Office of the Superintendent of Financial Institutions Canada
Bureau du surintendant des institutions financières Canada

Office of the Chief Actuary
Bureau de l'actuaire en chef

ACTUARIAL REPORT

on the

Canada Student Loans Program

as at 31 July 2016

Canada

To obtain a copy of this report, please contact:

Office of the Chief Actuary
Office of the Superintendent of Financial Institutions Canada
12th Floor, Kent Square Building
255 Albert Street
Ottawa, Ontario
K1A 0H2
Facsimile: **(613) 990-9900**
E-mail: **oca-bac@osfi-bsif.gc.ca**

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M. Atiq Rahman
A/Director General, Canada Student Loans Program
Employment and Social Development Canada
200 Montcalm Street
Montcalm Building, Tower 2 - 1st Floor
Gatineau, QC
K1A 0J9

Dear M. Rahman:

As per the business plan for 2017-18 to 2019-20, I am pleased to submit the Actuarial Report on the Canada Student Loans Program, prepared as at 31 July 2016. This report is prepared for the CSLP to support internal accounting requirements as well as your partners' needs between statutory reports.

Yours sincerely,

Jean-Claude Ménard

Jean-Claude Ménard, F.S.A., F.C.I.A.
Chief Actuary
Office of the Chief Actuary

TABLE OF CONTENTS

INDEX OF TABLES

I. Executive Summary

Effective 1 August 2000, the Government redesigned the delivery of the Canada Student Loans Program (CSLP) from one delivered by chartered banks to one directly financed by the Government. As part of this redesign, the Office of the Chief Actuary was given the mandate to conduct an actuarial review to provide a precise assessment of the current costs of the CSLP, a long-term (25 years) forecast of these costs, as well as a portfolio projection. The results are presented on a loan year basis from 1 August to 31 July.

A. Purpose of the Report

Section 19.1 of the *Canada Student Financial Assistance Act* provides that the Chief Actuary of the Office of the Superintendent of Financial Institutions shall prepare a report on the financial assistance provided under this Act no later than three years apart. Such an actuarial report was prepared as at 31 July 2014 and tabled before Parliament on January 20th, 2016. The next triennial statutory report will be prepared as at 31 July 2017 and is scheduled to be tabled in Parliament in 2018.

This actuarial report, prepared as at 31 July 2016, is provided to support Employment and Social Development Canada's accounting requirements and its partners, the Office of the Auditor General, the Treasury Board Secretariat, and the Department of Finance. The report includes a forecast of the Program's costs and revenues for 25 years (through loan year 2040-41), and shows estimates of:

- the number of students receiving a loan under the CSLP and the amount of new loans issued;
- the portfolio of loans in-study, loans in repayment and loans in default;
- the allowances under the direct loan regime in effect since August 2000; and
- the net cost by type of regime.

B. Scope of the Report

This valuation report is based on the Program provisions as described in Appendix 1. After a short discussion of the best-estimate assumptions in section A of the Main Report, section B presents projections of new loans issued, the number of students eligible to receive a loan, and the average amount of new loans issued. Section C includes projections of the portfolio by type of regime, while section D contains projections for the operating cost of the Program for all three regimes. A conclusion of the actuarial review ensues, followed by the actuarial opinion regarding the review.

The various appendices provide supplemental information on Program provisions, data used, sensitivity tests and concessionary terms. For additional information on assumptions and methodologies used, please refer to the most recent statutory Actuarial Report as at 31 July 2014.

C. Main Findings

The following summarizes the main findings of this actuarial report. The results are presented on a loan year basis from 1 August to 31 July. Comparisons with the previous report refer to the interim report, prepared as at 31 July 2015.

- In 2015-16, $2,725 million in new loans were issued to 497,000 students. New loans issued are projected to decrease to $2,638 million in 2016-17 due to the 50% increase to low- and middle-income CSGs amounts announced in Budget 2016. It will increase to $3,043 million in 2017-18 due to the introduction of the fixed student contribution also announced in Budget 2016. It is expected to reach $5,044 million by the end of the projection period in 2040-41.
- In 2015-16, $720 million of Canada Student Grants (CSGs) were disbursed to 369,000 students. CSGs are projected to increase to $1,028 million in 2016-17. This amount includes a 50% increase to the low- and middle-income CSGs as well as CSGs for part-time students that was announced in Budget 2016. In 2017-18, there will be an additional increase to $1,219 million related to the new income thresholds also announced in Budget 2016.
- The direct loan portfolio increases from $17.7 billion as at 31 July 2016 to $37.9 billion by the end of the projection period. The $24 billion limit on the aggregate amount of outstanding loans is projected to be reached in 2022-23.
- The total net cost (expenses less revenues) of the Government's involvement in the CSLP is expected to grow from $1.3 billion in 2015-16 to $3.8 billion in 2040-41, which represents an average annual increase of 4.4%. Grants disbursed represent 56% of the Program's net cost in 2015-16.
- Recent experience shows lower defaults than expected. Consequently, the future default rate, net of recoveries, decreases slightly from 9.9% of consolidations in the previous report to 9.0% in the current report. Conversely, higher than expected RAP utilization was observed.
- Three allowances are accounted for to cover the associated Program's future risk of loss:
    - The allowance for bad debt – principal covers the risk of future default, net of recoveries. It corresponds to $2,511 million as at 31 July 2016, which is lower than the $2,701 million projected in the previous report.
    - The allowance for bad debt – interest covers the risk that the interest accrued on defaulted loans will never be recovered. It corresponds to $212 million as at 31 July 2016, which is comparable to the $210 million projected in the previous report.
    - The allowance for the Repayment Assistance Plan (RAP) – principal recognizes that part of the loan principal of borrowers benefiting from RAP-Stage 2 and RAP-PD will be paid by the Government. It corresponds to $1,026 million as at 31 July 2016, which is higher than the $884 million projected in the previous report. The increased income eligibility thresholds for the RAP announced in Budget 2016 are taken into account in the determination of this allowance.
    - Overall, there is a reduction of $46 million for the three allowances as at 31 July 2016 compared with the projections in the previous report. This reduction is the result of better default experience, which is partially offset by higher RAP utilization.

II. Main Report

The Canada Student Loans Program (CSLP) has been in effect since 1964; it provides Canadians with financial assistance to pursue a post-secondary education. On 1 August 2000, the Government redesigned the delivery of the Program to disburse loans directly to students. The Office of the Chief Actuary was given the mandate to provide an assessment of the current costs of the CSLP, a long-term (25 years) forecast of these costs, and a portfolio projection. The results are presented on a loan year basis from 1 August to 31 July.

Section A of the report provides a brief discussion of the best-estimate assumptions. The projection of loans issued to eligible students for each loan year is presented in section B. The projection of the loan portfolio for each regime (guaranteed, risk-shared, and direct) is provided in section C and the forecast of the CSLP’s net cost is presented in section D.

The actuarial estimates in this report are based on the current provisions of the Program as described in Appendix 1. Appendix 2 provides additional information on some of the data used for this valuation. Appendix 3 presents sensitivity tests showing the impact of a variation in the student interest rate. Appendix 4 presents information on concessionary terms.

A. Best-estimate Assumptions

Several economic and demographic assumptions are needed to determine future long term costs of the CSLP. The projections included in this report cover a period of 25 years and the assumptions are determined by putting as much emphasis on historical trends as on short-term experience. These assumptions reflect the actuary’s best judgment and are referred to as “best-estimate” assumptions. Some of these assumptions are based on the most recent actuarial reports prepared by the Office of the Chief Actuary, adjusted to reflect loan year periods and current economic and demographic experience. The assumptions were chosen to form a coherent whole, taking into account certain interrelationships between them. Table 1 presents the assumptions related to the cost of borrowing for the Government as well as for borrowers.

Table 1 Borrowing Cost

Loan Year	Inflation (%)	Government's Real Cost of Borrowing (%)	Government's Cost of Borrowing (%)	Prime Rate (%)	Student's Cost of Borrowing (%)
	(1)	(2)	(1) + (2)	(3)	(3) + 250 bps
2016-17	1.7	-0.2	1.6	2.7	5.2
2017-18	2.0	0.1	2.1	3.1	5.6
2018-19	2.0	0.5	2.5	3.4	5.9
2019-20	2.0	0.9	2.9	3.7	6.2
2020-21	2.0	1.2	3.2	3.9	6.4
2021-22	2.0	1.5	3.5	4.1	6.6
2022-23	2.0	1.8	3.8	4.3	6.8
2023-24	2.0	2.1	4.1	4.5	7.0
2024-25+	2.0	2.2	4.2	4.6	7.1

The average prime rate for the 2016-17 loan year is 2.7%. The prime rate is expected to increase gradually to an ultimate rate of 4.6% in 2024-25. The student’s cost of borrowing, used to calculate interest revenue, is the sum of the prime rate and a spread of 250 basis points. The student’s cost of borrowing is 5.2% in 2016-17 and is expected to increase to an ultimate rate of 7.1% by the 2024-25 loan year.

Provision Assumptions

Since August 2000, the CSLP has been delivered and financed directly by the Government. Three allowances exist to cover future costs: bad debt – principal, bad debt – interest and Repayment Assistance Plan (RAP) – principal. The RAP came into effect in August 2009, replacing the former Debt Reduction in Repayment (DRR) and Interest Relief (IR) measures.

Long-Term Default and Recovery Rate Assumptions

The default and recovery rate assumptions are based on gross defaults (before recalls and rehabilitations). The ultimate assumptions are as follow:

- The future gross default rate assumption is 14.8% of future consolidations. This rate is lower than the 16.5% used in the previous report.
- The recalls and rehabilitations represent 8.3% of gross defaults in the long-term, which decreases the default rate to 13.6% [14.8% x (1 – 8.3%)]. This rate is lower than the 15.1% used in the previous report.
- The future recovery rate assumption is unchanged from the last report and corresponds to 31.1% of gross defaults (before recalls and rehabilitations).
- The resulting future net default rate decreases from 9.9% [16.5% x (1 – 8.7% – 31.1%)] in the previous report to 9.0% [14.8% x (1 – 8.3% – 31.1%)].

Allowance for Bad Debt – Principal for the 2016-17 Loan Year

The allowance for bad debt – principal is based on a prospective approach that uses a snapshot of the portfolio at a specific point in time to determine the amount of the allowance at that time. The calculation of the allowance is separated into three components according to the status of the loan; that is whether the loan is in-study, in repayment (according to the number of years since consolidation) or in default (according to the number of years since default).

The rehabilitation criteria were modified in March 2011. Instead of repaying all outstanding interest and the equivalent of six monthly payments to rehabilitate, borrowers now must repay all outstanding interest and the equivalent of two monthly payments. In addition, ESDC has recently been working closely with CRA to implement a strategy to promote rehabilitations to borrowers whose accounts meet certain criteria. Rehabilitations have increased in the last few years most likely because more borrowers are meeting the new rehabilitation criteria. The introduction of RAP also creates an incentive for borrowers who would meet the RAP criteria to rehabilitate their loans, as borrowers in default are not eligible for the RAP. It also results in a small impact on recoveries. Consequently, in the first projection year (2016-17), future recalls and rehabilitations represent 14.4% of gross defaults. This value is expected to gradually decrease to 8.3% in the long-term as borrowers start applying directly on the RAP instead of going through the path of default and rehabilitation. For 2016-17, the recovery rate is also slightly higher to 32.1% of gross defaults.

a) The allowance component on the balance of loans in-study is determined using a blend of short and long term assumptions as loans presently in study will consolidate according to the consolidation distribution over the next 15 years. The blended net default rate is 8.8%, which is slightly lower than the long term net default rate of 9.0%. The net default rate of 8.8% needs to be adjusted to reflect the variation between loans at issuance and loans at consolidation. A small upward adjustment of 0.3% is required to account for the interest accrued during the 6-month non-repayment period that is capitalized into loans at consolidation. Another adjustment is required to reflect future prepayments (payments received from students prior to consolidation). Based on the experience, prepayments represent approximately 15% of loans in-study, resulting in a provision rate for loans in-study rounded to 7.8% [(8.8% + 0.3%) x (1 – 15%)].

b) The allowance component on the balance of loans in repayment is determined using projected future defaults according to the number of years since consolidation. The recovery rate assumption is then applied to determine the portion of projected defaulted loans that will not be recovered. This result corresponds to the allowance on the balance of loans in repayment. The future recovery rate is 31.1% for each gross default cohort; hence, it is assumed that 68.9% (1 – 31.1%) of the projected gross defaulted loans (before recalls and rehabilitations) will not be recovered. The resulting provision rate on outstanding loans in repayment for the 2016-17 loan year is 3.8%. This is lower than the provision rate of 7.8% for loans in-study since the portfolio in repayment includes cohorts of loans for which some defaults and partial reimbursements have already occurred, resulting in a lower inherent risk of loss for the remaining loans.

c) The last allowance component is the one on the balance of loans in default that will not be recovered. The resulting provision rate on outstanding loans in default for the 2016-17 loan year is 79.5%. This rate is higher than the non-recovery rate of 68.9% (1 – 31.1%) since the portfolio in default includes cohorts of loans that have been transferred in default for a certain number of years and for which some recoveries have already occurred. Thus, the remaining loans have aged and have an increased risk of loss.

In summary, the provision rates for the 2016-17 loan year are: 7.8% for loans in-study, 3.8% for loans in repayment and 79.5% for loans in default.

The level of the total allowance is determined at the end of the loan year. The annual expense for bad debt – principal is equal to the difference between the total allowance at the end of a year and the total allowance at the end of the previous year net of write-offs that have occurred during the year.

Allowance for Bad Debt – Interest for the 2016-17 Loan Year

The allowance for bad debt – interest is based on the account’s recoverable status and its age since default. The interest accrued on defaulted loans is considered a revenue until the loan reaches the “non-recoverable” status. To lessen the effect of changing this revenue to a loss, an allowance is created based on the outstanding interest at the end of each year. The provision rate is 25.1% of interest accrued in the first year after loans are transferred in default. It increases in each of the four subsequent years before decreasing in the sixth and seventh years when a large portion of interest is transferred to the “non-recoverable” status because of the six-year limitation period (statute of limitations). The provision rate increases each year thereafter. The provision rate for the allowance on non-recoverable accounts is 100%. Under this methodology, the increasing provision rate reflects the fact that the difficulty of recovering defaults increases as the time since default increases. The annual expense for bad debt – interest is equal to the difference between the total allowance at the end of a year and the total allowance at the end of the previous year net of write-offs that have occurred during the year.

The provision rates for bad debt – interest are slightly revised downward in this report to reflect recent experience. The set of provision rates used to determine the allowance on recoverable accounts in the 2016-17 loan year is shown in Table 2.

