third one to be presented to the Canada Employment Insurance Commission (Commission) in accordance with the *Employment Insurance Act* (“EI Act”).

Pursuant to section 66.3 of the EI Act, the purpose of this report is to provide the Commission with actuarial forecasts and estimates for the purposes of calculating the maximum insurable earnings (MIE) under section 4 of the EI Act, the employment insurance (EI) premium rate under section 66 of the EI Act, and the premium reductions under section 69 of the EI Act for Quebec residents and their employers, and for employers who sponsor qualified wage-loss plans. The report also provides a detailed analysis in support of the forecasts, including data sources, methodology and assumptions.

In accordance with subsection 66(1) of the EI Act, the Governor in Council shall, on the joint recommendation of the Ministers of Employment and Social Development (ESD) and Finance, set the premium rate in order to generate just enough premium revenue during the upcoming year to ensure that at the end of that year, the total amounts credited to the EI Operating Account after 31 December 2008 are equal to the amounts charged to that Account after that date. This calculated premium rate is referred to as the forecast break-even rate. However, subsection 66(1.1) of the EI Act sets the premium rate for 2016 at 1.88%.

The Commission shall, on or before 14 September, make available to the public this report along with its summary.

This report reflects changes that were brought forth in the *Economic Action Plan 2015 (An Act to implement certain provisions of the budget tabled in Parliament on April 21, 2015 and other measures)*, the *Economic Action Plan 2014, No.2 (A second Act to implement certain provisions of the budget tabled in Parliament on February 11, 2014 and other measures)*, and the Canada Gazette (SOR/2015-128), which are discussed in more details throughout the report.

B. Overview of Methodology

The forecast break-even rate is the premium rate required to cover next year’s expenditures and eliminate any surplus or deficit in the EI Operating Account. It is determined prior to the application of any limit to the annual change in the premium rate, and is split into two components. The upcoming year rate, which is the premium rate required to generate sufficient revenue to cover the expected EI expenditures in the upcoming year; and the account balance rate, which is the premium rate required to eliminate the projected EI Operating Account cumulative surplus as of 31 December 2015 over the following year.

Since 1 January 2006, the Quebec Parental Insurance Plan has been providing maternity, parental and adoption (MPA) benefits to Quebec residents. In accordance with subsection 69(2) of the EI Act and related regulations, a mechanism to reduce EI premiums paid by Quebec residents and their employer was introduced.

As such, the upcoming year rate must be split in two. The base rate, which applies to residents of all provinces, is the premium rate that is required to cover the cost of all expected EI expenditures, net of expenditures related to MPA benefits. The MPA rate, which applies to residents of all provinces except Quebec, is the premium rate that is required to cover the cost of expected EI MPA benefits. The MPA rate represents the premium reduction that applies to Quebec residents.

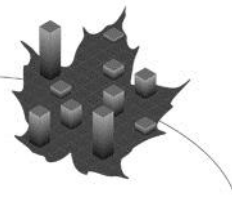
Generally, EI premiums paid by the employer are equal to 1.4 times the premiums deducted by the employer on behalf of its employees, referred to as the employer multiplier. However, pursuant to subsection 69(1) of the EI Act, the employer premiums can be reduced through a lower employer multiplier when its employees are covered under one of four types of qualified wage-loss plans which reduce EI special benefits otherwise payable. Given that the EI program adopts a second payer position relative to qualified wage-loss plans, employers who sponsor these plans pay lower EI premiums which reflect the estimated savings to the EI program. The methodology to calculate the reduction in the premium rate paid by employers for each category is prescribed in section 62 of the *Employment Insurance Regulations*. The resulting estimated amount of premium reduction is factored into the calculation of the base rate.

C. Main Findings

The following estimates are based on the EI provisions as of 22 July 2015, on the information provided on or before 22 July 2015 by the Minister of ESD and the Minister of Finance, and on the methodology and assumptions developed by the Chief Actuary.

The 2016 forecast break-even rate that is needed to generate just enough premium revenue such that the projected EI Operating Account balance is \$0 as of 31 December 2016 is based on the projection of four main variables: the 2016 earnings base, the 2016 reduction in employer premiums due to qualified wage-loss plans, the 2016 expenditures and the EI Operating Account balance as of 31 December 2015.

The 2016 earnings base is mainly driven by the earnings on which salaried employees and their employers are expected to pay EI premiums (total insurable earnings). In 2016, insured employees and their employers will pay EI premiums on their earnings up to the 2016 MIE of \$50,800, an increase of \$1,300 or 2.6%, from the 2015 MIE of \$49,500. The 2016 projected total insurable earnings are \$596 billion, which represents a 4.2% increase from the 2015 total insurable earnings of \$572 billion. This increase is the result of an increase in the number of contributors, an increase in the average earnings of the contributors and the



increase in the MIE. The 2016 earnings base is also driven by other less significant elements such as employee premium refunds and earnings of self-employed individuals who have opted into the EI program.

The 2016 estimated cost savings to the EI program that are generated by employer sponsored qualified wage-loss plans are \$915 million. In 2016, this amount compensates employers who sponsor a qualified wage-loss plan through reduced employer multipliers for out-of-Quebec employers of 1.296, 1.216, 1.219 and 1.203 for categories 1 through 4 respectively, assuming a legislated premium rate of 1.88% (1.271, 1.173, 1.177 and 1.156 for Quebec employers). This translates into a premium reduction of about 0.20%, 0.35%, 0.34% and 0.37% of insurable earnings for categories 1 through 4 respectively.

In 2016, total expenditures are projected to reach \$20.9 billion, a 3.1% increase from the 2015 projected expenditures of \$20.3 billion. The expected decrease in the unemployment rate from 6.7% in 2015 to 6.6% in 2016 has the effect of lowering the number of beneficiaries, however, this is more than compensated by expected increases in the beneficiary-to-unemployed ratio and in the labour force population. Other elements which affect the projected benefits include the impact of program changes, pilot projects and special measures, as well as changes to the average benefits, the average wages and the MIE.

As of 31 December 2014, the EI Operating Account had a deficit of \$1.7 billion. With an expected annual excess cash flow of \$3.1 billion in 2015, the EI Operating Account is expected to have a surplus of \$1.3 billion as of 31 December 2015.

Based on the foregoing, the Chief Actuary has determined that the 2016 forecast break-even rate is 1.56% for residents of all provinces except Quebec and 1.20% for residents of Quebec. The premium reduction of 0.36% that applies to residents of Quebec represents the estimated savings to the EI program following the establishment of the Quebec Parental Insurance Plan, which provides MPA benefits to residents of Quebec. These combined break-even rates are expected to generate just enough premium revenue to ensure that, at the end of 2016, all amounts credited and charged to the EI Operating Account after 31 December 2008 are equal.

However, subsection 66(1.1) of the EI Act sets the premium rate for 2016 at 1.88%. Therefore, the 2016 legislated premium rate for residents of all provinces except Quebec is 1.88% of insurable earnings, and the corresponding 2016 legislated premium rate for residents of Quebec is 1.52% of insurable earnings, or 1.88% less the premium reduction of 0.36% for the MPA benefits provided by the Quebec Parental Insurance Plan.

2016 ACTUARIAL REPORT

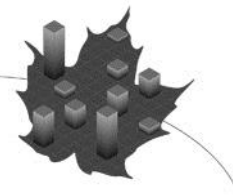
EMPLOYMENT INSURANCE PREMIUM RATE

Table 1 shows a summary of the projected variables that factor into the calculation of the 2016 forecast break-even rate, along with a breakdown of the components of the forecast break-even rate (base rate, MPA rate and account balance rate). It also presents the resulting legislated premium rates for 2016.

Table 1 - Calculation of the 2016 Forecast Break-Even Rate (Millions)	
Earnings Base	
Total Insurable Earnings for Salaried Employees (Out-of-Quebec Residents)	\$465,860
Total Insurable Earnings for Salaried Employees (Quebec Residents)	\$130,326
Total Insurable Earnings	\$596,186
Self-Employed Earnings (Out-of-Quebec Residents)	\$144
Self-Employed Earnings (Quebec Residents)	\$18
Total Self-Employed Earnings	\$162
Adjustment Due to Employee Premium Refunds (% of Total Insurable Earnings)	2.60%
Reduction in Employer Premiums due to Qualified Wage-Loss Plans	\$915
Reduction in Employer Premiums due to Small Business Job Credit	\$360
Expenditures	
Total Excluding Maternity-Parental-Adoption	\$16,986
Maternity-Parental-Adoption, Including Related Administrative Expenses	\$3,935
Total	\$20,921
EI Operating Account Cumulative Surplus (Deficit) - 31 December 2015	\$1,336
Components of the Forecast Break-Even Rate (as a % of Insurable Earnings)	
1) Upcoming Year Rate	
A) Base Rate	1.29%
B) MPA Rate	0.36%
Sub-Total (Upcoming Year)	1.65%
2) Account Balance Rate	(0.09%)
Forecast Break-Even Rate (i.e. Prior to the Application of the Temporary Freeze)	
Residents of All Provinces Except Quebec	1.56%
Residents of the Province of Quebec	1.20%
2016 Legislated Premium Rate (i.e. After the Application of the Temporary Freeze)	
Residents of All Provinces Except Quebec	1.88%
Residents of the Province of Quebec	1.52%

As shown in the table above, the 2016 legislated premium rate (1.88%/1.52%) is higher than both the forecast break-even rate (1.56%/1.20%) and the upcoming year rate (1.65%/1.29%). As a result, the 2016 premium revenue is expected to surpass the 2016 EI expenditures by \$3.3 billion and create a cumulative surplus of \$4.7 billion as of 31 December 2016. This is highlighted in Table 2.

Table 2 shows the status of the EI Operating Account for 2014, as well as the projected evolution of the account for 2015 and 2016. For 2016, the account projection is shown on two bases:



- Using the forecast break-even rate prior to the application of the freeze (1.56%/1.20%), the projected cumulative surplus as of 31 December 2015 is eliminated;
- Using the legislated premium rate which reflects the freeze (1.88%/1.52%), a cumulative surplus of \$4.7 billion is generated.

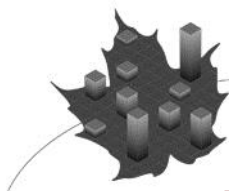
Table 2 - Summary of the EI Operating Account (Millions)				
	Actual	Forecast		
	2014	2015	Break-Even Rate 2016	Legislated Premium Rate 2016
Premium Rate				
Out-of-Quebec Residents	1.88%	1.88%	1.56%	1.88%
Quebec Residents	1.53%	1.54%	1.20%	1.52%
Premium Revenue	\$22,801	\$23,359	\$19,693	\$24,265
Net Expenditures	\$19,333	\$20,289	\$20,921	\$20,921
Annual Surplus (Deficit)	\$3,467	\$3,070	(\$1,228)	\$3,344
Cumulative Surplus (Deficit)	(\$1,734)	\$1,336	\$108	\$4,680

D. Sensitivity of the Forecast Break-Even Rate

Two of the most relevant assumptions used to determine the forecast break-even rate are the unemployment rate, which is provided by the Minister of Finance, and the beneficiary-to-unemployed ratio, or B/U ratio, which is estimated each year by the Chief Actuary.

With all other assumptions remaining constant:

- a variation in the unemployment rate of one-tenth of a percentage-point (0.1%) would have an expected net impact of \$187 million on the balance of the EI Operating Account;
- a variation in the B/U ratio of one-half of a percentage-point (0.5%) would have an expected net impact of \$136 million on the balance of the EI Operating Account; and
- a one-hundredth percentage point change in the premium rate (0.01% of insurable earnings) would have an expected net impact of \$142 million on the balance of the EI Operating Account.



E. Conclusion

This report was prepared by the Chief Actuary in accordance with the relevant legislation and accepted actuarial practices, and provides to the Commission the forecasts and estimates for the purposes of sections 4 (MIE), 66 (EI premium rate) and 69 (employers who sponsor qualified wage-loss plans and premium reductions for Quebec residents and their employers) of the EI Act.

In accordance with the methodology detailed in section 4 of the EI Act and the relevant economic data, the 2016 MIE is \$50,800. In addition, pursuant to subsection 69(1) of the EI Act, the 2016 estimated employer premium reduction due to qualified wage-loss plans is \$915 million.

Furthermore, based on the relevant economic and demographic assumptions provided by the Minister of Finance, the expenditure estimates provided by the Minister of ESD, and the methodology and assumptions developed by the Chief Actuary, it is the opinion of the Chief Actuary that the 2016 EI forecast break-even rate which is expected to generate sufficient premium revenue to ensure that at the end of 2016 the amounts credited and charged to the EI Operating Account after 31 December 2008 are equal is:

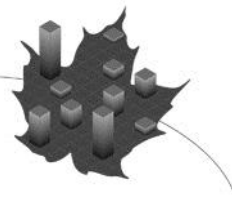
- **1.56% of insurable earnings for residents of all provinces except Quebec; and**
- **1.20% of insurable earnings for residents of the province of Quebec.**

However, subsection 66(1.1) of the EI Act sets the premium rate for 2016 at 1.88%. Therefore, in accordance with this subsection, the 2016 legislated premium rate is:

- **1.88% of insurable earnings for residents of all provinces except Quebec; and**
- **1.52% of insurable earnings for residents of the province of Quebec.**

The 2016 legislated premium rate is higher than both the forecast break-even rate and the upcoming year rate. As a result, the 2016 premium revenue is expected to surpass the 2016 EI expenditures by \$3.3 billion and create a cumulative surplus of \$4.7 billion as of 31 December 2016.

It is important to note that the figures included in this report are projections, and eventual differences between future experience and these projections will be analyzed and taken into account in subsequent reports.



II. Introduction

In accordance with subsection 66(1) of the *Employment Insurance Act* (“EI Act”), the Governor in Council shall, on the joint recommendation of the Ministers of Employment and Social Development (ESD) and Finance, set the premium rate in order to generate just enough premium revenue during the upcoming year to ensure that at the end of that year, the total amounts credited to the Employment Insurance (EI) Operating Account after 31 December 2008 are equal to the amounts charged to that Account after that date. This calculated premium rate is referred to as the forecast break-even rate.

However, subsection 66(1.1) of the EI Act sets the premium rate for 2016 at 1.88%.

A. Purpose of the Report

This Actuarial Report prepared by the Chief Actuary, Employment Insurance Premium Rate-Setting (“Chief Actuary”) is the third one to be presented to the Canada Employment Insurance Commission (Commission) in compliance with section 66.3 of the EI Act.

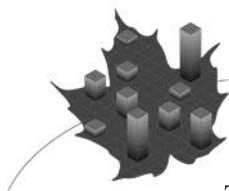
The Chief Actuary is a Fellow of the Canadian Institute of Actuaries who is an employee of the Office of the Superintendent of Financial Institutions and who is engaged by the Commission to perform duties under section 66.3 of the EI Act. Pursuant to this section, the Chief Actuary shall prepare actuarial forecasts and estimates for the purposes of sections 4, 66 and 69 of the EI Act, and shall, on or before 22 August of each year, provide the Commission with a report that sets out:

- the forecast premium rate for the upcoming year and a detailed analysis in support of the forecast;
- the calculations performed for the purposes of sections 4 and 69 of the EI Act;
- the information provided under section 66.1 of the EI Act; and
- the source of the data, the actuarial and economic assumptions and the actuarial methodology used.

The purpose of this report is to provide the Commission with all the information prescribed under section 66.3 of the EI Act. The Commission will make available to the public this report along with its summary. More information on the rate setting process along with the inherent deadlines can be found in Appendix I.

B. Recent Legislative Changes

There have been a few legislative changes since the 2015 Actuarial Report on the Employment Insurance Premium Rate was prepared in August 2014, which have an impact on the calculations included in this report.



These changes, which were introduced in the *Economic Action Plan 2015*, the *Economic Action Plan 2014, No. 2*, and the Canada Gazette (SOR/2015-128), are as follows:

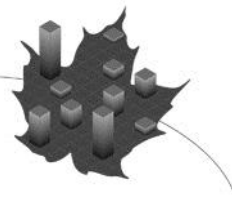
- Introduction of the Small Business Job Credit which provides a temporary measure to refund a portion of employer EI premiums paid by small businesses in 2015 and/or 2016.
- Extension of EI compassionate care benefits from six weeks to twenty-six weeks;
- Re-introduction of the EI Working While on Claim pilot project to August 2016; and
- Updated formula in the *Employment Insurance Regulations* for calculating the weekly annuity equivalents for allocating lump-sum pension amounts for EI purposes.

The Government has also reaffirmed its commitment to implement a seven-year break-even rate-setting mechanism starting with the 2017 premium rate. This will be reflected in the 2017 Actuarial Report on the EI Premium Rate.

C. Scope of the Report

The methodology used in determining the premium rate, including the premium rate reduction for residents of Quebec, and the reduction in employer premiums due to qualified wage-loss plans is presented in Section III of this report. The main variables used in determining the premium rate are the 2016 expected earnings base, the 2016 reduction in employer premiums due to qualified wage-loss plans, the 2016 expected expenditures and the projected EI Operating Account balance as of 31 December 2015. An overview of the most important assumptions used in projecting these variables is outlined in Section IV. Based on the methodology and assumptions from the previous sections, Section V provides the resulting 2016 reduction in employer premiums due to qualified wage-loss plans, the 2016 premium rate and the projection of the status of the EI Operating Account. The sensitivity of the results to the main assumptions is outlined in Section VI.

Concluding remarks and the actuarial opinion are presented in Section VII and Section VIII. The various appendices provide supplemental information on the EI program and on the data, assumptions and methodology employed. Detailed information on the calculation of the MIE is presented in Appendix II.



III. Methodology

A. Premium Rate

Based on relevant assumptions and prior to any limit to the annual change in the premium rate, the 2016 forecast break-even rate is the premium rate that is expected to generate sufficient premium revenue to ensure that at the end of 2016 the amounts credited and charged to the EI Operating Account after 31 December 2008 are equal.

The forecast break-even rate is calculated using the projected earnings base, the estimated reduction in employer premiums due to qualified wage-loss plans and to the small business job credit, and the projected EI expenditures. The earnings base represents the total insurable earnings on which salaried employees and their employers pay EI premiums, and the earnings on which self-employed individuals that opted into the EI program pay EI premiums. Prior to an adjustment to reflect employee premium refunds, the employer portion of the earnings base for salaried employees is equal to 1.4 times the employee portion of the earnings base for salaried employees.

The estimated reduction in employer premiums due to qualified wage-loss plans is based on the methodology described in subsection B. The earnings base and EI benefits are projected using the expected growth rates in the relevant economic and demographic variables applied to the base year, i.e. the last year for which complete data are available. The base year for the earnings base is 2013, which is the most recent year for which fully assessed T4 data are available. However, for certain assumptions, the 2014 partially assessed information is used. Complete data for 2014 will not become available until January 2016. The base year for EI benefits is calendar year 2014.

The earnings base and EI expenditures are projected from the base year using:

- Data and assumptions provided by the Minister of ESD, including prescribed information as set out in section 66.1 of the EI Act;
- Assumptions and forecasts provided by the Minister of Finance in accordance with section 66.2 of the EI Act;
- Additional data provided by Service Canada, ESDC, the Canada Revenue Agency (CRA), and Statistics Canada; and
- Methodology and assumptions developed by the Chief Actuary.

Forecast Break-Even Rate

The forecast break-even rate includes two components. The first component is the **upcoming year** rate, which is the premium rate required to cover the expected EI expenditures in the upcoming year. It does not reflect the status of the EI Operating Account as of 31 December 2015.

Since 1 January 2006, the province of Quebec has been responsible for providing maternity, parental and adoption (MPA) benefits to the residents of Quebec through the Quebec Parental Insurance Plan. In accordance with subsection 69(2) of the EI Act and related regulations, a mechanism to reduce EI premiums paid by Quebec residents and their employer was introduced. The reduced premium rate reflects the savings to the EI program following the introduction of the Quebec Parental Insurance Plan. As such, the upcoming year rate must be split into two sub-components:

- the **base** rate is the premium rate that is required to cover the cost of the upcoming year's expected EI expenditures, net of expenditures related to providing EI MPA benefits.
- the **MPA** rate is the premium rate that is required to cover the cost of the upcoming year's expected EI MPA expenditures, including the variable administrative costs related to the delivery of EI MPA benefits to the residents of all provinces except Quebec.

The sum of the base rate and the MPA rate represents the upcoming year rate that should generate sufficient premium revenue to cover the upcoming year's expected EI expenditures. While residents of all provinces except Quebec pay both the base rate and the MPA rate, residents of the province of Quebec get a premium reduction equal to the MPA rate and are only required to pay the base rate.

The second component of the forecast break-even rate is the **account balance** rate, which is the premium rate that is required to amortize the projected EI Operating Account balance as of 31 December 2015 over the year 2016.

Depending on the cumulative balance in the EI Operating Account, the account balance rate could either increase or decrease the forecast break-even rate. For 2016, given that the projected EI Operating Account as of 31 December 2015 is in surplus, the account balance rate decreases the forecast break-even rate.

The sum of these three sub-components (base rate, MPA rate and account balance rate) equals the forecast break-even rate prescribed in section 66 of the EI Act. The table below shows a summary of the components of the forecast break-even rate, and is followed by a brief description of the mathematical development of each of the sub-components.



Components of the Forecast Break-Even Rate		
Upcoming Year Rate		Account Balance Rate
Base rate	Covers the cost of the upcoming year's expected EI expenditures, excluding EI MPA expenditures (applies to residents of all provinces)	Eliminates any surplus or deficit in the projected EI Operating Account as of 31 December 2015 (applies to residents of all provinces)
MPA rate	Covers the cost of the upcoming year's EI MPA expenditures (applies to residents of all provinces, except Quebec)	

Base Rate

The base rate is calculated such that the expected EI premium revenue in the upcoming year is equal to the expected annual EI expenditures, net of expected EI MPA expenditures.

The expected EI premium revenue is comprised of:

- Employer premiums, which take into account the premium reduction for employers who sponsor a qualified wage-loss plan and for the small business job credit;
- Employee premiums deducted at source on earnings included in insured employment of salaried employees, net of refunds that apply in certain situations (e.g. insurable earnings below \$2,000, over contributions due to multiple employments in the year); and
- Employee premiums for self-employed individuals who voluntarily opted into the EI program.

