Office of the Superintendent of Financial Institutions Canada
Office of the Chief Actuary

Bureau du surintendant des institutions financières Canada
Bureau de l´actuaire en chef

Actuarial Report CSFA

CANADA STUDENT FINANCIAL ASSISTANCE PROGRAM as at 31 July 2021

Canada

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Jonathan Wallace
Director General, Canada Student Financial Assistance Program
Employment and Social Development Canada
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Dear Jonathan Wallace:

As per the business plan for 2022-2023 to 2024-2025, I am pleased to submit the Actuarial Report on the Canada Student Financial Assistance Program, prepared as at 31 July 2021. This report is prepared for the CSFA Program to support internal accounting requirements as well as your partners' needs between statutory reports.

Yours sincerely,

Assia Billig, FCIA, FSA, PhD
Chief Actuary
Office of the Chief Actuary

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1 Purpose and Summary

Effective 1 August 2000, the Government redesigned the delivery of the Canada Student Financial Assistance Program (CSFA Program) 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 of the program.

Section 19.1 of the *Canada Student Financial Assistance Act* defines the mandate given to the Chief Actuary; it states 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 2020 and tabled before Parliament on 7 December 2021. The next triennial statutory report will be prepared as at 31 July 2023 and is scheduled to be tabled before Parliament in 2024.

This actuarial report, prepared as at 31 July 2021, 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 the 2045-2046 loan year), and shows estimates of:

- the number of students receiving a loan under the CSFA Program 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 revenues, the expenses and the net resulting cost by type of regime.

Main Findings

Grants

- $3,188M disbursed in 2020-2021
- $3,230M expected in 2021-2022

New Loans Issued

- $3,969M disbursed in 2020-2021
- $2,929M expected in 2021-2022

Direct Loan Portfolio

- $23B as at 31 July 2021
- $39B expected by 2045-2046
- $34B limit projected to be reached in 2035-2036

Program's Net Cost

- $4.9B in 2020-2021
- $4.8B expected in 2045-2046
- Grants represent 66% of net cost in 2020-2021

Defaults (Bad Debt)

- Long-term net default rate is 8.1%
- $3,001M in allowance for bad debt – principal as at 31 July 2021
- $224M in allowance for bad debt – interest as at 31 July 2021

RAP (Repayment Assistance Plan)

- $2,125M in allowance for RAP – principal as at 31 July 2021

COVID-19 Pandemic

More than two years have passed since the beginning of the COVID-19 pandemic. The situation remains fluid and will likely continue to evolve for some time. While employment is returning to a pre-pandemic level, there are still uncertainties regarding the future state of Canada's economy. For instance, current inflation is higher than historically seen in the last 30 years. Additionally, the temporary measures that were introduced by the Government within the CSFA Program to alleviate the impact of the pandemic on students and borrowers are set to expire at the end of the loan year 2022-2023. The final impacts of this health and economic crisis will likely generate some differences in the future.

This valuation report is based on the program provisions as described in Appendix A. The additional appendices provide information on the data used, a description of assumptions and methodologies used, the net cost to the program under an alternative interest scenario and information on concessionary terms.

Subsequent events occurred after the valuation date. The first subsequent event consists of upcoming permanent changes to the program proposed in Budget 2021 and Budget 2022, as described in Section 2.1. In order to provide projections based on up-to-date information, these changes were considered in our report. However, the allowances determined for Public Accounts as at 31 March 2022 were based on the existing program's provisions as of that date. Budget 2021 changes are awaiting government approval, and Budget 2022 changes were announced after the Public Accounts valuation date of 31 March 2022 and have expected implementation dates that are later than 31 March 2022.

The second subsequent event consists of the recent evolution of inflation in Canada. Since the purpose of our report is to present results based on the conditions as at 31 July 2021, it is not considered in this report. For information purposes only, allowances determined for the Public Accounts as at 31 March 2022 would not be significantly impacted by a higher than expected inflation over a short-term period.

2 Main Report

The Canada Student Financial Assistance Program (CSFA Program) has been in effect since 1964; it provides Canadians with financial assistance to pursue a post-secondary education. The Office of the Chief Actuary has the mandate to provide an assessment of the current costs of the CSFA Program, 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.

The following items are considered to determine the net cost of the program:

Expenses

- Canada Student Grants (CSG)
- Interest subsidy on in-study loans and loans in the 6-month non-repayment period
- Interest relief from the Repayment Assistance Plan (RAP)
- Provisions for RAP (principal) and bad debt (principal and interest)
- Alternative payments
- Loan forgiveness expenses
- Administrative expenses

Reduced by Net Interest Revenues

- Interest accrued during the six-month non-repayment period (up to 31 October 2019)
- Student interest payments
- RAP interest payments covered by the Government
- Interest accrued on defaulted loans

2.1 Recent Program Changes

Over the last few years, several changes were made to the CSFA Program. This section summarizes recent changes that were implemented in loan year ending 31 July 2021 or will be implemented in future years. Unless stated otherwise, these measures have been reflected in the projections presented in this report.

Permanent Changes		
Implementation Date	Description	Source
1 August 2020	Remove the restriction which prevent borrowers who have been out of study for five years and have used the RAP for Students with Permanent Disabilities (RAP-PD) to receive further loans and grants until their outstanding loans are fully paid.	Budget 2019 / Approved
1 October 2020	Implement interest-free and payment-free leave, for a maximum of 18 months, for borrowers taking temporary leave from their studies for medical or parental reasons, including mental health leave.	Budget 2019 / Approved
1 August 2021	Flexibility to use current year's income instead of previous year's income to determine eligibility for Canada Student Grants (three-year pilot project introduced in 2018-2019 made permanent).	Budget 2021 / Approved
1 August 2022	Expand access to supports for students and borrowers with persistent or prolonged disabilities that are not necessarily permanent.	Budget 2021 / Approved
1 November 2022	Increase accessibility to the RAP by increasing RAP income thresholds and reducing the maximum affordable payment.	Budget 2021 / Approved
2023-2024 *(expected)*	Increase by 50% the maximum amount of loans that can be forgiven for doctors and nurses working in underserved rural or remote communities.	Budget 2022 / *Pending Regulatory Approval*
To be determined	Expand the list of professionals eligible for loan forgiveness while working in under-served rural or remote communities, and review the definition of "rural communities".	Budget 2022 / *Not considered in this report as details are not finalized*

Temporary Changes

Start/End Date	Description	Source
30 March 2020 to 30 September 2020	Suspend student loan repayments and interest accrual.	Measures in response to COVID-19
1 August 2020 to 31 July 2021	Double the amount for the following CSGs: - grant for full-time students (CSG-FT) - grant for part-time students (CSG-PT) - grant for students with permanent disabilities (CSG-PD) - grant for full-time students with dependants (CSG-FTDEP) - grant for part-time students with dependants (CSG-PTDEP)	Measures in response to COVID-19
	Change the need assessment so that no fixed student contribution or spousal contribution are considered. This helps students qualify for more financial support.	
	Increase the weekly loan limit, from $210 to $350.	
1 April 2021 to 31 March 2022	Waiver of interest accrual on student loans.	Bill C-14 / Approved
1 August 2021 to 31 July 2023	Extend the doubling of the grants.	Budget 2021 / *Approved*
	Extend the top-up grant of $200 per month for eligible adult learners returning to school full-time after being out of secondary school for at least 10 years (extension of the three-year pilot project introduced in loan year 2018-2019).	
1 April 2022 to 31 March 2023	Extend the waiver of interest accrual on student loans.	Budget 2021 / *Approved*

2.2 Best-Estimate Assumptions

Several economic and demographic assumptions are needed to determine the future long-term costs of the CSFA Program. The projections included in this report cover a period of 25 years and the assumptions are determined by considering both historical trends and short-term experience. These assumptions reflect the actuary's best judgment and are referred to as "best-estimate" assumptions.