Allowance for the Repayment Assistance Plan – Principal for the 2016-17 Loan Year

The RAP consists of two stages to help student borrowers, who apply and meet the eligibility criteria, fully repay their student loan within fifteen years (or ten years for borrowers with permanent disabilities). During Stage 1, the Government covers the monthly interest amount owed that the borrower's affordable payment does not cover. Stage 2 begins once the borrower has completed five years in Stage 1, or has been in repayment for ten years following the end of the study period. The Government continues to cover the interest, as in Stage 1, but also begins to cover a portion of the student loan's principal amount (i.e. the difference between the required and affordable payment). Borrowers with a permanent disability proceed directly to Stage 2, on approval of their RAP-PD application.

The RAP – principal provision covers future costs related to RAP-Stage 2 and RAP-PD, which corresponds to the portion of the loan principal paid off by the Government. As with the provision for bad debt – principal, the methodology to determine the provision rates and allowance for the RAP – principal is based on a prospective approach that uses a snapshot of the portfolio at a particular point in time to determine the amount of the allowance at that time. The calculation of the allowance is separated into three components according to the status of the loan; that is whether the loan is in-study, in repayment (excluding loans in the RAP) or in the RAP (considering the current stage). The provision rates are set based on current and future RAP utilization rates at each stage. Three distinct provision rates, depending on the status of the loan at a given time, will be used to determine the required allowance. The provision rates for the 2016-17 loan year are: 4.7% for loans in-study, 1.0% for loans in repayment (net of loans in the RAP), and 20.5% for loans in the RAP (all stages combined). These rates are higher than the rates presented in the previous report. This increase is consistent with the recent experience showing higher RAP utilization than expected and the new RAP eligibility thresholds announced in Budget 2016 and introduced for the 2016-2017 loan year.

The annual expense for the RAP – principal provision is equal to the difference between the total allowance at the end of a year and the total allowance at the end of the previous year net of the current year's expenses.

The RAP is a program that was introduced in 2009 and still has limited experience. The related projection of costs and underlying assumptions may be revised in the future as experience emerges, and the provision rates would then be updated accordingly. As with the former Interest Relief measure, a modest provision for the RAP – interest is determined by ESDC for accounting purposes to take into account the timing of the interest accrued.

Table 2 shows the provision rates used to determine the allowances in the 2016-17 loan year for Public Accounts purposes. The provision rates for future loan years evolve with the aging of the loan cohorts.

Table 2 Provision and Allowance Assumptions

Type of Provision		Assumptions
		(%)
Bad Debt – Principal		
On the outstanding balance of loans:		
In-Study		7.8
In Repayment		3.8
In Default		79.5
Repayment Assistance Plan – Principal		
On the outstanding balance of loans:		
In-Study		4.7
In Repayment (net of loans in RAP)		1.0
In the Repayment Assistance Plan (all stages combined)		20.5
	Year Since	
Bad Debt – Interest	**Default**	(%)
On outstanding recoverable interest	1st	25.1
	2nd	35.8
	3rd	46.3
	4th	56.4
	5th	66.8
	6th	58.5
	7th	52.9
	8th	55.4
	9th	57.8
	10th	60.7
	11th	64.6
	12th	69.9
	13th	77.0
	14th	86.5
	15th	100.0

Note: The calculation of the allowance is separated into three components according to the status of the loan:

• In-Study:	Loans for students currently enrolled in a post-secondary institution and for those who have terminated their studies within the last six months (6-month non-repayment period).
• In Repayment:	Loans for borrowers in the repayment period, including delinquent loans and loans approved or waiting for the RAP. In the calculation of the provision for the RAP – principal, they are further split, with loans in the RAP being considered together as a subgroup.
• In Default:	Loans for which no payments have been made for at least nine months but for which the government might be able to recover money.

Table 3 contains a summary of the best-estimate assumptions used for this report.

Table 3 Best-estimate Assumptions

1.	Total fertility rate for Canada (ultimate)	1.65 per woman	
2.	Mortality	Canadian Human Mortality Database with assumed future improvements	
3.	Net migration rate for Canada (ultimate)	0.62% of population	
4.	Youth participation rate (participating provinces/territory, ages 15-29)	71.5%	(2016-17)
		72.0%	(2017-18)
		72.4%	(2018-19)
		• • •	
		75.3%	(2040-41)
5.	Real wage increases	0.4%	(2016-17)
		0.7%	(2017-18)
		0.8%	(2018-19)
		0.9%	(2019-20)
		1.0%	(2020-21)
		• • •	
		1.1%	(2024-25+)
6.	Inflation	1.7%	(2016-17)
		2.0%	(2017-18+)
7.	Tuition fee increases	2.9%	(2016-17)
		2.5%	(2017-18)
		2.5%	(2018-19)
		2.8%	(2019-20)
		• • •	
		CPI + 2.0%	(2022-23+)
8.	Government's cost of borrowing	1.6%	(2016-17)
		• • •	
		4.2%	(2025-26+)
9.	Student's cost borrowing	5.2%	(2016-17)
		• • •	
		7.1%	(2025-26+)
10.	Provision rate for Bad Debt – Principal (2016-17)	7.8%	of the portfolio in-study
		3.8%	of the portfolio in repayment
		79.5%	of the portfolio in default
11.	Provision rate for RAP – Principal (2016-17)	4.7%	of the portfolio in-study
		1.0%	of the portfolio in repayment (net of loans in RAP)
		20.5%	of the portfolio in the RAP
12.	Provision rate for Bad Debt – Interest (2016-17)	25.1%	(Interest on loans in default for less than a year)
		• • •	
		58.5%	(Interest on loans in default for 5 to 6 years)
		• • •	
		100.0%	(Interest on loans in default for 14 to 15 years)

B. Projection of Total Loans Issued

The purpose of this section is to discuss the projection of the total amount of loans issued by the CSLP. The first step is to project full-time enrolment in post-secondary institutions. The future number of students participating in the CSLP is determined using a projection of the loan uptake rate. Finally, the average assessed need of a CSLP student is projected net of grants and capped according to the loan limit. The total amount of loans issued is then calculated by multiplying the average capped net need with the number of students in the CSLP.

Budget 2016 proposed four modifications to the Canada Student Loans Program. These measures are included in the projections.

- Increasing CSGs amounts by 50% for students from low- and middle-income families as well as for part-time students starting in the 2016-17 loan year.
- Expanding eligibility for CSGs. The existing low- and middle-income thresholds will be replaced with a single progressive threshold under which grant amounts will gradually decline based on family income and family size. The new eligibility thresholds are expected to be in place for the 2017-18 loan year. Although this change has not been officialized through regulations amendment at the time of preparing the report, it is part of the projections as this is an interim report and ESDC informed us that the regulation amendment is imminent.
- Increasing the loan repayment threshold under the RAP starting in the 2016-17 loan year to ensure that students will not have to repay their loan until they earn at least $25,000 per year ($25,000 is the threshold for a single student with no dependents, which scales up based on family size).This measure came into force on 1st November 2016.
- Introducing a fixed student contribution[1] to determine eligibility for student loans and grants to replace the current system of assessing student need. Starting in 2017-2018, the fixed student contribution will be between $1,500 and $3,000 per loan year, with the exact amount being determined based on family income and family size. The fixed contribution is exempted for indigenous students, students with disabilities, students with dependents, and current and former crown wards.

Budget 2017 proposes several modifications to the Canada Student Loans Program. These measures are expected to be in place in the 2018-19 loan year and are not considered in the projections since the details have not been communicated at the time of producing the report.

- Expanding eligibility for CSGs and CSLs for part-time students by introducing a higher, single national threshold. As family income increases, the amount of grant will gradually decline, depending on family size.
- Expanding eligibility for CSGs for full- and part-time students with dependent children by increasing thresholds. The amount of CSGs will gradually decline, depending on family income.
- Expanding the definition of qualifying students to include students who are registered under the *Indian Act* without Canadian citizenship or permanent residency.
- Introducing a three-year pilot project to test new approaches to make it easier for adult learners to qualify for loans and grants. The program design is not finalized.

[1] Although the Budget announced a flat-rate student contribution, the parameters developed on consultation with provinces and territories reflect a “fixed student contribution” that targets funding to students from low- and middle-income families.

1. Projection of Full-time Post-secondary Enrolment

The first step is to determine the projected number of full-time students in post-secondary institutions since the demand for the CSLP is linked to the number of students enrolled in post-secondary institutions. Demographic projections are used to determine the progression of full-time students attending post-secondary institutions.

Demographic Projections

Demographic projections are based on the population projected in the 27th Actuarial Report on the Canada Pension Plan as at 31 December 2015. The population of Canada less Québec, Northwest Territories, and Nunavut is used to project the number of students enrolled in post-secondary institutions.

Post-secondary Enrolment

Projections are based on enrolment data from Statistics Canada's Labour Force Survey up to January 2017. Table 4 shows the evolution of the population aged 15-29, along with the number of students enrolled full-time in a post-secondary institution. The students aged 15-29 are used for illustrative purposes as they represent more than 85% of the total post-secondary enrolment and better demonstrate the movement of this population across time. Total full-time enrolment in post-secondary institutions (all ages) is also presented in Table 4.

Table 4 Population and Post-Secondary Enrolment[1]

Loan Year	Population of Canada Less Québec, Nunavut, and NWT (15-29) (thousands)	Students Enrolled Full-Time (15-29) (thousands)	Students Enrolled Full-Time (Total) (thousands)	Increase (thousands)	Increase (%)
2015-16	5,506	1,126	1,273		
2016-17	5,472	1,173	1,329	56	4.4
2017-18	5,436	1,151	1,309	-20	-1.5
2018-19	5,400	1,143	1,302	-7	-0.5
2019-20	5,357	1,135	1,297	-5	-0.4
2020-21	5,299	1,125	1,290	-7	-0.5
2021-22	5,249	1,104	1,269	-21	-1.6
2022-23	5,208	1,091	1,256	-13	-1.0
2023-24	5,177	1,083	1,249	-7	-0.6
2024-25	5,146	1,079	1,245	-4	-0.3
2025-26	5,114	1,076	1,242	-3	-0.3
2026-27	5,088	1,077	1,243	1	0.1
2027-28	5,086	1,082	1,248	5	0.4
2028-29	5,102	1,090	1,255	7	0.5
2029-30	5,131	1,097	1,261	6	0.5
2030-31	5,168	1,106	1,270	9	0.7
2031-32	5,220	1,115	1,279	9	0.7
2032-33	5,284	1,125	1,288	9	0.7
2033-34	5,351	1,133	1,297	9	0.7
2034-35	5,417	1,143	1,307	10	0.8
2035-36	5,486	1,154	1,318	11	0.8
2036-37	5,551	1,168	1,333	15	1.2
2037-38	5,610	1,183	1,349	16	1.2
2038-39	5,662	1,197	1,364	15	1.1
2039-40	5,714	1,211	1,379	15	1.1
2040-41	5,767	1,223	1,393	14	1.0

1 Full-time enrolment in post-secondary institutions in Canada, excluding Québec.

The future population enrolled full-time in a post-secondary institution is determined by multiplying projected enrolment rates for each future year to its corresponding projected population. Based on enrolment data provided by Statistics Canada for the first half of the 2016-17 loan year, Students enrolled full-time are projected to increase by 56,000 (1,273,000 to 1,329,000) during the first year of the projection period. Decreases are then expected until 2025-26 due to a decline in the population aged 15-29. The year-over-year variation should eventually revert to a steady increase and the number of enrolled students should surpass its current level towards the end of the projection period.

2. Student Need

Not everyone enrolled in a post-secondary institution is eligible to participate in the CSLP. The need assessment process determines whether students are eligible for a loan, and if so, the amount they are eligible to receive. The need is defined as the excess of expenses over resources, if positive. The expenses assessed include tuition fees, compulsory fees, books, shelter, food and transportation. The loan issued by the federal Government under the CSLP covers 60% of the assessed need, up to a maximum weekly limit of $210. Sometimes, a student’s need is completely fulfilled by a grant and no loan is issued. Future distributions of student need are projected using the CSLP need assessment data for the 2014-15 loan year provided by Employment and Social Development Canada (ESDC). Low- and middle-income Canada Student Grants for 2016-17 loan year were increased by 50%. In addition, the single progressive eligibility threshold for the new CSGs for full-time students (CSG-FT), which will replace CSGs for students from low- and middle-income families, proposed in Budget 2016 and expected to take effect in 2017-18 is considered in this evaluation. These changes increase the average grant and the number of grant recipients and decrease the average student net need.

For projection purposes, students are separated into three groups based on the type of educational institution they attend (college, university or private). The results are aggregated using a weighted average based on the number of students.

Table 5 summarizes the three main elements of student need, as well as the average student need, average grant used for the net need calculation and CSLP average student net need (net of grant). The average resources and expenses specific to the students receiving a loan are considered and the information is presented for the average number of study week. Note that resources for year 2017-18 and after reflect the change to a fixed student contribution announced in Budget 2016. Under the new fixed student contribution model, students’ pre-study and in-study incomes, as well as all financial assets, are replaced by a fixed student contribution amount between $1,500 and $3,000. Indigenous students, students with disabilities, students with dependents, current and former crown wards are exempted from the fixed student contribution increasing their access to student loans. There is no change in the assessment of parental contribution. The new fixed student contribution model decreases resources considered in the need assessment process. Consequently, most students will be eligible to receive more loans under this new model. As shown in Table 5, the fixed student contribution results in an increase in average student need estimated to $2,100 (from $6,700 to $8,800) in the 2017-18 loan year.