The expected EI expenditures, net of expected EI MPA expenditures are comprised of:

- EI Part I benefits, excluding EI MPA benefits, net of benefit repayments that apply in certain situations (e.g. if a claimant's income for a tax year exceeds 1.25 times the annual MIE, the claimant may be required to repay a portion of benefits received);
- EI Part II benefits, that is, employment benefits and support measures;
- Additional benefits paid through various pilot projects and transitional measures, net of government funding;
- Administration costs, net of variable administration costs related to EI MPA benefits; and
- Other costs such as bad debt expense, net of penalties and interests recovered from claimants.

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EMPLOYMENT INSURANCE PREMIUM RATE

The base rate is defined such that expected EI expenditures net of EI MPA expenditures are equal to expected EI premium revenue. The formula for the base rate is developed as follows:

$$\text{Expenditures (net of MPA)} = \text{Premium Revenue}$$

$$\text{Expenditures (net of MPA)} = \frac{1.4 \times \text{Base Rate} \times \text{TIE} - \text{RWL} - \text{JC}}{\downarrow} + \frac{\text{Base Rate} \times \text{TIE} \times (1 - \text{PR}\%)}{\downarrow} + \frac{\text{Base Rate} \times \text{TSEE}}{\downarrow}$$

Employer premiums paid on behalf of salaried employees, adjusted for overall employer premium reduction due to qualified wage-loss plans and to the small business job credit

Salaried employee premiums deducted at source adjusted for employee refunds

Employee premiums for self-employed

$$\text{Base Rate} = \frac{\text{Expenditures (net of MPA)} + \text{RWL} + \text{JC}}{1.4 \times \text{TIE} + \text{TIE} \times (1 - \text{PR}\%) + \text{TSEE}}$$

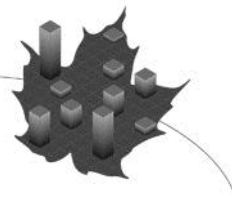
Where: TIE = total insurable earnings for salaried employees prior to adjustments for employee premium refunds;
 PR% = adjustment to reflect employee premium refunds (as a percentage of TIE);
 RWL = reduction in employer premiums due to qualified wage-loss plans;
 JC = reduction in employer premiums due to small business job credit;
 TSEE = total self-employed earnings for individuals who opted into the EI program; and
 1.4 x TIE + TIE x (1 – PR%) + TSEE = earnings base of residents of all provinces.

MPA Rate

In accordance with the agreement signed between the Government of Canada and the Government of Quebec, the premium reduction for the MPA provincial plan in the province of Quebec is equal to the ratio of EI MPA expenditures, including EI MPA benefits and the variable administrative costs related to administering EI MPA benefits, to the earnings base of residents outside the province of Quebec. Accordingly, the formula for the MPA rate is as follows:

$$\text{MPA Rate} = \frac{\text{EI MPA Expenditures}}{1.4 \times \text{TIE}_{(\text{OQ})} + \text{TIE}_{(\text{OQ})} \times (1 - \text{PR}\%) + \text{TSEE}_{(\text{OQ})}}$$

Where: TIE_(OQ) = total insurable earnings for out-of-Quebec resident salaried employees, prior to adjustments for employee premium refunds;
 PR% = adjustment to reflect employee premium refunds (as a percentage of TIE);
 TSEE_(OQ) = total self-employed earnings for out-of-Quebec residents who opted into the EI program; and
 1.4 x TIE_(OQ) + TIE_(OQ) x (1–PR%) + TSEE_(OQ) = earnings base for out-of-Quebec residents.



Account Balance Rate

The account balance rate for 2016 represents the rate required to eliminate any projected surplus or deficit in the EI Operating Account as of 31 December 2015. The account balance rate is therefore equal to the ratio of the projected EI Operating Account surplus as of 31 December 2015 to the earnings base of residents of all provinces. Accordingly, the formula for the account balance rate is as follows:

$$\text{Account Balance Rate} = \frac{\text{EIOA Surplus as of 31 December 2015}}{1.4 \times \text{TIE} + \text{TIE} \times (1 - \text{PR}\%) + \text{TSEE}}$$

Where: EIOA = EI Operating Account;
 TIE = total insurable earnings for salaried employees prior to adjustments for employee premium refunds;
 PR% = adjustment to reflect employee premium refunds (as a percentage of TIE);
 TSEE = total self-employed earnings for individuals who opted into the EI program; and
 1.4 x TIE + TIE x (1 – PR%) + TSEE = earnings base of residents of all provinces.

A description of the assumptions used in projecting the variables included in the above formulas is provided in Section IV, with additional supporting information provided in Appendix III and Appendix IV.

B. Reduction in Employer Premiums Due to Qualified Wage-Loss Plans

Generally, EI premiums paid by the employer are equal to 1.4 times the premiums deducted by the employer on behalf of the employee, referred to as the employer multiplier. However, pursuant to subsection 69(1) of the EI Act, the employer premiums can be reduced through a lower employer multiplier when its employees are covered under a qualified wage-loss plan which reduces EI special benefits otherwise payable, provided that at least 5/12 of the reduction is passed on to the employees.

In accordance with sections 63, 64, 65 and 66 of the *Employment Insurance Regulations* (“EI Regulations”), there are four distinct categories of qualified wage-loss plans, and a separate rate of reduction, expressed as a percentage of insurable earnings, is calculated annually for each category. These rates of reduction are then converted into reduced employer multipliers for each category and applicable premium rate. The principle in determining the rates of reduction is that the EI program is paying lower sickness benefits due to the presence of qualified wage-loss plans, and that these savings to the EI program should be passed on to the employers who sponsor these plans and their employees. For administrative simplicity, the full premium reduction is provided to the employer who is then responsible for returning the employees’ portion of the reduction to them. The overall reduction in premiums due to qualified wage-loss plans for all employers is used in the calculation of the base rate (i.e. R_{WL} variable). It is included in the numerator of the base rate and can also be viewed as a cost to the EI program. However, the cost to the EI program of granting premium reductions

to employers with qualified wage-loss plans is offset by the savings to the EI program generated by lower EI sickness benefits due to the existence of qualified wage-loss plans.

The methodology to calculate the rates of reduction is prescribed in section 62 of the EI Regulations. Pursuant to this section, the employer's premium rate shall be reduced by the percentage by which the first payer cost ratio in respect of all insured persons exceeds the experience cost ratio in respect of insured persons covered by a qualified wage-loss plan of that employer's category. The formula used in determining the rate of reduction of each category is provided below:

$$\text{Rate of reduction}(x) = \text{First Payer Cost ratio} - \text{Experience Cost ratio}(x)$$

Where: x = Category of wage-loss plan (1 to 4).

First-Payer Cost (FPC) ratio

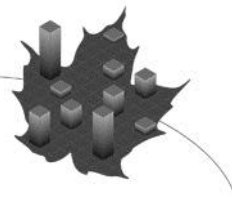
The FPC ratio, which is identical for all insured persons and categories, represents the average estimated job-attached EI sickness benefits that would have been paid if benefits payable under a group sickness or disability wage-loss indemnity plan or paid sick leave plan were disregarded for purposes of determining benefits otherwise payable to persons under the EI Act. It is expressed as a percentage of average insurable earnings for all insured persons.

The FPC for each year is determined by multiplying the hypothetical number of first payer job-attached EI sickness benefit weeks by the average weekly sickness benefits that would apply in such circumstance.

For the purposes of calculating the 2016 rates of reduction, the FPC ratio is equal to the average of the FPC for the years 2012 to 2014, divided by the average insurable earnings of all insured persons for the years 2012 to 2014. The formula used in determining the FPC ratio is provided below:

$$\text{FPC ratio} = \frac{\text{FPC (2014)} + \text{FPC (2013)} + \text{FPC (2012)}}{\text{TIE (2014)} + \text{TIE (2013)} + \text{TIE (2012)}}$$

Where: TIE = total insurable earnings for all salaried employees prior to adjustments for employee premium refunds.



Experience Cost (EC) ratio

The EC ratio is different for each category and reflects the actual average job-attached EI sickness benefits paid for each category. It is expressed as a percentage of average insurable earnings for the insured persons in that category.

The EC for each year and category, as well as the allocation of insurable earnings amongst categories are based on an analysis of administrative data and reports provided by Service Canada and ESDC.

Similarly to the calculation of the FPC ratio, for the purposes of calculating the 2016 rates of reduction, the EC ratio of each category is based on the years 2012 to 2014. The formula used in determining the EC ratio of each category is provided below.

$$\text{EC ratio (x)} = \frac{\text{EC(x) (2014)} + \text{EC(x) (2013)} + \text{EC(x) (2012)}}{\text{TIE(x) (2014)} + \text{TIE(x) (2013)} + \text{TIE(x) (2012)}}$$

Where: x = Category of wage-loss plan (1 to 4);

TIE(x) = total insurable earnings for salaried employees of the category x, prior to adjustments for employee premium refunds.

Rates of Reduction and Amount of Premium Reduction

The resulting uniform FPC ratio applicable to all categories and the EC ratio of each category are used to determine the 2016 rates of reduction per category. The 2016 estimated insurable earnings per category are then used to estimate the 2016 employer premium reduction due to qualified wage-loss plans, which is taken into account in the calculation of the base rate (R_{WL} variable in the base rate formula presented in the previous subsection).

Additional supporting information on the calculation of the 2016 employer premium reduction due to qualified wage-loss plans and of each separate component is provided in Appendix IV.

IV. Assumptions

This section provides a brief overview of the main assumptions used in projecting the variables included in the calculation of the forecast break-even rate. More detailed information and supporting data are provided in Appendix III. The section is broken down into two subsections: assumptions related to the projected earnings base and assumptions related to the projected expenditures.

A. Earnings Base

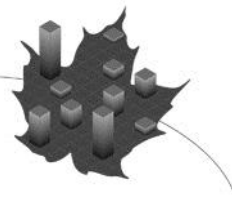
The earnings base is detailed in the denominator of the formula for the base rate, the MPA rate and the account balance rate developed in the previous section. The earnings base is comprised of the total insurable earnings on which employers pay EI premiums prior to any adjustment for wage-loss plans or the small business job credit, the total insurable earnings on which employees pay EI premiums adjusted to reflect employee premium refunds, and the earnings on which self-employed individuals that opted into the EI program pay EI premiums.

The main assumptions used in determining the earnings base are presented in Table 3 below.

Table 3 - Assumptions for Earnings Base			
	2014	2015	2016
Increase in Maximum Insurable Earnings	2.53%	1.85%	2.63%
Increase in Number of Earners	1.08%	1.02%	1.23%
Increase in Average Employment Income	3.00%	2.60%	3.40%
Increase in Total Employment Income	4.11%	3.65%	4.67%
Increase in Total Insurable Earnings	3.84%	3.23%	4.23%
Net Transfer of Insurable Earnings to Quebec Reflecting the Province of Residence	0.33%	0.33%	0.33%
Adjustment Due to Employee Premium Refunds (% of Total Insurable Earnings)	2.60%	2.60%	2.60%
Increase in Covered Self-Employed Earnings:			
Total	8%	14%	14%
Out-of-Quebec Residents	9%	15%	15%
Quebec Residents	3%	6%	7%

1. Maximum Insurable Earnings

The MIE represents the income level up to which EI premiums are paid and up to which EI benefits are calculated, and is a key element in determining the earnings base. Section 4 of the EI Act provides details on how to determine the yearly MIE. In accordance with this section, the MIE increases annually based on increases in the average weekly earnings, as reported by Statistics Canada.



The 2016 MIE is equal to \$50,800, which represent a 2.6% increase to the 2015 MIE of \$49,500. Detailed explanations and calculations are provided in Appendix II.

2. Number of Earners

The number of earners and their distribution across income ranges is used to determine the earnings base of salaried employees. The projected number of employees per year, which is based on an average of the number of employees per month, is provided by the Minister of Finance. The total number of earners for a year is higher than the number of employees provided given that the number of earners includes all individuals who had earnings at any time during the year rather than an average per month.

The preliminary number of earners for the year 2014 is derived from the 2014 year-to-date assessed premiums and the 2014 increase in average employment income provided by the Minister of Finance such that the resulting insurable earnings are in line with the expected assessed premiums for 2014. The projected number of earners for 2015 and 2016 is derived from a regression analysis which is described in more details in Appendix III.

The number of earners is expected to increase by 1.08%, 1.02% and 1.23% in 2014, 2015 and 2016 respectively. In addition, given the historical year-to-year stability of the distribution of earners across income ranges, the projected distribution of earners as a percentage of average employment income is based on the 2013 distribution.

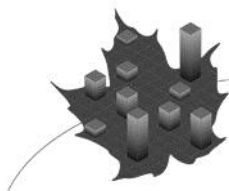
3. Average and Total Employment Income

The increase in average employment income, combined with the increase in the number of earners, is used to determine the increase in total employment income. The 2013 distribution of the total employment income across income ranges is used to determine the future distribution of total employment income.

The increase in average employment income is provided by the Minister of Finance and is expected to be 3.00%, 2.60% and 3.40% in 2014, 2015 and 2016 respectively. Based on these increases in average employment income and the expected increases in the total number of earners, the total employment income is expected to increase by 4.11%, 3.65% and 4.67% in 2014, 2015 and 2016 respectively.

4. Total Insurable Earnings

The total insurable earnings of salaried employees are equal to the total employment income, up to the annual MIE, earned by a person employed in insured employment. They are used to determine the earnings base for salaried employees. Prior to any adjustments for employee premium refunds, the earnings base for salaried employees is equal to 2.4 times the total insurable earnings



(employer premiums are generally equal to 1.4 times the employee premiums, for a combined total of 2.4).

Historical information regarding total insurable earnings is derived from aggregate assessed premiums gathered from T4 slips of all salaried employees, and is provided by CRA. For employees with multiple employments in the year, this information is based on the combined total EI premiums. This means that, although insurable earnings of each employment are capped at the MIE, the combined total insurable earnings can exceed the MIE. The adjustment to insurable earnings and to the earnings base to reflect multiple employments is captured in the employee premium refund section below.

The expected total employment income capped at the annual MIE for 2014, 2015 and 2016 is derived from the 2013 distribution of the total employment income and of the total number of earners as a percentage of average employment income, and the expected increases in these variables. The resulting capped employment income is adjusted for consistency with total insurable earnings which take into account multiple employments as well as excluded employments.

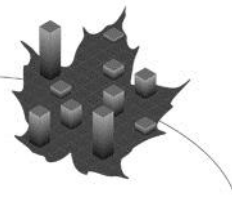
Based on this methodology, the total insurable earnings, before any adjustment for premium refunds, are expected to increase by 3.84%, 3.23% and 4.23% in 2014, 2015 and 2016 respectively. For 2014, the resulting insurable earnings reflect the year-to-date assessed premiums and related total expected assessed premiums for 2014.

5. Split of Total Insurable Earnings Due to Provincial Plan

For the purposes of determining the MPA rate which applies to all residents of Canada except for residents of provinces with a provincial plan, the earnings base for salaried employees must be split between residents of provinces with and without a provincial plan. The only province that currently has a provincial plan is Quebec. Therefore, the earnings base for salaried employees must be split based on the province of residence (between out-of-Quebec residents and Quebec residents).

The information used to derive historical insurable earnings provided by CRA is on a T4 basis, and is therefore based on the province of employment. The historical distribution of insurable earnings on a T4 basis shows that the proportion of insurable earnings that relates to employment in Quebec has been decreasing. It is expected that this decreasing trend will continue, but at a slower pace than the recent past. The proportion of insurable earnings that relates to employment in Quebec is expected to decrease from 21.78% in 2014 to 21.63% in 2015 and 21.53% in 2016.

The information on historical assessed premiums provided by CRA includes adjustment payments made between the Government of Canada and the Government of Quebec each year to reflect the province of residence rather than the province of employment of each employee. These adjustment payments are the object of an administrative agreement between both parties, and can be used



as a basis to adjust the distribution of insurable earnings to reflect the province of residence. The methodology used in adjusting the distribution of insurable earnings based on aggregated adjustment payments was validated against administrative data. The administrative data were provided by CRA and are part of the annual exchange of information between the Government of Canada and the Government of Quebec.

Based on historical information from 2009 to 2013 provided by CRA with regards to these adjustment payments, the net annual transfer of insurable earnings on a T4 basis to reflect actual province of residence is on average 0.33% of total insurable earnings, with the transfer of insurable earnings on a T4 basis going to Quebec from the rest of Canada. Given the stability of these percentages in the past and taking into consideration the low level of sensitivity of the MPA rate to this transfer of insurable earnings, the transfer of insurable earnings on a T4 basis to reflect actual province of residence for the years 2014 to 2016 is assumed to be equal to the average transfer for the years 2009 to 2013, that is, 0.33% of total insurable earnings.

6. Employee Premium Refunds

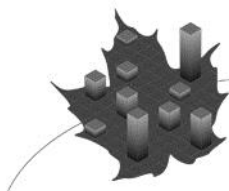
In general, salaried employees contribute EI premiums on their total insurable earnings in a given tax year up to the annual MIE. However, when filing their tax returns, some employees may exceed the maximum contribution and receive a refund of all or a portion of the EI premiums paid in the year (e.g. multiple employers in the same year, insurable earnings below \$2,000). The insurable earnings that are subject to any subsequent premium refund must be excluded from the earnings base. Given that the insurable earnings data from T4 slips used for projection purposes include insurable earnings for which premiums may later be refunded, an adjustment must be made to reduce the earnings base. It is important to note that the employer does not receive a refund. Thus, only the employee's portion of the total earnings base is adjusted, which is reflected in the formulas presented in Section III.

Based on historical data provided by CRA with regards to total insurable earnings prior to any adjustment for refunds and to annual employee premium refunds, the total insurable earnings subject to a subsequent employee refund as a percentage of total insurable earnings is relatively stable. From 2008 to 2013, this percentage varied between 2.33% and 2.99%, with an average of 2.60%.

For 2014 to 2016, the adjustment to employee insurable earnings to reflect subsequent premium refunds is assumed to be 2.60% of total insurable earnings, which is equal to the three year average adjustment from 2011 to 2013.

7. Self-Employed Earnings

Since 31 January 2010, under *The Fairness for the Self-Employed Act*, self-employed workers may elect to voluntarily opt into the EI program to receive EI special benefits for those who are sick, pregnant or caring for a newborn or adopted child, for those caring for a seriously ill family member, or



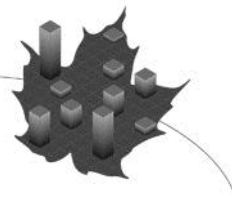
for parents of critically ill children. Although self-employed residents of Quebec are able to access MPA benefits through their provincial plan, they may voluntarily opt into the EI program to access other special benefits, including sickness and compassionate care. As such, the earnings base used in calculating the forecast break-even rate must take into account the covered earnings of self-employed individuals who opt into the EI program.

Self-employed individuals who participate in the EI program contribute premiums based on their self-employed earnings, up to the annual MIE, at the employee rate which corresponds to their province of residence, and there are no employer premium contributions. Therefore, as with the insurable earnings of salaried employees, self-employed covered earnings must be split between out-of-Quebec residents and Quebec residents.

The increase in self-employed earnings reflects the expected increase in the number of participants, and in the average earnings of self-employed individuals.

The projected number of participants is based on information regarding historical enrolments, adjusted to reflect expected future changes in enrolment. The increase in average earnings is assumed to be the same increase in average earnings as for salaried employees.

Based on this methodology, the covered earnings of all self-employed individuals are expected to increase by 8%, 14% and 14% in 2014, 2015 and 2016 respectively. This represents respective increases of 9%, 15% and 15% for out-of-Quebec residents and 3%, 6% and 7% for Quebec residents.



B. Expenditures

EI Part I benefits are projected from actual 2014 benefits paid using several economic and demographic assumptions. The assumptions used to project benefits are the unemployment rate, the labour force, the average weekly earnings, the average weekly benefits, the beneficiary-to-unemployed ratio, the week weight, and the percentage of benefit weeks for claimants with insurable earnings above the MIE.

Demographic assumptions, including the projection of the labour force population and the employees, and economic assumptions such as unemployment rate and average weekly earnings projections, are provided by the Minister of Finance. Additional information used to project other expected expenditures such as pilot projects, temporary measures, the cost of new permanent changes, administration costs and employment benefits and support measures (EI Part II benefits) are provided by ESDC.

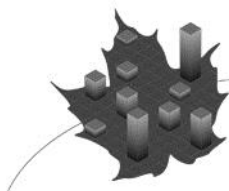
Regular EI benefits represent more than 50% of total EI expenditures and are projected as follows, based on the latest year of known actual regular EI benefits, that is, 2014. A detailed description of the methodology used to project all benefits is available in Appendix III.

$$\text{Regular Benefits}_T = \underbrace{\frac{\text{UR}_T}{\text{UR}_{T-1}} \times \frac{\text{LF}_T}{\text{LF}_{T-1}}}_{\text{Yearly growth in unemployed, that is, in potential claimants}} \times \underbrace{\frac{\text{WW}_T}{\text{WW}_{T-1}} \times \frac{\text{AWB}_T}{\text{AWB}_{T-1}}}_{\text{Yearly growth in average benefits}} \times \underbrace{\frac{\text{B/U}_T}{\text{B/U}_{T-1}}}_{\text{Yearly growth in the ratio of unemployed receiving benefits}} \times \text{Regular Benefits}_{T-1}$$

Where: UR = unemployment rate;
 LF = labour force;
 WW = week weight;
 AWB = average weekly benefits; and
 B/U = beneficiary-to-unemployed ratio.

Table 4 presents a summary of the most important expenditure assumptions used in this report.

Table 4 - Assumptions for Expenditures			
	2014	2015	2016
Unemployment Rate	6.9%	6.7%	6.6%
Increase in Labour Force	0.4%	0.8%	1.4%
Increase in Average Weekly Earnings	2.6%	2.9%	2.8%
Increase in Average Weekly Benefits	4.7%	3.1%	2.7%
Beneficiary-to-Unemployed Ratio	38.4%	40.0%	41.0%
Week Weight	52.2	52.2	52.2
Percentage of Benefit Weeks for Claimants with Insurable Earnings above the MIE	44.5%	46.4%	46.4%



1. Unemployment Rate

The unemployment rate affects regular EI benefits directly by increasing/decreasing the number of potential claimants. The average unemployment rate was 6.9% in 2014, and is expected to be 6.7% in 2015 and 6.6% in 2016.

2. Labour Force

The labour force affects most of Part I benefits directly by also increasing/decreasing the number of potential claimants. The labour force population is expected to increase from 19.1 million in 2014 to 19.3 million in 2015 and to 19.5 million in 2016. This represents increases of 0.8% and 1.4% in 2015 and 2016 respectively.