2.2.1 Assumptions related to Total Loans Issued Projections

Several assumptions are needed to determine the total amount of loans issued. Tables 1 and 2 summarize the main assumptions used. Other economic assumptions used can be found in Table 3.

Table 1 presents the demographic and labour force assumptions while Table 2 presents the real wages and tuition fee increases assumptions. Assumptions shown in Table 1 and the ultimate real wage increase shown in Table 2 are based on the *30th Actuarial Report on the Canada Pension Plan as at 31 December 2018*.

Table 1 Demographic and Labour Force Assumptions

1	Total fertility rate for Canada (ultimate)	1.62 per woman (for 2027+)	
2	Mortality	Statistics Canada Life Tables with CPP 30th assumed future improvements	
3	Net migration rate for Canada (ultimate)	0.62% of population (for 2021+)	
4	Youth labour force participation rate (participating provinces/territory, ages 15-29)(1)	71.1%(2)	(2021-2022)
		70.7%	(2022-2023)
		70.8%	(2023-2024)
		• • •	
		72.6%	(2045-2046)

Table 2 Real Wage and Tuition Increases Assumptions

5	Real wage increases(1)	0.7%	(2021-2022)
		0.8%	(2022-2023)
		0.9%	(2023-2024)
		1.0%	(2024-2025)
		1.0%	(2025-2026)
		1.0%	(2026-2027)+
6	Tuition fee increases	1.9%	(2021-2022)
		2.4%	(2022-2023)
		4.2%(3)	(2023-2024)
		4.2%	(2024-2025)
		4.2%	(2025-2026)
		4.3%	(2026-2027)
		4.4%	(2027-2028)
		Inflation + 1.75%	(2028-2029)+

(1) The COVID-19 pandemic may have an impact on certain assumptions developed for the purpose of the 30th CPP Actuarial Report. At this point, ultimate assumptions for the 30th CPP Actuarial Report were not revised.
(2) Youth labour force participation rate for loan year 2021-2022 was revised up to 71.1% from 69.7% to reflect known data for the first 5 months of the loan year.
(3) The large increase from the previous year is mainly due to Ontario expected to end the freeze on tuition as well as an expected increase in the short-term due to the delayed impact of increasing inflation.

2.2.2 Cost of Borrowing

Table 3 presents the interest rates and inflation assumptions used to calculate the cost of borrowing for the Government and for borrowers. The inflation assumption is also used in the projection of total loans issued.

Table 3 Borrowing Cost

Loan Year	Government's Cost of Borrowing	Inflation	Government's Real Cost of Borrowing(1)	Prime Rate	Student's Cost of Borrowing
	(%)	(%)	(%)	(%)	(%)
	(1)	(2)	(1) - (2)	(3)	(4)
2021-2022	2.1	4.6	-2.6	2.8	2.8
2022-2023	2.8	3.0	-0.2	3.4	3.4
2023-2024	2.9	2.3	0.6	3.5	3.5
2024-2025	2.9	2.1	0.8	3.5	3.5
2025-2026	3.0	2.0	1.0	3.6	3.6
2026-2027	3.0	2.0	1.0	3.6	3.6
2027-2028	3.1	2.0	1.1	3.7	3.7
2028-2029	3.2	2.0	1.2	3.8	3.8
2029-2030	3.3	2.0	1.3	3.9	3.9
2030-2031	3.4	2.0	1.4	4.0	4.0
2031-2032	3.5	2.0	1.5	4.1	4.1
2032-2033	3.6	2.0	1.6	4.2	4.2
2033-2034+	3.7	2.0	1.7	4.3	4.3

(1) Since the normal repayment period lasts nine and a half years, the historical 10-year Government of Canada bond yield, net of inflation, is used as a benchmark to calculate the real cost of borrowing for the Government.

The average prime rate for the 2021-2022 loan year is 2.8%. It is obtained by adding the government's cost of borrowing and an interest rate spread. The government's cost of borrowing is expected to increase to reach an ultimate rate of 3.7% in 2033-2034. The assumption on the interest rate spread is developed based on the analysis of historical data and the expected short-term trajectory of interest rates. The spread is expected to decrease from 0.7% in 2021-2022 to an ultimate value of 0.6% in 2022-2023, resulting in an ultimate prime rate of 4.3% in 2033-2034.

2.2.3 Assumptions related to Allowances

Since August 2000, the CSFA Program 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.

A summary of the assumptions used to determine the allowances is provided below. Additional details can be found in Appendix C.

Long-Term Defaulted Principal Assumptions

Several assumptions are used to determine the expected future amount of defaulted principal that will not be recovered. These assumptions are revised each year. The gross default assumption was increased to reflect recent experience as well as uncertainty regarding the impact of the projected increase in interest rates in the short-term. However, recalls and rehabilitations have been higher than expected, resulting in an ultimate net default rate that is the same as the one in the previous actuarial report. The following ultimate assumptions are used:

Gross Default	• 15.25% of future consolidations • Increased from 15.0% in the previous report
Recalls and Rehabilitations	• 14.0% of future long-term gross default rate • Increased from 13.5% in the previous report
Recoveries	• 32.8% of future long-term gross default rate • Same as the previous report
Resulting Net Default	• **8.1% [15.25% x (1 - 14.0% - 32.8%)** • Same as the previous report

Interest Recovery Assumption

The interest recovery assumption is used to project the future expected non-recoverable interest. It is determined by a distribution that varies according to the time elapsed since the interest defaulted. The recovery rates are based on historical observations. Overall, the recovery rate for future accrued default interest is 55.8%.

Repayment Assistance Plan (RAP) Assumptions

Several assumptions are used to determine the dollar amount of loans that will ultimately be repaid by the Government through the RAP rather than by borrowers. These assumptions are reviewed each year based on new experience available:

RAP-Stage 2 and RAP-PD Utilization	• Share of loans in RAP according to the number of years since consolidation as well as the number of years spent in RAP (Tables 29 and 30 of Appendix C).
Required Payments	• Total payments for borrowers in RAP, i.e., portion covered by the affordable payments paid by the borrowers and portion covered by the Government. • Based on: - Interest Rate - Number of years remaining in the amortization period as determined under the plan's provision - Outstanding balance of the loan
Affordable Payments	• Average portion of the total required payments to be paid by borrowers (the remaining portion is covered by the Government): - For RAP-Stage 2, it corresponds to 4% of total required payments - For RAP-PD, it corresponds to 1% of total required payments

These assumptions include the expected program changes in the RAP as well as the expected change to the disability definition, both announced in Budget 2021. The impact, for RAP changes, was revised from the previous report resulting in lower expected affordable payments.

2.3 Projection of Total Loans Issued

The following formula illustrates a simplification of the elements considered in the projection of the total amount of loans issued under the CSFA Program:

Total Amount of Loans Issued = Population × Post-Secondary Enrolment Rates × Loan Uptake Rates × Average Loan Size

2.3.1 Projection of the Population

Demographic projections are based on the population projected in the *30th Actuarial Report on the Canada Pension Plan as at 31 December 2018*. Subsets of the population ineligible to participate in the CSFA Program are then removed, such that the "population" used corresponds to Canada less Quebec, Northwest Territories, Nunavut and non-permanent residents.