Table 5 Student Need

Loan Year	Resources ($)	Tuition ($)	Other Expenses ($)	Total Expenses ($)	Average Student Need ($)	Average Grant for Net Need Calculation[1] ($)	CSLP Average Student Net Need[2] ($)	CSLP Average Student Net Need Increase ($)
	(1)	(2)	(3)	(4) = (2) + (3)	(5) = (4) - (1)	(6)	(7) = (5) * 0.6 - (6)	
2015-16	5,400	8,300	11,000	19,300	13,900	1,300	7,000	
2016-17	5,500	8,600	11,200	19,800	14,300	1,900[3]	6,700	-300
2017-18	2,700	8,600	11,700	20,300	17,700	2,100[4]	8,800	2,100
2018-19	2,700	8,900	11,900	20,800	18,100	2,100	9,000	200
2019-20	2,700	9,100	12,200	21,300	18,600	2,100	9,300	300
2020-21	2,800	9,400	12,400	21,800	19,100	2,100	9,600	300
2021-22	2,800	9,800	12,600	22,400	19,600	2,000	10,000	400
2022-23	2,900	10,100	12,900	23,000	20,200	2,000	10,300	300
2023-24	2,900	10,500	13,100	23,700	20,800	2,000	10,700	400
2024-25	2,900	11,000	13,400	24,400	21,400	2,000	11,100	400
2025-26	3,000	11,400	13,700	25,100	22,100	2,000	11,500	400
2026-27	3,000	11,900	13,900	25,800	22,700	2,000	12,000	500
2027-28	3,100	12,400	14,200	26,500	23,400	2,000	12,400	400
2028-29	3,200	12,900	14,500	27,300	24,200	1,900	12,800	400
2029-30	3,200	13,400	14,800	28,100	24,900	1,900	13,300	500
2030-31	3,300	13,900	15,100	29,000	25,700	1,900	13,800	500
2031-32	3,300	14,500	15,300	29,800	26,500	1,900	14,300	500
2032-33	3,400	15,100	15,700	30,700	27,300	1,900	14,800	500
2033-34	3,400	15,700	16,000	31,700	28,200	1,900	15,300	500
2034-35	3,500	16,300	16,300	32,600	29,100	1,900	15,900	600
2035-36	3,600	17,000	16,600	33,600	30,000	1,800	16,400	500
2036-37	3,600	17,700	16,900	34,600	31,000	1,800	17,000	600
2037-38	3,700	18,400	17,300	35,700	32,000	1,800	17,600	600
2038-39	3,800	19,200	17,600	36,800	33,000	1,800	18,300	700
2039-40	3,900	19,900	18,000	37,900	34,000	1,800	18,900	600
2040-41	3,900	20,800	18,300	39,100	35,100	1,800	19,600	700

3. Number of Students in the Canada Student Loans Program (CSLP)

The projected number of students in the CSLP is based on the expected future enrolment, as well as the future loan uptake rate. Table 6 shows the evolution of loan recipients over the 25-year projection period. An increase in the loan uptake rate is expected as tuition fees and other expenses grow at a faster rate than resources, especially after the implementation of the fixed student contribution for which the minimum and maximum amounts ($1,500 and $3,000) are kept constant for the entire projection period.

The product of the number of students enrolled full-time and the CSLP loan uptake rate gives the number of students in the CSLP. Table 6 shows that the loan uptake rate is expected to increase from 39% in 2015-16 to 51% in 2040-41, adding 215,000 students to the Program. Thus, the number of students in the Program is projected to increase from 497,000 in 2015-16 to 712,000 in 2040-41. The number of students in the CSLP shown in Table 6 represents those who receive

1 This average grant is strictly used for the purpose of calculating the net need, hence included in the calculation are all students receiving a loan (including the 147,000 with a grant of $0). The real average grant (paid only to grant recipients) would be $1,897 in the 2015-16 loan year.
2 The loan amount paid by the federal Government represents 60% of the assessed need reduced by grants.
3 Low- and middle-income Canada Student Grants for year 2016-2017 were increased by 50% (Budget 2016).
4 The low- and middle-income CSGs are replaced by the CSG-FT with a single progressive threshold (Budget 2016).

a Canada Student Loan in each loan year; it does not include the small proportion of students that only receives a CSG because their assessed need was lower than the maximum amount of grant they were eligible for, and the grant therefore covered their total need (no loan was issued). According to the ESDC data file, the total number of students who received a grant in the 2015-16 loan year is 368,975. The majority of grant recipients (95%) received both a loan and a grant. The decrease of the loan uptake rate in the 2016-17 loan year reflects the impact of the increase in low- and middle-income grants on the number of students receiving a loan. The 2017-18 loan year reflects the combined effect of the change in student contribution formula (increases loan uptake rate) and the change to a single progressive income threshold for CSGs (decreases loan uptake rate).

Table 6 Loan Recipients

Loan Year	Students Enrolled Full-Time (thousands)	Loan Uptake Rate (%)	Students in CSLP (thousands)	Annual Increase in CSLP Students (thousands)	Annual Increase in CSLP Students (%)
	(1)	(2)	(1) x (2)		
2015-16	1,273	39.0	497		
2016-17	1,329	37.5	499	2	0.4
2017-18	1,309	40.6	532	33	6.6
2018-19	1,302	41.1	535	3	0.5
2019-20	1,297	41.7	541	6	1.1
2020-21	1,290	42.5	547	7	1.2
2021-22	1,269	43.4	551	3	0.6
2022-23	1,256	44.3	556	6	1.0
2023-24	1,249	45.1	563	7	1.3
2024-25	1,245	45.8	571	8	1.4
2025-26	1,242	46.7	580	9	1.5
2026-27	1,243	46.9	583	3	0.6
2027-28	1,248	47.6	594	10	1.8
2028-29	1,255	48.2	604	10	1.8
2029-30	1,261	48.7	614	10	1.6
2030-31	1,270	49.1	624	10	1.6
2031-32	1,279	49.5	633	10	1.5
2032-33	1,288	49.9	642	9	1.5
2033-34	1,297	50.2	651	8	1.3
2034-35	1,307	50.4	659	8	1.2
2035-36	1,318	50.6	667	9	1.3
2036-37	1,333	50.8	678	10	1.5
2037-38	1,349	51.0	687	10	1.5
2038-39	1,364	51.1	696	9	1.3
2039-40	1,379	51.1	705	8	1.2
2040-41	1,393	51.1	712	7	1.0

4. New Loans Issued

This section focuses on the determination of the amount of new loans issued in each loan year. The three factors primarily responsible for the evolution of new loans issued are student need, the amount of CSGs disbursed, and the percentage of students reaching the loan limit.

Impact of Student Need on Loans Issued

An increasing student need puts growing pressure on new loans issued since more students become eligible for a loan and previously eligible students qualify for a larger loan. Table 7 shows that the average student need increases from $13,900 in 2015-16 to $35,100 in 2040-41. Although an increasing student need causes more students to become eligible to receive a loan, loans to newly eligible individuals are smaller in size and therefore slow the growth of the average loan size. This indirectly contributes to moderating the average loan growth over the 25-year projection period.

Due to the introduction of the new fixed student contribution announced in Budget 2016, resources considered in the need assessment process are expected to increase at a much slower rate starting in 2017-18 compared to the previous report. This results in a further increase in student needs and expands the eligibility to student loans.

Impact of Grants on Loans Issued

The CSGs introduced in the 2009-10 loan year alleviates the financial needs of many students, thus reducing the amount of loans issued by the Program for the remainder of the projection period. Starting with the 2016-17 loan year, the CSGs amounts increased by 50% for students from low- and middle-income families and for part-time students. In addition, the eligibility to CSGs will be expanded starting in 2017-18 as the existing low- and middle-income thresholds will be replaced with a single progressive threshold under which grant amounts would gradually decline based on income and family size. The amount of grants disbursed (Table 15) is expected to increase from $719.5 million in 2015-16 to $1,028 million in 2016-17 due to the increase in the CSGs amounts by 50%. It is expected to further increase to $1,219 million in 2017-18 due to the introduction of the single progressive income threshold. Ultimately, the amount of grants disbursed is projected to reach $1,702 million in 2040-41. The CSGs are described in Appendix 1.

Impact of Loan Limit on Loans Issued

A constant loan limit (currently $210 per week) restricts the growth of new loans issued. Over time, more students reach the loan limit without their needs being completely fulfilled. In 2015-16, the percentage of students at the loan limit is 38.5% and Table 7 shows that this percentage is projected to decrease to 35.6% in 2016-17 as students are receiving more grants due to the 50% increase in CSGs amounts. The percentage of students receiving the maximum loan is expected to increase significantly in 2017-18 as most students will be eligible to more loans under the new fixed student contribution formula. It then increases gradually and reaches 93.8% in 2040-41. These students are not eligible for a further increase in loan size despite increasing cost pressures. The minimum and maximum fixed student contributions are kept constant for the projection period as ESDC informed us that there was no decision regarding if and by how much the fixed student contribution will increase over time. Since the minimum and maximum amounts of the fixed student contribution remain unchanged at $1,500 and $3,000 for the projection, resources are much lower than student’s costs in 25 years from now as student’s costs are expected to increase at least with inflation. As a result, more than 90% of students are projected to receive the current loan limit of $210 per week in 2040-41. Maximum CSGs amounts are also kept constant.

Impact of Budget 2016 changes on new loans issued

The new fixed student contribution that will take place in the 2017-18 loan year translates in an increase in projected new loans issued. Conversely, the new single progressive threshold that will also take place in the 2017-18 loan year to replace the low- and middle-income CSGs thresholds will expand the eligibility for grants resulting in a decrease in projected new loans issued. The combined impact of those two modifications amounts to an additional $380 million of loans being issued in the 2017-18 loan year, compared to what would have been issued if no changes had occurred.

Table 7 Increase in New Loans Issued

Loan Year	Average Student Need ($)	Increase (%)	% of Students at Limit[1]	New Loans Issued ($ million)	Increase (%)	Students in CSLP (thousands)	Increase (%)	Average Loan Size ($)	Increase (%)
				(1)		(2)		(1) / (2)	
2015-16	13,900		38.5	2,725		497		5,483	
2016-17	14,300	2.9	35.6	2,638	-3.2	499	0.4	5,286	-3.6
2017-18	17,700	23.8	46.1	3,043	15.4	532	6.6	5,722	8.3
2018-19	18,100	2.3	49.0	3,114	2.3	535	0.5	5,824	1.8
2019-20	18,600	2.8	51.4	3,204	2.9	541	1.1	5,925	1.7
2020-21	19,100	2.7	54.0	3,299	3.0	547	1.2	6,027	1.7
2021-22	19,600	2.6	56.4	3,372	2.2	551	0.6	6,123	1.6
2022-23	20,200	3.1	59.0	3,459	2.6	556	1.0	6,219	1.6
2023-24	20,800	3.0	61.6	3,555	2.8	563	1.3	6,311	1.5
2024-25	21,400	2.9	64.3	3,654	2.8	571	1.4	6,400	1.4
2025-26	22,100	3.3	67.0	3,758	2.9	580	1.5	6,483	1.3
2026-27	22,700	2.7	69.7	3,823	1.7	583	0.6	6,556	1.1
2027-28	23,400	3.1	72.5	3,933	2.9	594	1.8	6,626	1.1
2028-29	24,200	3.4	75.4	4,041	2.7	604	1.8	6,690	1.0
2029-30	24,900	2.9	78.0	4,141	2.5	614	1.6	6,746	0.8
2030-31	25,700	3.2	80.0	4,238	2.4	624	1.6	6,796	0.7
2031-32	26,500	3.1	82.2	4,332	2.2	633	1.5	6,841	0.7
2032-33	27,300	3.0	83.8	4,422	2.1	642	1.5	6,882	0.6
2033-34	28,200	3.3	85.4	4,503	1.8	651	1.3	6,919	0.5
2034-35	29,100	3.2	86.8	4,579	1.7	659	1.2	6,952	0.5
2035-36	30,000	3.1	88.1	4,659	1.7	667	1.3	6,981	0.4
2036-37	31,000	3.3	89.3	4,748	1.9	678	1.5	7,008	0.4
2037-38	32,000	3.2	90.5	4,834	1.8	687	1.5	7,032	0.3
2038-39	33,000	3.1	91.6	4,912	1.6	696	1.3	7,053	0.3
2039-40	34,000	3.0	92.8	4,984	1.4	705	1.2	7,070	0.2
2040-41	35,100	3.2	93.8	5,044	1.2	712	1.0	7,085	0.2

Table 7 shows the annual increase in new loans issued over the 25-year projection period. Overall, the total new loans issued increase from $2,725 million in 2015-16 to $5,044 million in 2040-41, resulting in an average annual increase of 2.5%. This average annual increase can be attributed to two factors: an average annual increase in the number of students in the CSLP of 1.5% and an average annual increase in the average loan size of 1.0% over the 25-year projection period. The average loan size is calculated as the ratio of new loans issued over the number of students in the CSLP. The growth rate of the average loan size is moderated due to the constant loan limit.

The total amount of new loans issued in 2015-16 can be reconciled as follows from the information contained in the Monthly Financial Information Schedule (MFIS).

	($ million)
Disbursements (full-time loans)	2,697.8
Disbursements (part-time loans)	24.1
Subtotal	**2,721.9**
CSGs converted to loans	5.0
Loans converted to CSGs	-2.0
Total	**2,724.9**

[1] The percentage of Students at Limit represents the number of students with a weekly need of $210 or more divided by the total number of students receiving a loan (students only receiving a grant are excluded from both the numerator and the denominator).

C. Portfolio Projections

This section presents projections of the portfolio for all three regimes described in Appendix 1. The amounts for loans in-study represent loans issued to students still in the post-secondary educational system. Interest on loans in-study is fully subsidized by the Government for students in the CSLP. Loans in repayment consist of loans consolidated by students with financial institutions (or the Government) that are still outstanding.

1. Guaranteed and Risk-Shared Regimes

The guaranteed and risk-shared regimes apply to loans issued before August 2000. Some loans in these regimes are still outstanding since there are still students under these regimes attending post-secondary institutions or repaying their loans. Table 8 presents the projections of the loans, separately for the guaranteed and risk-shared regimes, as well as the projection of defaulted risk-shared loans bought back by the Government (principal only). The projection of risk-shared impaired loans purchased by the Government is necessary to determine when the limit on the aggregate amount of outstanding loans prescribed through the *Canada Student Financial Assistance Regulations* will be reached, as presented in Table 14. The guaranteed and risk-shared regimes are gradually being phased out.

At the end of the 2015-16 loan year, the sum of all loans in default coming from the guaranteed and risk-shared regimes that are owned by the Government amounts to approximately $280 million (principal and interest) but is subject to possible future recoveries. The guaranteed loans in default are not included in the projection of the guaranteed portfolio in Table 8. The Government sets up a separate allowance in the Public Accounts for those loan guarantees, as well as for risk-shared defaulted loans bought back by the Government. This provision calculation is not included in this report.

Table 8 Guaranteed and Risk-Shared Regimes Portfolio

	Guaranteed			Risk-Shared			
As at July 31	Loans In-Study (with financial institutions)	Loans in Repayment (with financial institutions)	Total	Loans In-Study (with financial institutions)	Loans in Repayment (with financial institutions)	Defaulted Loans (bought back by the Government)	Total
	($ million)			($ million)			
2016	1	4	5	5	939	54	998
2017	0	3	3	4	838	41	882
2018	-	2	2	2	748	32	782
2019	-	2	2	1	652	25	679
2020	-	1	1	1	549	20	570
2021	-	1	1	-	446	16	462
2022	-	-	-	-	353	13	366
2023	-	-	-	-	261	11	272
2024	-	-	-	-	181	9	189
2025	-	-	-	-	116	7	123
2026	-	-	-	-	74	5	79
2027	-	-	-	-	48	4	52
2028	-	-	-	-	30	3	33
2029	-	-	-	-	20	2	22
2030	-	-	-	-	13	2	14
2031	-	-	-	-	8	1	9

2. Direct Loan Regime

The projection of the direct loan portfolio includes the balance of outstanding loans (in-study and in repayment separately) and the balance of loans in default. There are two allowances for bad debt (principal and interest) to cover the risk of future default, net of recoveries, and an allowance for the RAP (principal) to cover the future cost of students benefiting from this program. The projection of the direct loan portfolio (principal only) and allowances is shown in Table 9.