3. Average Weekly Earnings

The average weekly earnings are provided by the Minister of Finance. The growth in average weekly earnings on a calendar year basis is used, in conjunction with the increase in the MIE, to project the average weekly benefits. The growth in average weekly earnings for 2015 and 2016 is expected to be 2.9% and 2.8% respectively.

4. Average Weekly Benefits

The average weekly benefits growth affects EI expenditures directly through a corresponding increase/decrease in Part I expenditures. The average weekly benefits are equal to the benefit payments divided by the number of benefit weeks paid for Part I benefits.

The average weekly benefits are determined by the sum of the change in the MIE and the average weekly earnings, weighted by the proportion of benefit weeks for claimants with insurable earnings above and below the annual MIE and the prior year average weekly benefits for claimants with insurable earnings above and below the annual MIE.

$$AWB_T = AWB_{above(T-1)} \times (\%_{above(T)}) \times \frac{MIE_T}{MIE_{T-1}} + AWB_{below(T-1)} \times (\%_{below(T)}) \times \frac{AWE_T}{AWE_{T-1}}$$

$$AWB_{growth} = AWB_T / AWB_{T-1} - 1$$

Where: AWB = average weekly benefits;

AWB_{above} = AWB for claimants with earnings above the MIE;

AWB_{below} = AWB for claimants with earnings below the MIE;

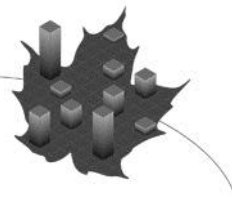
MIE = maximum insurable earnings;

AWE = average weekly earnings;

%_{above} = percentage of benefit weeks for claimants with earnings above the MIE; and

%_{below} = percentage of benefit weeks for claimants with earnings below the MIE.

The annual average weekly benefits growth rates are forecasted at 3.1% and 2.7% for 2015 and 2016, respectively, and are generally the same for all benefit



types. However, after further analysing claims data for the first 6 months of 2015, the assumed 2015 AWB growth for regular benefits and for fishing benefits was adjusted to 4.2% and 3.7% respectively.

5. Beneficiary-to-Unemployed Ratio

Beneficiaries, as reported by Statistics Canada, refers to the number of active claimants in a given month who received EI regular benefits during the reference week of the labour force survey, usually the week containing the 15th day of the month. The beneficiary-to-unemployed (B/U) ratio represents the proportion of unemployed persons in a given period who are receiving EI regular benefits.

The expected aggregate B/U ratios for years 2015 and 2016 are 40.0% and 41.0% respectively.

6. Week Weight

EI expenditures are reported in the EI Operating Account on an accrual basis, that is, they are recorded in the period for which they should have been paid, regardless of the delay in processing the payment. Furthermore, EI benefits are paid on a weekly basis, but only weekdays that belong to a particular period are reported in that period.

The week weight affects Part I expenditures as benefits are payable for every weekday of the year, regardless of Holidays. The number of workdays in a year ranges from 260 days to 262 days. Therefore, an adjustment is included to reflect the number of days benefits are paid in any year. The number of workdays for years 2014, 2015 and 2016 is constant at 261. The week weight for years 2014, 2015 and 2016 is therefore 52.2.

7. Percentage of Benefit Weeks for Claimants with Earnings Above MIE

From analyses of administrative data provided by ESDC, 44.5% of benefit weeks for claims that accrued in 2014 were based on insurable earnings above the MIE compared to 41.9% in 2013. The increase that occurred in 2014 is related to the introduction of the variable best weeks, that is, a change in the benefit rate calculation. Based on partial data for 2015, the proportion of benefit weeks for claimants with insurable earnings above the MIE is also assumed to increase in 2015.

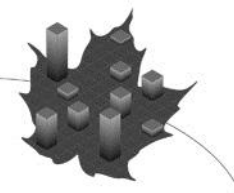
The proportion of benefit weeks for claimants with insurable earnings above the MIE in 2015 and 2016 is assumed to be 46.4%.

V. Results

A. Overview

This report, which provides actuarial forecasts and estimates for purposes of sections 4, 66 and 69 of the EI Act, has been prepared based on EI provisions as of 22 July 2015, on the information provided on or before 22 July 2015 by the Ministers of ESD and Finance, and on the methodology and assumptions developed by the Chief Actuary. The key observations and findings are as follows:

- The 2016 MIE is equal to \$50,800, which represents a 2.6% increase to the 2015 MIE of \$49,500.
- The total earnings base is expected to grow from \$1,267 billion in 2013 to \$1,416 billion in 2016.
- The 2016 estimated cost savings to the EI program that are generated by employer sponsored qualified wage-loss plans are \$915 million. In 2016, this amount compensates employers who sponsor a qualified wage-loss plan through reduced employer multipliers for out-of-Quebec employers of 1.296, 1.216, 1.219 and 1.203 for categories 1 through 4 respectively, assuming a legislated premium rate of 1.88% (1.271, 1.173, 1.177 and 1.156 for Quebec employers). This translates into a premium reduction of about 0.20%, 0.35%, 0.34% and 0.37% of insurable earnings for categories 1 through 4 respectively.
- Total expenditures are expected to increase from \$19.3 billion in 2014 to \$20.9 billion in 2016.
- The 2016 base and MPA rates are 1.29% of insurable earnings and 0.36% of insurable earnings respectively. The upcoming year rate is therefore 1.65% of insurable earnings for residents of all provinces except Quebec and 1.29% of insurable earnings for residents of the province of Quebec.
- The EI Operating Account is expected to have a cumulative surplus of \$1.3 billion as of 31 December 2015. As a result, the 2016 account balance rate is equal to (0.09%) of insurable earnings.
- The 2016 forecast break-even rate is 1.56% of insurable earnings for residents of all provinces except Quebec and 1.20% of insurable earnings for residents of the province of Quebec.
- However, subsection 66(1.1) of the EI Act sets the premium rate for 2016 at 1.88%. In accordance with this subsection, the 2016 legislated premium rate is 1.88% of insurable earnings for residents of all provinces except Quebec and 1.52% of insurable earnings for residents of the province of Quebec.
- The 2016 legislated premium rate is higher than both the forecast break-even rate and the upcoming year rate. As a result, the 2016 premium



revenue is expected to surpass the 2016 EI expenditures by \$3.3 billion and create a cumulative surplus of \$4.7 billion as of 31 December 2016.

B. Earnings Base

Based on the methodology and assumptions developed in Section IV, Table 5 shows the variables required in calculating the earnings base. These results are used in the projection of the EI Operating Account Balance as of 31 December 2015 and in the calculation of the components of the 2016 forecast break-even rate. A detailed explanation of the methodology and assumptions used to derive the results is available in Appendix III.

Table 5 - Earnings Base (Millions)				
	Actual	Forecast		
	2013	2014	2015	2016
Total Insurable Earnings (TIE) for Salaried Employees, Prior to Adjustment for Premium Refunds (Province of Residence)				
Total	\$533,632	\$554,133	\$572,007	\$596,186
Out-of-Quebec Residents	\$414,442	\$431,615	\$446,395	\$465,860
Quebec Residents	\$119,190	\$122,519	\$125,613	\$130,326
Adjustment Due to Employee Premium Refunds as a % of TIE (PR%)	2.53%	2.60%	2.60%	2.60%
Total Self-Employed Earnings (TSEE)				
Total	\$116	\$125	\$143	\$162
Out-of-Quebec Residents	\$100	\$110	\$126	\$144
Quebec Residents	\$15	\$16	\$17	\$18
Earnings Base (1.4 x TIE + TIE x (1 - PR%) + TSEE)				
Total	\$1,267,348	\$1,315,638	\$1,358,088	\$1,415,509
Out-of-Quebec Residents	\$984,289	\$1,024,763	\$1,059,866	\$1,106,096
Quebec Residents	\$283,059	\$290,876	\$298,222	\$309,413

C. Reduction in Employer Premiums Due to Qualified Wage-Loss Plans

Based on the methodology developed in Section III and on the 2016 projected insurable earnings of employees covered by a qualified wage-loss plan, the 2016 estimated reduction in employer premiums due to qualified wage-loss plans is \$915 million, compared to \$855 million in 2015. Table 6 shows the main variables that are used in the calculation. A detailed explanation of the data and methodology used to derive the results are available in Appendix IV. Note that pursuant to section 62 of the EI Regulations and section 68 of the EI Act, the employer multiplier is calculated from the unrounded rates of reduction and the rounded rates of reduction are shown for illustration purposes only.

Table 6 - Reduction in Employer Premiums Due to Qualified Wage-Loss Plans					
Wage-Loss Plan Category	Rounded Rate of Reduction	Employer Multiplier (Out of Quebec)	Employer Multiplier (Quebec)	2016 Insurable Earnings (IE) (Millions)	2016 Premium Reduction (Millions)
Category 1	0.20%	1.296	1.271	\$47,695	\$93
Category 2	0.35%	1.216	1.173	\$25,636	\$88
Category 3	0.34%	1.219	1.177	\$192,568	\$654
Category 4	0.37%	1.203	1.156	\$21,463	\$79
Total	N/A	N/A	N/A	\$287,362	\$915

D. Expenditures

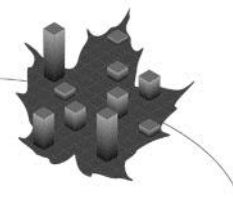
This section examines the expenditures side of the forecast break-even rate. EI expenditures include Part I (income benefits) and Part II (Employment Benefits and Support Measures (EBSM)) benefit payments, administration costs and doubtful debts. EI benefits may also include temporary spending initiatives, such as pilot projects or special measures announced by the Government of Canada. A detailed explanation of the methodology and assumptions used to derive the results is available in Appendix III.

Although penalties and interest on overdue accounts receivable are accounted for as revenues, for the purposes of the forecast break-even rate calculation they are included as credits on the expenditures side of the equation.

Table 7 shows the breakdown of the 2014 EI expenditures, as well as a projection for 2015 and 2016.

Table 7 - Expenditures (Millions)			
	Actual	Forecast	
	2014	2015	2016
EI Benefits – Part I (Income)			
Regular	\$10,603	\$11,292	\$11,700
Fishing	\$268	\$285	\$285
Work-Sharing	\$20	\$21	\$22
Special (Sickness, Compassionate, MPA and PCIC)	\$4,989	\$5,212	\$5,478
Repayments	(\$227)	(\$222)	(\$254)
Sub-Total	\$15,653	\$16,587	\$17,231
EI Benefits – Part II (EBSM)	\$2,040	\$2,067	\$2,074
Total Benefits	\$17,693	\$18,654	\$19,305
Administration Costs	\$1,663	\$1,656	\$1,640
Bad Debt	\$42	\$45	\$45
Total Expenditures	\$19,397	\$20,355	\$20,989
Penalties	(\$39)	(\$41)	(\$43)
Interest	(\$25)	(\$25)	(\$26)
Net Expenditures	\$19,333	\$20,289	\$20,921

MPA benefits included in Part I special benefits, as well as direct EI administrative costs incurred to provide MPA benefits (variable administration costs (VAC)), are required to determine the MPA rate. The VAC represent the direct operating costs incurred by the EI program associated with



the administration of MPA benefits outside Quebec. They are determined each year by ESDC in accordance with the Canada-Quebec Final Agreement which stipulates a minimum VAC amount.

EI MPA benefits are projected from the base year (2014) using the increase in employees, average weekly benefits and week weight and adjusted to reflect the annual impacts of any program changes and pilot projects. The projected MPA expenditures used to determine the MPA rate are shown in Table 8.

Table 8 - MPA Expenditures (Millions)			
	Actual	Forecast	
	2014	2015	2016
EI MPA Benefits	\$3,605	\$3,753	\$3,917
Variable Administration Costs	\$18	\$18	\$18
MPA Expenditures	\$3,623	\$3,770	\$3,935

E. Forecast Break-Even Rate

The forecast break-even rate is the rate that, based on the relevant assumptions, is expected to generate sufficient premium revenue to ensure that, at the end of the year, the amounts credited and charged to the EI Operating Account after 31 December 2008 are equal. As described in Section III, the 2016 forecast break-even rate is comprised of three separate sub-components: the base rate, the MPA rate and the account balance rate.

1. Base Rate

The 2016 base rate is the premium rate required to cover the cost of the 2016 expected EI expenditures, net of expenditures related to providing EI MPA benefits. From the equation shown in Section III, the base rate is equal to the ratio of EI expenditures, net of MPA expenditures, plus the employer premium reductions for qualified wage-loss plans and the small business job credit to the earnings base of residents of all provinces.

Table 9 shows the variables that are required in the calculation of the base rate, as well as the resulting base rate.

Table 9 - Base Rate Calculation (Millions)	
	Forecast 2016
Net Expenditures	\$20,921
MPA Expenditures	(\$3,935)
Reduction in Employer Premiums Due to Qualified Wage-Loss Plans	\$915
Reduction in Employer Premiums Due to Small Business Job Credit	\$360
Total Expenditures for Base Rate	\$18,261
Earnings Base (all provinces)	\$1,415,509
Unrounded Base Rate	1.2900%
Base Rate	1.29%

2. MPA Rate

The MPA rate is equal to the ratio of MPA expenditures (EI MPA benefits and VAC) to the earnings base of residents of all provinces without a provincial plan, that is, residents of all provinces except Quebec. It is the premium reduction for Quebec residents as it relates to the savings to the EI Program resulting from the Quebec Provincial Insurance Plan.

Table 10 shows the estimates of the variables that are required in the calculation of the MPA rate, as well as the resulting MPA rate.

Table 10 - MPA Rate Calculation (Millions)	
	Forecast 2016
MPA Expenditures	\$3,935
MPA Earnings Base (Out-of-Quebec residents)	\$1,106,096
Unrounded MPA Rate	0.3558%
MPA Rate	0.36%

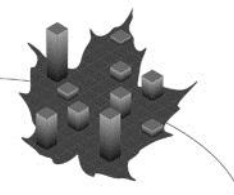
3. Account Balance Rate

The 2016 account balance rate is the premium rate that is required to amortize the projected EI Operating Account balance as of 31 December 2015 over the year 2016. The account balance rate for 2016 is equal to the ratio of the projected EI Operating Account surplus as of 31 December 2015 to the earnings base of residents of all provinces.

In order to calculate the account balance rate, a projection of the EI Operating Account balance as of 31 December 2015 is required. ESDC provides the actual balance of the EI Operating Account as of 31 December 2014. The balance of the EI Operating Account as of 31 December 2015 is estimated using the 2015 projected revenues and expenditures.

The expected premium revenue for 2015, which is used to project the status of the EI Operating Account as of 31 December 2015, is \$23.4 billion. A breakdown is provided in Table 11.

Table 11 - Projected 2015 Premium Revenue (Millions)			
	Quebec	Out-of-Quebec	Total
Legislated Premium Rate	1.54%	1.88%	N/A
Employee Premiums (Salaried, Net of Employee Refunds)	\$1,884	\$8,174	\$10,058
Employer Premiums (Salaried, Before Reduction Due to Qualified Wage-Loss Plans and to the Small Business Job Credit)	\$2,708	\$11,749	\$14,457
Reduction in Employer Premiums Due to Qualified Wage-Loss Plans	N/A	N/A	(\$855)
Reduction in Employer Premiums Due to Small Business Job Credit	N/A	N/A	(\$318)
Self-Employed Premiums	\$0	\$2	\$3
Adjustment for Prior Year Premium Assessments	N/A	N/A	\$13
Total Net Premium Revenue	N/A	N/A	\$23,359



Based on the projected 2015 premium revenue shown above and the 2015 projected EI expenditures of \$20.3 billion presented in Table 7, the EI Operating Account is expected to have a surplus of \$1.3 billion as of 31 December 2015, as presented in Table 12.

Table 12 - Projected 2015 EI Operating Account (Millions)		
	Actual 2014	Forecast 2015
Opening Balance	(\$5,201)	(\$1,734)
Premium Revenue	\$22,801	\$23,359
Expenditures	\$19,333	\$20,289
Sub-Total: Yearly Surplus (Deficit)	\$3,467	\$3,070
Closing Balance	(\$1,734)	\$1,336

Table 13 shows the estimates of the variables that are required in the calculation of the account balance rate, as well as the resulting rate. Since the EI Operating Account is projected to be in a surplus position as of the end of 2015, the account balance rate is negative and lowers the forecast break-even rate.

Table 13 - Account Balance Rate Calculation (Millions)	
	Forecast 2016
Projected EI Operating Account Balance as of 31 December 2015	\$1,336
Earnings Base (all provinces)	\$1,415,509
Unrounded Account Balance Rate	(0.0944%)
Account Balance Rate	(0.09%)

4. Summary of Forecast Break-Even Rate

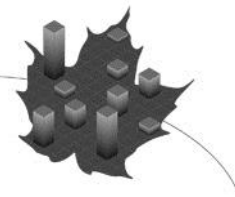
The forecast break-even rate for residents of all provinces except Quebec includes the base rate, the MPA rate and the account balance rate. The forecast break-even rate for residents of the province of Quebec excludes the MPA rate, as MPA benefits are made available to Quebec residents through the Quebec Parental Insurance Plan.

The 2016 forecast break-even rate is 1.56% for residents of all provinces except Quebec and 1.20% for residents of Quebec. These combined rates are expected to generate just enough premium revenue to ensure that, at the end of 2016, all amounts credited and charged to the EI Operating Account after 31 December 2008 are equal.

However, subsection 66(1.1) of the EI Act sets the premium rate for 2016 at 1.88%. Therefore, the 2016 legislated premium rate for residents of all provinces except Quebec is 1.88% of insurable earnings. The corresponding 2016 legislated premium rate for residents of Quebec is 1.52% of insurable earnings, or 1.88% less the premium reduction of 0.36% of insurable earnings.

Table 14 shows the breakdown of the forecast break-even rate as well as legislated premium rates that apply in 2016 for residents of Quebec and for residents of all other provinces.

Table 14 - Breakdown of Forecast Break-Even Rate and Legislated Premium Rate	
	Forecast 2016
Components of the Forecast Break-Even Rate (as a % of Insurable Earnings)	
1) Upcoming Year Rate	
A) Base Rate	1.29%
B) MPA Rate	0.36%
Sub-Total (Upcoming Year)	1.65%
2) Account Balance Rate	(0.09%)
Forecast Break-Even Rate (i.e. Prior to the Application of the Temporary Freeze)	
Residents of All Provinces Except Quebec	1.56%
Residents of the Province of Quebec	1.20%
Legislated Premium Rate (i.e. after the Application of the Temporary Freeze)	
Residents of All Provinces Except Quebec	1.88%
Residents of the Province of Quebec	1.52%



F. Financial Status of the EI Operating Account

The 2016 legislated premium rate is higher than both the forecast break-even rate and the upcoming year rate. As a result, the 2016 premium revenue is expected to surpass the 2016 EI expenditures by \$3.3 billion and create a cumulative surplus of \$4.7 billion as of 31 December 2016.

Table 15 shows the EI Operating Account for 2014, as well as the projected evolution of the account for 2015 and 2016. For 2016, the account projection is shown on two bases:

- Using the forecast break-even rate prior to the application of the temporary premium rate freeze (1.56%/1.20%), the projected cumulative surplus as of 31 December 2015 is eliminated;
- Using the legislated premium rate which reflects the temporary premium rate freeze (1.88%/1.52%), a cumulative surplus of \$4.7 billion is generated.

Table 15 - EI Operating Account Projections (Millions)				
	Actual	Forecast		
	2014	2015	Break-Even Rate	Legislated Premium Rate
			2016	2016
Earnings - Out-of-Quebec Residents				
Total Insurable Earnings	\$431,615	\$446,395	\$465,860	\$465,860
Total Self-Employed Earnings	\$110	\$126	\$144	\$144
Sub-Total	\$431,724	\$446,520	\$466,004	\$466,004
Earnings - Quebec Residents				
Total Insurable Earnings	\$122,519	\$125,613	\$130,326	\$130,326
Total Self-Employed Earnings	\$16	\$17	\$18	\$18
Sub-Total	\$122,535	\$125,630	\$130,344	\$130,344
Premium Rate (Out-of-Quebec Residents)	1.88%	1.88%	1.56%	1.88%
Premium Rate (Quebec Residents)	1.53%	1.54%	1.20%	1.52%
Gross EI Premium Revenue	\$23,976	\$24,787	\$21,198	\$25,777
Reduction in Employer Premiums Due to Qualified Wage-Loss Plans	(\$865)	(\$855)	(\$915)	(\$915)
Employee Refunds	(\$260)	(\$268)	(\$230)	(\$279)
Small Business Job Credit*	\$0	(\$318)	(\$360)	(\$318)
Adjustment for Prior Year Premium Assessments	(\$50)	\$13	\$0	\$0
Total Revenues	\$22,801	\$23,359	\$19,693	\$24,265
Total Expenditures	\$19,333	\$20,289	\$20,921	\$20,921
Annual Surplus (Deficit)	\$3,467	\$3,070	(\$1,228)	\$3,344
Opening Balance	(\$5,201)	(\$1,734)	\$1,336	\$1,336
Closing Balance	(\$1,734)	\$1,336	\$108	\$4,680

*The 2016 premium reduction due to the small business job credit is expected to be higher in the context of the forecast break-even rate. Employers qualify for this reduction if the premium they pay is less than \$15,000. More employers are expected to qualify with lower premium rates.

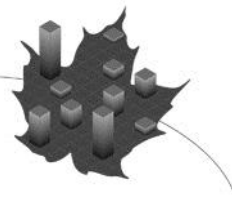
VI. Sensitivity of Projections

While a change in the value of any one of the various assumptions used in the preparation of the actuarial estimates presented in this report would have an impact on the forecast break-even rate, two particular assumptions, the unemployment rate and the beneficiary-to-unemployed ratio (“B/U ratio”), are analysed more closely. The impact of a variation in the premium rate on premium revenue is also examined.

1. Unemployment Rate

Assuming all other assumptions remain constant, a variation in the unemployment rate (UR) of one-tenth of a percentage-point (0.1%) would have an expected net impact of \$187 million on the balance of the EI Operating Account.