As shown in Table 4, the population aged 15-29 is expected to decrease from 4,958,000 in 2020-2021 to 4,949,000 in 2021-2022. After that, it is expected to increase for the remainder of the projection period to reach 5,906,000 in 2045-2046. Over the 25-year projection period, the population aged 15-29 is expected to increase by 948,000.

2.3.2 Projection of Post-Secondary Enrolment

Projections of post-secondary enrolment are based on enrolment data from Statistics Canada's Labour Force Survey up to January 2022.

The enrolment rates vary according to the following:

Age Group	Gender	Labour Force Status	Educational Institution
• 15 to 19 • 20 to 24 • 25 to 29 • 30 and over	• Male • Female	• In labour force (individuals who are employed or looking for employment) • Out of labour force	• University • Public college • Private college

Overall, the aggregate enrolment rate for students aged 15 to 29 is expected to remain between 22% and 24% over the next 25 years.

Table 4 shows the evolution of the number of students enrolled full-time in a post-secondary institution (age group 15-29 and total). The total number of enrolled students is expected to increase from its current level of 1,278,000 to 1,532,000 at the end of the projection period. 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.

Table 4 Population and Post-secondary Enrolment of Participating Provinces(1)

Loan Year	Population of Canada Less Quebec, Nunavut, and NWT (15-29)(2)	Students Enrolled Full-Time (15-29)(3)	All students Enrolled Full-Time (Total)(3)	Increase	Increase
	(thousands)	(thousands)	(thousands)	(thousands)	(%)
2020-2021	4,958	1,124	1,278		
2021-2022	4,949	1,147	1,311	33	2.5
2022-2023	4,957	1,153	1,313	2	0.2
2023-2024	4,978	1,153	1,312	-1	-0.1
2024-2025	5,001	1,154	1,312	0	0.0
2025-2026	5,023	1,159	1,318	6	0.5
2026-2027	5,045	1,169	1,329	11	0.8
2027-2028	5,080	1,179	1,338	9	0.7
2028-2029	5,116	1,189	1,347	9	0.7
2029-2030	5,148	1,197	1,355	8	0.6
2030-2031	5,177	1,206	1,363	8	0.6
2031-2032	5,216	1,213	1,371	8	0.6
2032-2033	5,260	1,219	1,377	6	0.4
2033-2034	5,305	1,223	1,380	3	0.3
2034-2035	5,347	1,226	1,384	4	0.3
2035-2036	5,397	1,232	1,390	6	0.4
2036-2037	5,448	1,242	1,401	11	0.8
2037-2038	5,495	1,252	1,412	11	0.8
2038-2039	5,537	1,262	1,424	12	0.8
2039-2040	5,582	1,274	1,437	13	0.9
2040-2041	5,631	1,288	1,452	15	1.0
2041-2042	5,687	1,303	1,468	16	1.1
2042-2043	5,742	1,318	1,485	17	1.2
2043-2044	5,797	1,333	1,502	17	1.1
2044-2045	5,852	1,348	1,518	16	1.1
2045-2046	5,906	1,361	1,532	14	0.9

(1) Full-time enrolment in post-secondary institutions in Canada, excluding Quebec, Nunavut and NWT.
(2) Excluding non-permanent residents.
(3) Excluding international students.

2.3.3 Projection of the Number of Students Receiving a Loan

The projection of the loan uptake rates is based on the historical number of students receiving a loan under the CSFA Program according to:

Educational Institution

- University
- Public college
- Private college

The product of the number of students enrolled full-time and the CSFA Program loan uptake rate gives the number of students receiving a loan under the CSFA Program. Table 5 shows that the increasing loan uptake rate, from 45.1% in 2020-2021 to 52.2% in 2045-2046, combined with the increase in students enrolled in post-secondary education, results in 223,000 more students in the program (from 576,000 students in 2020-2021 to 799,000 in 2045-2046).

The number of students in the CSFA Program shown in Table 5 does not include students who only receive a CSG since their entire need is covered by the grant (no loans are issued to them).

According to the ESDC data file, the total number of students who received a grant in the 2020-2021 loan year is 542,000. Most grant recipients (82%[1]) received both a loan and a grant.

Table 5 Loan Recipients

Loan Year	Students Enrolled Full-Time	Loan Uptake Rate	Students in CSFA[(1)]	Annual Increase in CSFA Students	Annual Increase in CSFA Students
	(thousands)	(%)	(thousands)	(thousands)	(%)
	(1)	(2)	(1) x (2)		
2020-2021	1,278	45.1	576		
2021-2022	1,311	42.3	554	-23	-3.9
2022-2023	1,313	42.0	552	-2	-0.3
2023-2024	1,312	48.5	637	84	15.3
2024-2025	1,312	49.1	644	7	1.1
2025-2026	1,318	49.3	650	6	1.0
2026-2027	1,329	49.4	656	6	0.9
2027-2028	1,338	49.5	662	6	0.9
2028-2029	1,347	49.6	669	6	0.9
2029-2030	1,355	49.8	674	5	0.8
2030-2031	1,363	49.9	680	6	0.9
2031-2032	1,371	50.0	686	6	0.8
2032-2033	1,377	50.2	690	5	0.7
2033-2034	1,380	50.3	694	4	0.6
2034-2035	1,384	50.4	698	4	0.6
2035-2036	1,390	50.6	703	5	0.7
2036-2037	1,401	50.7	710	7	1.1
2037-2038	1,412	50.8	718	7	1.1
2038-2039	1,424	51.0	726	8	1.1
2039-2040	1,437	51.1	735	9	1.2
2040-2041	1,452	51.2	744	10	1.3
2041-2042	1,468	51.4	754	10	1.4
2042-2043	1,485	51.5	765	11	1.4
2043-2044	1,502	51.6	775	10	1.4
2044-2045	1,518	51.8	786	10	1.3
2045-2046	1,532	52.2	799	13	1.7

(1) *Students in the CSFA Program* includes full-time and part-time students who receive a loan only or a loan and a grant. Those receiving a grant only are not included in the numbers shown in the table.

[1] The lower share of students receiving both a loan and a grant compared to the previous year (91% in the 2019-2020 loan year) is mostly due to the temporary measure extending the doubling of the grants to loan year 2022-2023.

2.3.4 Projection of the Average Loan Issued per Borrower

The projection of the average loan issued is based on the projection of the student net need, capped at the maximum weekly loan limit:

Step 1: Determining the student net need	**Student Need[1] (excess of expenses over resources)**: • Expenses: tuition and compulsory fees, books and supplies, living allowance, return transportation, child care and a few other allowable expenses depending on the student's situation. • Resources: student contributions[2] and, when applicable, parental or spousal contributions. • Projected to increase using economic assumptions.
	Grants reduction: • Grants are the first component that reduce the student need, resulting in the student net need. • Grants may fulfill the entire student need, in which case no loan is issued. • Different grants are available (details can be found in Appendix A). • Grants other than those for disability are projected using inflation indexed thresholds and expected gross annual family income.

Table 6 summarizes the main elements of the student net need calculation. All students who receive a loan are included.

[1] The loan issued by the federal government covers 60% of the assessed need. In this report, it is calculated based on expenses and resources found in the financial assistance need assessment data for loan year 2019-2020 provided by ESDC.

[2] A portion of the student's contributions comes from the fixed student contribution set at a maximum of $3,000 per loan year.