Table 9 Direct Loan Portfolio and Allowances

	Principal only				Allowance for		
As at July 31	Loans In-Study	Loans in Repayment	Defaulted Loans	Total	Bad Debt Principal	Bad Debt Interest	Repayment Assistance Plan – Principal
	($ million)				($ million)		
2016	6,589	9,002	2,126[1]	17,716	2,511	212	1,026
2017	6,676	9,549	2,126	18,351	2,577	222	1,075
2018	7,157	10,005	2,136	19,298	2,660	224	1,136
2019	7,660	10,424	2,146	20,230	2,741	227	1,193
2020	8,098	10,888	2,161	21,148	2,822	232	1,245
2021	8,502	11,354	2,187	22,042	2,904	238	1,293
2022	8,836	11,837	2,223	22,896	2,988	247	1,339
2023	9,145	12,322	2,277	23,743	3,082	257	1,385
2024	9,452	12,786	2,344	24,582	3,185	268	1,429
2025	9,741	13,272	2,423	25,436	3,295	282	1,474
2026	10,035	13,769	2,512	26,316	3,412	296	1,521
2027	10,284	14,274	2,607	27,165	3,519	309	1,570
2028	10,555	14,758	2,706	28,020	3,640	321	1,619
2029	10,838	15,226	2,806	28,870	3,763	334	1,669
2030	11,119	15,681	2,905	29,705	3,885	346	1,719
2031	11,397	16,126	3,003	30,527	4,006	359	1,768
2032	11,669	16,566	3,101	31,337	4,126	379	1,817
2033	11,935	17,000	3,198	32,133	4,244	393	1,864
2034	12,189	17,427	3,294	32,909	4,360	406	1,910
2035	12,429	17,845	3,388	33,662	4,474	419	1,955
2036	12,664	18,252	3,482	34,397	4,586	432	1,998
2037	12,905	18,649	3,574	35,127	4,697	444	2,042
2038	13,146	19,039	3,663	35,849	4,806	456	2,084
2039	13,380	19,423	3,751	36,554	4,912	468	2,127
2040	13,603	19,798	3,837	37,239	5,016	480	2,168
2041	13,808	20,163	3,921	37,892	5,117	491	2,207

The outstanding direct loans portfolio increases rapidly from \$17.7 billion as at 31 July 2016 to \$22.0 billion five years later. By the end of the 2040-41 loan year, the portfolio reaches \$37.9 billion. The projection of the direct portfolio is higher compared with last year's report due to the new fixed student contribution introduced through the federal Budget 2016. The new fixed student contribution will be used to determine eligibility for a student loan starting in 2017-18 and will result in more generous loans issued compared with the current system of assessing student income and financial assets.

1 Outstanding balance of defaulted loans based on the DARS data file including all transactions up to 31 July 2016. There is a difference between the outstanding balance determined using the DARS data file and the outstanding balance shown in the "Detailed Age Analysis by Account Status" provided by ESDC. At the end of calendar year 2016, this difference is about \$9 million (0.4%).

As at 31 July 2016, the outstanding direct loan portfolio is $17.7 billion and is retrospectively derived from the experience during loan years 2000-01 to 2015-16 as follow:

New loans Issued	$33.3 billion
Plus the interest accrued during the non-repayment period	$ 1.0 billion
Minus repayments[1]	$15.5 billion
Minus loans forgiven and debt reductions in repayment[2]	$ 0.4 billion
Minus defaulted loans written-off	$ 0.7 billion
	$17.7 billion

Allowance for Bad Debt – Principal: Table 10 provides the calculation details for the projection of the defaulted loans portfolio and the allowance for bad debt – principal under the direct loan regime.

Table 10 Defaulted Loans and Allowance for Bad Debt – Principal

Loan Year	Defaulted Loans Portfolio					Allowance for Bad Debt – Principal			
	Balance 1 August	Defaulted Loans	Collected Loans	Write-offs	Balance 31 July	Allowance 1 August	Write-offs	Allowance 31 July	Yearly Expense
	($ million)					($ million)			
	(1)	(2)	(3)	(4)	(1+2) - (3+4)	(1)	(2)	(3)	(3) - (1 - 2)
2015-16	2,073	303	118	132	2,126	2,603	132	2,511	39
2016-17	2,126	266	127	139	2,126	2,511	139	2,577	205
2017-18	2,126	288	120	158	2,136	2,577	158	2,660	241
2018-19	2,136	292	115	167	2,146	2,660	167	2,741	248
2019-20	2,146	300	110	174	2,161	2,741	174	2,822	255
2020-21	2,161	314	108	181	2,187	2,822	181	2,904	263
2021-22	2,187	330	108	185	2,223	2,904	185	2,988	269
2022-23	2,223	346	110	182	2,277	2,988	182	3,082	277
2023-24	2,277	361	111	182	2,344	3,082	182	3,185	284
2024-25	2,344	374	113	182	2,423	3,185	182	3,295	292
2025-26	2,423	389	116	183	2,512	3,295	183	3,412	301
2026-27	2,512	402	120	187	2,607	3,412	187	3,519	294
2027-28	2,607	415	123	193	2,706	3,519	193	3,640	314
2028-29	2,706	427	127	200	2,806	3,640	200	3,763	323
2029-30	2,806	439	132	209	2,905	3,763	209	3,885	331
2030-31	2,905	452	136	218	3,003	3,885	218	4,006	339
2031-32	3,003	464	140	226	3,101	4,006	226	4,126	346
2032-33	3,101	476	144	235	3,198	4,126	235	4,244	353
2033-34	3,198	488	149	244	3,294	4,244	244	4,360	360
2034-35	3,294	499	153	252	3,388	4,360	252	4,474	366
2035-36	3,388	511	157	260	3,482	4,474	260	4,586	372
2036-37	3,482	521	161	269	3,574	4,586	269	4,697	379
2037-38	3,574	532	165	278	3,663	4,697	278	4,806	386
2038-39	3,663	542	169	286	3,751	4,806	286	4,912	393
2039-40	3,751	553	173	294	3,837	4,912	294	5,016	398
2040-41	3,837	563	176	303	3,921	5,016	303	5,117	403

The balance of loans in default (principal only) was $2,073 million at the beginning of the 2015-16 loan year and increased to $2,126 million as at 31 July 2016. The defaulted loans portfolio is projected to reach $3,921 million by the end of the projection period.

1 Either prepayments while in-study, normal and accelerated payments while in repayment, affordable payments while in RAP, or recoveries while in default.
2 Under the former Debt Reduction in Repayment (DRR) or the Repayment Assistance Plan (RAP) measures.

As shown in Table 10, an amount of $132 million was written-off in 2015-16. The amount of write-offs in 2016-17 is $139 million and includes all the non-recoverable loans that were identified and approved for write-off by ESDC and the Canada Revenue Agency (CRA) between July 2015 and June 2016. These write-offs were approved on 30 March 2017, via Royal Assent of Bill C-40 (*Appropriation Act No. 5, 2016-17*). The decision to write off particular loans is part of a multi-step process inevitably resulting in some volatility in the actual amount written-off from year to year.

ESDC is undergoing a clean-up of the Department Accounts Receivable System (DARS) in order to prepare the conversion to the SAP module. The phase I of the clean-up strategy was to recommend writing-off of accounts with a deceased status older than two years, accounts under a non-recoverable status older than seven years and accounts with a small balance. The clean-up strategy affects Guaranteed and Risk shared loans more than direct loans. For direct loans, about $3 million of accounts with a date of death older than two years were approved for write-offs through the DARS clean-up.

The allowance for bad debt – principal covers the risk of future defaults, net of recoveries. It is estimated at $2,511 million as at 31 July 2016, which is lower than the $2,701 million projected in the previous report. This reduction is attributable to a lower future default rate. For the 2015-16 loan year, the yearly expense for the allowance for bad debt – principal is $39 million and corresponds to the difference between the new allowance of $2,511 million and the total allowance of $2,603 million at the beginning of the loan year, net of the loans written-off, which totalled $132 million in the 2015-16 loan year [$39M = $2,511M - ($2,603M - $132M)].

For Public Accounts purposes, ESDC should determine the allowance as at 31 March 2017 using the outstanding balance of portfolio and the corresponding provision rates for the 2016-17 loan year according to the status of the loans as follows:

- 7.8% of the outstanding balance of loans in-study;
- 3.8% of the outstanding balance of loans in repayment; and
- 79.5% of the outstanding balance of loans in default.

The resulting allowance as at 31 March 2017 is $2,582 million. The allowance can be determined at any month end through the loan year by using the outstanding balance of loans at that time and the above-mentioned provision rates.

Allowance for Bad Debt – Interest: In accordance with the collection practice, interest accrues on defaulted loans until they reach a “non-recoverable” status. A provision is set to cover the risk that such accrued interest will never be recovered. The methodology used is the same as in the previous report. Provision rates are modified to take into account the recent experience.

Table 11 Interest on Defaulted Loans and Allowance for Bad Debt – Interest

	Interest on Defaulted Loans						Allowance for Bad Debt – Interest			
Loan Year	Balance August 1	Interest Transferred in Default	Interest Accrued	Interest Collected	Write-offs	Balance July 31	Allowance August 1	Write-offs	Allowance July 31	Yearly expense
			($ million)					($ million)		
	(1)	(2)	(3)	(4)	(5)	(1+2+3) - (4+5)	(1)	(2)	(3)	(3) - (1-2)
2015-16	310	13	100	64	40	318	205	40	212	48
2016-17	318	11	100	66	39	325	212	39	222	48
2017-18	325	13	106	66	49	328	222	49	224	52
2018-19	328	14	112	69	52	335	224	52	227	55
2019-20	335	15	116	71	52	343	227	52	232	57
2020-21	343	17	120	74	52	354	232	52	238	58
2021-22	354	18	125	78	51	368	238	51	247	60
2022-23	368	20	134	83	54	385	247	54	257	64
2023-24	385	21	142	88	56	404	257	56	268	67
2024-25	404	22	148	93	57	425	268	57	282	70
2025-26	425	23	154	97	59	446	282	59	296	73
2026-27	446	24	160	101	62	466	296	62	309	76
2027-28	466	25	166	105	66	485	309	66	321	78
2028-29	485	25	172	109	69	504	321	69	334	81
2029-30	504	26	178	113	72	523	334	72	346	84
2030-31	523	27	184	117	75	541	346	75	359	87
2031-32	541	27	190	121	77	561	359	77	379	97
2032-33	561	28	196	125	79	581	379	79	393	93
2033-34	581	29	202	129	83	600	393	83	406	96
2034-35	600	30	208	133	86	619	406	86	419	99
2035-36	619	30	213	136	89	637	419	89	432	102
2036-37	637	31	219	140	92	655	432	92	444	104
2037-38	655	31	224	143	95	672	444	95	456	107
2038-39	672	32	229	147	98	690	456	98	468	109
2039-40	690	33	234	150	100	706	468	100	480	112
2040-41	706	33	240	153	103	723	480	103	491	114

The projection of the balance of interest on defaulted loans is presented in Table 11. When the loan is transferred to the Government after nine months without a payment, it comes with an interest portion, representing generally a little more than nine months of interest accrued on the defaulted principal transferred. Table 11 shows that $13 million of unpaid interest was returned to the Government in the 2015-16 loan year along with the newly defaulted principal portion of the loans. An additional amount of $100 million in interest was accrued during the 2015-16 loan year on the principal balance of the recoverable defaulted loans portfolio at the beginning of the loan year. When some payments are recovered by the CRA from borrowers in default, payments are first applied to interest. As such, an amount of $64 million was recovered in the 2015-16 loan year. Finally, when a loan meets certain criteria and has exceeded the limitation period, the interest amounts are also considered for write-off. $40 million in interest was written off in the 2015-16 loan year. As shown in Table 11, the balance of interest in default was $310 million at the beginning of the 2015-16 loan year and increased to $318 million as at 31 July 2016. The balance of interests in default is projected to increase to $723 million by the end of the projection period.

The allowance for bad debt – interest on recoverable accounts is determined using the outstanding interest and a variable provision rate for each year since default. The provision rates are presented in Table 2.

The allowance for bad debt – interest is estimated at $212 million as at 31 July 2016, which is roughly the same as the $210 million projected in the previous report. For the 2015-16 loan year, the yearly expense of $48 million corresponds to the difference between the allowance of $212 million as at 31 July 2016 and the allowance of $205 million at the beginning of the loan year, net of interest written-off during the 2015-16 loan year, which totaled $40 million [48$M = $212M – ($205M – $40M)].

For Public Accounts purposes, ESDC should determine the allowance as at 31 March 2017 using the outstanding balance of accrued interest on recoverable defaulted loans according to the age since default and the corresponding provision rates shown in Table 2. The resulting allowance as at 31 March 2017 is $209 million.

Allowance for the Repayment Assistance Plan– Principal: Table 12 provides the calculation details for the projection of the allowance for the Repayment Assistance Plan (RAP) under the direct loan regime.

Table 12 Allowance for Repayment Assistance Plan – Principal

Loan Year	Allowance 1 August	RAP Expenses	Allowance 31 July	Yearly Expense
	($ million) (1)	($ million) (2)	($ million) (3)	($ million) (3) - (1-2)
2015-16	827	57	1,026	256
2016-17	1,026	75	1,075	124
2017-18	1,075	82	1,136	143
2018-19	1,136	89	1,193	146
2019-20	1,193	98	1,245	150
2020-21	1,245	106	1,293	154
2021-22	1,293	112	1,339	158
2022-23	1,339	117	1,385	162
2023-24	1,385	120	1,429	164
2024-25	1,429	123	1,474	168
2025-26	1,474	127	1,521	175
2026-27	1,521	131	1,570	179
2027-28	1,570	136	1,619	185
2028-29	1,619	140	1,669	190
2029-30	1,669	145	1,719	194
2030-31	1,719	150	1,768	199
2031-32	1,768	155	1,817	203
2032-33	1,817	160	1,864	207
2033-34	1,864	165	1,910	211
2034-35	1,910	170	1,955	214
2035-36	1,955	175	1,998	218
2036-37	1,998	179	2,042	222
2037-38	2,042	184	2,084	227
2038-39	2,084	188	2,127	230
2039-40	2,127	193	2,168	234
2040-41	2,168	197	2,207	237

Effective August 2009, the RAP replaced the Interest Relief (IR) and Debt Reduction in Repayment (DRR) measures. Table 12 shows the projection of the allowance for the principal portion of the required payment paid by the Government under Stage 2, including the RAP for borrowers with permanent disabilities (RAP-PD). For the RAP – interest, a provision is determined by ESDC for accounting purposes to take into account the timing of the interest accrued.