Table 16 - Sensitivity of 2016 Results to the Unemployment Rate Assumption (Millions)							
Variation in 2016 UR	UR	Total Insurable and Self-Employed Earnings	Total Revenue	Total Program Costs	Annual Surplus	Cumulative Balance as at 31 Dec. 2016	Variation in Cumulative Balance as at 31 Dec. 2016
(0.5%)	6.1%	\$599,234	\$24,384	\$20,104	\$4,279	\$5,615	\$935
(0.4%)	6.2%	\$598,657	\$24,360	\$20,268	\$4,092	\$5,428	\$748
(0.3%)	6.3%	\$598,080	\$24,336	\$20,431	\$3,905	\$5,241	\$561
(0.2%)	6.4%	\$597,503	\$24,312	\$20,594	\$3,718	\$5,054	\$374
(0.1%)	6.5%	\$596,926	\$24,288	\$20,757	\$3,531	\$4,867	\$187
Base	6.6%	\$596,349	\$24,265	\$20,921	\$3,344	\$4,680	\$0
0.1%	6.7%	\$595,772	\$24,241	\$21,084	\$3,157	\$4,492	(\$187)
0.2%	6.8%	\$595,194	\$24,217	\$21,247	\$2,970	\$4,305	(\$374)
0.3%	6.9%	\$594,617	\$24,193	\$21,411	\$2,783	\$4,118	(\$561)
0.4%	7.0%	\$594,040	\$24,169	\$21,574	\$2,596	\$3,931	(\$748)
0.5%	7.1%	\$593,463	\$24,146	\$21,737	\$2,408	\$3,744	(\$935)



2. B/U Ratio

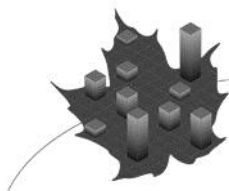
As shown in the following table, a 0.5% increase in the B/U ratio in 2016 from the base assumption of 41.0% would, all other assumptions remaining constant, result in a \$136 million increase in expenditures and a corresponding decrease in the EI Operating Account, due to an increase in the number of beneficiaries. A 0.5% decrease in the B/U ratio from the base assumption would have the opposite impact on expenditures and the EI Operating Account.

Table 17 - Sensitivity of 2016 Results to the B/U Ratio Assumption (Millions)							
Variation in 2016 B/U Ratio	B/U Ratio	Total Insurable and Self-Employed Earnings	Total Revenue	Total Program Costs	Annual Surplus	Cumulative Balance as at 31 Dec. 2016	Variation in Cumulative Balance as at 31 Dec. 2016
(1.00%)	40.00%	\$596,349	\$24,265	\$20,649	\$3,616	\$4,952	\$272
(0.50%)	40.50%	\$596,349	\$24,265	\$20,785	\$3,480	\$4,816	\$136
Base	41.00%	\$596,349	\$24,265	\$20,921	\$3,344	\$4,680	\$0
0.50%	41.50%	\$596,349	\$24,265	\$21,057	\$3,208	\$4,543	(\$136)
1.00%	42.00%	\$596,349	\$24,265	\$21,193	\$3,072	\$4,407	(\$272)

3. Premium Rate

As demonstrated in the following table, for every cent (0.01%) variance in the premium rate in 2016, all other assumptions remaining constant, there is a \$142 million impact on the premium revenue generated.

Table 18 - Sensitivity of 2016 Results to the Premium Rate (Millions)							
Variation in 2016 EI Premium Rate	Resulting EI Premium Rate	Total Insurable and Self-Employed Earnings	Total Revenue	Total Program Costs	Annual Surplus	Cumulative Balance as at 31 Dec. 2016	Variation in Cumulative Balance as at 31 Dec. 2016
(0.05%)	1.83%	\$596,349	\$23,557	\$20,921	\$2,636	\$3,972	(\$708)
(0.01%)	1.87%	\$596,349	\$24,123	\$20,921	\$3,202	\$4,538	(\$142)
Base	1.88%	\$596,349	\$24,265	\$20,921	\$3,344	\$4,680	\$0
0.01%	1.89%	\$596,349	\$24,406	\$20,921	\$3,485	\$4,821	\$142
0.05%	1.93%	\$596,349	\$24,972	\$20,921	\$4,052	\$5,387	\$708



VII. Conclusion

This report was prepared by the Chief Actuary in accordance with the relevant legislation and accepted actuarial practices, and provides to the Commission the forecasts and estimates for the purposes of sections 4 (MIE), 66 (EI premium rate) and 69 (employers who sponsor qualified wage-loss plans and premium reductions for Quebec residents and their employers) of the EI Act.

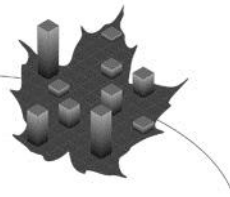
In accordance with the methodology detailed in section 4 of the EI Act and the relevant economic data, the 2016 MIE is \$50,800. In addition, pursuant to subsection 69(1) of the EI Act, the 2016 estimated employer premium reduction due to qualified wage-loss plans is \$915 million.

Based on the assumptions of the relevant economic and demographic variables provided by the Minister of Finance, on the expenditure estimates provided by the Minister of ESD, and on the methodology and assumptions developed by the Chief Actuary, it is the opinion of the Chief Actuary that the 2016 premium rate which would generate sufficient premium revenue to cover the expected \$20.9 billion costs to the EI program in 2016 and eliminate the projected \$1.3 billion cumulative surplus in the EI Operating Account as of 31 December 2015, is 1.56% for residents of all provinces except Quebec and 1.20% for residents of Quebec.

Subsection 66(1.1) of the EI Act sets the premium rate for 2016 at 1.88%. Therefore, for 2016, the legislated premium rate is **1.88%** for residents of all provinces except Quebec. The corresponding premium rate that applies to residents of Quebec is **1.52%**, or 1.88% less the premium reduction of 0.36%. Pursuant to subsection 69(2) of the EI Act, this reduction represents the estimated savings to the EI program following the establishment of the Quebec Parental Insurance Plan, which provides MPA benefits to residents of Quebec.

Given the difference between the 2016 upcoming year rate of 1.65% (the rate which should generate sufficient premium revenue to cover expenditures expected to be incurred in 2016) and the legislated premium rate of 1.88%, it is expected that revenues will exceed expenditures by \$3.3 billion, creating a cumulative surplus of \$4.7 billion as of 31 December 2016.

It is important to note that the figures included in this report are projections, and eventual differences between future experience and these projections will be analyzed and taken into account in subsequent reports.



VIII. Actuarial Opinion

In our opinion, considering that this report was prepared pursuant to the *Canada Employment Insurance Act and Regulations*:

- the data on which this report is based are in aggregate sufficient and reliable;
- the methodology used is appropriate and consistent with sound actuarial principles; and
- the actuarial assumptions used are, individually and in aggregate, reasonable, appropriate and set on a best estimate basis.

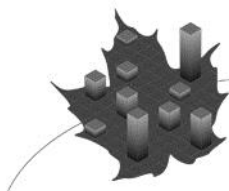
This report has been prepared, and opinions given, in accordance with accepted actuarial practice in Canada, in particular, the General Standards of Practice of the Canadian Institute of Actuaries, and with the International Standard of Actuarial Practice 1 – General Actuarial Practice of the International Actuarial Association.

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Ottawa, Canada
21 August 2015



Appendix I. Summary of EI Legislation

The Unemployment Insurance program was first implemented in 1940, with the last major reform occurring in 1996. At that time, the name of the program was changed from “Unemployment Insurance” to “Employment Insurance” to reflect the program’s primary objective of promoting employment in the labour force and to better emphasize that individuals’ access to the program is linked to significant work attachment.

The EI program provides income support to individuals who have lost their employment through no fault of their own or are unable to work due to specific life circumstances, and helps unemployed people across the country find employment. This Appendix provides a brief overview of the EI program.

A. EI Part I Benefits

Part I of the EI program provides temporary financial assistance to workers who have lost their job through no fault of their own while they look for work or upgrade their skills.

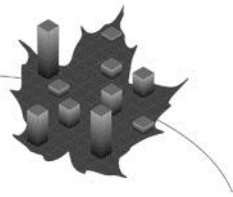
EI benefits paid under Part I of the *Employment Insurance Act* (“EI Act”) include regular benefits, which provide temporary income support for unemployed persons, fishing benefits for self-employed fishers and work-sharing benefits for workers willing to work a temporarily reduced work week to avoid lay-offs. Part I benefits also include special benefits for those who are sick, pregnant or caring for a newborn or adopted child, or caring for a seriously ill family member, or providing care or support to their critically ill or injured child.

Although access and entitlement to benefits vary depending on each benefit type, the calculation of weekly benefit rates is the same for most benefit types.

For claims on or prior to 6 April 2013, weekly benefits were generally equal to 55% of the insurable earnings of a claimant in the last 26 weeks divided by the greater of the number of weeks worked or a minimum divisor between 14 and 22 determined by the regional unemployment rate.

For claims on or after 7 April 2013, weekly benefits are generally equal to 55% of the claimants’ insurable earnings during their variable best weeks over the qualifying period (generally 52 weeks). The number of best weeks taken into account is determined by the regional unemployment rate and varies from 14 to 22 insurable earnings weeks.

The maximum amount payable is determined by the maximum insurable earnings (MIE).



1. Regular Benefits

EI regular benefits provide temporary income-support to eligible insured persons who have lost their jobs through no fault of their own, such as due to shortage of work, or seasonal or mass lay-offs, and are available and able to work but can't find a job.

To qualify for regular benefits, individuals must have been without work and without pay for at least seven consecutive days. In addition, an insured person must have worked at least the minimum required number of insurable hours, between 420 and 700 hours, as determined by the regional unemployment rate, in the 52-week qualifying period. A minimum of 910 hours may be required for new entrants to the work force or those re-entering the work force after a two-year absence. The number of hours required to qualify may increase as a result of a violation (fraudulent overpayment) on a previous EI claim.

The maximum number of regular benefit weeks varies from 14 to 45 weeks, depending on the number of insurable hours accumulated in the qualifying period and the regional unemployment rate.

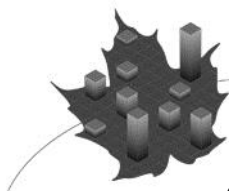
The family supplement provides additional benefits to low-income families with children, based on net family income up to a maximum of \$25,921 per year and the number of children in the family and their ages. The family supplement may increase benefits up to 80% of average insurable earnings, but cannot exceed the maximum benefit rate.

2. Fishing Benefits

EI fishing benefits are paid to self-employed fishers who are temporarily not earning money from fishing. Eligibility for fishing benefits is determined by the claimant's insurable fishing earnings accumulated during the qualifying period, rather than the number of hours worked. A self-employed person engaged in fishing who has earned at least between \$2,500 and \$4,200 (depending on the regional unemployment rate) during the maximum 31 week qualifying period is eligible to receive up to 26 weeks of EI fishing benefits. For new fishers or fishers returning after an absence of at least one year, a minimum of \$5,500 of fishing earnings is required.

3. Work-Sharing Benefits

To avoid temporary lay-offs due to a reduction in the normal level of business activity caused by factors that are beyond the control of the employer, employers and employees can enter into a work-sharing agreement with the Canada Employment Insurance Commission (Commission) through Service Canada to provide EI benefits to eligible workers willing to work a temporarily reduced work week. This enables employers to retain staff and adjust their work activity during temporary work shortages, as well as avoid the expenses of hiring and



training new staff once business levels return to normal. Employees are able to retain their skills and jobs while receiving EI benefits for the days that they do not work.

Work-sharing agreements have a minimum duration of 6 weeks and a maximum of 26 weeks, with a possible extension of up to 12 weeks for a maximum duration of 38 weeks.

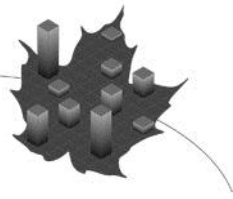
4. Special Benefits

Special benefits include maternity and parental benefits for those who are pregnant or caring for a newborn or adopted child, sickness benefits for those who are unable to work due to sickness, injury or quarantine, compassionate care benefits for those who take a temporary leave from work to give care or support to a family member who is gravely ill at risk of dying within 26 weeks, and benefits for parents of critically ill children (PCIC) who take leave from work to provide care or support to their critically ill or injured child. Since 2006, the Province of Quebec has been responsible for providing maternity, parental and adoption (MPA) benefits to residents of Quebec through the Quebec Parental Insurance Plan (QPIP).

To be eligible for special benefits, the claimant's normal weekly earnings must be reduced by over 40%. In addition, special benefits require a minimum of 600 hours of insured earnings in the 52-week qualifying period. Self-employed fishers can also qualify for special benefits with fishing earnings of \$3,760. In addition, self-employed individuals who opt in for special benefits can qualify if their self-employment earnings meet the minimum self-employment eligibility threshold in the calendar year preceding the claim.

Maternity benefits can be paid for a maximum of 15 weeks while parental benefits, which may be divided between both parents, can be paid for a maximum of 35 weeks for a combined maximum duration of 50 weeks. The maximum duration for sickness, compassionate care, and PCIC benefits is 15 weeks, 6 weeks, and 35 weeks respectively. Effective 3 January 2016, the duration for compassionate care benefits will be increased to twenty-six weeks. The period of time during which claimants will be able to access these benefits will be expanded from twenty-six weeks to fifty-two weeks.

As of 31 January 2010, self-employed persons can voluntarily enter into an agreement with the Commission through Service Canada to participate in the EI program to contribute premiums and access EI special benefits. Self-employed residents of Quebec entering into an agreement with the Commission cannot access EI MPA benefits, as MPA benefits are already payable through QPIP, but can access sickness, compassionate care and PCIC benefits. Except for those who registered for the program before 1 April 2010, who can file a claim for benefits as early as 1 January 2011, one must be registered for at least one year prior to claiming benefits.



B. EI Part II Benefits

Employment Benefits and Support Measures (EBSM) are benefits paid under Part II of the EI Act that provide financial assistance to eligible persons to help them re-integrate the labour market and to third parties to help them provide employment assistance services to unemployed workers and employed persons if they are facing a loss of their employment. These expenses include the direct costs of financial and employment assistance programs and related measures provided to eligible persons and third parties.

C. Financing

The EI program is financed by contributions from employees and employers, via premiums paid on insurable earnings up to MIE.

Employee premiums apply to insurable earnings, up to the MIE. However, the EI program has specific provisions for contributors who are unlikely to qualify for benefits, e.g. employees with insured earnings of less than \$2,000 are entitled to a refund of their EI premiums when they file an income tax return.

In addition, in accordance with subsection 69(2) of the EI Act and related regulations, a mechanism to reduce EI premiums paid by Quebec residents and their employers was introduced. The reduced premium rate reflects the savings to the EI program following the introduction of the QPIP.

Since 31 January 2010, self-employed individuals may voluntarily opt into the EI program to receive EI special benefits. Self-employed individuals pay the same EI premium rate as salaried employees but are not required to pay the employer portion of premiums, as they do not have access to EI regular benefits.

Employers pay premiums at the rate of 1.4 times those of employees. When the system was set up, it was felt that employers had more control over layoffs and, therefore, should bear a higher overall share of program costs.

However, in accordance with subsection 69(1) of the EI Act, employers who sponsor a qualified wage-loss plan which reduces the EI benefits otherwise payable receive a premium reduction if they meet the requirements set out by the Commission. In such cases, the employer pays premiums at a rate that is lower than 1.4 times those of employees, and a portion of those savings must be returned to their employees.

D. Premium Rate

In accordance with subsection 66(1) of the EI Act, the Governor in Council shall, on the joint recommendation of the Ministers of Finance and of Employment and Social Development (ESD), set the premium rate in order to generate just enough premium revenue during the upcoming year to ensure that at the end of that year,

the total amounts credited to the EI Operating Account after 31 December 2008 are equal to the amounts charged to that Account after that date. This calculated premium rate is referred to as the forecast break-even rate.

However, subsection 66(1.1) of the EI Act sets the premium rate for 2016 at 1.88%.

Legislative Framework

The EI Act includes the following dates by which various responsibilities related to the setting of the EI premium rate must be met.

22 July

The Minister of ESD shall provide the information prescribed in subsection 66.1(1) of the EI Act.

The Minister of Finance shall provide the information prescribed in subsection 66.2(1) of the EI Act.

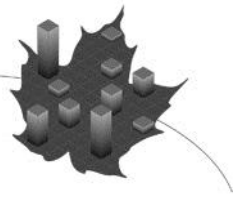
22 August

In accordance with section 66.3 of the EI Act, the Chief Actuary shall prepare forecasts and estimates for the purposes of sections 4, 66 and 69 of the EI Act, and shall provide the Commission with a report that sets out:

- the forecast premium rate for the upcoming year and a detailed analysis in support of the forecast;
- the calculations performed for the purposes of sections 4 and 69 of the EI Act;
- the information provided under section 66.1 of the EI Act; and
- the source of the data, the actuarial and economic assumptions and the actuarial methodology used.

14 September

On or before 14 September in a year, the Commission shall make available to the public the report referred to in section 66.3 of the EI Act and a summary of that report. After the report and its summary are made available to the public, the Minister of ESD shall cause them to be laid before each House of Parliament on any of the next 10 days during which that House is sitting.



Appendix II. Maximum Insurable Earnings (MIE)

Section 4 of the *Employment Insurance Act* (“EI Act”) provides details on how to determine the yearly MIE, the income level up to which EI premiums are paid and up to which EI benefits are calculated.

Based on the EI Act, the annual MIE is set at \$39,000, beginning in 1996, until this threshold is surpassed by 52 times the product obtained by multiplying:

- (a) the average for the 12-month period ending on April 30 in the preceding year of the Average Weekly Earnings (AWE), according to the latest revision of Statistics Canada¹, for each month in that period
by
- (b) the ratio that the average for the 12-month period ending on April 30 in that preceding year of the AWE for each month in that 12-month period bears to the average for the 12-month period ending twelve months prior to April 30 of that preceding year of the AWE for each month in that 12-month period ending twelve months prior to April 30 of that preceding year.

In the year in which the threshold is surpassed, the MIE is equal to the amount calculated as described above, and is rounded down to the nearest multiple of \$100.

For subsequent years, the MIE before rounding is equal to the previous year’s MIE before rounding, multiplied by the average of the AWE for each month for the twelve month period ending on April 30 of the previous year divided by the average of the AWE for each month for the twelve month period ending on April 30 in the year prior to the previous year. This unrounded MIE is then rounded down to the nearest multiple of \$100.

In accordance with the EI Act, the first time the \$39,000 threshold is exceeded is for 2007. The revised unrounded MIE for 2007 is \$40,070.05².

The unrounded MIE for 2016 is equal to the unrounded MIE from 2007 (\$40,070.05) multiplied by the average of the AWE for each month for the twelve month period ending 30 April 2015 (\$943.3867) divided by the average of the AWE for each month for the twelve month period ending 30 April 2006 (\$743.4792).

¹ The AWE series has been revised by Statistics Canada since the 2015 Actuarial Report

² $52 \times \text{AWE}_{2006} \times \frac{\text{AWE}_{2006}}{\text{AWE}_{2005}} = 52 \times \$743.4792 \times \frac{\$743.4792}{\$717.3333}$

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$$\begin{aligned} \text{MIE}_{2016} &= \text{MIE}_{2007} \times \frac{\text{AWE}_{2015}}{\text{AWE}_{2006}} \\ &= \$40,070.05 \times \frac{\$943.3867}{\$743.4792} = \$50,844.14 \end{aligned}$$

Rounded down to the nearest multiple of \$100, the MIE is **\$50,800** for 2016. This is an increase of \$1,300 or 2.6% from the 2015 MIE of \$49,500.

Table 19 - Maximum Insurable Earnings				
Year	12-Month AWE Average as of 30 April	Revised Unrounded MIE	Applicable MIE	% change in Applicable MIE
2005	\$717.3333	\$37,250.65	\$39,000	
2006	\$743.4792	\$38,366.07	\$39,000	-
2007	\$764.8183	\$40,070.05	\$40,000	2.56%
2008	\$796.5792	\$41,220.14	\$41,100	2.75%
2009	\$814.8292	\$42,931.90	\$42,300	2.92%
2010	\$829.9583	\$43,915.49	\$43,200	2.13%
2011	\$862.0917	\$44,730.88	\$44,200	2.31%
2012	\$878.2467	\$46,462.71	\$45,900	3.85%
2013	\$901.1492	\$47,333.39	\$47,400	3.27%
2014	\$919.0667	\$48,567.73	\$48,600	2.53%
2015	\$943.3867	\$49,533.40	\$49,500	1.85%
2016	N/A	\$50,844.14	\$50,800	2.63%

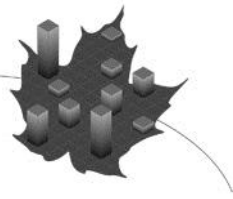
The MIE for the years prior to 2016 are not revised and are based on the legislation that applied at the time they were determined. However the 2016 MIE reflects retroactive adjustments to the calculation in accordance with current legislation.

2016 Minimum Self-Employed Earnings (MSEE)

To qualify for EI special benefits, self-employed individuals who opted in the EI program need to earn at least the MSEE during the calendar year before the year they submit a claim. In accordance with subsection 11.1 of the EI Regulations, the unrounded minimum self-employed earnings was \$6,645.02 in 2015 and is adjusted annually on a compound basis by the same ratio used for the indexation of the MIE (see previous section), rounded down to the nearest dollar.

$$\text{MSEE}_{2016} = \text{MSEE}_{2015} \times \frac{\text{AWE}_{2015}}{\text{AWE}_{2014}} = \$6,645.02 \times \frac{\$943.3867}{\$919.0667} = \$6,820.86$$

The MSEE for 2016 is therefore set at \$6,820.



Appendix III. Data, Methodology and Assumptions

This appendix describes the data, methodology and assumptions that underlie the projections of the earnings base and expenditures included in this report. Although the assumptions have been developed using the best available information, the resulting estimates should be interpreted with caution. These estimates are projections, and eventual differences between future experience and these projections will be analyzed and taken into account in subsequent reports.

A. Prescribed Data

1. Minister of Employment and Social Development

Under subsection 66.1(1) of the *Employment Insurance Act* (“EI Act”), the Minister of Employment and Social Development (ESD) shall provide the actuary, on or before 22 July of each year, with:

- the forecast change in payments to be made under paragraphs 77(1) (a), (b) or (c) of the EI Act during the following year if any changes to the payments to be made are announced;
- the forecast administration costs to be paid under paragraphs 77(1) (d),(d.1) and (g) of the EI Act during the following year, including any forecast change in those costs resulting from any change to the payments to be made under paragraphs 77(1) (a), (b) or (c) of the EI Act; and
- the total amounts charged to the EI Operating Account as of the last day of the most recent month for which that total is known.