Table 6 Student Need(1)

Loan Year	Resources	Tuition	Other Expenses	Total Expenses	Average Student Need	Average Grant for Net Need Calculation(2)	CSFA Average Student Net Need	CSFA Average Student Net Need Increase
	($)	($)	($)	($)	($)	($)	($)	($)
	(A)	(B)	(C)	(D) = (B) + (C)	(E) = (D) - (A)	(F)	(G) = (E) × 60% - (F)	
2020-2021	1,600(3)	8,300	13,100	21,400	19,800	4,500	7,400	
2021-2022	3,400	8,500	13,700	22,200	18,800	4,400	6,900	-500
2022-2023	3,500	8,700	14,100	22,800	19,300	4,600(4)	7,000	100
2023-2024	3,600	9,000	14,500	23,500	19,900	2,200(5)	9,700	2,700
2024-2025	3,700	9,400	14,800	24,200	20,500	2,200	10,100	400
2025-2026	3,800	9,800	15,100	24,900	21,100	2,200	10,500	400
2026-2027	3,900	10,200	15,400	25,600	21,700	2,200	10,800	300
2027-2028	4,000	10,600	15,700	26,300	22,300	2,200	11,200	400
2028-2029	4,100	11,100	16,000	27,100	23,000	2,200	11,600	400
2029-2030	4,200	11,500	16,300	27,800	23,600	2,100	12,100	500
2030-2031	4,300	11,900	16,600	28,500	24,200	2,100	12,400	300
2031-2032	4,400	12,400	17,000	29,400	25,000	2,100	12,900	500
2032-2033	4,600	12,800	17,300	30,100	25,500	2,100	13,200	300
2033-2034	4,700	13,300	17,700	31,000	26,300	2,100	13,700	500
2034-2035	4,800	13,800	18,000	31,800	27,000	2,100	14,100	400
2035-2036	5,000	14,400	18,400	32,800	27,800	2,000	14,700	600
2036-2037	5,100	14,900	18,700	33,600	28,500	2,000	15,100	400
2037-2038	5,300	15,500	19,100	34,600	29,300	2,000	15,600	500
2038-2039	5,500	16,100	19,500	35,600	30,100	2,000	16,100	500
2039-2040	5,600	16,700	19,900	36,600	31,000	2,000	16,600	500
2040-2041	5,800	17,300	20,300	37,600	31,800	2,000	17,100	500
2041-2042	6,000	18,000	20,700	38,700	32,700	2,000	17,600	500
2042-2043	6,200	18,700	21,100	39,800	33,600	1,900	18,300	700
2043-2044	6,400	19,400	21,500	40,900	34,500	1,900	18,800	500
2044-2045	6,600	20,200	22,000	42,200	35,600	1,900	19,500	700
2045-2046	6,800	20,900	22,400	43,300	36,500	1,900	20,000	500

(1) Some numbers do not reconcile properly due to rounding.
(2) This average grant is strictly used for the purpose of calculating the net need. It is derived from the need assessment data and includes some students with a grant of zero. The real average grant (paid to grant recipients only) in loan year 2020-2021 is $5,883.
(3) The lower resources are due to one of the measures put in place for loan year 2020-2021 in response to the COVID-19 pandemic, namely: the removal of the student and spousal fixed contributions.
(4) The slight increase in average grant is due to the change in disability definition, resulting in more disability grants being disbursed.
(5) The large decrease in average grant is mainly due to the end of the temporary measure that doubled most grants; a smaller proportion of the decrease is attributable to the expiration of the pilot project providing a top-up grant as described in section 2.1.

Step 2: Adjusting for the loan limit

Loans are capped at a maximum of $210 per week[1]:

- Projected to remain fixed at $210

The constant loan limit restricts the growth of new loans issued. Over time, more students reach the loan limit without their needs being completely fulfilled. This is shown in Table 7, where the percentage of students at the loan limit is projected to increase from 58.1% in 2023-2024 to 92.6% in 2045-2046.

[1] Except for loan year 2020-2021, where the weekly loan limit was increased to $350 in response to the COVID-19 pandemic.

2.3.5 Total Amount of Loans Issued

Table 7 presents the resulting projection of new amount of loans issued.

Table 7 Increase in New Loans Issued

Loan Year	Average Student Need	Increase	% of Students at Limit[(1)]	New Loans Issued	Increase	Students in CSFA	Increase	Average Loan Size	Increase
	($)	(%)		($ million)	(%)	(thousands)	(%)	($)	(%)
	(1)		(2)	(3)		(4)		(3) / (4)	
2020-2021	19,800		17.7	3,969		576		6,885	
2021-2022	18,800	-5.1[(2)]	41.4[(3,4)]	2,929	-26.2[(5)]	554	-3.9	5,288	-23.2
2022-2023	19,300	2.7	42.5[(4)]	2,872	-1.9	552	-0.3	5,202	-1.6
2023-2024	19,900	3.1	58.1	3,847	33.9[(6)]	637	15.3	6,043	16.2
2024-2025	20,500	3.0	59.9	3,927	2.1	644	1.1	6,100	0.9
2025-2026	21,100	2.9	61.9	4,008	2.1	650	1.0	6,164	1.1
2026-2027	21,700	2.8	64.2	4,101	2.3	656	0.9	6,247	1.3
2027-2028	22,300	2.8	66.3	4,189	2.2	662	0.9	6,324	1.2
2028-2029	23,000	3.1	68.2	4,274	2.0	669	0.9	6,391	1.1
2029-2030	23,600	2.6	70.4	4,352	1.8	674	0.8	6,455	1.0
2030-2031	24,200	2.5	72.5	4,429	1.8	680	0.9	6,514	0.9
2031-2032	25,000	3.3	75.0	4,502	1.6	686	0.8	6,567	0.8
2032-2033	25,500	2.0	77.2	4,566	1.4	690	0.7	6,615	0.7
2033-2034	26,300	3.1	79.1	4,622	1.2	694	0.6	6,657	0.6
2034-2035	27,000	2.7	80.7	4,674	1.1	698	0.6	6,695	0.6
2035-2036	27,800	3.0	82.2	4,731	1.2	703	0.7	6,730	0.5
2036-2037	28,500	2.5	83.5	4,803	1.5	710	1.1	6,762	0.5
2037-2038	29,300	2.8	84.7	4,875	1.5	718	1.1	6,791	0.4
2038-2039	30,100	2.7	85.8	4,948	1.5	726	1.1	6,817	0.4
2039-2040	31,000	3.0	86.9	5,025	1.6	735	1.2	6,841	0.4
2040-2041	31,800	2.6	88.0	5,107	1.6	744	1.3	6,863	0.3
2041-2042	32,700	2.8	89.1	5,192	1.7	754	1.4	6,882	0.3
2042-2043	33,600	2.8	90.1	5,278	1.7	765	1.4	6,900	0.2
2043-2044	34,500	2.7	91.2	5,362	1.6	775	1.4	6,914	0.2
2044-2045	35,600	3.2	92.0	5,443	1.5	786	1.3	6,926	0.2
2045-2046	36,500	2.5	92.6	5,600	2.9	799	1.7	7,006	1.1

(1) The Percentage of Students at Limit represents the number of students with a weekly need of $210 or more (except for loan year 2020-2021 where it represents a weekly need of $350 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).
(2) The decrease in expected average student need is due to the end of one of the measures put in place for loan year 2020-2021 in response to the COVID-19 pandemic, namely: the removal of the student and spousal fixed contributions.
(3) The large increase in the % of Students at Limit is due to the end of one of the measures put in place for loan year 2020-2021 in response to the COVID-19 pandemic, namely: the increase in the weekly maximum loan amount from $210 to $350.
(4) The Percentage of Students at Limit remains low compared to historical values and future projections due to the doubling of grants.
(5) The large decrease in the amount of new loans issued is mainly due to the weekly loan limit decreasing from $350 in 2020-2021 to $210 in 2021-2022.
(6) The large increase in the amount of new loans issued is mainly due to the expiration of the measure doubling the CSG-FT, CSG-PD and CSG-FTDEP.