As with the allowance for bad debt – principal, the methodology used to determine the provision rate for the RAP – principal is based on a snapshot of the portfolio at a given time and takes into account the status of the loans along with the corresponding level of risk for each status. The RAP provision rates have been revised upward compared with the previous report. Part of this increase is attributable to the recent experience, which shows higher RAP utilization than expected. In addition, the loan repayment threshold is increased starting on 1 November 2016. This change was proposed in Budget 2016 to ensure that no student will have to repay their student loan until they earn at least $25,000 per year ($25,000 is the threshold for a single student with no dependents, which scales up based on family size). An increase in RAP utilization is thus estimated for the 2016-17 loan year and following loan year to account for this change.

As shown in Table 12, the allowance for the RAP – principal is estimated at $1,026 million as at 31 July 2016, which is higher than the $884 million projected in the previous report. For the 2015-16 loan year, the yearly expense for the RAP – principal allowance is $256 million; it corresponds to the difference between the new allowance of $1,026 million and the allowance of $827 million at the beginning of the loan year, net of the portion of loans paid by the Government under the RAP-Stage 2 and RAP-PD, which totalled $57 million in the 2015-16 loan year [$256M = $1,026M – ($827M – $57M)].

For the Public Accounts, the allowance as at 31 March 2017 should be determined using the outstanding portfolio balances with their corresponding provision rates:

- 4.7% on the balance of loans in-study;
- 1.0 % on the balance of loans in repayment (reduced by loans in the RAP – all stages); and
- 20.5% on the balance of loans in the RAP (all stages).

The resulting allowance as at 31 March 2017 is $1,117 million. Compared with loans in-study, the portfolio of loans in repayment includes cohorts of loans for which partial reimbursements have already occurred, as well as some defaults and utilization of the RAP, resulting in a lower risk for the remaining loans and consequently a lower required provision rate. The highest risk for the RAP comes from the portfolio of loans already in the RAP. The provision rate for the portfolio of loans in the RAP (Stages 1, 2 and PD) is 20.5% for the 2016-17 loan year. As the RAP is still relatively new, the provision rates may require further adjustments in the future as experience emerges.

For comparison purposes, Table 13 shows the direct loan portfolio in 2016 constant dollars.

Table 13 Direct Loan Portfolio and Allowances (in millions of 2016 constant dollars)[1]

As at July 31	Loans In-study	Loans in Repayment	Defaulted Loans	Total	Allowance for Bad Debt Principal	Allowance for Bad Debt Interest	Allowance for RAP – Principal
	($ million)				($ million)		
2016	6,589	9,002	2,126	17,716	2,511	212	1,026
2017	6,562	9,386	2,090	18,038	2,533	218	1,056
2018	6,897	9,642	2,058	18,597	2,563	216	1,095
2019	7,237	9,848	2,028	19,113	2,589	215	1,127
2020	7,501	10,085	2,002	19,589	2,614	215	1,153
2021	7,721	10,310	1,986	20,017	2,637	216	1,175
2022	7,867	10,538	1,979	20,384	2,660	220	1,192
2023	7,982	10,755	1,987	20,724	2,690	224	1,209
2024	8,088	10,941	2,006	21,035	2,725	230	1,223
2025	8,172	11,135	2,033	21,339	2,764	236	1,236
2026	8,254	11,325	2,066	21,645	2,807	243	1,251
2027	8,293	11,510	2,102	21,905	2,837	249	1,266
2028	8,345	11,667	2,139	22,151	2,878	254	1,280
2029	8,400	11,801	2,175	22,376	2,916	259	1,294
2030	8,449	11,915	2,208	22,571	2,952	263	1,306
2031	8,490	12,014	2,237	22,741	2,984	267	1,317
2032	8,523	12,099	2,265	22,887	3,013	277	1,327
2033	8,546	12,172	2,290	23,008	3,039	281	1,335
2034	8,556	12,233	2,312	23,102	3,061	285	1,341
2035	8,554	12,281	2,332	23,167	3,079	288	1,345
2036	8,545	12,315	2,349	23,209	3,094	291	1,348
2037	8,536	12,336	2,364	23,237	3,107	294	1,351
2038	8,526	12,348	2,376	23,249	3,117	296	1,352
2039	8,508	12,349	2,385	23,242	3,123	298	1,352
2040	8,480	12,341	2,392	23,213	3,127	299	1,351
2041	8,438	12,322	2,396	23,157	3,127	300	1,349

3. Limit on the Aggregate Amount of Outstanding Loans

The *Canada Student Financial Assistance Regulations* (CSFAR) imposes a limit on the aggregate amount of outstanding loans in the CSLP. The limit is set at $24 billion since May 2015. Table 14 presents the projection of the aggregate amount of outstanding loans. The aggregate amount of outstanding direct loans includes the principal portion of all direct loans disbursed and not yet repaid, which consists of the total principal amount of loans in study, loans in repayment, and defaulted loans. The aggregate amount of outstanding risk-shared loans includes the principal portion of risk-shared student loans bought back by the Government from financial institutions. Collection activities are performed on these risk-shared loans by the Government.

In comparison with Table 9, which shows the projection of the direct loan portfolio at the end of loan years, Table 14 presents the estimated peak of the portfolio during the loan year. Monthly fluctuations throughout the year cause the aggregate amount of loans to be lower both at the beginning and at the end of the loan year; the peak occurs in the middle of the loan year and is 3% to 5% higher than the aggregate amount at the end of the loan year. Table 9 shows an aggregate amount of outstanding direct loans of $17.7 billion as at 31 July 2016. Table 14 shows

[1] For a given year, the value in 2016 constant dollars is equal to the corresponding value divided by the cumulative index of the Consumer Price Index (CPI) for that year.

that the highest aggregate amount of outstanding direct loans during the 2015-16 loan year reached $18.5 billion in January 2016.

The projection shows that the $24 billion limit will be reached during the 2022-23 loan year. This is five years earlier than projected in the previous report due to the large increase in loans issued resulting mainly from the change in the student contribution formula announced in Budget 2016 and taking effect in 2017-18. This change was not considered in the previous report since its detailed design was not decided at the time the report was prepared. A small change in the projections, such as higher loans issued, lower repayments or lower write-offs than expected could cause the limit to be reached a few years prior to 2022-23.

Table 14 Aggregate Amount of Outstanding Student Loans

	Estimated Peak During the Loan Year (January)		
Loan Year	**Direct Loans**	**Risk-Shared Loans**	**Total**
	($ million)	($ million)	($ million)
2015-16	18,456	62	18,518
2016-17	18,992	51	19,043
2017-18	20,007	37	20,044
2018-19	20,979	29	21,008
2019-20	21,943	23	21,966
2020-21	22,889	19	22,908
2021-22	23,795	15	23,810
2022-23	**24,677**	**12**	**24,690**
2023-24	25,557	10	25,567
2024-25	26,440	8	26,448
2025-26	27,346	6	27,352
2026-27	28,239	5	28,243
2027-28	29,134	4	29,138
2028-29	30,030	3	30,033
2029-30	30,914	2	30,916
2030-31	31,784	2	31,785
2031-32	32,639	1	32,640
2032-33	33,480	-	33,480
2033-34	34,301	-	34,301
2034-35	35,099	-	35,099
2035-36	35,877	-	35,877
2036-37	36,647	-	36,647
2037-38	37,410	-	37,410
2038-39	38,157	-	38,157
2039-40	38,883	-	38,883
2040-41	39,579	-	39,579

D. Projection of the Net Cost of the Program

1. Student Related Expenses

The primary expense of the CSLP is the cost of supporting students during their study and repayment periods. This expense includes the interest subsidy, which corresponds to the cost of borrowing incurred by the Government while borrowers are in school, the interest portion of the Repayment Assistance Plan (RAP) paid by the Government, the provision or expenses for the RAP – principal under the different regimes and the CSGs. Starting with the 2016-17 loan year, the projected RAP interest portion and the provision for RAP – principal both reflect the new RAP thresholds announced in Budget 2016.

Table 15 Student Related Expenses

	Direct Loan			Risk-Shared and Guaranteed Loans			
Loan Year	Interest Subsidy	RAP – Interest	Provision RAP – Principal	Interest Subsidy	RAP – Interest and Principal	Canada Student Grants	Total
		($ million)		($ million)		($ million)	($ million)
2015-16	96.3	162.5	256.1	0.1	5.6	719.5	1,240.6
2016-17	113.0	179.9	124.0	0.1	6.2	1,028.2	1,451.4
2017-18	158.1	204.1	142.9	0.1	5.5	1,219.4	1,730.0
2018-19	204.3	223.0	145.9	-	4.9	1,222.4	1,800.5
2019-20	245.6	240.0	149.6	-	4.3	1,232.2	1,871.7
2020-21	285.0	257.0	154.3	-	3.6	1,241.9	1,941.8
2021-22	324.9	274.9	158.5	-	2.9	1,248.1	2,009.2
2022-23	371.2	296.0	162.5	-	2.3	1,258.9	2,091.0
2023-24	412.0	314.4	163.8	-	1.7	1,272.7	2,164.7
2024-25	433.6	329.1	168.0	-	1.2	1,288.2	2,220.0
2025-26	446.6	340.5	174.6	-	0.8	1,316.9	2,279.5
2026-27	458.3	352.3	179.1	-	0.5	1,336.9	2,327.1
2027-28	470.2	363.9	185.2	-	0.3	1,370.6	2,390.3
2028-29	482.8	375.3	190.0	-	0.2	1,394.8	2,443.0
2029-30	495.4	386.5	194.4	-	0.1	1,462.4	2,538.9
2030-31	507.9	397.8	198.9	-	-	1,486.6	2,591.3
2031-32	520.1	408.9	203.2	-	-	1,505.2	2,637.5
2032-33	532.1	419.9	207.3	-	-	1,529.9	2,689.2
2033-34	543.6	430.6	211.0	-	-	1,550.1	2,735.3
2034-35	554.4	441.2	214.4	-	-	1,569.4	2,779.4
2035-36	565.0	451.5	218.2	-	-	1,589.9	2,824.6
2036-37	575.8	461.5	222.4	-	-	1,615.9	2,875.5
2037-38	586.6	471.3	226.6	-	-	1,643.1	2,927.6
2038-39	597.1	481.0	230.4	-	-	1,664.2	2,972.8
2039-40	607.2	490.6	233.8	-	-	1,685.6	3,017.2
2040-41	616.5	499.9	236.5	-	-	1,701.7	3,054.7

In the 2015-16 loan year, a total of $720 million of CSGs were disbursed. It is projected to increase to $1,028 million in 2016-17 due to the increase in grant amounts announced in Budget 2016. There is an additional increase to $1,219 million in year 2017-18 due to changes to the eligibility thresholds for CSGs that was also announced in Budget 2016. Starting in 2017-18, CSGs for low- and middle-income families will be replaced with a single grant, called the Canada Student Grant for Full Time Students (CSG-FT), with one national progressive threshold table that is based on family size and family income. The total amount of grants is projected to increase to $1,702 million by the end of the projection period. Monthly grant amounts are set in the *Canada Student Financial Assistance Regulations* and are assumed to remain constant for the entire projection period for the purpose of this evaluation, following the 50% increment of Budget 2016.

2. Program Risk Expenses

Another expense for the Government corresponds to the risk that loans will never be repaid. This includes the risk of loan default and the risk of loans being forgiven upon a student's death or severe permanent disability. Loans forgiven for family physicians and nurses practicing in under-served rural or remote communities are also presented in the table below.

Table 16 Risks to the Government

Loan Year	Direct Loan – Provision for Bad Debt – Principal	Direct Loan – Provision for Bad Debt – Interest	Risk-Shared – Risk Premium, Put-Backs & Refunds to FIs	Guaranteed – Claims for Defaulted Loans	Loans Forgiven	Total
	($ million)		($ million)	($ million)	($ million)	($ million)
2015-16	39.5	48.0	1.2	0.4	25.6	114.6
2016-17	204.8	48.1	0.6	0.3	42.7	296.6
2017-18	240.6	52.0	0.5	0.2	32.4	325.7
2018-19	247.9	54.8	0.5	0.1	32.0	335.2
2019-20	255.5	56.7	0.4	0.1	32.3	344.9
2020-21	263.4	58.3	0.3	0.1	34.6	356.7
2021-22	269.4	60.0	0.3	-	36.8	366.6
2022-23	276.5	63.7	0.2	-	38.8	379.3
2023-24	284.3	67.3	0.2	-	40.6	392.4
2024-25	292.2	70.3	0.1	-	42.3	404.9
2025-26	300.5	72.8	0.1	-	44.1	417.5
2026-27	293.8	75.5	-	-	45.9	415.3
2027-28	314.2	78.4	-	-	47.9	440.5
2028-29	322.8	81.3	-	-	49.9	454.0
2029-30	330.8	84.2	-	-	52.0	466.9
2030-31	338.6	87.2	-	-	54.1	479.9
2031-32	346.1	97.3	-	-	56.3	499.7
2032-33	353.2	93.1	-	-	58.6	505.0
2033-34	359.8	96.0	-	-	61.0	516.7
2034-35	365.9	98.8	-	-	63.4	528.1
2035-36	372.2	101.5	-	-	66.0	539.8
2036-37	379.4	104.3	-	-	68.6	552.2
2037-38	386.3	106.9	-	-	71.3	564.5
2038-39	392.5	109.5	-	-	74.2	576.2
2039-40	398.2	112.0	-	-	77.1	587.3
2040-41	403.0	114.5	-	-	80.1	597.7

Under the direct loan regime, the provisions for bad debt (principal and interest) represent the cost of the default risk assumed by the Government in directly disbursing loans to students.

Under the risk-shared regime, the risk premium represents the amount paid to lending institutions by the Government based on the value of loans consolidated for repayment in a year. Also included are put-back fees and refunds to financial institutions for loans bought back by the Government.

Put-back fees exist only in the risk-shared arrangement as a way to transfer some of the risk back to the Government. According to the agreement, the Government is only obligated to buy back loans in default for at least 12 months and up to a maximum of 3% of the total loans in repayment with the financial institution each year. Financial institutions decide whether to sell defaulted loans, and if so, which ones to sell. The Government pays a put-back fee of five cents on the dollar for these loans.

The entire amount of recoveries on student loans bought back in the risk-shared regime is considered revenue in Table 18. According to the agreement, amounts recovered from income tax refunds are shared with the financial institutions. The participating financial institutions receive a refund of 75% of the amount recovered from income tax refunds in excess of the put-back fees.

For the guaranteed regime, defaulted loans are included in claims paid as a statutory expense since the Government bears the entire risk of defaulted loans under this regime. In the Public Accounts, guaranteed loans are classified as assets for which provisions for loan guarantees and loans in default are set up.