Accordingly, for the purposes of determining the 2016 forecast break-even rate under section 66 of the EI Act, the Minister of ESD has provided the actuary with the following information:

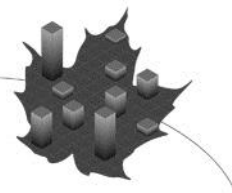
Table 20 - Prescribed Information Provided by the Minister of ESD (Millions)			
	Actual 2014	Forecast 2015	Forecast 2016
Pilot Projects/Special Measures			
Working While on Claim	\$53	\$53	\$36
Small Business Job Credit	\$0	\$318	\$318
Sub-Total	\$53	\$371	\$354
New Permanent Changes			
Variable Best Weeks	\$237	\$237	\$237
Parents of Critically ill Children (PCIC)	\$14	\$18	\$20
Sickness Benefits with Compassionate Care and PCIC	\$0	\$1	\$1
New EI Regions in PEI and Territories	\$0	(\$7)	(\$7)
Compassionate Care Benefits (CCB) Extension	\$0	\$0	\$37
Updated Formula for Allocating Lump-Sum Pensions	\$0	\$0	\$0.159
Sub-Total	\$251	\$249	\$288
Total	\$304	\$620	\$642
	Actual 2014-2015	Forecast 2015-2016	Forecast 2016-2017
Employment Benefits and Support Measures	\$2,047	\$2,074	\$2,074
Administration Costs	\$1,657	\$1,655	\$1,634

In addition, the Minister of ESD provided an EI Operating Account summary that shows a preliminary cumulative surplus of \$0.5 billion as of 31 March 2015, the most recent month for which that total is known.

2. Minister of Finance

Under subsection 66.2(1) of the EI Act, the Minister of Finance shall provide the actuary, on or before 22 July of each year, with the following:

- the most current forecast values of the economic variables relevant to the determination of the forecast break-even rate for the following year;
- the forecast amounts to be credited and charged to the EI Operating Account for the current year and an estimate of the total amounts credited to the Account as at 31 December of the previous year.



Accordingly, for the purposes of determining the 2016 forecast break-even rate under section 66 of the EI Act, the Minister of Finance has provided the actuary with the following information:

Table 21 - Prescribed Information Provided by the Minister of Finance (Thousands)			
	Actual 2014	Forecast 2015	Forecast 2016
Population (15+)	28,981	29,271	29,556
Labour Force	19,118	19,272	19,545
Employment	17,796	17,972	18,263
Employees	15,072	15,220	15,469
Self-Employed	2,724	2,752	2,794
Unemployed	1,322	1,300	1,282
	Actual 2014	Forecast 2015	Forecast 2016
Unemployment Rate	6.9%	6.7%	6.6%
Average Weekly Earnings	\$935	\$962	\$989

The information for 2014 is based on actual data from the Labour Force Survey whereas the information for 2015 and 2016 is based on projections provided by the Minister of Finance, which are consistent with the definitions of the corresponding seasonally-adjusted quarterly estimates in the Labour Force Survey as published by Statistics Canada.

In addition, the Minister of Finance has provided the expected increase in average employment income for the years 2014 to 2016. The average employment income is expected to increase by 3.00%, 2.60% and 3.40% in 2014, 2015 and 2016 respectively.

B. Earnings Base

The earnings base is detailed in the denominator of the formula for the base rate, the MPA rate and the account balance rate developed in Section III. The earnings base is comprised of:

- the total insurable earnings on which employers pay EI premiums prior to any adjustment for qualified wage-loss plans or the small business job credit;
- the total insurable earnings on which employees pay EI premiums, adjusted to reflect employee premium refunds; and
- the earnings on which self-employed individuals that opted into the EI program pay EI premiums.

Section IV of the report presents an overview of the assumptions used in determining the earnings base. The following subsections provide additional information and data in support of the development of these assumptions.

1. Number of Earners

In order to calculate the earnings base, an assumption is required for the number of earners, as well as the split of these earners between those that have earnings below and above the maximum insurable earnings (MIE).

The annual statistic on the number of employees provided by the Minister of Finance represents an average of the number of individuals who work for a public or private sector employer in a month. The number of earners provided by CRA is always greater than the average monthly number of employees since it represents a count of all individuals who received one or more T4 slips in the year and had employment income and/or insurable earnings during the year. This is mainly due to the fact that the number of earners includes all individuals who had earnings at any time during the year, whereas the number of employees only indicates a monthly average.

A historical comparison of the number of employees and the number of earners is presented in Table 22. The preliminary number of earners for the year 2014 is derived from the 2014 year-to-date assessed premiums and the 2014 increase in average employment income provided by the Minister of Finance such that the resulting insurable earnings are in line with the expected assessed premiums for 2014.

Year	Number of Employees	Increase in Number of Employees	Number of Earners (CRA T4 Data)	Increase in Number of Earners	Difference in Annual Increases (%)
2008	14,355		17,981		
2009	14,038	(2.21%)	17,724	(1.43%)	0.78%
2010	14,287	1.77%	17,737	0.07%	(1.70%)
2011	14,562	1.92%	18,028	1.65%	(0.28%)
2012	14,765	1.40%	18,244	1.19%	(0.20%)
2013	14,957	1.30%	18,424	0.99%	(0.31%)
2014	15,072	0.77%	18,623	1.08%	0.31%

The projected number of earners is obtained by a regression based on a correlated historical relationship from 1989 to 2014 between the following four main variables:

- The labour force population;
- The unemployed population;
- The real gross domestic product (GDP); and
- The number of earners in the previous year.

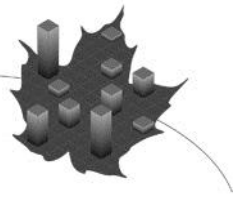


Table 23 shows the actual number of earners for the year 2013, the preliminary number of earners for the year 2014 as well as the projected number of earners for the years 2015 and 2016.

Table 23 - Projected Number of Earners (Thousands unless stated otherwise)						
Year	Labour Force Population	Unemployed Population	Real GDP (\$ Millions)	Number of Earners in Year -1	Projected Number of Earners	Increase in Number of Earners
2013	19,035	1,350	1,689,489	18,244	18,424	
2014	19,118	1,322	1,732,697	18,424	18,623	1.08%
2015	19,272	1,300	1,753,489	18,623	18,814	1.02%
2016	19,545	1,282	1,792,066	18,814	19,046	1.23%

Based on information with regards to the historical number of earners across income ranges, the distribution of earners as a percentage of average employment income is fairly stable from year to year. Table 24 illustrates the historical distribution of earners as a percentage of average employment income for different ranges from 2008 to 2013.

Table 24 - Historical Distribution of Earners as a % of Average Employment Income							
		Range as a % of Average Employment Income					
Year	Average Employment Income	0 - 25 %	25 - 50 %	50 - 75 %	75 - 100 %	100 - 125 %	> 125 %
2008	\$40,089	22.9%	14.5%	12.4%	12.1%	10.1%	27.9%
2009	\$40,113	22.7%	14.6%	12.4%	11.9%	10.0%	28.3%
2010	\$41,310	22.3%	14.7%	12.6%	12.1%	10.0%	28.2%
2011	\$42,784	22.2%	14.7%	12.8%	12.2%	10.0%	28.2%
2012	\$44,073	21.9%	14.7%	12.9%	12.3%	10.0%	28.2%
2013	\$45,227	21.9%	14.7%	13.0%	12.4%	9.9%	28.2%

The 2013 distribution of the number of earners as a percentage of average employment income is used to determine the proportion of earners with employment income below and above the MIE for the years 2014 to 2016. Table 25 shows the resulting split of the number of earners between those with employment income below the MIE and those with employment income above the MIE. Actual data is also shown for the years 2008 to 2013.

Table 25 - Number of Earners Below and Above the MIE

Year	MIE	MIE as a Proportion of Average Employment Income	Proportion of Earners Below MIE	Thousands		
				Total Number of Earners	Number of Earners Below MIE	Number of Earners Above MIE
2008	\$41,100	1.0252	63.2%	17,981	11,364	6,618
2009	\$42,300	1.0545	64.1%	17,724	11,367	6,358
2010	\$43,200	1.0458	63.8%	17,737	11,315	6,422
2011	\$44,200	1.0331	63.4%	18,028	11,422	6,607
2012	\$45,900	1.0415	63.7%	18,244	11,621	6,622
2013	\$47,400	1.0480	64.1%	18,424	11,803	6,621
2014	\$48,600	1.0433	63.8%	18,623	11,885	6,738
2015	\$49,500	1.0357	63.5%	18,814	11,943	6,871
2016	\$50,800	1.0279	63.1%	19,046	12,025	7,021

2. Average and Total Employment Income

The projected increase in average employment income, provided by the Minister of Finance, combined with the increase in the projected number of earners, are used to determine the total employment income for the years 2014 to 2016.

Table 26 shows the derivation of the projected total employment income for the years 2014 to 2016, as well as actual data provided by CRA for the years 2008 to 2013.

Table 26 - Projected Total Employment Income

Year	Number of Earners from CRA T4 Data (Thousands)	Increase in Number of Earners	Average Employment Income from CRA T4 Data	Increase in Average Employment Income	Increase in Total Employment Income	Total Employment Income (Thousands)
2008	17,981		\$40,089			\$720,864,637
2009	17,724	(1.43%)	\$40,113	0.06%	(1.37%)	\$710,978,270
2010	17,737	0.07%	\$41,310	2.98%	3.06%	\$732,700,098
2011	18,028	1.65%	\$42,784	3.57%	5.27%	\$771,325,267
2012	18,244	1.19%	\$44,073	3.01%	4.24%	\$804,060,540
2013	18,424	0.99%	\$45,227	2.62%	3.63%	\$833,270,357
2014	N/A	1.08%	N/A	3.00%	4.11%	\$867,537,767
2015	N/A	1.02%	N/A	2.60%	3.65%	\$899,204,870
2016	N/A	1.23%	N/A	3.40%	4.67%	\$941,234,358

Based on information with regards to the historical employment income across income ranges, the distribution of total employment income as a percentage of average employment income is stable from year to year.

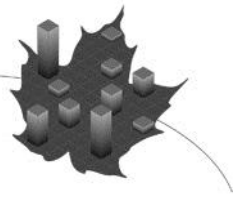


Table 27 illustrates the historical distribution of total employment income as a percentage of average employment income.

Table 27 - Historical Distribution of Employment Income as a % of Average Employment Income							
		Range as a % of Average Employment Income					
Year	Average Employment Income	0 - 25 %	25 - 50 %	50 - 75 %	75 - 100 %	100 - 125 %	> 125%
2008	\$40,089	2.4%	5.4%	7.7%	10.6%	11.3%	62.6%
2009	\$40,113	2.4%	5.4%	7.7%	10.4%	11.2%	62.8%
2010	\$41,310	2.4%	5.4%	7.9%	10.6%	11.2%	62.5%
2011	\$42,784	2.4%	5.4%	8.0%	10.6%	11.1%	62.4%
2012	\$44,073	2.4%	5.4%	8.1%	10.7%	11.2%	62.2%
2013	\$45,227	2.4%	5.4%	8.1%	10.8%	11.1%	62.3%

The 2013 distribution of the total employment income as a percentage of average employment income is used to determine the proportion of employment income that relates to earners with employment income below and above the MIE for the years 2014 to 2016. Table 28 shows the total employment income split between the earners with employment income below the MIE and earners with employment income above the MIE for the years 2014 to 2016. Actual data is also shown for the years 2008 to 2013.

Table 28 - Distribution of Employment Income for Earners Below and Above the MIE						
				(Thousands)		
Year	MIE	MIE as a Proportion of Average Employment Income	Proportion of Employment Income for Earners Below MIE	Total Employment Income	Total Employment Income for Earners Below MIE	Total Employment Income for Earners Above MIE
2008	\$41,100	1.0252	27.3%	\$720,864,637	\$196,909,420	\$523,955,218
2009	\$42,300	1.0545	28.6%	\$710,978,270	\$203,193,972	\$507,784,299
2010	\$43,200	1.0458	28.4%	\$732,700,098	\$208,125,406	\$524,574,692
2011	\$44,200	1.0331	28.0%	\$771,325,267	\$215,792,198	\$555,533,068
2012	\$45,900	1.0415	28.5%	\$804,060,540	\$229,466,429	\$574,594,111
2013	\$47,400	1.0480	28.9%	\$833,270,357	\$240,789,645	\$592,480,712
2014	\$48,600	1.0433	28.6%	\$867,537,767	\$248,535,978	\$619,001,789
2015	\$49,500	1.0357	28.3%	\$899,204,870	\$254,496,405	\$644,708,465
2016	\$50,800	1.0279	27.9%	\$941,234,358	\$263,073,635	\$678,160,722

3. Total Insurable Earnings

The total insurable earnings of salaried employees are equal to the total employment income, up to the annual MIE, earned by a person employed in insured employment. They are used to determine the earnings base for salaried employees. Prior to any adjustments for employee premium refunds, the earnings base for salaried employees is equal to 2.4 times the total insurable earnings.

Historical information regarding total insurable earnings is derived from aggregate assessed EI premiums gathered from T4 slips of all salaried employees, and is provided by CRA. The insurable earnings can be calculated by

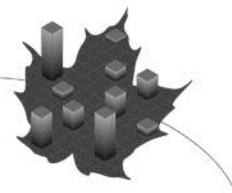
dividing the gross EI premium revenues by 2.4 times the weighted-average premium rate. The gross EI premium revenues are derived by adding the following components to the net EI assessed premiums:

- Unadjusted employee premium refunds (multiple employments, insurable earnings below \$2,000 and net adjustments for Quebec residents working outside of Quebec and vice-versa);
- Overage (correction to EI premiums due to employer-related administrative errors);
- Employer premium reductions for qualified wage-loss plans;
- Net adjustment payments between the Government of Canada and the Government of Quebec for Quebec residents working outside of Quebec and vice-versa; and
- Other accounting adjustments.

The gross EI premium revenues represent the employee EI premiums deducted at source and the corresponding employer premium before adjusting for qualified wage-loss plans, and reflect the employee's province of work. Therefore, the annual weighted-average premium rates are calculated from the split of insurable earnings between Quebec and out-of-Quebec as reflected in the T4 data provided by CRA (i.e. on a province of employment basis, not province of residence). The derivation of insurable earnings for the years 2008 to 2013 from the CRA statement of premium revenue is shown in Table 29. The net premiums assessed shown in the table are prior to the reduction in premiums due to the hiring credit for small businesses.

Table 29 - Derived Insurable Earnings from Assessed Premiums (Millions)						
	2008	2009	2010	2011	2012	2013
Net Premiums Assessed	\$16,900.4	\$16,852.8	\$17,337.2	\$18,771.6	\$20,379.4	\$21,883.8
Unadjusted Employee Premium Refunds	\$227.5	\$177.7	\$195.1	\$222.5	\$243.5	\$249.2
Overage	\$4.6	\$4.0	\$3.4	\$3.4	\$3.1	\$3.1
Wage-Loss Premium Reduction	\$809.5	\$839.4	\$863.0	\$877.0	\$920.0	\$909.0
Net Adjustment Payments (QPIP)	\$8.9	\$8.8	\$9.3	\$8.8	\$8.1	\$8.2
Other Accounting Adjustments	\$9.7	\$9.3	\$7.3	\$5.3	\$6.1	\$8.8
Gross EI Premium Revenues	\$17,960.5	\$17,892.1	\$18,415.3	\$19,888.5	\$21,560.3	\$23,062.2
Distribution of Insurable Earnings (Province of Employment):						
Out-of-Quebec	77.9%	77.7%	77.6%	77.6%	77.8%	78.0%
Quebec	22.1%	22.4%	22.4%	22.4%	22.2%	22.0%
EI Premium Rate:						
Out-of-Quebec	1.73%	1.73%	1.73%	1.78%	1.83%	1.88%
Quebec	1.39%	1.38%	1.36%	1.41%	1.47%	1.52%
Weighted Average Premium Rate	1.65%	1.65%	1.65%	1.70%	1.75%	1.80%
Total Insurable Earnings	452,206	451,334	465,835	488,248	513,328	533,632

For employees with multiple employments in a year, the information is based on the combined total EI premiums. This means that although insurable earnings of each employment are capped at the MIE, the combined total insurable earnings can exceed the MIE. The adjustment to insurable earnings and the earnings base



to reflect multiple employments is captured in the employee premium refund section.

The 2013 distributions of the total number of earners and total employment income as a percentage of average employment income are used to calculate the insurable earnings for the years 2014 to 2016. From these distributions, the total employment income capped at the MIE is derived. The resulting capped employment income is adjusted for consistency with total insurable earnings which take into account multiple employments as well as excluded employments. For the years 2014 to 2016, the adjustment is assumed to be 96.2%, which is the three-year average of the ratio of insurable earnings to capped employment income from 2011 to 2013. Table 30 shows details of the calculation of the projected total insurable earnings for the years 2014 to 2016, as well as the actual data for 2008 to 2013. For 2014, the resulting insurable earnings reflect the year-to-date assessed premiums and related total expected assessed premiums for 2014.

Table 30 - Projected Total Insurable Earnings							
(Thousands)							
Year	MIE	Total Employment Income for Earners Below MIE	Number of Earners Above MIE	Total Employment Income, Capped at MIE for Earners Above MIE	Total Employment Income, Capped at MIE	Total Insurable Earnings	Increase in Total Insurable Earnings
2008	\$41,100	\$196,909,420	6,618	\$271,981,699	\$468,891,118	\$452,206,085	
2009	\$42,300	\$203,193,972	6,358	\$268,927,689	\$472,121,661	\$451,334,479	(0.19%)
2010	\$43,200	\$208,125,406	6,422	\$277,422,658	\$485,548,064	\$465,835,495	3.21%
2011	\$44,200	\$215,792,198	6,607	\$292,023,971	\$507,816,169	\$488,248,436	4.81%
2012	\$45,900	\$229,466,429	6,622	\$303,971,463	\$533,437,892	\$513,327,993	5.14%
2013	\$47,400	\$240,789,645	6,621	\$313,835,684	\$554,625,329	\$533,632,013	3.96%
2014	\$48,600	\$248,535,978	6,738	\$327,486,355	\$576,022,333	\$554,133,484	3.84%
2015	\$49,500	\$254,496,405	6,871	\$340,105,885	\$594,602,290	\$572,007,403	3.23%
2016	\$50,800	\$263,073,635	7,021	\$356,662,702	\$619,736,337	\$596,186,356	4.23%

4. Split of Total Insurable Earnings Due to Provincial Plan

On 1 March 2005, an agreement was reached between the Government of Canada and the Government of Quebec which gave the Government of Quebec the means to set up, starting 1 January 2006, the Quebec Parental Insurance Plan (QPIP). Under the QPIP, Quebec is responsible for MPA benefits claimed by residents of Quebec. The final agreement between the Governments of Canada and Quebec includes a financial mechanism whereby the Government of Canada reduces EI premiums paid by Quebec residents and their employers so that the Government of Quebec can collect premiums for its own program. The premium reduction reflects the savings to the EI Account realized as a result of Quebec's program, including MPA benefits that are no longer paid under EI and administrative savings. As such, the upcoming year rate must be split into two sub-components, the base rate which applies to residents of all provinces and the MPA rate which applies to residents of all provinces except for Quebec residents.

Given that eligibility for the QPIP is based on the province of residence, for the purposes of calculating the MPA rate, insurable earnings must be split between Quebec and all other provinces based on the province of residence. The information regarding historical insurable earnings provided by CRA (T4 basis) is based on the province of employment. Therefore, an adjustment is required to transfer insurable earnings from Quebec to the rest of Canada and vice-versa to reflect the province of residence.

Split Based on Province of Employment (T4)

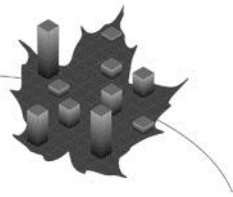
Premiums are remitted by employers and employees based on province of employment, or on a T4 basis. The information regarding historical insurable earnings provided by CRA is also on a T4 basis, and is therefore based on the province of employment. The historical distribution of insurable earnings on a T4 basis shows that the proportion of insurable earnings that relates to employment in Quebec has been decreasing. It is expected that this decreasing trend will continue, but at a slower pace than the recent past. Based on preliminary data from CRA, the 2014 proportion of insurable earnings that relates to employment in Quebec is 21.78%. This proportion is expected to decrease to 21.63% in 2015 and 21.53% in 2016. This is highlighted in Table 31.

Table 31 - Split of Insurable Earnings Between Quebec and the Rest of Canada, Based on Province of Employment (T4 data)		
Year	Proportion of Insurable Earnings for Employment in Quebec	Proportion of Insurable Earnings for Employment Out-of-Quebec
2008	22.09%	77.91%
2009	22.35%	77.65%
2010	22.39%	77.61%
2011	22.36%	77.64%
2012	22.21%	77.79%
2013	22.02%	77.98%
2014	21.78%	78.22%
2015	21.63%	78.37%
2016	21.53%	78.47%

The proportions shown in the table above are used to split the insurable earnings between Quebec and out-of-Quebec based on province of employment. Adjustments to these proportions are required to reflect the province of residence.

Split Based on Province of Residence (T1)

Despite the fact that premiums are remitted based on the province of employment, in accordance with the Canada-Quebec Agreement and for the purpose of facilitating inter-provincial mobility, when a worker's premium, as well as the related employer's premium has been collected under either the EI MPA or the QPIP, and if the person for whom the premium has been collected is not covered by the regime to which he or she has contributed because of his or



her province of residence, adjustment payments between the Government of Canada and the Government of Quebec will be made as long as this person is covered under the other regime. These adjustment payments are based on information included in individual tax returns and reflect the province of residence as of 31 December.

The information on historical assessed premiums provided by CRA includes the annual adjustment payments between the Government of Canada and the Government of Quebec. A split between the employee adjustment payments and the employer adjustment payments, and a split between the transfer from the Government of Canada to the Government of Quebec and vice-versa is provided. Table 32 shows the detailed adjustment payments between both parties for the calendar years 2009 to 2013. The adjustment payments for calendar years 2012 and 2013 are preliminary.