Table 7 shows the annual increase in new loans issued over the 25-year projection period. Overall, the total new loans issued is expected to decrease from $3,969 million in 2020-2021 to $2,929 million in 2021-2022 due to the weekly loan limit decreasing from $350 in 2020-2021 to $210 in 2021-2022. In 2045-2046, projected new loans issued total $5,600 million, which corresponds to an average annual increase of 1.4%[1]. This average annual increase can be attributed to two factors: an average annual increase in the number of students in the program of 1.3% and an average annual increase in the average loan size of 0.1% over the 25-year

[1] The average annual increase in new loans issued post temporary measures, that is, from loan year 2023-2024 to loan year 2045-2046, is 1.7%.

projection period. The average loan size is calculated as the ratio of new loans issued over the number of students receiving a loan under the CSFA Program. The growth rate of the average loan size is moderated due to the constant loan limit.

2.4 Portfolio Projections

This section presents projections of the portfolio for all three regimes described in Appendix A, as well as projections of the three allowances under the direct loan regime. The amounts for loans in-study represent loans issued to students who are still in the post-secondary educational system. Interest on loans in-study is fully subsidized by the Government for students in the CSFA Program. Loans in repayment consist of outstanding loans consolidated by students with financial institutions (or the Government).

2.4.1 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 guaranteed and risk-shared loans owned by financial institutions and by the Government[1] as well as the loans returned to the Government because of default (principal only). The projection for defaulted loans is shown separately for guaranteed and risk-shared regimes as the latter 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.

[1] In the loan year 2020-2021, the Government bought back a part of the good-standing guaranteed and risk-shared loans owned by financial institutions.

Table 8 Guaranteed and Risk-Shared Regimes Portfolio

As at July 31	Loans in Study or Repayment (with financial institutions)[1] Guaranteed and Risk-Shared	Loans in Study or Repayment (bought back by the Government) Guaranteed and Risk-Shared	Loans in Default (Returned to the Government) Guaranteed	Loans in Default (Returned to the Government) Risk-Shared	Total
	($ million)	($ million)	($ million)	($ million)	($ million)
2021	732	10	44	30	815
2022	708	9	37	27	781
2023	668	8	29	24	728
2024	596	7	19	21	643
2025	502	6	9	19	536
2026	398	5	0	17	420
2027	296	3	-	15	314
2028	205	2	-	12	219
2029	132	2	-	9	142
2030	85	-	-	4	90
2031	54	-	-	1	56
2032	27	-	-	0	27
2033	0	-	-	0	0
2034	0	-	-	-	0
2035	-	-	-	-	-
2036	-	-	-	-	-

(1) A part of the portfolio held by financial institutions is a contingent liability. As at 31 January 2021, the contingent liability represents about 95% of the financial institutions' total guaranteed and risk-shared loans.

At the end of the 2020-2021 loan year, the sum of all loans coming from the guaranteed and risk-shared regimes that are owned by the Government amounts to approximately $151 million (principal and interest). The Government sets up a separate allowance in the Public Accounts for those loans. This allowance calculation is not included in this report. Expenses related to Guaranteed and Risk-Shared Loans are presented in Table 15 and Table 16.

2.4.2 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 and allowances is shown in Table 9.

Table 9 Direct Loan Portfolio and Allowances

As at July 31	Loans In-Study	Principal only: Loans in Repayment	Principal only: Defaulted Loans	Total	Allowance for: Bad Debt Principal	Allowance for: Bad Debt Interest	Allowance for: RAP – Principal
	($ million)				($ million)		
2021	8,964	11,784	2,288(1)	23,036	3,001	224	2,125(2)
2022	8,110	12,206	2,444	22,760	3,018(4)	195(4)	2,323(3,4)
2023	8,100	11,784	2,566	22,450	3,074	171	2,334
2024	9,039	11,683	2,626	23,348	3,175	172	2,413
2025	9,699	11,925	2,672	24,296	3,278	179	2,486
2026	10,215	12,294	2,727	25,236	3,387	191	2,555
2027	10,649	12,707	2,798	26,154	3,503	205	2,621
2028	11,011	13,162	2,858	27,031	3,600	217	2,687
2029	11,331	13,631	2,907	27,869	3,680	227	2,758
2030	11,620	14,104	2,972	28,696	3,770	239	2,832
2031	11,887	14,572	3,049	29,508	3,868	253	2,910
2032	12,133	15,030	3,131	30,294	3,967	267	2,988
2033	12,359	15,467	3,213	31,039	4,064	281	3,063
2034	12,562	15,884	3,294	31,740	4,157	294	3,134
2035	12,746	16,270	3,375	32,391	4,247	307	3,206
2036	12,924	16,628	3,454	33,006	4,334	318	3,275
2037	13,109	16,963	3,531	33,603	4,419	328	3,342
2038	13,297	17,287	3,608	34,192	4,504	336	3,406
2039	13,491	17,592	3,684	34,767	4,589	344	3,466
2040	13,692	17,885	3,759	35,336	4,673	351	3,524
2041	13,903	18,172	3,834	35,909	4,759	359	3,581
2042	14,123	18,459	3,908	36,490	4,845	367	3,639
2043	14,350	18,749	3,982	37,081	4,932	375	3,696
2044	14,579	19,044	4,055	37,678	5,019	381	3,754
2045	14,807	19,344	4,128	38,279	5,106	388	3,813
2046	15,108	19,649	4,203	38,960	5,199	396	3,877

(1) Outstanding balance of defaulted loans based on the Public Sector Collection Database (PSCD) data file.
(2) Includes the changes to the RAP thresholds and lower maximum affordable payment proposed in Budget 2021.
(3) Includes the change to the RAP-PD eligibility, from permanent to persistent or prolonged disabilities, proposed in Budget 2021
(4) The allowances as at 31 July 2022 and afterwards are based on revised assumptions compared to the Actuarial Report as at 31 July 2020, as presented in Appendix C.

The outstanding direct loans portfolio is projected to increase rapidly from $23 billion as at 31 July 2021 to $25.2 billion five years later. By the end of the 2045-2046 loan year, the portfolio is projected to reach $39 billion.

As at 31 July 2021, the outstanding direct loan portfolio is $23 billion and is retrospectively derived from the experience[1] during loan years 2000-2001 to 2020-2021 as follows[2]:

New loans issued	$50.4 billion
Plus the interest accrued during the non-repayment period[3]	$ 1.4 billion
Minus repayments[4]	$26.2 billion
Minus loans forgiven and debt reductions in repayment[5]	$ 1.0 billion
Minus defaulted loans written off	$ 1.4 billion
	$23.0 billion

The remainder of subsection 2.4.2 provides detailed information on the three allowances.

[1] According to the Monthly Financial Information Schedule, the Departmental Account Receivable System (DARS) and the Public Sector Collection Database.

[2] Components may not sum to totals due to rounding.

[3] Effective on 1 November 2019, student loans no longer accumulate interest during the six-month non-repayment period after a student loan borrower leaves school.