Loans forgiven correspond to loans that are forgiven (principal only) following the death or severe permanent disability of a borrower during the period of study, repayment, or even after the loan has been transferred to default status. As of August 2009, loans forgiven for disability are limited to borrowers who, due to their severe permanent disability, are unable to pay their loans and will never be able to repay them. Borrowers with a permanent disability who do not qualify for loan forgiveness could be eligible for the RAP for Borrowers with Permanent Disabilities (RAP-PD). Experience has shown a decrease in loan forgiveness and an increase in RAP-PD. Loans forgiven in 2016-17 show an increase compared to 2015-16 since a backlog of $11.3 million of accounts with a date of death were approved for forgiveness. Part of this was related to the DARS clean-up strategy. Loans forgiven shown in Table 16 also include the projection of forgiveness of a portion of loans for family physicians and nurses who practice in under-served rural or remote communities. This measure was implemented on 1 January 2013.

3. Other Expenses

Alternative payments are made directly to Québec, the Northwest Territories, and Nunavut, as they do not participate in the CSLP. The calculation of alternative payments is based on expenses and revenues for a given loan year and the payment is accounted for in the following loan year. The estimated alternative payment for 2017-18 and 2018-19 show a significant increase because of the changes announced in Budget 2016 taking effect in 2016-17 and 2017-18. It is thus assumed that the non-participating province/territories' program will be modified in order to remain essentially equivalent to the federal program.

The administrative expenses include fees paid to the participating provinces and to the Yukon Territory as well as general administrative fees. Fees are paid to the participating provinces and to the Yukon Territory to administer certain aspects of the CSLP. The general administrative fees represent the expenses incurred by the departments involved and fees paid to service providers. The CRA is responsible for all collection activities on defaulted loans and a cost is included in the projected general administrative fees for this purpose.

Table 17 Summary of Expenses

Loan Year	Student Related Expenses	Risks to the Government	Alternative Payments[1]	Administrative Expenses: Fees Paid to Provinces	Administrative Expenses: General	Total Expenses
	($ million)	($ million)	($ million)	($ million)		($ million)
2015-16	1,240.6	114.6	278.2	23.6	126.1	1,783.1
2016-17	1,451.4	296.6	269.5	24.1	127.6	2,169.3
2017-18	1,730.0	325.7	351.6	24.8	131.4	2,563.5
2018-19	1,800.5	335.2	421.6	25.5	134.0	2,716.8
2019-20	1,871.7	344.9	437.2	26.2	137.9	2,817.9
2020-21	1,941.8	356.7	455.3	27.0	142.0	2,922.7
2021-22	2,009.2	366.6	476.9	27.8	146.3	3,026.8
2022-23	2,091.0	379.3	497.0	28.7	150.8	3,146.8
2023-24	2,164.7	392.4	520.8	29.5	155.4	3,262.8
2024-25	2,220.0	404.9	545.3	30.5	160.3	3,360.9
2025-26	2,279.5	417.5	564.0	31.4	165.3	3,457.6
2026-27	2,327.1	415.3	584.2	32.4	170.4	3,529.4
2027-28	2,390.3	440.5	602.3	33.4	175.8	3,642.3
2028-29	2,443.0	454.0	625.7	34.5	181.2	3,738.4
2029-30	2,538.9	466.9	647.1	35.5	186.9	3,875.4
2030-31	2,591.3	479.9	682.4	36.6	192.7	3,982.9
2031-32	2,637.5	499.7	704.5	37.8	198.8	4,078.2
2032-33	2,689.2	505.0	721.6	39.0	205.0	4,159.8
2033-34	2,735.3	516.7	737.1	40.2	211.4	4,240.7
2034-35	2,779.4	528.1	747.1	41.4	218.0	4,314.0
2035-36	2,824.6	539.8	755.6	42.7	224.8	4,387.4
2036-37	2,875.5	552.2	763.4	44.1	231.8	4,467.0
2037-38	2,927.6	564.5	771.0	45.4	239.0	4,547.5
2038-39	2,972.8	576.2	779.0	46.9	246.5	4,621.3
2039-40	3,017.2	587.3	784.0	48.3	254.2	4,691.0
2040-41	3,054.7	597.7	791.8	49.8	262.1	4,756.1

As shown in Table 17, total expenses associated with the Program increase from $1.8 billion in 2015-16 to $4.8 billion in 2040-41. On average, total expenses increase at a rate of 4.0% per year from 2015-16 to 2040-41.

4. Total Revenue

Revenues from the direct loan regime (shown in Table 18) include: the interest earned from student loans in repayment, the interest accrued during the six-month non-repayment period following the study end date, the interest accrued on defaulted loans and the interest portion of the RAP. This interest earned is net of interest on loans forgiven. The revenues are reduced by the Government's cost of borrowing for loans in repayment and in default (only for the interest accrued expected to be recovered). The difference results in net interest revenues. It is worth noting that the interest on defaulted direct loans is accrued until the status of the loans becomes "non-recoverable".

Under the guaranteed and risk-shared regimes, there is no interest earned by the Government since students in good-standing pay interest directly to financial institutions. The only source of revenue from these regimes comes from recoveries of principal and interest from defaulted loans owned by the Government.

On average, total revenues increase at a rate of 2.7% per year between 2015-16 and 2040-41.

1 The calculation of alternative payments is based on expenses and revenues for a given loan year and the payment is accounted for in the following loan year.

Table 18 Total Revenue

Loan Year	Direct Loan			Risk-Shared	Guaranteed	Total Revenues
	Interest Earned	Borrowing Cost	Net Interest Revenues	Principal and Interest from Recovery	Principal and Interest from Recovery	
	($ million)		($ million)	($ million)	($ million)	($ million)
2015-16	617.4	-129.5	487.9	5.2	9.5	502.6
2016-17	663.8	-159.4	504.4	3.3	6.2	513.9
2017-18	740.8	-220.1	520.7	2.5	3.4	526.6
2018-19	812.3	-276.9	535.4	1.9	2.5	539.8
2019-20	878.7	-326.5	552.2	1.5	1.7	555.4
2020-21	942.4	-375.1	567.3	1.2	1.1	569.6
2021-22	1,010.3	-427.6	582.8	0.7	0.5	583.9
2022-23	1,090.9	-490.9	600.1	0.5	0.3	600.9
2023-24	1,161.6	-547.4	614.2	0.4	0.1	614.8
2024-25	1,219.1	-579.7	639.4	0.4	-	639.8
2025-26	1,263.4	-601.7	661.6	0.3	-	661.9
2026-27	1,309.1	-624.1	685.0	0.1	-	685.1
2027-28	1,353.5	-646.0	707.5	0.1	-	707.6
2028-29	1,397.2	-667.1	730.2	-	-	730.2
2029-30	1,440.2	-687.5	752.7	-	-	752.7
2030-31	1,482.4	-707.5	775.0	-	-	775.0
2031-32	1,524.1	-723.2	801.0	-	-	801.0
2032-33	1,565.2	-746.6	818.6	-	-	818.6
2033-34	1,605.5	-765.7	839.8	-	-	839.8
2034-35	1,644.9	-784.5	860.4	-	-	860.4
2035-36	1,683.3	-802.8	880.5	-	-	880.5
2036-37	1,720.8	-820.7	900.1	-	-	900.1
2037-38	1,757.7	-838.2	919.5	-	-	919.5
2038-39	1,794.0	-855.4	938.6	-	-	938.6
2039-40	1,829.6	-872.2	957.3	-	-	957.3
2040-41	1,863.6	-888.7	974.9	-	-	974.9

5. Net Cost of the Program

Table 19 shows total expenses, total revenues, and the total net cost of the Program in current dollars for the 25-year projection period, while Table 20 shows the same statistics expressed in 2016 constant dollars. The expenses and revenues shown correspond to values presented earlier in this report.

Table 19 Net Annual Cost of the Program

	All Regimes			Net Cost of the Program	
Loan Year	Total Expenses	Total Revenues	Total Net Cost of the Program	Direct Loan	Risk-Shared & Guaranteed
	($ million)		($ million)	($ million)	
2015-16	1,783.1	502.6	1,280.5	1,286.7	-6.2
2016-17	2,169.3	513.9	1,655.4	1,656.6	-1.2
2017-18	2,563.5	526.6	2,036.9	2,035.6	1.3
2018-19	2,716.8	539.8	2,177.0	2,175.0	2.0
2019-20	2,817.9	555.4	2,262.5	2,260.2	2.3
2020-21	2,922.7	569.6	2,353.1	2,350.9	2.2
2021-22	3,026.8	583.9	2,442.9	2,440.3	2.5
2022-23	3,146.8	600.9	2,545.9	2,543.8	2.0
2023-24	3,262.8	614.8	2,648.1	2,646.5	1.6
2024-25	3,360.9	639.8	2,721.2	2,720.1	1.1
2025-26	3,457.6	661.9	2,795.7	2,795.0	0.7
2026-27	3,529.4	685.1	2,844.3	2,843.8	0.5
2027-28	3,642.3	707.6	2,934.7	2,934.4	0.3
2028-29	3,738.4	730.2	3,008.2	3,008.0	0.2
2029-30	3,875.4	752.7	3,122.7	3,122.5	0.2
2030-31	3,982.9	775.0	3,207.9	3,207.8	0.1
2031-32	4,078.2	801.0	3,277.2	3,277.2	-
2032-33	4,159.8	818.6	3,341.1	3,341.1	-
2033-34	4,240.7	839.8	3,400.9	3,400.9	-
2034-35	4,314.0	860.4	3,453.6	3,453.6	-
2035-36	4,387.4	880.5	3,506.9	3,506.9	-
2036-37	4,467.0	900.1	3,567.0	3,567.0	-
2037-38	4,547.5	919.5	3,628.0	3,628.0	-
2038-39	4,621.3	938.6	3,682.7	3,682.7	-
2039-40	4,691.0	957.3	3,733.7	3,733.7	-
2040-41	4,756.1	974.9	3,781.2	3,781.2	-

As shown in Table 19, the initial net annual cost for the direct loan regime is $1.3 billion for the 2015-16 loan year and reaches $3.8 billion in the 2040-41 loan year. This represents an annual average increase of 4.4% for the entire projection period.

It is important to specify that this net cost includes the amount of CSGs disbursed. The amount of grants disbursed is $720 million in 2015-16, representing 56% of the net cost in 2015-16. Moreover, the net cost also includes yearly expenses to account for provisions that recognize in advance the risk of future losses associated with student loans.

In 2016 constant dollars (Table 20), the cost of the direct loan regime increases, on average, by 2.4% a year from $1.3 billion at the beginning to $2.3 billion by the end of the projection period.

Table 20 Net Annual Cost of the Program (in millions of 2016 constant dollars)[1]

	All Regimes			Net Cost of the Program	
Loan Year	Total Expenses	Total Revenues	Total Net Cost of the Program	Direct Loan	Risk-Shared & Guaranteed
	($ million)		($ million)	($ million)	
2015-16	1,783.1	502.6	1,280.5	1,286.7	-6.2
2016-17	2,132.3	505.1	1,627.2	1,628.3	-1.2
2017-18	2,470.4	507.5	1,962.9	1,961.7	1.3
2018-19	2,566.8	510.0	2,056.8	2,054.9	1.8
2019-20	2,610.1	514.5	2,095.7	2,093.5	2.1
2020-21	2,654.2	517.3	2,136.9	2,134.8	2.0
2021-22	2,694.7	519.9	2,174.9	2,172.6	2.3
2022-23	2,746.6	524.5	2,222.1	2,220.4	1.8
2023-24	2,792.1	526.1	2,266.0	2,264.7	1.4
2024-25	2,819.7	536.7	2,282.9	2,282.0	0.9
2025-26	2,843.9	544.4	2,299.5	2,298.9	0.5
2026-27	2,846.0	552.4	2,293.6	2,293.2	0.4
2027-28	2,879.4	559.4	2,320.0	2,319.8	0.2
2028-29	2,897.5	565.9	2,331.6	2,331.4	0.2
2029-30	2,944.8	572.0	2,372.8	2,372.7	0.1
2030-31	2,967.1	577.3	2,389.8	2,389.7	0.1
2031-32	2,978.5	585.0	2,393.5	2,393.5	0.0
2032-33	2,978.5	586.1	2,392.4	2,392.4	-
2033-34	2,976.9	589.5	2,387.4	2,387.4	-
2034-35	2,969.0	592.2	2,376.8	2,376.8	-
2035-36	2,960.3	594.1	2,366.2	2,366.2	-
2036-37	2,955.0	595.4	2,359.6	2,359.6	-
2037-38	2,949.2	596.3	2,352.9	2,352.9	-
2038-39	2,938.3	596.8	2,341.5	2,341.5	-
2039-40	2,924.1	596.8	2,327.4	2,327.4	-
2040-41	2,906.6	595.8	2,310.8	2,310.8	-

[1] For a given year, the value in 2016 constant dollars is equal to the corresponding value divided by the cumulative index of the Consumer Price Index (CPI) for that year.

III. Conclusion

The Canada Student Loans Program (CSLP) promotes accessibility to post-secondary education for those with demonstrated financial need by providing loans and grants, thereby encouraging successful and timely completion of post-secondary education. In accordance with section 19.1 of the *Canada Student Financial Assistance Act* (CSFAA), the Chief Actuary of the Office of the Superintendent of Financial Institutions shall prepare a report on the financial assistance provided under this Act no later than three years apart. The most recent statutory Actuarial Report was prepared as at 31 July 2014. The present report as at 31 July 2016 is prepared mainly to support ESDC's accounting requirements and partners' needs.

During the 2015-16 loan year, 497,000 students received a loan for a total amount of new loans issued of $2,725 million. The amount of new loans issued is projected to decrease to $2,638 million in 2016-17 due to the 50% increase in Canada Student Grant (CSG) amounts for students from low- and middle-income families and part-time students announced in Budget 2016. It will increase to $3,043 million in 2017-18 with the introduction of the fixed student contribution that was also announced in Budget 2016. The amount of loans issued will reach $5,044 million in 2040-41.

During the 2015-16 loan year, 369,000 students received a CSG for a total of $720 million. The amount of grants disbursed increased to $1,028 million in 2016-17 due to the 50% increase in CSG amounts. A further increase is expected in 2017-18 due to the introduction of the single progressive eligibility thresholds for the new CSGs for full-time students (CSG-FT) which will replace CSGs for students from low- and middle-income families. Total CSGs are expected to increase from $1,219 million in 2017-18 to $1,702 million in 2040-41.

The direct loan portfolio increases from $17.7 billion as at 31 July 2016 to $37.9 billion in 25 years. According to the projections, the aggregate amount of outstanding student loans will exceed the $24 billion limit in 2022-23. The total net cost of the Government's involvement in the CSLP, which is the difference between expenses and revenues, is expected to grow from $1.3 billion in 2015-16 to $3.8 billion by the end of the projection period.