Table 32 - Historical Adjustment Payments Between the Government of Canada and the Government of Quebec to Reflect Province of Residence (Thousands)					
	2009	2010	2011	2012	2013
Adjustment Payments from Government of Canada to Government of Quebec (i.e. for Quebec residents working outside of Quebec):					
Employee Portion	\$10,299	\$11,091	\$11,587	\$11,677	\$11,609
Employer Portion	\$13,479	\$14,554	\$15,094	\$15,066	\$15,296
Total	\$23,779	\$25,646	\$26,681	\$26,743	\$26,905
Adjustment Payments from Government of Quebec to Government of Canada (for non-Quebec residents working in Quebec):					
Employee Portion	\$8,796	\$9,463	\$10,599	\$11,278	\$11,283
Employer Portion	\$6,205	\$6,836	\$7,288	\$7,357	\$7,388
Total	\$15,001	\$16,299	\$17,887	\$18,635	\$18,671
Net Adjustment Payment from Government of Canada to Government of Quebec:					
Employee Portion	\$1,503	\$1,628	\$988	\$399	\$325
Employer Portion	\$7,275	\$7,718	\$7,806	\$7,709	\$7,909
Total	\$8,777	\$9,346	\$8,794	\$8,108	\$8,234

The rules on how these adjustment payments are calculated are established in Division 4 of the *Employment Insurance Regulations* and Division 5 of *An Act Respecting Parental Insurance* (QPIP). Under these rules, the employer adjustment payment for each T4 slip of a given employee is generally equal to that employee's insurable earnings times the MPA rate times the employer's multiplier. Therefore, by using the aggregate employer adjustment payments provided by CRA and an average employer multiplier, it is possible to calculate the insurable earnings of Quebec residents working outside of Quebec and vice-versa. Given that a similar exercise is not possible using the employee adjustment payments due to different rules that apply to various individual situations, the employer adjustment payments are used to calculate the transfer of insurable earnings on a province of employment basis from Quebec to the rest of Canada and vice-versa to reflect the province of residence.

Based on historical information provided by CRA with regards to aggregate employer adjustment payments from 2009 to 2013, on average, insurable earnings for employees who reside in Quebec and work outside of Quebec are equal to 0.64% of total insurable earnings, and insurable earnings for employees

who reside outside of Quebec and work in Quebec are equal to 0.31% of total insurable earnings. The resulting net effect is that, from the split based on province of employment, an average net transfer of 0.33% of total insurable earnings from the rest of Canada to Quebec occurs to reflect the province of residence. This is outlined in Table 33.

Table 33 - Adjustment to Insurable Earnings Split to Reflect Province of Residence (Thousands)					
	2009	2010	2011	2012	2013
Total Insurable Earnings	\$451,334,479	\$465,835,495	\$488,248,436	\$513,327,993	\$533,632,013
MPA Rate	0.35%	0.37%	0.37%	0.36%	0.36%
Average Employer Multiplier:					
Out-of-Quebec Employers	1.28	1.28	1.29	1.29	1.30
Quebec Employers	1.25	1.26	1.27	1.28	1.29
Employer Adjustment Payments:					
From Government of Canada to Government of Quebec	\$13,479	\$14,554	\$15,094	\$15,066	\$15,296
From Government of Quebec to Government of Canada	\$6,205	\$6,836	\$7,288	\$7,357	\$7,388
Estimated Transfer of Insurable Earnings to Reflect Province of Residence (Employer Adjustment Payments / (MPA rate x Average Employer Multiplier))					
From Government of Canada to Government of Quebec	\$3,003,389	\$3,074,372	\$3,171,612	\$3,250,380	\$3,272,660
From Government of Quebec to Government of Canada	\$1,420,818	\$1,464,203	\$1,547,541	\$1,595,360	\$1,588,586
Net Transfer (from Canada to Quebec)	\$1,582,571	\$1,610,169	\$1,624,071	\$1,655,020	\$1,684,075
Estimated Transfer of Insurable Earnings to Reflect Province of Residence as a % of Total Insurable Earnings					
From Government of Canada to Government of Quebec	0.67%	0.66%	0.65%	0.63%	0.61%
From Government of Quebec to Government of Canada	0.31%	0.31%	0.32%	0.31%	0.30%
Net From Government of Canada to Government of Quebec	0.35%	0.35%	0.33%	0.32%	0.32%

The information included in the administrative files that are exchanged between CRA and Revenu Quebec was used to validate the methodology developed to estimate the transfer of insurable earnings using aggregate data. This file includes information on all taxfilers who are Quebec residents and work outside of Quebec and vice-versa. The actual insurable earnings of Quebec residents working outside of Quebec (114,000 in 2013) and of non-Quebec residents working in Quebec (74,000 in 2013) were almost identical to the ones calculated on an aggregate basis.

Given the stability of these percentages in the past and the low sensitivity of the MPA rate to this transfer of insurable earnings, it is assumed that the transfer of insurable earnings on a T4 basis to reflect actual province of residence for the years 2014 to 2016 will be equal to the average transfer for the years 2009 to 2013, that is 0.33%. The resulting insurable earnings on a province of residence basis are outlined in Table 34.

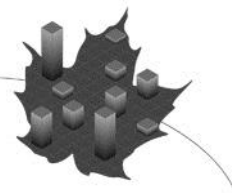


Table 34 - Split of Salaried Insurable Earnings Based on Province of Residence							
Year	Proportion of Insurable Earnings - Province of Work (T4 Basis)		Proportion of Insurable Earnings - Province of Residence		Total Insurable Earnings - Province of Residence (Thousands)		
	Out-of-Quebec	Quebec	Out-of-Quebec	Quebec	Canada	Out-of-Quebec	Quebec
2014	78.22%	21.78%	77.89%	22.11%	\$554,133,484	\$431,614,571	\$122,518,913
2015	78.37%	21.63%	78.04%	21.96%	\$572,007,403	\$446,394,577	\$125,612,826
2016	78.47%	21.53%	78.14%	21.86%	\$596,186,356	\$465,860,019	\$130,326,337

5. Employee Premium Refunds

In general, salaried employees contribute EI premiums on their total insurable earnings in a given tax year up to the annual MIE limit. However, when filing their tax returns, employees will receive a refund if they have exceeded the maximum contribution due to multiple employments in the same year or if their insurable earnings were below \$2,000. The insurable earnings that are subject to any subsequent premium refund must be excluded from the earnings base. The data from T4 slips that are used for projection purposes include insurable earnings for which premiums may later be refunded. Therefore, an adjustment must be made to reduce the earnings base. In addition, since the employer does not receive a refund, only the employee's portion of the total earnings base is adjusted.

The annual employee refunds provided by CRA reflect the net impact of total EI premiums paid and the employee adjustment payments between the Government of Canada and the Government of Quebec to account for employees who reside in Quebec and work outside of Quebec and vice-versa.

For example, the information provided for a resident outside of Quebec who is working in Quebec for the same employer throughout the year will include a refund equal to the difference between the premium paid to the QPIP and the premium owed for EI MPA coverage. However, the total insurable earnings should not be adjusted to reflect this refund.

Another example is the case of a Quebec resident who is working outside of Quebec and who has exceeded the maximum EI contribution due to multiple employments in the year. In this case, the refund provided by CRA is net of the QPIP premium payable. The insurable earnings base should be adjusted for the refund related to the EI overpayment rather than the EI overpayment minus the QPIP premium payable.

The refunds provided by CRA must therefore be adjusted to reflect only refunds that relate to multiple employment and insurable earnings below \$2,000. They should be decreased by any refund that relates to QPIP premiums paid by out-of-Quebec residents who worked in Quebec, and increased by any QPIP premiums payable by Quebec residents who had multiple employments and worked outside of Quebec. Given that the latter is not as common, the adjusted premium refunds will be lower than the refunds provided by CRA.

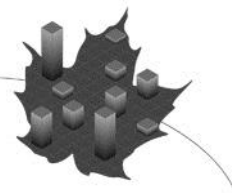
The adjusted premium refunds are estimated such that the net assessed premiums shown in Table 29 remain unchanged after taking into account the split of insurable earnings based on province of residence. In the reconciliation of the net assessed premiums using the province of residence (Table 35), the net adjustment payments (QPIP) shown in Table 29 are re-allocated between two items: the gross premium revenues and the premium refunds. Consequently, Table 35 shows net adjustment payments (QPIP) of \$0.

The portion of the net adjustment payments that is re-allocated to the gross premium revenues is calculated by taking the difference between the gross premiums calculated using the weighted-average premium rate on a province of residence basis and the gross premiums calculated using the weighted-average premium rate on a province of employment basis. Given that the proportion of Quebec insurable earnings is higher under the province of residence basis and that Quebec residents have a lower premium rate, the gross premium revenues on a province of residence basis are lower than those on a province of employment basis.

The portion of the net adjustment payments that has not been allocated to the change in gross premium revenues to reflect the province of residence is allocated to the premium refunds. The resulting adjusted premium refunds relate only to multiple employment and insurable earnings below \$2,000 and do not reflect any other adjustments due to the province of employment being different than the province of residence.

Table 35 shows the reconciliation of the net premiums and the inherent calculation of the adjusted premium refunds for the years 2008 to 2013. By comparing this table to Table 29 for the year 2013, it can be seen that the adjustment payments of \$8.2 million are reflected in Table 35 through gross premiums that are \$14.7 million lower (\$23,062.2 – \$23,047.5) and through premium refunds that are \$6.5 million lower (\$249.2 – \$242.7), with no resulting effect on the total net premium.

Table 35 - Calculation of the Adjusted Premium Refunds (Millions)						
	2008	2009	2010	2011	2012	2013
Total Insurable Earnings	\$452,206	\$451,334	\$465,835	\$488,248	\$513,328	\$533,632
Split of Insurable Earnings (Province of Residence):						
Outside Quebec	77.6%	77.3%	77.3%	77.3%	77.5%	77.7%
Quebec	22.4%	22.7%	22.7%	22.7%	22.5%	22.3%
EI Premium Rate:						
Outside Quebec	1.73%	1.73%	1.73%	1.78%	1.83%	1.88%
Quebec	1.39%	1.38%	1.36%	1.41%	1.47%	1.52%
Weighted Average Premium Rate	1.65%	1.65%	1.65%	1.70%	1.75%	1.80%
Gross Premium Revenues	\$17,947.9	\$17,878.8	\$18,400.8	\$19,874.2	\$21,546.1	\$23,047.5
Adjusted Premium Refunds	\$223.8	\$173.3	\$189.9	\$217.0	\$237.5	\$242.7
Overage	\$4.6	\$4.0	\$3.4	\$3.4	\$3.1	\$3.1
Wage-Loss Premium Reduction	\$809.5	\$839.4	\$863.0	\$877.0	\$920.0	\$909.0
Net Adjustment Payments (QPIP)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Other Accounting Adjustments	\$9.7	\$9.3	\$7.3	\$5.3	\$6.1	\$8.8
Net Premiums Assessed	\$16,900.4	\$16,852.8	\$17,337.2	\$18,771.6	\$20,379.4	\$21,883.8



The adjusted premium refunds divided by the average premium rate are used to estimate the total insurable earnings subject to a subsequent employee refund. Based on historical data provided by CRA, the total insurable earnings subject to a subsequent employee refund as a percentage of total insurable earnings is relatively stable from year to year. Table 36 shows that from 2008 to 2013, this percentage varied between 2.33% and 2.99%, with an average of 2.60%.

Table 36 - Total Insurable Earnings Subject to a Subsequent Premium Refund (Millions)						
	2008	2009	2010	2011	2012	2013
Total Insurable Earnings (TIE)	\$452,206	\$451,334	\$465,835	\$488,248	\$513,328	\$533,632
Adjusted Premium Refunds	\$223.8	\$173.3	\$189.9	\$217.0	\$237.5	\$242.7
Average Premium Rate	1.65%	1.65%	1.65%	1.70%	1.75%	1.80%
TIE Subject to Refund	\$13,535	\$10,497	\$11,539	\$12,792	\$13,577	\$13,485
TIE Subject to Refund (% of TIE)	2.99%	2.33%	2.48%	2.62%	2.64%	2.53%

For 2014 to 2016, the adjustment to employee insurable earnings is based on the average over the last three years (2011 to 2013), and is equal to 2.60% of total insurable earnings.

6. Self-Employed Earnings

Pursuant to the *Fairness for the Self-Employed Act*, starting 31 January 2010, self-employed persons can enter into a voluntary agreement with the Canada Employment Insurance Commission (Commission) through Service Canada to participate in the EI program, contribute EI premiums at the employee rate and have access to special benefits. Self-employed residents of Quebec will continue to receive MPA benefits through the QPIP, however they are able to access sickness, compassionate care and PCIC benefits through the EI program. As such, the earnings base used in calculating the forecast break-even rate must take into account the covered earnings of self-employed individuals who opt into the EI program.

Participants in the self-employed EI program contribute premiums on their covered earnings, (i.e. their self-employed earnings up to the annual MIE), at the employee rate which corresponds to their province of residence, and there are no employer premium contributions. Therefore, as with the insurable earnings of salaried employees, self-employed covered earnings must be split between the covered earnings of residents of Quebec and the covered earnings of residents of the rest of Canada.

The expected increase in self-employed covered earnings reflects the expected increase in the number of participants, and the expected increase in average earnings of self-employed individuals.

The most recent year for which complete data is available with regards to self-employed EI premiums and inherent covered earnings is the tax year 2013. Partially assessed premiums as of 30 June 2015 are available for the tax year 2014. Table 37 shows the derived underlying covered earnings for 2014 based on the assessed premiums as of 30 June 2015 and assuming that 88% of

self-employed EI premiums have been assessed as of that date. This is consistent with the analysis of partially assessed data as of 30 June 2014 and fully assessed data for the tax year 2013.

Table 37 - 2014 Covered Earnings for Self-Employed EI Participants			
	Out-of-Quebec Residents	Quebec Residents	Total
2014 Self-Employed Assessed Premiums as of 30 June 2015	\$1,813,885	\$212,710	\$2,026,595
2014 Projected Total Self-Employed Premiums	\$2,061,233	\$241,716	\$2,302,949
Premium Rate	1.88%	1.53%	N/A
2014 Covered Earnings (Premium Revenue divided by Premium Rate)	\$109,640,051	\$15,798,425	\$125,438,476

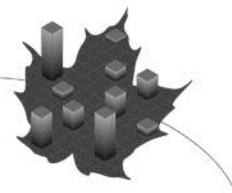
Projected Number of Participants

ESDC tracks the number of weekly self-employed enrolments for the EI program by province and provided the available enrolment data for each week up to 30 June 2015. The enrolment data also includes adjustments for individuals who have opted out of the program in each week. Table 38 shows the evolution of the number of net enrolments starting with the cumulative number as at 31 December 2011, with a split between Quebec and out-of-Quebec residents.

Table 38 - Self-Employed EI Enrolments as of 30 June 2015						
	Out-of-Quebec Resident		Quebec Residents		Total	
	Number of Net Enrolments	Average Net Enrolments per Week	Number of Net Enrolments	Average Net Enrolments per Week	Number of Net Enrolments	Average Net Enrolments per Week
Cumulative as of 31 December 2011	7,114	71	2,482	25	9,596	96
First 6 Months of 2012 (26 Weeks)	1,122	43	328	13	1,450	56
Last 6 Months of 2012 (26 Weeks)	823	32	282	11	1,105	43
Cumulative as of 31 December 2012	9,059	60	3,092	20	12,151	80
First 6 Months of 2013 (26 Weeks)	937	36	209	8	1,146	44
Last 6 Months of 2013 (26 Weeks)	578	22	57	2	635	24
Cumulative as of 31 December 2013	10,574	52	3,358	16	13,932	68
First 6 Months of 2014 (26 Weeks)	740	28	77	3	817	31
Last 6 Months of 2014 (26 Weeks)	579	22	47	2	626	24
Cumulative as of 31 December 2014	11,893	46	3,482	14	15,375	60
First 6 Months of 2015 (26 Weeks)	822	32	78	3	900	35
Cumulative as of 30 June 2015	12,715	45	3,560	13	16,275	58

The table above shows that the annual average number of weekly enrolments that had been decreasing has started to increase for out-of-Quebec residents and has remained constant for Quebec residents over the last 6 months. Furthermore, the average number of weekly enrolments in the first six months of a year for out-of-Quebec residents is consistently higher than the number of weekly enrolments in the last six months of a year. This is not as pronounced for Quebec residents.

The average number of weekly enrolments observed in the first six months of 2015 combined with an expected decrease over the last six month of 2015 is used to determine the total number of self-employed EI enrolments for 2015. The projected enrolments for 2016 are based on the average enrolments for 2015 and



assume a small increase in the number of net enrolments for out-of-Quebec residents. Using the cumulative enrolments as of 30 June 2015 and the projected enrolments, Table 39 shows the estimated number of self-employed participants for 2015 and 2016.

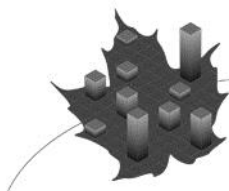
Table 39 - Projected Self-Employed EI Participants			
	Out-of-Quebec Residents	Quebec Residents	Total
Cumulative Participants as of 30 June 2015	12,715	3,560	16,275
Number of Weeks Remaining in 2015	26	26	26
Projected Number of Enrolments per Week	22	1.8	24
Projected Number of Enrolments for Remainder of 2015	582	47	629
Projected Cumulative Participants as of 31 December 2015	13,297	3,607	16,904
Number of Weeks in 2016	52	52	52
Projected Number of Enrolments per Week	28	2.4	30
Projected Number of Enrolments in 2016	1,456	125	1,581
Projected Cumulative Participants as of 31 December 2016	14,753	3,732	18,485

Increase in Average Earnings

Historical data on the evolution of average earnings of self-employed individuals who opted into the EI program as compared to average earnings of all self-employed individuals or of salaried employees are either not available or incomplete. As such, it is assumed that the average earnings of self-employed individuals who have opted into the EI program will increase at the same pace as the average earnings of salaried employees for 2015 and 2016.

The 2014 self-employed covered earnings are calculated from assessed premiums as of 30 June 2015. The projected increase in average employment earnings, combined with the increase in the number of self-employed participants are used to determine the self-employed covered earnings for the years 2015 and 2016. It is important to note that regardless of the timing of enrolment during the year, premiums are paid on the total covered earnings in that year. Table 40 shows the projected self-employed covered earnings for Quebec residents and out-of-Quebec residents for the years 2014 to 2016.

Table 40 - Projected Covered Earnings for Self-Employed EI Participants (Thousands)									
	Out-of-Quebec Residents				Quebec Residents				Total - Canada
Year	Increase in Average Earnings	Increase in Number of Participants	Increase in Covered Earnings	Total Covered Earnings	Increase in Average Earnings	Increase in Number of Participants	Increase in Covered Earnings	Total Covered Earnings	Total Covered Earnings
2014				\$109,640				\$15,798	\$125,438
2015	2.60%	11.8%	14.7%	\$125,771	2.60%	3.6%	6.3%	\$16,791	\$142,562
2016	3.40%	10.9%	14.7%	\$144,287	3.40%	3.5%	7.0%	\$17,963	\$162,249



C. Expenditures

EI expenditures include Part I and Part II (Employment Benefits and Support Measures) benefit payments, administration costs and doubtful debts. EI benefits also include temporary spending initiatives, such as pilot projects or special measures announced by the Government of Canada.

EI benefits paid under Part I of the EI Act, include regular benefits, which provide temporary financial assistance for unemployed persons, fishing benefits for self-employed fishers and work-sharing benefits for workers willing to work a temporarily reduced work week to avoid lay-offs. Part I benefits also include special benefits for those who are sick, pregnant or caring for a newborn or adopted child, for those caring for a seriously ill family member, or for those providing care or support to their critically ill or injured child.

To project EI expenditures, in addition to demographic and economic forecasts, a number of assumptions are required, namely average weekly benefits, beneficiary-to-unemployed ratio and week weight. Additional information on pilot projects, special measures and new program changes are also required. Those three assumptions and additional information are discussed below, followed by discussions on regular, fishing, work-sharing and special benefits. Benefit repayments, Part II benefits, administration costs and bad debt expenditures are also discussed in this section.

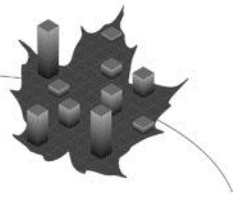
Although penalties and interest on overdue accounts receivable are considered revenues, for the purposes of the break-even rate calculation they are included as credits on the expenditures side of the equation. The assumptions underlying their projections are described at the end of this section.

1. Average Weekly Benefits

The average weekly benefits (AWB) are equal to benefit payments divided by the number of benefit weeks paid for Part I benefits. The increase in AWB affects EI expenditures directly through a corresponding increase/decrease in Part I expenditures.

For claims up to 6 April 2013, weekly benefits were generally equal to 55% of the insurable earnings of a claimant in the last 26 weeks divided by the greater of the number of weeks worked or a minimum divisor between 14 and 22 determined by the regional unemployment rate.

For claims on or after 7 April 2013, weekly benefits are generally equal to 55% of the claimant's variable best weeks over the qualifying period (generally 52 weeks). The number of best weeks taken into account is determined by the regional unemployment rate and varies between 14 and 22 insurable earnings weeks.



The maximum amount payable is determined by the MIE. For 2016, the maximum weekly benefit is 55% of the \$50,800 annual MIE divided by 52, or \$537.

The AWB are determined by the sum of the change in the MIE and the average weekly earnings, weighted by the proportion of benefit weeks for claimants with insurable earnings above and below the annual MIE and the prior year AWB for claimants with insurable earnings above and below the annual MIE.

$$AWB_T = AWB_{above(T-1)} \times (\%_{above(T)}) \times \frac{MIE_T}{MIE_{T-1}} + AWB_{below(T-1)} \times (\%_{below(T)}) \times \frac{AWE_T}{AWE_{T-1}}$$

$$AWB_{growth} = AWB_T / AWB_{T-1} - 1$$

Where: AWB = average weekly benefits;
 AWB_{above} = AWB for claimants with insurable earnings above the MIE;
 AWB_{below} = AWB for claimants with insurable earnings below the MIE;
 MIE = maximum insurable earnings;
 AWE = average weekly earnings;
 %_{above} = percentage of benefit weeks for claimants with earnings above the MIE; and
 %_{below} = percentage of benefit weeks for claimants with earnings below the MIE.

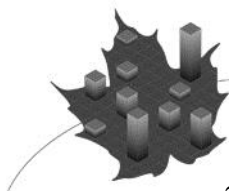
The percentage of benefit weeks for claimants with insurable earnings above the annual MIE is based on an analysis of administrative data provided by ESDC.