[4] Either prepayments while in-study, normal and accelerated payments while in repayment, affordable payments while in RAP, or recoveries while in default.

[5] Under the former Debt Reduction in Repayment (DRR) or the Repayment Assistance Plan (RAP) measures.

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

	Defaulted Loans Portfolio (Principal only)					Allowance for Bad Debt – Principal			
Loan Year	Balance 1 August	New Defaulted Loans(1)	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)
2020-2021	2,213	277(2)	56	146	2,288	2,810	146	3,001	337
2021-2022	2,288	418 (3)	128	134	2,444	3,001	134	3,018	151
2022-2023	2,444	380	122	137	2,565	3,018	137	3,074	193
2023-2024	2,566	342	125	157	2,626	3,074	157	3,175	258
2024-2025	2,626	331	126	160	2,671	3,175	160	3,278	263
2025-2026	2,672	341	127	159	2,727	3,278	159	3,387	268
2026-2027	2,727	358	129	158	2,798	3,387	158	3,503	274
2027-2028	2,798	373	131	183	2,857	3,503	183	3,600	280
2028-2029	2,858	388	133	206	2,907	3,600	206	3,680	286
2029-2030	2,907	402	136	202	2,971	3,680	202	3,770	292
2030-2031	2,972	415	140	198	3,049	3,770	198	3,868	296
2031-2032	3,049	427	143	202	3,131	3,868	202	3,967	301
2032-2033	3,131	438	147	209	3,213	3,967	209	4,064	306
2033-2034	3,213	448	151	216	3,294	4,064	216	4,157	309
2034-2035	3,294	458	155	222	3,375	4,157	222	4,247	312
2035-2036	3,375	467	159	229	3,454	4,247	229	4,334	316
2036-2037	3,454	476	162	236	3,532	4,334	236	4,419	321
2037-2038	3,531	484	166	241	3,608	4,419	241	4,504	326
2038-2039	3,608	492	170	246	3,684	4,504	246	4,589	331
2039-2040	3,684	500	174	251	3,759	4,589	251	4,673	335
2040-2041	3,759	508	177	256	3,834	4,673	256	4,759	342
2041-2042	3,834	516	180	261	3,909	4,759	261	4,845	347
2042-2043	3,908	524	184	266	3,982	4,845	266	4,932	353
2043-2044	3,982	532	187	272	4,055	4,932	272	5,019	359
2044-2045	4,055	540	190	277	4,128	5,019	277	5,106	364
2045-2046	4,128	549	193	280	4,204	5,106	280	5,199	373

(1) This amount is net of rehabilitations, recalls and other adjustments that occurred during the year.
(2) Due to the temporary measure where no loans were transferred to default for six months, there were no defaults between 30 March 2020 and 30 September 2020.
(3) Due to the temporary measure where no loans were transferred to default for six months, there is a temporary change in the timing of transfer of loans in default. This results in lower default transfers in loan year 2019-2020 and 2020-2021, but an increase in loan year 2021-2022.

The balance of loans in default (principal only) was $2,288 million as at 31 July 2021. The defaulted loans portfolio is projected to reach $4,204 million by the end of the projection period.

As shown in Table 10, an amount of $146 million was written off in 2020-2021. The amount of write-offs in 2021-2022 is $134 million and includes all the non-recoverable loans that were identified and approved for write-off by ESDC and CRA between July 2020 and June 2021. These write-offs were approved on 31 March 2022, via Royal Assent of Bill C-15 (Appropriation Act No. 5, 2021-2022). 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.

The allowance for bad debt – principal covers the risk of future defaults, net of recoveries. It is estimated at $3,001 million as at 31 July 2021, which is higher than the $2,984 million projected in the previous report as at 31 July 2020. Projections of the previous report were adjusted to reflect the newest experience available. For the 2020-2021 loan year, the yearly expense for the allowance for bad debt – principal is $337 million.

The provision rates used to determine the 2021-2022 allowance are presented below. The ultimate provision rates are presented in Appendix C.

Provision Rates
Allowance as at 31 July 2022
• 6.7% of the outstanding balance of loans in-study; • 4.8% of the outstanding balance of loans in repayment; and • 77.0% of the outstanding balance of loans in default.
Allowance for Public Accounts: Provision rates used to determine the allowances for Public Accounts were based on the program's conditions as of 31 March 2022, i.e., without considering the indirect impacts from the changes proposed in Budget 2021 to the RAP nor the new disability definition.
• 6.8% of the outstanding balance of loans in-study, which is $8,748 million as at 31 March 2022; • 4.9% of the outstanding balance of loans in repayment, which is $12,483 million as at 31 March 2022; and • 76.9% of the outstanding balance of loans in default, which is $2,381 million as at 31 March 2022.
• **Total allowance as at 31 March 2022: $3,037 million.**

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 recent experience. The allowance for bad debt – interest is determined using the outstanding interest and a variable provision rate for each year since default. The provision rates are presented in Appendix C (Table 27).

The projection of the balance of interest on defaulted loans is presented in Table 11.

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(1)	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)
2020-2021	358	7	30(2,3)	19	39	337	238	39	224	26
2021-2022	337	2	5(3)	37	35	271	224	35	195	6
2022-2023	271	1	21(3)	35	34	224	195	34	171	10
2023-2024	224	9	69	39	31	233	171	31	172	33
2024-2025	233	10	81	44	29	250	172	29	179	36
2025-2026	250	10	85	48	28	269	179	28	191	39
2026-2027	269	11	87	51	27	289	191	27	205	41
2027-2028	289	12	91	53	31	307	205	31	217	43
2028-2029	307	12	95	56	35	323	217	35	227	46
2029-2030	323	13	100	59	36	340	227	36	239	48
2030-2031	340	14	106	62	37	361	239	37	253	51
2031-2032	361	15	111	65	40	381	253	40	267	54
2032-2033	381	15	117	69	43	402	267	43	281	57
2033-2034	402	16	123	73	47	422	281	47	294	60
2034-2035	422	16	127	76	48	440	294	48	307	61
2035-2036	440	17	130	79	51	457	307	51	318	63
2036-2037	457	17	133	81	55	470	318	55	328	64
2037-2038	470	17	135	84	57	482	328	57	336	65
2038-2039	482	18	138	86	58	494	336	58	344	66
2039-2040	494	18	141	88	61	504	344	61	351	67
2040-2041	504	18	143	90	61	515	351	61	359	69
2041-2042	515	18	146	92	61	526	359	61	367	70
2042-2043	526	19	149	94	63	537	367	63	375	71
2043-2044	537	19	151	95	66	546	375	66	381	72
2044-2045	546	19	154	97	67	555	381	67	388	73
2045-2046	555	20	157	99	66	567	388	66	396	75

(1) This amount is net of rehabilitations, recalls and other adjustments that occurred during the year.
(2) Due to the six-month pause on interest accruals, there was no interest accrual between 30 March 2020 and 30 September 2020.
(3) Due to the waiver of interest measure, there is no interest accrual between 1 April 2021 and 31 March 2023.

When a loan is transferred to the Government after nine months without a payment, it comes with an interest portion that generally represents slightly more than nine months of interest accrued on the defaulted principal transferred. Table 11 shows that $7 million of interest was returned to the Government in the 2020-2021 loan year, along with the newly defaulted principal portion of the loans. An additional amount of $30 million in interest was accrued during the 2020-2021 loan year on the principal balance of the recoverable defaulted loans portfolio at the beginning of the loan year.