Recent experience shows lower defaults than expected. Consequently, the future default rate, net of recoveries, decreases from 9.9% of consolidations in the previous report to 9.0% in this report. The allowance for bad debt – principal covers the risk of future default, net of recoveries. It corresponds to $2,511 million as at 31 July 2016, which is lower than the $2,701 million projected in the previous report.

The allowance for bad debt – interest covers the risk that the interest accrued on defaulted loans will never be recovered. It corresponds to $212 million as at 31 July 2016, which is roughly the same as the $210 million projected in the previous report.

Contrary to defaults, recent experience shows higher RAP utilization. Consequently, RAP utilization rates have been increased compared to the previous report. In addition, Budget 2016 increases the loan repayment threshold under the RAP to ensure that no student will have to repay their loan until they earn at least $25,000 per year ($25,000 is the threshold for a single student with no dependents, which scales up based on family size). This change took effect in November 2016 and results in a further increase in future RAP utilization assumptions. The allowance for RAP – Principal recognizes that part of the loan principal of students benefiting from RAP-Stage 2 and RAP-PD will be paid by the Government. It corresponds to $1,026 million as at 31 July 2016, which is higher than the $884 million projected in the previous report.

IV. Actuarial Opinion

In compliance with the standards of practice of the Canadian Institute of Actuaries, we are hereby giving the opinion that,

- the data on which this report is based are sufficient and reliable;
- the demographic and economic assumptions used are, in aggregate, appropriate; and
- the valuation conforms with the requirements of the Public Sector Accounting Handbook of the Chartered Professional Accountants Canada.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice.

Jean-Claude Ménard

Jean-Claude Ménard, F.S.A., F.C.I.A.
Chief Actuary

Michel Millette

Michel Millette, F.S.A., F.C.I.A.
Senior Actuary

Annie St-Jacques

Annie St-Jacques, F.S.A., F.C.I.A.
Actuary

Ottawa, Canada
23 June 2017

Appendix 1 – Summary of Program Provisions

The Canada Student Loans Program (CSLP) came into force on 28 July 1964 to provide Canadians equal opportunity to study beyond the secondary level and to encourage successful and timely completion of post-secondary education. The Government became involved to assist students with the financing of post-secondary education. The CSLP is meant to supplement resources available to students from their own earnings, their families, and other student awards.

Historically, two successive acts were established to assist qualifying students. The *Canada Student Loans Act* (CSLA) applied to loan years preceding August 1995 while the subsequent *Canada Student Financial Assistance Act* (CSFAA) applies to loan years starting after July 1995.

1. Eligibility Criteria

In order to be eligible for a student loan, a student must be a Canadian citizen, permanent resident or protected person within the meaning of the *Immigration and Refugee Protection Act*, and must demonstrate the need for financial assistance. A student must also fulfill a series of criteria (scholastic standard and financial) to be considered for a loan. Each year, upon application to their province of residence, loans are available to full-time students regardless of age, and since 1983, loans are also available to part-time students.

A multi-year student financial assistance agreement was implemented in all jurisdictions starting in the 2013-14 loan year. It is referred to as a Master Student Financial Assistance Agreement (MSFAA) and replaces the former single-year student loan agreement. By signing an MSFAA, a borrower agrees to repayment terms that will apply to their loans when they leave their studies.

Budget 2011 expanded the eligibility for full- and part-time post-secondary students. The in-study income exemption for full-time students was doubled (from $50 per week to $100 per week), whereas the income eligibility threshold for part-time students for a Canada Student Loan and a Canada Student Grant (CSG) was increased. These enhancements have been in force in all participating provinces and territory since August 2012.

Budget 2014 proposed to eliminate the value of student-owned vehicles from the CSLP assessment process to better reflect the needs of students who commute or work while studying. This change was implemented in all but two jurisdictions in the 2014-15 loan year. The implementation was expected to be completed by the end of the 2016-17 loan year for all jurisdictions.

Budget 2016 proposed to introduce a fixed student contribution[1] to determine eligibility for student loans and grants. This change will come into force in 2017-18. Under the new model, students' pre-study and in-study income, as well as all financial assets, would not be considered. Students would instead be expected to contribute a fixed amount between $1,500 and $3,000 per academic year. Students with a prior year gross annual family income equal to or below a low-income threshold will contribute $1,500 per academic year and for those with income exceeding the low-income threshold, 15% of exceeding family income will then be added, up to a maximum of $3,000. The assessment of targeted resources as well as scholarships and bursaries will continue. Indigenous learners, students with permanent disabilities, students with dependants, and current or former Crown wards, will be exempted from a fixed student

[1] Although the Budget announced a flat-rate student contribution, the parameters developed on consultation with provinces and territories reflect a "fixed student contribution" that targets funding to students from low- and middle-income families.

contribution. For married and common-law students, estimates of spousal income and assets will also be replaced by a fixed spousal contribution. It will correspond to 10% of family income exceeding the low-income thresholds, with no maximum contribution.

2. Partnerships

Since the Program's inception in 1964, the Minister entered into an agreement with the participating provinces/territory regarding their powers, duties and functions related to the administration of the Program. The participating provinces have their own student financial assistance programs that complement the CSLP. On behalf of the Government of Canada, the provinces and territory determine whether students require financial assistance as well as their eligibility for the CSLP. Provincial/territorial authorities determine the students' required financial needs based on the difference between their expected expenses and available resources. In general, for each school year, the CSLP covers up to 60% of the assessed need up to a maximum of $210 per week. The participating provinces and territories complement the CSLP by providing additional financial assistance up to established maximum amounts. The amount of money students may borrow depends on their individual circumstances.

The National Student Loans Service Centre (NSLSC) was established on 1 March 2001 to assist students with questions related to the CSLP. Once students qualify for a loan, they obtain their loans from the Government of Canada and their province/territory of residence. The NSLSC receives and processes all applicable documentation from the loans' disbursement to their consolidation and repayment. It also keeps students informed of all available options to assist in repaying their loan(s).

The type of financial arrangement has changed through time and legislation. The following describes the different arrangements and explains who bears the risk associated with default.

- <u>Guaranteed Loan Regime</u>: Student loans provided by lenders (financial institutions) under the *Canada Student Loans Act* prior to August 1995 were fully guaranteed by the Government to the lenders. The Government reimbursed lenders for the outstanding principal, accrued interest, and costs in the event of default or death of the borrower. Therefore, the Government bore all the risk involved with guaranteed loans.
- <u>Risk-Shared Loan Regime</u>: Between August 1995 and July 2000, student loans continued to be disbursed, serviced and collected by financial institutions; however, the loans were no longer fully guaranteed by the Government. Instead, the *Canada Student Financial Assistance Act* permitted the Government to pay financial institutions a risk premium of five per cent of the value of loans that consolidated in each loan year. Under this financial arrangement, the Government was not at risk except for the payment of the risk premium. Financial institutions could also decide to sell a certain amount of defaulted loans and the Government had to pay a put-back fee of five cents on the dollar for these loans. Finally, the agreement provided that part of the recoveries be shared with financial institutions.
- <u>Direct Loan Regime</u>: The direct loan arrangement came into force, effective 1 August 2000, following the restructuring of the delivery of the Program and the amendments made to the *Canada Student Financial Assistance Act* and Regulations. Under this regime, the Government issues loans directly to students and bears all the risk involved.

The Government of Canada currently has integration agreements in place with five provinces: Ontario (August 2001), Saskatchewan (August 2001), Newfoundland and Labrador (April 2004), New Brunswick (May 2005), and British Columbia (August 2011). Students in integrated provinces benefit from having one single integrated loan product administered through the NSLSC, and are not required to manage two separate (federal and provincial) loans.

3. Loan Benefit

a) In-study Interest Subsidy

The CSLP provides an interest-free loan during the borrower's study period. The benefit takes the form of an in-study interest subsidy. During this period, the Government pays interest (Government's cost of borrowing) on the loan and no payment on the principal is required. Because this interest-free period ends when the borrower ceases to be a student and the remaining loan's lifetime is repaid with interest, Canada Student Loans are currently not considered as having significant concessionary terms according to the Treasury Board Accounting Standard 3.2 – Transfer Payments (section 6.2). This could change in the future if the repayment terms and conditions for student loans changed. Appendix 4 presents more details.

Before 2012, interest accrued on loans for part-time students while they were studying; however, payments (both principal and interest) could be deferred until six months following the completion of their studies. Further to Budget 2011, the Act was amended to eliminate the in-study interest on Canada Student Loans for part-time students, aligning part-time and full-time loans. This change came into force on 1 January 2012.

Since June 2008, members of the Reserve Force who interrupt their program of study to serve on a designated operation are considered full-time students until the last day of the month in which their service ends and, as such, benefit from an extended in-study interest-free period.

b) Loan Consolidation

At the end of the study period, during the six-month non-repayment period, all loans previously received by a student are added together and consolidated. During this period, interest accrues on the loan(s) but no payment is required. With the implementation of the MSFAA, the *Canada Student Financial Assistance Regulations* were amended to remove the regulatory requirement that borrowers sign a consolidation agreement. Repayment terms are part of the MSFAA and a repayment letter is sent to borrowers upon leaving their studies. The letter provides information on their CSL balance, repayment options and available repayment assistance measures. Since July 1995, the interest rate used to calculate the monthly payment is equal to the prime rate plus 250 basis points for most students.

Students must provide their financial institution or the NSLSC with a proof of enrolment for each study period in which they are enrolled even if they are not applying for a new loan. This prevents an automatic consolidation from occurring while they are still in school and it prevents interest from accruing on the loan.

c) Repayment Assistance

In 1983, the Government introduced a repayment assistance measure in the form of an Interest Relief to assist students experiencing financial difficulty repaying their loan. The Government assumed the responsibility for making interest payments on the outstanding loan and no principal payments were required. This measure was improved over time. Between 1998 and 2009, a borrower in financial difficulty could be awarded a total of 30 months of Interest Relief during the repayment period. If the borrower was still within the first five year period after the end of studies when the 30 months ended, he could be awarded an additional 24 months of interest relief. In determining eligibility for Interest Relief, a borrower's monthly family income had to fall below an established income threshold in relation to the required monthly payment on the loan.

In 1998, the Government introduced the Debt Reduction in Repayment (DRR) measure to help students who remained in financial difficulty after all possible Interest Relief measures had been exhausted. Between 2005 and 2009, the principal loan reductions corresponded to two reductions of up to $10,000 each and a third reduction of up to $6,000. To determine whether the previous reduction had resulted in a manageable debt level, twelve months had to have elapsed between each reduction.

Starting with the 2009-10 loan year, the Repayment Assistance Plan (RAP) replaces the Interest Relief and DRR measures. The RAP is designed to make it easier for borrowers to manage their debt by calculating affordable payments ($0 for those under the established minimum income threshold, or from 1% to 20% of family income for those above the established minimum income threshold) based on family income and family size. Therefore, the affordable payment formula ensures no borrower pays more than 20% of their gross income towards their student loan debt. Borrowers are deemed eligible for the RAP for a six-month period if their affordable payment is less than their required monthly payment. The RAP is composed of two stages to help borrowers fully repay their loan within a maximum of 15 years of leaving school (or 10 years for borrowers with a permanent disability).

Budget 2016 proposed to increase the RAP income thresholds to ensure that students will not be required to repay their student loan until they earn at least $25,000 per year ($25,000 is the threshold for a single student with no dependents, which scales up based on family size). This measure took effect in the 2016-17 loan year.

Under Stage 1, the required monthly payment is determined by amortizing a borrower's outstanding principal amount over a period that ends 120 months after he ceased to be a student. The borrower's monthly affordable payment, if any, goes towards the loan principal first, and then the interest, while the Government covers any interest amount not covered by the affordable payment. The principal portion of the loan not covered by the affordable payment is deferred. Stage 1 can last for a maximum of five years in cumulative six-month periods.

Stage 2 is available to borrowers who continue to experience financial difficulty after Stage 1 has been exhausted and to those whose loan has been in repayment for more than 10 years. Under Stage 2, the required payment is calculated by reamortizing the outstanding principal between the start date of Stage 2 and the date corresponding to 15 years after the borrower left school (10 years for borrowers with a permanent disability). The Government covers both the required principal amount and the interest amount not covered by the borrower's affordable payment such that the student loan is repaid in full within 15 years (10 years for borrowers with a permanent disability) of the borrower leaving school.

Borrowers with a permanent disability who are not eligible for loan forgiveness have access to the RAP-PD. Additional expenses related to costs that permanently disabled borrowers face are taken into account in the income calculation and the Government pays any principal not covered by the borrowers' affordable payments, similar to RAP Stage 2.

d) Loan Forgiveness

The Minister has the authority, upon application and qualification, to forgive the loan in the event of a borrower's severe permanent disability or death while in school or during the repayment period. Effective 1 August 2009, in order for a borrower's loan to be forgiven due to a permanent disability, the Minister must be satisfied that the borrower's condition respects the definition of "severe permanent disability", is unable to repay the student loan, and will never be able to repay it.

Effective 1 January 2013, a portion of student loans allocated to family physicians (including residents in family medicine programs), nurses and nurse practitioners who work during a year in an under-served rural or remote community can be forgiven for that year. Qualifying family physicians are eligible for up to $8,000 of loan forgiveness per year to a maximum of $40,000 over five years. Qualifying nurses are eligible for up to $4,000 (of loan forgiveness) per year to a maximum of $20,000 over five years. Qualifying participants who started their current employment in under-served communities on or after 1 July 2011, and who complete a year of work (starting on or after 1 April 2012), are eligible for loan forgiveness.

4. Canada Student Grants (CSGs)

Canada Study Grants were introduced in 1995 as non-repayable grants administered by the participating provinces on the Government's behalf. These grants were taxable and assisted students with permanent disabilities, high-need part-time students, women pursuing certain doctoral studies, and students with dependents. Canada Access Grants were then introduced in the 2005-06 loan year and included grants for students from low-income families as well as grants for students with permanent disabilities.

The CSGs, implemented in August 2009, provides non-repayable assistance to targeted groups of students, including students from low- and middle-income families, students with permanent disabilities, and students with children under the age of 12. This program includes seven permanent grants as well as a temporary transition grant for former Canada Millennium Scholarship Foundation (CMSF) bursary recipients. The last transition grants were paid during the 2011-12 loan year.