As shown in Table 41, the proportion of benefit weeks for claimants with insurable earnings above the MIE was fairly stable from 2010 to 2012, and increased in 2013 and 2014 following the introduction of the variable best weeks, that is, a change in the benefit rate calculation. Based on partial data for 2015, the proportion of benefit weeks for claimants with earnings above the MIE is assumed to increase in 2015. In 2015 and 2016, the proportion of benefit weeks for claimants with earnings above the MIE is assumed to be 46.4%.

Table 41 - Percentage of Benefit Weeks for Claimants with IE above the MIE	
Year	% Above MIE
2010	41.3%
2011	40.6%
2012	40.2%
2013	41.9%
2014	44.5%
Average 2010-2014	41.7%
2015	46.4%
2016	46.4%

The 2014 AWB for claimants with insurable earnings above and below the MIE was \$514 and \$343 respectively.

Based on the growth in average weekly earnings and the MIE, and on the proportion of benefit weeks for claimants with earnings above the MIE, the annual average weekly benefits growth rates are forecasted at 3.1% and 2.7% for



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2015 and 2016 respectively. These AWB growth rates generally apply to all benefit types.

Table 42 - Average Weekly Benefits Growth Factors			
	Actual 2014	Forecast 2015	Forecast 2016
Average Weekly Earnings	\$935.25	\$962.00	\$989.00
% Change	2.6%	2.9%	2.8%
MIE	\$48,600	\$49,500	\$50,800
% Change	2.5%	1.9%	2.6%
Proportion Above MIE	44.5%	46.4%	46.4%
Proportion Below MIE	55.5%	53.6%	53.6%
AWB Growth	4.7%	3.1%	2.7%

However, after further analysing claims data for the first 6 months of 2015, the assumed 2015 AWB growth for regular benefits and for fishing benefits was increased to 4.2% and 3.7% respectively.

2. Beneficiary-to-Unemployed Ratio

Beneficiaries, as reported by Statistics Canada, refers to the number of active regular claimants in a given month who received EI benefits during the reference week of the labour force survey, usually the week containing the 15th day of the month. The beneficiary-to-unemployed (B/U) ratio represents the proportion of unemployed persons in a given period who are receiving EI regular benefits.

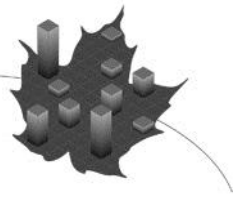
For the purposes of forecasting regular benefit payments, historical B/U ratios are calculated based on the number of beneficiaries and the number of unemployed as reported by Statistics Canada by age group and gender.

In general, younger age groups have lower B/U ratios than older age groups. Similarly, women of all ages have lower B/U ratios than men. In addition, the proportion of older workers in the labour force is slowly increasing, creating upward pressure on the overall B/U ratio.

From 2002 to 2008, B/U ratios were fairly stable, fluctuating between 45.8% and 46.9% over the 7-year period. The downturn that occurred at the end of 2008 had a direct impact on the overall B/U ratio which increased by almost 5 percentage points in 2009. This increase is mainly attributable to the following factors³:

- There was a significant change in the composition of the unemployed population that led to an increase in eligibility rates and overall access to the EI program. The number of valid job separations increased due to layoffs and the number of unemployed who quit their job without just cause decreased, leading to an increase in the proportion of unemployed with enough hours to access EI benefits.

³ Monitoring and Assessment Report 2010



- The automatic responsiveness of the EI program through the variable entrance requirement, based on the regional unemployment rate, reduced eligibility requirements for most EI economic regions.

The overall B/U ratio decreased slightly in 2010 mainly due to a partial return of the composition of the unemployed population to pre-recession level⁴. The B/U ratios would have been even lower in 2010 if not for special measures introduced by the Government.

From 2011 to 2014, the overall B/U ratio decreased significantly most likely due to the phasing out of special measures, the automatic responsiveness of the EI program to lower unemployment rates, and the continued change in the composition of the unemployed population.

A further explanation for the decrease in the B/U ratio is the difficulty of re-qualifying for EI benefits during a period of modest economic growth. Indeed, the EI Monitoring and Assessment Report 2012 explains that a recent study⁵ found that the likelihood of being eligible for EI regular benefits is higher for full-time permanent job separators, while it is lower for temporary non-seasonal non-permanent workers. The share of individuals who worked in temporary non-seasonal employment in 2011, 2012, 2013 and 2014 is the highest it has been over the last 15 years, most likely negatively affecting the B/U ratio.

For 2015, actual data for the first five months of the year show a large increase in the B/U ratios. A similar increase is assumed to unfold over the remainder of the year.

The B/U ratios by age group and gender combined with the projected composition of the unemployed population by age group and gender, are used to determine the overall B/U ratio for 2015 and 2016. Table 43, shows historical and projected B/U ratios by age group and gender, as well as the resulting overall B/U ratios (“All ages” columns in *italic*).

⁴ Monitoring and Assessment Report 2011

⁵ HRSDC, *EI and Non-Standard Workers: Part-Time, Short-Term and Seasonal Workers* (Ottawa: HRSDC, Evaluation Directorate, 2012).

Table 43 - Historical and Projected Beneficiary-to-Unemployed Ratio (Regular Benefits)									
Calendar Year	Both sexes	Males				Females			
	All ages	All ages	Under 25 years	25 to 54 years	55 and over	All ages	Under 25 years	25 to 54 years	55 and over
2007	46.8%	50.6%	22.3%	61.5%	70.2%	42.0%	10.7%	55.0%	58.6%
2008	46.0%	49.4%	20.8%	61.1%	68.5%	41.5%	10.2%	54.4%	58.5%
2009	50.6%	53.9%	25.0%	65.3%	68.6%	45.5%	13.1%	57.3%	65.2%
2010	48.3%	51.7%	22.5%	62.0%	70.7%	43.8%	12.3%	53.3%	69.8%
2011	43.5%	47.3%	20.0%	57.8%	63.4%	38.7%	10.3%	48.0%	58.2%
2012	40.5%	43.9%	18.4%	53.2%	61.8%	36.2%	8.9%	45.8%	55.0%
2013	38.9%	42.7%	18.1%	52.0%	56.7%	34.0%	8.1%	42.8%	51.2%
2014	38.4%	42.1%	17.3%	51.3%	56.2%	33.7%	7.5%	42.1%	53.7%
Average 2007-2014	44.1%	47.7%	20.5%	58.0%	64.5%	39.4%	10.1%	49.8%	58.8%
2015	40.0%	44.0%	17.5%	53.6%	61.2%	34.7%	8.0%	42.9%	53.3%
2016	41.0%	45.0%	18.1%	54.7%	62.5%	35.7%	8.4%	44.0%	54.8%

The expected aggregate B/U ratios for 2015 and 2016 are 40.0% and 41.0% respectively.

3. Week Weight

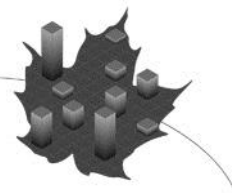
EI expenditures are reported in the EI Operating Account on an accrual basis, that is, they are recorded in the period for which they should have been paid, without regards to the delay in processing the payment. For example, if a claimant is eligible to receive benefits starting the first week of December 2014, but receives his first benefit payment only in February 2015, the portion of the benefits that relates to December will be recorded in the EI Operating Account for the year 2014.

Furthermore, EI benefits are paid on a weekly basis, but only weekdays that belong to a particular period are reported in that period. For example, 31 December 2015 is a Thursday and for every benefit week that should have been paid for the week of 31 December 2015, four days will be reported in calendar year 2015 and one will be reported in calendar year 2016.

The week weight affects Part I expenditures as benefits are payable for every weekday of the year, regardless of Holidays. The number of workdays in a year ranges from 260 days to 262 days. Therefore, an adjustment to projected benefits is included to reflect the number of days benefits are paid in any year. The number of workdays for 2014, 2015 and 2016 is constant at 261. The week weight for 2014, 2015 and 2016 is therefore 52.2.

4. Pilot Projects, Special Measures and New Program Changes

EI pilot projects allow the Government to test whether possible changes to the EI program would make it more consistent with current industry employment practices, trends or patterns or would improve service to the public. A summary of the costs associated with pilot projects, special measures and new permanent changes (prescribed information provided by ESDC) is shown in Table 20.



One pilot project will have a spending impact in 2015 and 2016. A new national Working While on Claim pilot project has been introduced for one year, from 2 August 2015 to 6 August 2016. This pilot project will have the same parameters as the three-year national Working While on Claim pilot project ending 1 August 2015. Under this pilot project, which came into effect on 5 August 2012, claimants are able to keep 50 cents of every dollar earned while on claim, up to a maximum of 90% of the weekly insurable earnings used in the calculation of the EI benefit amount. It is estimated that additional program costs of \$53 million and \$36 million will be incurred in 2015 and 2016 respectively.

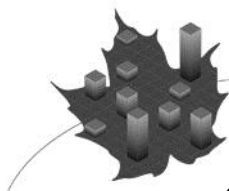
The Government announced a new approach in Budget 2012 to the way EI benefits are calculated effective 7 April 2013, also referred to as the Variable Best Weeks. Under the Variable Best Weeks, EI benefits will be calculated based on the highest weeks of insurable earnings during the qualifying period, generally 52 weeks. The number of weeks used for calculating benefit rates will range from 14 to 22, depending on the unemployment rate in the claimant's EI economic region. It is estimated that additional program costs of \$237 million will be incurred in 2015 and in 2016. Of these additional costs, 8% are assumed to be for increases in MPA benefits and the remaining 92% are included in regular benefits.

The Government has announced new permanent changes to the EI program taking effect in 2013, including a new EI special benefit for parents of critically ill children (PCIC), which became available on 9 June 2013 and provides income support for up to 35 weeks to parents or legal guardians of minor children with a life-threatening illness or injury. Additional program costs of \$18 million and \$20 million are estimated for 2015 and 2016 respectively.

Economic Action Plan 2014 Act, No.1 amended the EI Act to allow individuals to interrupt their compassionate care benefits or PCIC benefits to access sickness benefits if they fall ill or are injured, without having to meet the "otherwise available for work" requirement. This amendment came into force in late 2014 and is expected to result in additional sickness benefit costs of \$1 million in both 2015 and 2016.

Effective 12 October 2014, the current EI economic regions of the Yukon, the Northwest Territories, Nunavut and Prince Edward Island will each be divided into two EI economic regions. These amendments are expected to result in program savings of \$7 million in both 2015 and 2016.

On 11 September 2014, the Government of Canada introduced the Small Business Job Credit. Any firm that pays employer EI premiums equal to or less than \$15,000 in 2015 and/or 2016 will be eligible for the credit in those years. The credit is equivalent to a reduction of 39 cents per \$100 of insurable earnings in EI premiums paid by small employers. Total credits are expected to amount to \$318 million in both 2015 and 2016.



On 7 June 2015, amendments to section 36 of the *Employment Insurance Regulations* came into force, which repealed Schedule II and provided an updated formula for calculating the weekly annuity equivalents for allocating lump-sum pension amounts for EI purposes using current interest rates. This will ensure that lump sum pensions are treated the same as an annuity on an ongoing basis. The amended provision is expected to affect approximately 380 claimants per year, who will see a small increase in their weekly benefits due to the application of the formula. The total cost of this amendment to the EI Operating Account is estimated at \$159,000 per year.

Finally, effective 3 January 2016, the duration for Compassionate Care Benefits will be increased from six weeks to twenty-six weeks. The period of time during which claimants will be able to access these benefits will be expanded from twenty-six weeks to fifty-two weeks. Claimants who are in receipt of Compassionate Care Benefits at the time of coming into force would be able to benefit from the new provisions and receive additional weeks of benefits. Additional program costs of \$37 million are estimated for 2016.

5. Regular Benefits

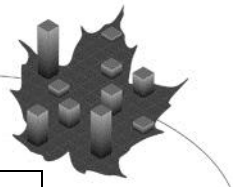
EI regular benefits provide temporary income support to eligible insured persons who have lost their jobs through no fault of their own, such as due to shortage of work, or seasonal or mass lay-offs, and are available to work.

Regular benefit payments are equal to the average weekly benefits multiplied by the number of weeks paid, as determined by the B/U ratio multiplied by the week weight and the number of unemployed.

Regular Benefits = $\underbrace{\text{B/U} \times \text{WW} \times \text{UN}}_{\substack{\text{Number of} \\ \text{weeks paid}}} \times \underbrace{\text{AWB}}_{\substack{\text{Average weekly} \\ \text{benefits}}}$
Where: B/U = beneficiary-to-unemployed ratio; WW = week weight; UN = number of unemployed; and AWB = average weekly benefits.

For projection purposes, the above formula is modified such that the increase in each variable is applied to the previous year's EI regular benefits paid. As the actual regular benefit expenditures in the base year include expenditures attributed to pilot projects and special measures, they are first subtracted before the growth factors are applied.

The base year on which the projected growth factors are applied is 2014, that is, the latest year of known actual regular EI income benefits. Regular benefits are therefore projected as follows, starting from the base year.



$$\text{Regular Benefits}_T = \underbrace{\frac{UR_T}{UR_{T-1}} \times \frac{LF_T}{LF_{T-1}}}_{\text{Yearly growth in unemployed, that is, in potential claimants}} \times \underbrace{\frac{WW_T}{WW_{T-1}} \times \frac{AWB_T}{AWB_{T-1}}}_{\text{Yearly growth in average benefits}} \times \underbrace{\frac{B/U_T}{B/U_{T-1}}}_{\text{Yearly growth in the ratio of unemployed receiving benefits}} \times \text{Regular Benefits}_{T-1}$$

Where: UR = unemployment rate;
 LF = labour force;
 WW = week weight;
 AWB = average weekly benefits; and
 B/U = beneficiary-to-unemployed ratio.

Pilot projects, special measures and the impact of new permanent changes to the EI program are then added to the regular benefits projection as shown in Table 44.

Table 44 - Regular Benefits (Millions)			
	Actual 2014	Forecast 2015	Forecast 2016
Regular Benefits (Base)	\$10,332	\$11,028	\$11,453
Pilot Projects/Transitional Measures	\$53	\$53	\$36
Variable Best Weeks	\$218	\$218	\$218
New EI Regions	\$0	(\$7)	(\$7)
Total Regular Benefits	\$10,603	\$11,292	\$11,700

6. Fishing Benefits

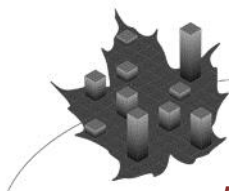
As with regular benefits, fishing benefits are equal to the number of benefit weeks multiplied by the average weekly benefits. Fishing benefits can be projected from the base year using the expected change in the number of benefit weeks and average weekly benefits. However, as the number of fishing claimants and the average duration of fishing claims are relatively stable, only the expected change in average weekly benefits is used in forecasting fishing benefits.

$$\text{FB}_T = \underbrace{\left(\frac{WW_T}{WW_{T-1}} \times \frac{AWB_T}{AWB_{T-1}} \right)}_{\text{Yearly increase in average benefits}} \times \underbrace{\text{FB}_{T-1}}_{\text{Prior year's benefits}}$$

Where: FB = fishing benefits;
 WW = week weight; and
 AWB = average weekly benefits.

However, after further analysing claims data for the first 6 months of 2015, a one-time increase of 2.5% in the number of weeks is assumed in 2015.

Table 45 - Fishing Benefits (Millions)			
	Actual 2014	Forecast 2015	Forecast 2016
Total Fishing Benefits	\$268	\$285	\$285



7. Work-Sharing Benefits

To avoid temporary lay-offs due to a reduction in the normal level of business activity caused by factors that are beyond the control of the employer, employers and employees can enter into a work-sharing agreement with the Commission through Service Canada to provide EI income benefits to eligible workers willing to work a temporarily reduced work week. This enables employers to retain staff and adjust their work activity during temporary work shortages, as well as avoid the expenses of hiring and training new staff once business levels return to normal. Employees are able to retain their skills and jobs while receiving EI benefits for the days that they do not work.

Work-sharing benefits for 2015 and 2016 are projected using the 2014 base work-sharing expenditures, multiplied by the expected change in the population of potential claimants and the average weekly benefits rate.

$$WSB_T = \underbrace{(EE_T/EE_{T-1})}_{\text{Change in population of potential claimants}} \times \underbrace{(WW_T/WW_{T-1}) \times (AWB_T/AWB_{T-1})}_{\text{Yearly increase in average benefits}} \times \underbrace{WSB_{T-1}}_{\text{Prior year's benefits}}$$

Where: WSB = work-sharing benefits;
EE = employees;
WW = week weight; and
AWB = average weekly benefits.

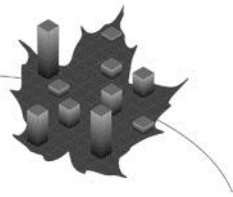
Table 46 shows the actual 2014 work-sharing benefits as well as the projection for 2015 and 2016.

Table 46 - Work-Sharing Benefits (Millions)			
	Actual 2014	Forecast 2015	Forecast 2016
Total Work-Sharing Benefits	\$20	\$21	\$22

8. Special Benefits

Special benefits include MPA benefits, for those who are pregnant or caring for a newborn or adopted child, sickness benefits for those who are unable to work due to sickness, injury or quarantine, compassionate care benefits for those who take a temporary leave from work to give care or support to a family member who is gravely ill at risk of dying within 26 weeks, and benefits for PCIC who take leave from work to provide care or support their critically ill or injured child.

Effective 3 January 2016, the duration for compassionate care benefits will be increased from six to twenty-six weeks. The period of time during which claimants will be able to access these benefits will be expanded from twenty-six weeks to fifty-two weeks.



Salaried

Each special benefit for salaried employees is forecasted using the expected change in the population of potential claimants and in the average weekly benefits, applied to the base year 2014.

$$SB_T = \underbrace{(EE_T/EE_{T-1})}_{\text{Change in population of potential claimants}} \times \underbrace{(WW_T/WW_{T-1})}_{\text{Yearly increase in average benefits}} \times \underbrace{(AWB_T/AWB_{T-1})}_{\text{Prior year's benefits}} \times SB_{T-1}$$

Where: SB = special benefits;
 EE = employees;
 WW = week weight; and
 AWB = average weekly benefits.

In addition, after further analysing claims data for the first 6 months of 2015, it is assumed that the number of weeks of sickness benefits will increase by 1.98%, which is more than implied by the change in the population of potential claimants of 0.98% in 2015.

For projection purposes, expenditures attributed to pilot projects and recent changes to the program are excluded from the base year before the growth factors are applied. Expenditures attributed to pilot projects and recent changes to the program are subsequently added separately to obtain the total special benefits.

Self-employed

Starting 31 January 2010, self-employed persons can enter into a voluntary agreement with the Commission through Service Canada to participate in the EI program. Those who registered before 1 April 2010 were allowed to make a claim for benefits as early as 1 January 2011, otherwise they are required to register at least one year prior to claiming benefits.

Self-employed benefits are forecasted to increase in line with covered earnings, that is, in line with self-employed covered population and related insured earnings growth. Since PCIC total expected benefits are provided by ESDC, self-employed PCIC benefits are forecasted to increase in proportion with ESDC projected total PCIC benefits.

It is expected that in 2016, an additional \$11.0 million will be paid in MPA benefits, \$0.4 million in sickness benefits, \$14 thousand in compassionate care benefits, and \$7 thousand in PCIC benefits due to self-employed participants who enrolled in the EI program.

Table 47 - Special Benefits

	Actual	Forecast	Forecast
	2014	2015	2016
Salaried Employees (Millions)			
MPA Benefits	\$3,578	\$3,724	\$3,887
Sickness Benefits	\$1,357	\$1,427	\$1,489
Compassionate Care Benefits	\$12	\$13	\$13
Sub-total	\$4,947	\$5,164	\$5,390
Self-Employed (Thousands)			
MPA Benefits	\$8,494	\$9,653	\$10,986
Sickness Benefits	\$343	\$390	\$444
Compassionate Care Benefits	\$11	\$13	\$14
Parents of Critically ill Children Benefits	\$5	\$6	\$7
Sub-total	\$8,853	\$10,062	\$11,452
Pilot Projects and Recent Changes (Millions)			
MPA - Variable Best Weeks	\$19	\$19	\$19
Sickness - Sickness Benefits with Compassionate and PCIC	\$0	\$1	\$1
Parents of Critically ill Children Benefits	\$14	\$18	\$20
Compassionate Care benefits (CCB) extension	\$0	\$0	\$37
Total (Millions)			
MPA Benefits	\$3,605	\$3,753	\$3,917
Sickness Benefits	\$1,358	\$1,428	\$1,491
Compassionate Care Benefits	\$12	\$13	\$50
Parents of Critically ill Children Benefits	\$14	\$18	\$20
Total Special Benefits	\$4,989	\$5,212	\$5,478

9. Benefit Repayments

If a claimant's income for a tax year exceeds 1.25 times the annual MIE, the claimant may be required to repay a portion of EI regular or fishing benefits received. Benefit repayments, as reported in the EI Operating Account, include an estimate for the current tax year, based on regular and fishing benefit payments, and a reconciliation between actual and estimated benefit repayments for the previous tax year.

The current year forecast is projected from the prior year actual based on the expected increase/decrease in regular and fishing benefits. The estimate for the forecast 2015 prior year actual is based on the actual first 6 months of benefit repayments and the historical average completion ratio after 6 months.

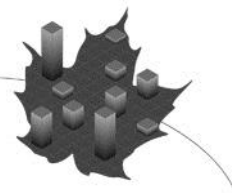


Table 48 - EI Benefit Repayments (Millions)			
	Actual 2014	Forecast 2015	Forecast 2016
Current Year Forecast	\$259	\$251	\$260
Prior Year			
Actual	\$212	\$235	\$251
Forecast	(\$239)	(\$259)	(\$251)
Sub-Total (Adjustment for prior year)	(\$27)	(\$24)	\$0
Refunds	(\$5)	(\$5)	(\$5)
Total	\$227	\$222	\$254

10. EI Part II Benefits

The programs delivered under Part II of the EI Act are called Employment Benefits and Support Measures (EBSM). The expected annual estimates for EBSM are provided by ESDC on a fiscal year basis and included in the calendar year expenditures for 2016 based on 25% of the current fiscal year (2015-2016) and 75% of the next fiscal year (2016-2017).

Table 49 - Employment Benefits and Support Measures (Millions)			
	Actual 2014-2015	Forecast 2015-2016	Forecast 2016-2017
EBSM (Fiscal Year)	\$2,047	\$2,074	\$2,074
	Actual 2014	Forecast 2015	Forecast 2016
EBSM (Calendar Year)	\$2,040	\$2,067	\$2,074

11. Administration Costs

As with Part II benefits, the expected annual estimates for EI administration costs are provided by ESDC on a fiscal year basis and included in the calendar year expenditures for 2016 based on 25% of the current fiscal year (2015-2016) and 75% of the next fiscal year (2016-2017).