Once loans are in default, CRA collects money for their repayment on behalf of the program. These collections are first applied to the interest portion of defaulted loans. To help individuals with a loan in default deal with COVID-19, CRA temporarily stopped collecting money. As such, an amount of $19 million was recovered in the 2020-2021 loan year, which is lower than the previous years.

Finally, when a loan meets certain criteria and has exceeded the six-year limitation period, the interest amounts are also considered for write-off. In the 2020-2021 loan year, $39 million in interest was written off. As shown in Table 11, the balance of interest in default was $358 million at the beginning of the 2020-2021 loan year and it decreased to $337 million as at 31 July 2021. The balance of interest in default is projected to increase to $567 million by the end of the projection period.

The allowance for bad debt – interest is estimated at $224 million as at 31 July 2021, which is higher than the $216 million projected in the previous report as at 31 July 2020. Projections of the previous report were adjusted to reflect the newest experience available. For the 2020-2021 loan year, the yearly expense for the allowance for bad debt – interest is $26 million.

The allowances are determined using provision rates applied to their corresponding outstanding balances of accrued interest according to the year since default. The sets of provision rates for the 2021-2022 allowances, as well as the ultimate provision rates, are presented in Appendix C. The provision rates used to determine the allowances for Public Accounts were based on the conditions of the program as of 31 March 2022, i.e., without considering the indirect impacts from the changes proposed in Budget 2021 to the RAP nor the new disability definition. The resulting allowance for Public Accounts as at 31 March 2022 corresponds to $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)	($ million)	($ million)	($ million)
	(1)	(2)	(3)	(3) - (1-2)
2020-2021	1,717	147[(1)]	2,125[(2)]	555
2021-2022	2,125	164	2,323	362
2022-2023	2,323	197	2,334	208
2023-2024	2,334	199	2,413	278
2024-2025	2,413	209	2,486	282
2025-2026	2,486	219	2,555	288
2026-2027	2,555	228	2,621	294
2027-2028	2,621	234	2,687	300
2028-2029	2,687	236	2,758	307
2029-2030	2,758	238	2,832	312
2030-2031	2,832	239	2,910	317
2031-2032	2,910	245	2,988	323
2032-2033	2,988	252	3,063	327
2033-2034	3,063	258	3,134	329
2034-2035	3,134	265	3,206	337
2035-2036	3,206	270	3,275	339
2036-2037	3,275	276	3,342	343
2037-2038	3,342	285	3,406	349
2038-2039	3,406	294	3,466	354
2039-2040	3,466	302	3,524	360
2040-2041	3,524	309	3,581	366
2041-2042	3,581	315	3,639	373
2042-2043	3,639	321	3,696	378
2043-2044	3,696	326	3,754	384
2044-2045	3,754	332	3,813	391
2045-2046	3,813	337	3,877	401

(1) Due to the six-month pause on repayment, RAP expenses were lower between 30 March 2020 and 30 September 2020.
(2) Most of the increase in the allowance from 1 August 2020 to 31 July 2021 is due to the change in RAP thresholds proposed in Budget 2021.

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 shown in Table 12, the allowance for the RAP – principal is estimated at $2,125 million as at 31 July 2021, which is lower than the $2,237 million projected in the previous report as at 31 July 2020. The projections of the last report were adjusted to reflect the newest experience available. For the 2020-2021 loan year, the yearly expense for the allowance for RAP – principal allowance is $555 million.

Budget 2021 proposed to modify the definition of disability to access RAP-PD (from permanent to persistent or prolonged), increase the RAP thresholds as well as to decrease the maximum affordable payment, all starting in loan year 2022-2023. Assumptions were adjusted to reflect these modifications, which result in more borrowers being eligible for RAP, a higher share of RAP-PD users, in addition to a higher share of principal payments to be covered by the Government. The changes to the RAP thresholds and decrease in the maximum affordable payment is reflected starting with the allowance for the loan year 2020-2021[1] allowance while

[1] The allowance as at 31 July 2021 recognizes immediately the expected future increase in RAP utilization starting from loan year 2022-2023.

the change in disability definition is reflected starting with the loan year 2021-2022 allowance[1], as seen in Table 12.

The provision rates used to determine the 2021-2022 allowance are presented below. The ultimate provision rates are presented in Appendix C.

Provision Rates
Allowance as at 31 July 2022
• 7.2% of the outstanding balance of loans in-study; • 1.8% of the outstanding balance of loans in repayment (net of loans in the RAP); and • 45.3%[(1)] of the outstanding balance of loans in RAP (all stages combined).
Allowance for Public Accounts: Provision rates used to determine the allowances for Public Accounts were based on the program's conditions as of 31 March 2022, i.e., without considering the changes proposed in Budget 2021 to the RAP nor the new disability definition.
• 5.2% of the outstanding balance of loans in-study, which is $8,748 million as at 31 March 2022; • 1.2% of the outstanding balance of loans in repayment (reduced by loans in the RAP - all stages), which is $9,141 million as at 31 March 2022; • 36.0% of the outstanding balance of loans in the RAP (all stages), which is $3,342 million as at 31 March 2022.
• **Total allowance as at 31 March 2022: $1,768 million.**

(1) The higher allowance rate than the previous loan year (34.3% as at 31 July 2021 in the 2020 Actuarial Report) is mostly due to the lower number of RAP users in loan year 2021-2022. This reduction in the number of RAP users is expected to be temporary. As the number of RAP users will return to expected experience, the allowance rate will also decrease.

For comparison purposes, Table 13 shows the direct loan portfolio and allowances in 2021 constant dollars.

[1] The impact from the change in the disability definition was not reflected in the allowance for the loan year 2020-2021 as details regarding the new definition were not finalized in time for the previous report as at 31 July 2020.

Table 13 Direct Loan Portfolio and Allowances (in millions of 2021 constant dollars)(1)

As at July 31	Loans In-study	Principal only: Loans in Repayment	Principal only: Defaulted Loans	Total	Allowance for: Bad Debt Principal	Allowance for: Bad Debt Interest	RAP – Principal
		($ million)				($ million)	
2021	8,964	11,784	2,288	23,036	3,001	224	2,125
2022	7,750	11,665	2,336	21,750	2,884	186	2,220
2023	7,524	10,946	2,383	20,853	2,855	159	2,168
2024	8,222	10,627	2,389	21,237	2,888	156	2,195
2025	8,653	10,639	2,384	21,677	2,925	160	2,218
2026	8,951	10,772	2,389	22,113	2,968	167	2,239
2027	9,170	10,943	2,409	22,522	3,017	177	2,257
2028	9,322	11,142	2,419	22,883	3,048	184	2,275
2029	9,433	11,347	2,420	23,200	3,063	189	2,296
2030	9,515	11,549	2,434	23,497	3,087	196	2,319
2031	9,577	11,740	2,456	23,773	3,116	204	2,344
2032	9,620	11,917	2,482	24,019	3,145	212	2,369
2033	9,646	12,072	2,508	24,226	3,172	219	2,391
2034	9,654	12,207	2,531	24,392	3,195	226	2,408
2035	9,647	12,314	2,554	24,516	3,214	232	2,427
2036	9,636	12,397	2,575	24,608	3,231	237	2,442
2037	9,630	12,461	2,594	24,686	3,246	241	2,455
2038	9,627	12,516	2,612	24,754	3,261	243	2,466
2039	9,628	12,555	2,629	24,812	3,275	245	2,474
2040	9,634	12,584	2,645	24,863	3,288	247	2,480
2041	9,647	12,609	2,660	24,915	3,302	249	2,485
2042	9,665	12,632	2,674	24,972	3,316	251	2,490
2043	9,688	12,658	2,688	25,034	3,330	253	2,495
2044	9,711	12,685	2,701	25,098	3,343	254	2,501
2045	9,733	12,716	2,714	25,163	3,356	255	2,507
2046	9,802	12,749	2,727	25,278	3,373	257	2,516

(1) For a given year, the value in 2021 constant dollars is equal to the corresponding value divided by the cumulative inflation for that year.