As of 31 July 2016, the CSGs include:

- **CSG-LI**: a grant of $250 per month of study for full-time university undergraduate or college students from low-income families. Note: to be eligible, a student's academic program must be at least two years (minimum of 60 weeks) in duration.
- **CSG-MI**: a grant of $100 per month of study for full-time university undergraduate or college students from middle-income families. Note: to be eligible, a student's academic program must be at least two years (minimum of 60 weeks) in duration.
- **CSG-PD**: a grant of $2,000 per school year for students with permanent disabilities.
- **CSG-PDSE**: a grant of up to $8,000 per school year to help cover exceptional education-related costs associated with a student's permanent disability.
- **CSG-DEP**: a grant of $200 per month of full-time study, per dependent child under the age of 12.
- **CSG-PT**: a grant of up to $1,200 per year for part-time students from low-income families.
- **CSG-PTDEP**: a grant for part-time students with dependents of $40 per week of study for students with one or two children under 12 years of age and $60 per week of study for students with three or more children under 12 years of age, up to a maximum of $1,920.

The grant amounts are stated in the *Canada Student Financial Assistance Regulations*. The low- and middle-income thresholds are based on family size and province of residence and are set out in Table 1 and Table 2 of Schedule 3 of the Regulations.

Budget 2016 announced an increase of 50 percent of CSGs amounts. The following modifications came into force as of 1 August 2016 and are considered in the projections.

- CSG-LI amount increases from $250 to $375 per month of study;
- CSG-MI amount increases from $100 to $150 per month of study; and
- CSG-PT amount increases from a maximum of $1,200 to a maximum of $1,800 per loan year.

In addition, Budget 2016 also committed to expand eligibility for CSGs by replacing the existing low- and middle-income thresholds with a single progressive threshold under which grant amounts would gradually decline based on income and family size. CSG-LI and CSG-MI will thus be replaced with a single grant, called the Canada Student Grant for Full Time Students (**CSG-FT**). The new grant maximum amount will remain at $375 per month, with a gradual reduction as income increases.

The new eligibility thresholds are expected to be in place for the 2017-18 loan year. Although this change has not been officialized through regulations amendment at the time of preparing the report, it is included in the projections as this is an interim report and ESDC informed us that the regulation amendment is imminent.

Appendix 2 – Data

The input data required with respect to direct loans were extracted from data files provided by Employment and Social Development Canada (ESDC).

1. Direct Loans Issued

Table 21 presents a comparison of the data extracted from ESDC's files on the number of students and the amount of direct loans issued for loan years 2000-01 to 2015-16 with ESDC's publicized data. These data were found to be complete.

Table 21 Direct Loans Issued and Number of Students

	Amount of Loans Issued		Number of Students	
Loan Year	**ESDC File**	**ESDC Publication**	**ESDC File**	**ESDC Publication**
	($ million)			
2000-01	1,573	1,570	343,746	346,568
2001-02	1,507	1,512	328,671	331,541
2002-03	1,549	1,549	331,042	331,763
2003-04	1,648	1,648	342,264	342,982
2004-05	1,633	1,633	339,204	339,828
2005-06	1,936	1,939	345,549	345,765
2006-07	1,916	1,931	344,214	345,124
2007-08	2,004	2,015	353,548	354,144
2008-09	2,071	2,081	366,145	366,788
2009-10	2,088	2,088	403,566	404,432
2010-11	2,225	2,226	427,054	428,549
2011-12	2,412	2,412	450,246	450,314
2012-13	2,583	2,583	477,394	477,487
2013-14	2,721	2,721	497,636	497,725
2014-15	2,723	2,723	495,297	495,341
2015-16	2,722	2,722	496,998	497,042

According to the Monthly Financial Information Schedule (MFIS), the total amount of loans issued in 2015-16 rounded to the million was $2,722, which is identical to the value calculated using the data file. As shown in the report, further adjustments during the year presented in the MFIS for loans converted to CSGs (and vice versa) increase the total loans issued to $2,725 million.

2. Direct Loans Consolidated

Table 22 presents the amount of consolidated direct loans, the amounts that were reversed due to a return to school and the accrued interest during the 6-month non-repayment period according to the MFIS. These data closely match consolidations from individual data for the most recent two years although some adjustments to the individual data were necessary. It was observed that reversals (students returning to school) generally occur in the same loan year as consolidation or the year after.

Table 22 Direct Loans Consolidated

Loan Year	Amounts from the MFIS			
	Consolidations	Reversal	Interest Accrued	Total Amount Consolidated[1]
	($ million)			
	(1)	(2)	(3)	(1) - (2) + (3)
2000-01	65.7	4.1	0.7	62.2
2001-02	901.0	154.9	26.0	772.2
2002-03	1,211.9	262.7	39.6	988.8
2003-04	1,434.3	326.6	43.7	1,151.4
2004-05	1,632.6	388.4	52.6	1,296.7
2005-06	1,720.0	435.4	61.8	1,346.4
2006-07	1,936.3	499.8	82.7	1,519.3
2007-08	2,100.8	571.8	90.4	1,619.3
2008-09	2,187.5	638.2	74.8	1,624.0
2009-10	2,302.3	703.3	54.9	1,654.0
2010-11	2,464.8	762.0	65.3	1,768.1
2011-12	2,580.8	799.9	72.1	1,852.9
2012-13	2,684.9	801.3	75.0	1,958.6
2013-14	2,797.6	788.3	78.8	2,088.2
2014-15	2,909.9	797.6	82.0	2,194.3
2015-16	3,034.1	852.6	81.7	2,263.2

3. Defaults and Recoveries for Direct Loans

Table 23 shows the main items of the defaulted loans portfolio (principal only). This information is extracted from ESDC's data files.

- Defaults: amount of loans transferred to the Government in each loan year after nine months without a payment;
- Account adjustments: loans recalled and financial adjustments made by ESDC;
- Rehabilitations: amount of loans rehabilitated under certain criteria;
- Recoveries: payments recovered by the CRA from borrowers in default;
- Write-offs: amounts approved for write-off when a loan meets certain criteria and has exceeded the limitation period.

Adjustments, rehabilitations, recoveries and write-offs shown in Table 23 represent the amounts recorded in each loan year, regardless of the time of default. For example, in the 2015-16 loan year, there were $118.5 million in recoveries. This amount includes recoveries for loans that could have been transferred in default in any loan year between 2000-01 and now.

Table 23 shows that the balance of the portfolio in default is $2,125.9 million as at 31 July 2016 based on the information extracted from the data file. There is a difference between the balance determined in the DARS data file received and the balance shown in the "Detailed Age Analysis

[1] The net consolidated amount represents the total consolidation for the year less all reversals regardless of the original consolidation year.

by Account Status" table provided by ESDC. As at 31 December 2016, this difference is about $9 million ($2,210.7 million in DARS and $2,201.4 million in the "Detailed Age Analysis" table), which represents 0.4%.

Table 23 Direct Loans Default Portfolio

Loan Year	Defaults	Account Adjustments	Rehabilitated	Net Defaults	Recoveries	Write-Offs	Balance
	($ million)				($ million)		
	(1)	(2)	(3)	(4)=(1)-(2)-(3)	(5)	(6)	(7) = Previous year's balance + (4)-(5)-(6)
2000-01	5.3	-	-	5.3	0.3	-	5.0
2001-02	5.0	-	0.1	4.9	0.7	-	9.1
2002-03	244.3	0.6	17.5	226.2	23.8	-	211.6
2003-04	265.9	12.4	3.1	250.4	48.8	-	413.1
2004-05	364.4	19.0	2.2	343.2	83.0	-	673.3
2005-06	275.6	12.3	7.8	255.5	85.6	-	843.2
2006-07	257.7	8.7	5.8	243.2	83.7	0.2	1,002.5
2007-08	303.4	11.1	5.0	287.4	91.8	0.3	1,197.8
2008-09	308.3	8.7	7.0	292.6	85.4	-	1,404.9
2009-10	301.2	6.1	10.9	284.3	81.1	-	1,608.2
2010-11	335.2	6.4	18.0	310.8	92.8	-	1,826.2
2011-12	382.8	6.9	34.9	341.0	99.3	220.9	1,847.0
2012-13	353.4	5.9	31.4	316.1	105.0	167.6	1,890.5
2013-14	372.9	12.5	39.0	321.3	113.0	-	2,098.8
2014-15	357.6	6.3	39.3	312.0	120.2	218.0	2,072.6
2015-16	346.0	2.0	40.9	303.1	118.5	131.7	2,125.9

4. Repayment Assistance Plan (RAP)

The RAP was implemented in August 2009. Detailed data files by applicant are available. The data files received were found to be complete and have been used to update the assumptions for the utilization rates (both entrance and continuation) for each stage. Table 24 presents the RAP expenses split by stage as found in the MFIS as well as the totals calculated from the data files. Those expenses correspond to the portion of the monthly payments covered by the Government for all borrowers in the RAP.

Table 24 Repayment Assistance Plan

Principal Payments

Loan Year	MFIS Stage 2	MFIS PD	MFIS Total	Data Files Total
	($ million)			($ million)
2009-10	3.3[1]	1.2	4.4[1]	2.8
2010-11	2.9	6.1	8.9	10.2
2011-12	6.3	11.7	18.1	17.1
2012-13	11.1	12.9	24.0	24.3
2013-14	16.7	15.5	32.2	32.7
2014-15	25.5	20.2	45.7	44.1
2015-16	33.8	23.4	57.2	56.2

Interest Payments

Loan Year	MFIS Stage 1	MFIS Stage 2	MFIS PD	MFIS Total	Data Files Total
	($ million)				($ million)
2009-10	67.5[2]	0.5	0.7	68.7[2]	73.7[2]
2010-11	82.7	1.8	3.0	87.5	87.6
2011-12	94.1	3.9	5.8	103.8	101.9
2012-13	106.1	6.5	6.1	118.7	119.3
2013-14	119.2	9.3	6.8	135.3	139.1
2014-15	131.3	12.9	8.5	152.7	153.9
2015-16	137.8	15.4	9.3	162.5	164.0

[1] Includes $2.3 million of DRR payments approved before August 2009.
[2] Includes $15.8 million of interest relief payments approved before August 2009.

Appendix 3 – Sensitivity tests

Student Interest Rate Spread

The student's cost of borrowing, used to calculate interest revenue, is the sum of the prime rate and a spread of 250 basis points. In the low-cost scenario, the spread is increased to 350 basis points starting in 2017-18, while in the high-cost scenario, it is reduced to 150 basis points. Changing the student interest rate spread has a direct impact on the interest paid by students, which in turn affects total revenues.

Tables 25 and 26 present the impact on the interest earned and on the net cost of the program.

Table 25 Student Interest Rate Spread – Low-Cost Sensitivity Test

	Best-Estimate (B-E)			Sensitivity Test				
Loan Year	Student Cost of Borrowing Prime Rate + 2.5%	Interest Earned	Net Cost	Student Cost of Borrowing Prime Rate + 3.5%	Interest Earned	Change Compared to B-E	Net Cost	Change Compared to B-E
	(%)	($ million)		(%)	($ million)		($ million)	
2016-2017	5.2%	664	1,655	6.2%	664	-	1,655	-
2017-2018	5.6%	741	2,037	6.6%	856	115	1,960	-77
2018-2019	5.9%	812	2,177	6.9%	935	123	2,077	-100
2019-2020	6.2%	879	2,263	7.2%	1,009	130	2,157	-106
2020-2021	6.4%	942	2,353	7.4%	1,081	139	2,241	-112
2025-2026	7.1%	1,263	2,796	8.1%	1,438	175	2,658	-138
2030-2031	7.1%	1,482	3,208	8.1%	1,687	205	3,044	-164
2035-2036	7.1%	1,683	3,507	8.1%	1,915	232	3,321	-186
2040-2041	7.1%	1,864	3,781	8.1%	2,120	256	3,577	-204

Table 26 Student Interest Rate Spread – High-Cost Sensitivity Test

	Best-Estimate (B-E)			Sensitivity Test				
Loan Year	Student Cost of Borrowing Prime Rate + 2.5%	Interest Earned	Net Cost	Student Cost of Borrowing Prime Rate + 1.5%	Interest Earned	Change Compared to B-E	Net Cost	Change Compared to B-E
	(%)	($ million)		(%)	($ million)		($ million)	
2016-2017	5.2%	664	1,655	4.2%	664	-	1,655	-
2017-2018	5.6%	741	2,037	4.6%	626	-115	2,114	77
2018-2019	5.9%	812	2,177	4.9%	691	-121	2,276	99
2019-2020	6.2%	879	2,263	5.2%	750	-129	2,366	103
2020-2021	6.4%	942	2,353	5.4%	807	-135	2,462	109
2025-2026	7.1%	1,263	2,796	6.1%	1,094	-169	2,929	133
2030-2031	7.1%	1,482	3,208	6.1%	1,284	-198	3,366	158
2035-2036	7.1%	1,683	3,507	6.1%	1,458	-225	3,686	179
2040-2041	7.1%	1,864	3,781	6.1%	1,615	-249	3,978	197

Appendix 4 – Concessionary Terms

Section PS3050 (Loans Receivable) of the Public Sector Accounting Standards of the Chartered Professional Accountants Canada states that loans with significant concessionary terms should be accounted for based on the substance of the transaction. The Treasury Board Accounting Standard 3.2 (Transfer Payments – Section 6.2) in effect at the valuation date specifies that only loans with a concessionary portion greater than 25 per cent of the face value of the loan shall be considered as having significant concessionary terms. As mentioned in Appendix 1 of this report, Canada Student Loans are currently not considered as having significant concessionary terms according to the Treasury Board Accounting Standard 3.2. The following items could have an impact on the determination of the value of concessionary terms:

- The Consolidated Revenue Fund (CRF) lending rate, which is used as the discount rate in determining the present value of the loans. In May 2017, this rate corresponds to 1.39% for a term to maturity of 10 years. The higher the CRF lending rate, the more likely is to have significant concessionary terms;
- The student interest rate during the in repayment period. Interests start to accrue at the end of the study period. The student interest rate is much higher than the CRF lending rate and is expected to remain higher in the future. The lower the student interest rate, the more likely it is to have significant concessionary terms;
- The length of the period of interest free (in-study period, generally around three years), which is the portion considered as concessionary terms. The longer this period, the more likely it is to have significant concessionary terms;
- The length of the amortization period (in repayment period), which is used to determine the present value of the loans. The shorter this period, the more likely it is to have significant concessionary terms.

Based on the above mentioned items, the student interest rate accruing during a standard 10-year repayment period offsets the 3-year interest free period, resulting in no significant concessionary terms. Significant changes to these four items were tested individually. It appears that loans would not be considered as having significant concessionary terms even in the unlikely situations where:

- The CRF lending rate used as discount rate would double; or
- The student interest rate during the in repayment period would reduce to half the actual rate; or
- The in-study interest free period would increase from the 3-year period generally observed to 10 years; or
- The loans would be repaid within the 6-month period following the end of study.

Appendix 5 – Acknowledgements

We would like to thank the staff of the Canada Student Loans Directorate of Employment and Social Development Canada who provided the relevant data used in this report. Without their useful assistance, we would not have been able to produce this report.

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Tina A. Magloé Francis
Thierry Truong, F.S.A., A.C.I.A.