Table 50 - Administration Costs (Millions)			
	Actual 2014-2015	Forecast 2015-2016	Forecast 2016-2017
Administration Costs (Fiscal Year)	\$1,657	\$1,655	\$1,634
	Actual 2014	Forecast 2015	Forecast 2016
Administration Costs (Calendar Year)	\$1,663	\$1,656	\$1,640

As mentioned previously, the calculation of the MPA reduction related to the savings to the EI program due to the Quebec Parental Insurance Plan includes the variable administration costs (VAC). The VAC represents the direct operating costs incurred by the EI program associated with the administration of MPA benefits outside Quebec.

These costs represent the savings to the EI program if it ceased to provide EI MPA benefits. The responsibility of determining the VAC each year lies with

ESDC. It should be noted that under the Canada-Quebec Final Agreement, the Government of Canada provided assurance that the VAC multiplied by the ratio of the insurable earnings in Quebec to the insurable earnings outside Quebec would not be less than \$5 million. The 2015 and 2016 VAC are projected from actual costs incurred in 2014 as a constant percentage of MPA benefits. When applicable, VAC are increased to reflect the minimum under the Canada-Quebec Final Agreement.

Table 51 - Variable Administrative Costs (Millions)			
	Actual 2014	Forecast 2015	Forecast 2016
Variable Administration Costs	\$18	\$18	\$18

12. Bad Debt

Bad debt expenses relate to overpayments and penalties owed and are equal to the amount written off during the year and the change in the annual allowance for doubtful debts. The allowance is calculated on the outstanding balance in the accounts at the end of the fiscal year and is based on the collection policy, the age of the accounts and the amounts written off.

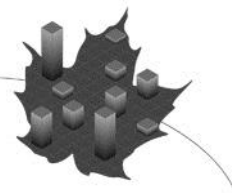
The calendar year bad debt expense included in the closing balance of the EI Operating Account as of 31 December 2014 was equal to 25% of the 2013-2014 expense and 75% of the 2014-2015 expense.

The bad debt expense and the write-offs are forecasted from the base year using a moving average based on a seven-year economic cycle.

Table 52 - Bad Debt Expense (Millions)			
	Actual 2014-2015	Forecast 2015-2016	Forecast 2016-2017
Allowance for Doubtful Accounts (Current Year)	\$322	\$313	\$306
Net Allowance (Prior Year)			
Allowance for Doubtful Accounts (Prior Year)	\$282	\$322	\$313
Write-Offs	(\$10)	(\$52)	(\$53)
Total	\$272	\$270	\$260
Bad Debt Expense (Fiscal Year)	\$50	\$43	\$46
	Actual 2014	Forecast 2015	Forecast 2016
Bad Debt Expense (Calendar Year)	\$42	\$45	\$45

13. Penalties

The Commission may impose a penalty on a claimant, any person acting on behalf of a claimant or an employer under sections 38 and 39 of the EI Act should it become aware that they knowingly provided false or misleading information.



Penalties are correlated with benefit overpayments and are forecasted from the base year using the expected annual change in Part I benefits.

Table 53 - Penalties (Millions)			
	Actual 2014	Forecast 2015	Forecast 2016
Penalties	\$39	\$41	\$43

14. Interest

Interest is charged on outstanding EI debts caused through misrepresentation. This includes overpayments and penalties. The rate of interest charged to EI claimants, employers or third parties on outstanding debts is equal to 3% above the average Bank of Canada discount rate from the previous month, calculated daily and compounded monthly⁶.

After keeping the overnight rate at 1.00% since 8 September 2010, the Bank of Canada lowered the rate to 0.75% on 21 January 2015 and to 0.50% on 15 July 2015. The corresponding discount rate starting in September 2015 is 0.75%.

The forecasted interest rate to be charged on overdue accounts receivable is based on a consensus of the expectations of private forecasters on the Bank of Canada's key interest rate policy decisions to be made between now and the end of 2016. The consensus of private forecasters is that the Bank of Canada will hold off on any rate increase until mid to late 2016.

As the interest earned is correlated to the amount of outstanding benefit overpayments, it is forecasted from the base year using the expected annual change in Part I benefits and the 12-month average of the interest rate.

Table 54 - Interest on Overdue Accounts Receivable (Millions)			
	Actual 2014	Forecast 2015	Forecast 2016
Average Interest Rate	4.25%	3.94%	3.94%
Interest	\$25	\$25	\$26

⁶ Interest rates can be found at <http://www.tpsgc-pwgsc.gc.ca/recgen/txt/tipp-ppir-eng.html>

Appendix IV. Reduction in Employer Premiums Due to Qualified Wage-Loss Plans

This appendix describes the data, methodology and assumptions that underlie the calculation of the 2016 reduction in employer premiums due to qualified wage-loss plans included in this report.

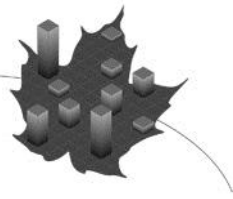
A. Background and Legislation on the Premium Reduction Program

Under subsection 69(1) of the *Employment Insurance Act* (“EI Act”), the Commission shall, with the approval of the Governor in Council, make regulations to provide a system for reducing employer premiums when employees are covered by a qualified wage-loss plan which reduce EI special benefits otherwise payable, provided that at least 5/12 of the reduction is passed on to employees.

Under subsection 69(3) of the EI Act the Commission makes regulations for the operation of a premium reduction system, including the method for determining the amount of reduction, the use of actuarial calculations and estimates, and the specific details related to the administration of the program such as minimum qualification criteria and other registration conditions.

The Premium Reduction Program (PRP) was introduced in 1971 at the same time that sickness benefits were introduced to the Unemployment Insurance Program. At the time, many workers were already covered against loss of wages due to illness through employer sponsored plans. It was recognized that the introduction of EI sickness benefits could cause a duplication of costs to both employers and employees. As stated in the *1970 White Paper on Unemployment Insurance*, cost concerns and a desire to recognize the role of existing wage-loss plans contributed to the decision to supplement rather than pre-empt those plans. With the exception of benefits paid from registered Supplemental Unemployment Benefit (SUB⁷) plans, it was therefore decided that benefits payable from employer sponsored wage-loss plans would be deducted from EI sickness benefits. In other words, the EI program would adopt a second payer position relative to employer sponsored wage-loss plans that are not registered SUB plans. This implies that employees who become ill and who are not covered by a registered SUB plan first make use of their employer’s plan and only make use of EI sickness benefits if they have no employer plan, or if they have exhausted the benefits from their employer’s plan.

⁷ A SUB is a supplemental payment to an employee who is receiving EI benefits during a period of unemployment due to temporary stoppage of work, training, illness, injury or quarantine. These payments are made according to the terms of a SUB plan financed by the employer. Payments from a registered SUB plan that meets the requirements of section 37 of the Employment Insurance Regulations are not deducted from the employee’s EI benefits.



Employers who have a wage-loss plan that meets specific qualification requirements may apply for a reduction of EI premiums under the PRP. In addition to meeting the qualification requirements, participation in the PRP is conditional upon the employer passing on at least 5/12 of the premium reduction to the employees. For administrative simplicity, the full premium reduction is provided to the employer who is then responsible for returning the employees' portion of the reduction to them through cash or fringe benefits.

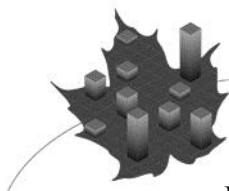
In accordance with sections 63, 64, 65 and 66 of the *Employment Insurance Regulations* ("EI Regulations"), there are four categories of qualified wage-loss plans, which correspond to the main types of wage-loss plans offered to workers. A summary of each category is shown below:

Category 1:	<i><u>Cumulative paid sick leave plans</u> that allow for a minimum monthly accumulation of at least one day and for a maximum accumulation of at least 75 days.</i>
Category 2:	<i><u>Enhanced cumulative paid sick leave plans</u> that allow for a minimum monthly accumulation of at least one day and two thirds and for a maximum accumulation of at least 125 days.</i>
Category 3:	<i><u>Weekly indemnity plans</u> with a maximum benefit period of at least 15 weeks.</i>
Category 4:	<i><u>Special weekly indemnity plans</u> provided by certain public and parapublic employers of a province with a maximum benefit period of at least 52 weeks.</i>

For each category, a rate of reduction, expressed as a percentage of insurable earnings, is calculated annually. These rates of reduction are then converted into reduced employer multipliers for each category and applicable premium rate.

The principle in determining the rates of reduction is that the EI program is paying lower sickness benefits due to the presence of qualified wage-loss plans, and that these savings to the EI program should be passed on to the employers who sponsor these plans and their employees. As it would not be practical to do this on an individual employer basis nor even possible to make the calculation for new employers or small firms, the rates of reduction compensate employers (and their employees) for the average rate of EI benefit savings that are generated by qualified plans in each category. Given that EI sickness benefits paid to employees who are covered by a qualified wage-loss plan depend on the category, the savings generated and therefore the rates of reduction, vary by category.

The methodology to calculate the rates of reduction is prescribed in section 62 of the EI Regulations. Pursuant to this section, the employer's premium shall be reduced by the percentage by which the first payer cost ratio in respect of all insured persons exceeds the experience cost ratio in respect of insured persons covered by a qualified wage-loss plan of that employer's category.



Both the first payer cost ratio and the experience cost ratio are based on averages from the three years ending with the second year preceding the year for which the calculation is made. Accordingly, for 2016, the years 2012, 2013 and 2014 are used to calculate the first payer cost ratio and the experience cost ratio. The detailed formula for calculating the rates of reduction is presented in Section III of this report.

More information on the first payer cost ratio and the experience cost ratio is presented in the following subsections, as well as the resulting rates of reduction, reduced employer multipliers and estimated amount of premium reduction for 2016.

B. First Payer Cost Ratio

The first payer cost ratio represents the average hypothetical job-attached⁸ EI sickness benefits that would have been paid if benefits payable under a group sickness or disability wage-loss indemnity plan or paid sick leave plan were disregarded for purposes of determining benefits otherwise payable to persons under the EI Act. It is expressed as a percentage of average insurable earnings for all insured persons. This produces a uniform first payer cost ratio reflecting the national average usage for all EI contributors and is consistent with the fact that EI contributors are charged a uniform premium rate in accordance with the pooling of risk principle.

For the purposes of calculating the 2016 rates of reduction, the first payer cost ratio is equal to the average of the first payer cost for the years 2012 to 2014, divided by the average insurable earnings of all insured persons for the years 2012 to 2014.

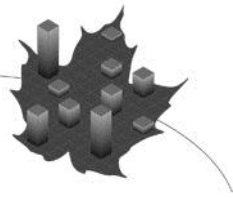
The first payer cost for each year is determined by multiplying the hypothetical number of first payer job-attached EI sickness benefit weeks (namely, those that would have been paid if benefits under a group sickness or disability wage-loss indemnity plan or paid sick leave plan were disregarded for EI benefit purposes) by the average weekly sickness benefits that would apply in such circumstance.

The first payer cost was not revised for previously calculated years (i.e. 2012 and 2013). More information on the 2012 and 2013 first payer cost can be found in the 2015 Actuarial Report.

1. First payer job-attached EI sickness benefit weeks

The hypothetical number of first payer job-attached EI sickness benefit weeks is equal to the product of the hypothetical number of first payer job-attached EI

⁸ A sickness claim is considered job-attached if the interruption of earnings with the employer was by reason of illness, injury or quarantine.



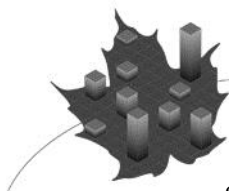
sickness claims and the average duration in weeks of these claims. The hypothetical number of first payer job-attached EI sickness claims is based on the number of individuals with insurable earnings and on an assumed job-attached EI sickness usage rate. This assumed job-attached EI sickness usage rate depends on a number of factors such as the probability of being sick for more than two weeks (EI sickness incidence rate), the probability of being eligible and applying for EI benefits and the probability of being job-attached at the time of illness.

Employer and employee-wide data on sickness incidences and their duration are not readily available. The most exhaustive and complete data that are available is through the combination of the EI administrative data file and the Canada Revenue Agency T4 data file. The EI sickness incidence rate is therefore estimated based on an analysis of administrative EI and T4 data. Given that the EI claims data are incomplete for employees covered by a qualified wage-loss plan (i.e. only residual claims are paid from the EI program), the EI sickness usage rate of individuals that are not covered by a qualified wage-loss plan was used as a basis for developing the overall EI sickness incidence rate of the entire insured population.

This overall EI sickness incidence rate is adjusted to reflect the estimated impact on incidence rates of different age, sector of employment and salary profiles between individuals with and without a qualified wage-loss plan. The job-attached EI sickness usage rate differs by sector of employment and depending on whether or not an individual is covered by a qualified wage-loss plan due to different EI eligibility/benefit application rates and varying degrees of job attachment. Individuals who are covered by a qualified wage-loss plan have more stable full-time employment and are more likely to meet the EI eligibility requirements and be job-attached at the time of the illness. Furthermore, they are more likely to apply for EI benefits given that under the hypothetical first payer scenario, employers sponsoring a qualified wage-loss plan are assumed to adopt a second payer position rather than eliminating sickness coverage altogether.

Based on quantitative and qualitative analysis, assumptions were developed to estimate the job-attached EI sickness usage rate of all insured persons under a hypothetical first payer scenario and the resulting hypothetical number of first payer EI sickness claims. The hypothetical number of first payer job-attached EI sickness benefit weeks is calculated by multiplying the hypothetical number of first payer EI sickness claims by the estimated average duration in weeks. To obtain the average duration of claims, the wage-loss status of individuals was taken into account. This is because employees with a wage-loss plan tend to have stronger labour force attachment and that individuals with strong labour force attachment have slightly longer claim durations based on administrative claims data.

Consequently, the 2014 hypothetical number of first payer job-attached EI sickness claims is 599,330 and the assumed average duration of these claims is



8.9 weeks. The resulting hypothetical number of first payer job-attached EI sickness benefit weeks for 2014 is 5,356,224.

The hypothetical number of first payer job-attached EI sickness benefit weeks for 2012 and 2013 is 5,113,385 and 5,543,015 respectively. More information is provided in the 2015 Actuarial Report.

2. Average Weekly Sickness Benefits

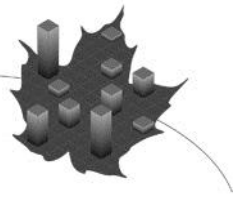
The average weekly benefits can be calculated by multiplying the following elements:

- Benefit rate (i.e. 55%);
- Weekly insurable earnings of all EI contributors; and
- Ratio of insurable earnings used to calculate the benefits of claimants to the insurable earnings of all EI contributors (“Ratio”). This ratio captures the effect of the formula used to determine EI weekly benefits and any structural differences between insurable earnings of contributors and claimants.

The average weekly sickness benefits of individuals that are not covered by a qualified wage-loss plan were analysed and broken down into these separate elements. It was observed that the Ratio for individuals with a strong labour force attachment is significantly lower than the Ratio for all individuals. In addition, the Ratio for individuals with insurable earnings at the maximum insurable earnings is close to 1. Based on this analysis, an assumption was developed for the Ratio that would be applicable under a hypothetical first payer scenario.

This Ratio was then applied to the benefit rate and weekly insurable earnings to derive the average weekly sickness benefits under a hypothetical first payer scenario.

The resulting average weekly sickness benefits under a hypothetical first payer scenario are \$410.93 for 2014. The average weekly sickness benefits under a hypothetical first payer scenario for 2012 and 2013 are \$356.52 and \$383.38 respectively, as calculated in the 2015 Actuarial Report.



3. Resulting First Payer Cost and First Payer Cost Ratio

Based on the foregoing, the first payer cost ratio used for the calculation of the 2016 rates of reduction is 0.3844%. Table 55 shows more details on how this first payer cost ratio is determined.

Table 55 - First Payer Cost Ratio for Calculating 2016 Rates of Reduction				
	2012*	2013*	2014	Average for 2016 Rates of Reduction
First Payer EI Sickness Benefit Weeks (A)	5,113,385	5,543,015	5,356,224	N/A
First Payer Average EI Sickness Benefits (B)	\$356.52	\$383.38	\$410.93	N/A
First Payer Cost (A x B)	\$1,823,000,000	\$2,125,107,000	\$2,201,048,000	\$2,049,718,333
Total Insurable Earnings (TIE)	\$512,798,906,698	\$532,849,893,047	\$554,133,484,277	\$533,260,761,341
First Payer Cost Ratio (% of TIE)	0.3555%	0.3988%	0.3972%	0.3844%

* More information on the 2012 and 2013 numbers can be found in the 2015 Actuarial Report.

C. Experience Cost Ratio

Under certain circumstances, EI sickness benefits are paid to individuals covered by a qualified wage-loss plan. The costs to the EI program of these benefits are deducted from the premium reduction granted through the experience cost ratio, which is subtracted from the first payer cost ratio for purposes of calculating the rates of reduction.

The experience cost ratio, which is different for each category, reflects the actual average job-attached EI sickness benefits paid for each category. It is expressed as a percentage of average insurable earnings for the insured persons in that category. In accordance with the EI Regulations, EI sickness benefits paid to individuals who were not job-attached at the time of the claim are not included in the experience cost ratio.

The allocations of annual job-attached EI sickness benefits paid and of insurable earnings among each category are based on an analysis of administrative data and reports provided by Service Canada and ESDC. For 2012, 2013 and 2014, the total cost of job-attached EI sickness benefits for each category is shown in Table 56, and the insurable earnings for each category are shown in Table 57; the amounts shown for 2014 are based on preliminary data.

Table 56 - Job-Attached EI Sickness Benefits per Category of Wage-Loss Plan				
	2012	2013	2014	Average for 2016 Rates of Reduction
Category 1	\$87,355,386	\$85,142,804	\$83,890,800	\$85,462,997
Category 2	\$7,636,316	\$8,521,363	\$8,516,047	\$8,224,575
Category 3	\$82,861,194	\$72,711,394	\$76,973,787	\$77,515,458
Category 4	\$3,840,760	\$2,103,453	\$2,152,343	\$2,698,852
Total	\$181,693,656	\$168,479,014	\$171,532,977	\$173,901,882

Table 57 - Allocation of Insurable Earnings for Employers With a Qualified Wage-Loss Plan				
	2012	2013	2014	Average for 2016 Rates of Reduction
Category 1	\$47,929,136,672	\$43,857,204,121	\$44,330,678,742	\$45,372,339,845
Category 2	\$16,052,543,978	\$22,944,160,682	\$23,827,739,824	\$20,941,481,495
Category 3	\$165,683,960,690	\$172,636,013,002	\$178,985,115,421	\$172,435,029,704
Category 4	\$17,577,306,791	\$19,515,968,103	\$19,948,805,434	\$19,014,026,776
Total	\$247,242,948,131	\$258,953,345,908	\$267,092,339,421	\$257,762,877,820

The experience cost ratio used in the calculation of the 2016 rates of reduction for each category is shown in Table 58.

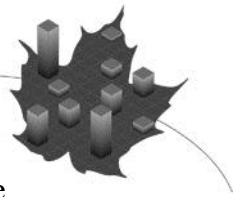
Table 58 - Experience Cost Ratio per Category			
	Average EI Sickness Costs (A)	Average Insurable Earnings (B)	Experience Cost Ratio (A/B)
Category 1	\$85,462,997	\$45,372,339,845	0.1884%
Category 2	\$8,224,575	\$20,941,481,495	0.0393%
Category 3	\$77,515,458	\$172,435,029,704	0.0450%
Category 4	\$2,698,852	\$19,014,026,776	0.0142%

D. Rates of Reduction

Pursuant to section 62 of the EI Regulations and section 68 of the EI Act, the employer's premium shall be reduced by the percentage by which the first payer cost ratio in respect of all insured persons exceeds the experience cost ratio in respect of insured persons covered by a qualified wage-loss plan of that employer's category. The premium reduction is therefore granted by reducing the employer multiple below 1.4 to a value rounded to 3 decimals.

Table 59 shows the 2016 rates of reduction for each category of qualified wage-loss plan, along with the corresponding reduced employer multiplier for out-of-Quebec and Quebec employers. The employer multipliers presented in the table are calculated with the legislated premium rate of 1.88% for residents of all provinces except Quebec. The corresponding premium rate that applies to residents of Quebec is 1.52%. Pursuant to section 62 of the EI Regulations and section 68 of the EI Act, the employer multiplier is calculated from the unrounded rates of reduction and the rounded rates of reduction are shown for illustration purposes only.

Table 59 - 2016 Rates of Reduction						
	First Payer Cost Ratio	Experience Cost Ratio	Unrounded Rate of Reduction	Rounded Rate of Reduction	Employer Multiplier (Out of Quebec)	Employer Multiplier (Quebec)
Category 1	0.3844%	0.1884%	0.1960%	0.20%	1.296	1.271
Category 2	0.3844%	0.0393%	0.3451%	0.35%	1.216	1.173
Category 3	0.3844%	0.0450%	0.3394%	0.34%	1.219	1.177
Category 4	0.3844%	0.0142%	0.3702%	0.37%	1.203	1.156



The Commission will notify each registered employer of the applicable 2016 rate of reduction and employer multiplier. Pro-rated rates apply for plans that do not qualify for a reduction for the full twelve months in the calendar year. In addition, adjusted rates may apply for employers who deduct QPIP premiums for a portion but not all of their employees.

In 2015, the rounded rates of reduction for each category were 0.19%, 0.33%, 0.33% and 0.36% of insurable earnings for categories 1 through 4 respectively.

E. Amount of Premium Reduction

Table 60 shows the estimated amount of premium reduction to be granted in 2016. The estimates are based on a preliminary distribution of insurable earnings by category, which was derived from administrative data provided by ESDC.

Table 60 - 2016 Estimated Amount of Premium Reduction				
	Projected Number of Qualified Employers	2016 Insurable Earnings (Millions)	Rates of Reduction	Premium Reduction (Millions)
Category 1	2,700	\$47,695	0.1960%	\$93
Category 2	700	\$25,636	0.3451%	\$88
Category 3	28,000	\$192,568	0.3394%	\$654
Category 4	400	\$21,463	0.3702%	\$79
Total	31,800	\$287,362	N/A	\$915