2.4.3 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 program. The limit was increased from $24 billion to $34 billion in June 2019.

Table 14 presents the projection of the aggregate amount of outstanding loans. It is the sum of:

- Total principal amount of direct loans in study, in repayment and in default;
- Total principal amount of defaulted risk-shared loans returned[1] to the Government from financial institutions.

In comparison with Table 8 and Table 9, which show the projection of the 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 usually occurs in the middle of the

[1] Loans purchased under an agreement made pursuant to the *Canada Student Financial Assistance Act* are considered. Good-standing loans purchased in loan year 2020-2021 shown in Table 8 are excluded.

loan year (January) 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 $23 billion as at 31 July 2021. Table 14 shows that the aggregate amount of outstanding direct loans reached $23.8 billion in January 2021 (loan year 2020-2021) and $24 billion in October[1] 2021 (loan year 2021-2022).

The projection shows that the $34 billion limit is expected to be reached during the 2035-2036 loan year if the program's provisions don't change and assumptions materialize. The limit is reached three years later than estimated in the 2020 Actuarial Report and it is mostly due to higher expected prepayments and lower projected loans issued.

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)
2020-2021	23,830	31	23,861
2021-2022	24,040[1]	28	24,068
2022-2023	23,756	25	23,781
2023-2024	24,363	22	24,385
2024-2025	25,281	20	25,301
2025-2026	26,243	18	26,261
2026-2027	27,208	16	27,224
2027-2028	28,153	13	28,166
2028-2029	29,056	10	29,066
2029-2030	29,916	6	29,922
2030-2031	30,762	3	30,765
2031-2032	31,590	0	31,590
2032-2033	32,383	0	32,383
2033-2034	33,130	-	33,130
2034-2035	33,829	-	33,829
2035-2036	34,486	-	34,486
2036-2037	35,121	-	35,121
2037-2038	35,742	-	35,742
2038-2039	36,352	-	36,352
2039-2040	36,954	-	36,954
2040-2041	37,557	-	37,557
2041-2042	38,166	-	38,166
2042-2043	38,785	-	38,785
2043-2044	39,411	-	39,411
2044-2045	40,041	-	40,041
2045-2046	40,739	-	40,739

[1] The peak usually occurs in January, but due to COVID-19 measures, it is expected to be a little earlier for loan year 2021-2022.

2.5 Projection of the Net Cost of the Program

2.5.1 Student Related Expenses

The primary expense of the CSFA Program is the cost of supporting students during their study and repayment periods. The student related expenses are presented in Table 15.

Table 15 Student Related Expenses

	Direct Loan			Risk-Shared and Guaranteed Loans			
Loan Year	Interest Subsidy	RAP – Interest[1]	Provision RAP – Principal	Interest Subsidy[2]	RAP – Interest and Principal	Canada Student Grants	Total
		($ million)			($ million)	($ million)	($ million)
2020-2021	95.7[3]	50.4[4]	555.7	0.0	4.6	3,187.5[5]	3,893.9
2021-2022	187.0	0.0[4]	361.6	0.0	4.9	3,229.9[5]	3,783.4
2022-2023	241.2	50.9[4]	208.1	0.0	4.7	3,385.7[5,6]	3,890.6
2023-2024	272.5	166.6	277.5	-	4.4	1,667.3	2,388.3
2024-2025	294.8	168.0	282.4	-	4.0	1,668.3	2,417.5
2025-2026	322.4	177.5	287.9	-	3.3	1,678.0	2,469.1
2026-2027	336.8	183.1	294.3	-	2.6	1,692.7	2,509.5
2027-2028	360.5	194.5	300.5	-	2.0	1,705.0	2,562.5
2028-2029	383.3	206.6	306.4	-	1.4	1,718.0	2,615.7
2029-2030	405.6	219.0	311.9	-	0.9	1,728.7	2,666.1
2030-2031	427.7	231.5	317.3	-	0.6	1,740.1	2,717.2
2031-2032	449.6	244.3	322.5	-	0.0	1,750.7	2,767.1
2032-2033	471.2	257.1	327.1	-	0.0	1,759.9	2,815.3
2033-2034	492.4	269.8	329.7	-	0.0	1,766.0	2,857.9
2034-2035	499.8	276.1	336.9	-	0.0	1,772.5	2,885.3
2035-2036	506.9	281.8	338.1	-	-	1,780.8	2,907.6
2036-2037	514.1	287.3	342.9	-	-	1,795.6	2,939.9
2037-2038	521.5	292.6	348.8	-	-	1,810.1	2,973.0
2038-2039	529.1	297.7	354.4	-	-	1,826.3	3,007.5
2039-2040	536.9	302.5	360.0	-	-	1,844.9	3,044.3
2040-2041	545.2	307.3	365.9	-	-	1,865.1	3,083.5
2041-2042	553.7	312.1	372.0	-	-	1,886.4	3,124.2
2042-2043	562.6	317.0	378.2	-	-	1,909.0	3,166.8
2043-2044	571.6	321.9	384.2	-	-	1,931.1	3,208.8
2044-2045	580.6	326.9	390.0	-	-	1,951.8	3,249.3
2045-2046	591.8	332.1	401.1	-	-	1,971.7	3,296.7

(1) Interest payments covered by the Government for borrowers in RAP Stage 1, Stage 2 and PD.
(2) Rounded to $0.0 million in the first three years but not nil.
(3) Interest Subsidy Expenses remain low due to the short-term reduction in the Government cost of borrowing as seen in Table 3.
(4) RAP interest payments are lower due to the waiver of interest between 1 April 2021 and 31 March 2023.
(5) The grants disbursed include the doubling of the CSG-FT, CSG-PT, CSG-PD, CSG-FTDEP and CSG-PTDEP, as well as the top-up grant.
(6) Loan year 2022-2023 and onwards include an increase to the CSG-PD and CSG-PDSE disbursed due to the change in the disability definition proposed in Budget 2021.

In the 2020-2021 loan year, a total of $3,188 million of CSGs were disbursed. Those grants are projected to remain at a similar level for 2021-2022 and to increase in 2022-2023 due to the temporary doubling of grants (2020-2021 to 2022-2023) and the change in the definition of disability (2022-2023+). Monthly grant amounts are set in the Canada Student Financial Assistance Regulations and are assumed to remain constant for the remaining projection period for the purpose of this valuation.

2.5.2 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 included in Table 16 below.

Table 16 Risks to the Government

	Direct Loan		Risk-Shared	Guaranteed		
	Provision for Bad Debt		Risk Premium, Put-Backs & Refunds to FIs	Claims for Defaulted Loans	Loans Forgiven	Total
Loan Year	Principal	Interest				
	($ million)		($ million)	($ million)	($ million)	($ million)
2020-2021	337.2	25.8	4.0	0.4	39.0	406.4
2021-2022	150.7	6.4	0.5	0.0	38.7	196.3
2022-2023	193.5	9.5	0.4	0.0	37.0	240.4
2023-2024	257.8	32.6	0.4	0.0	44.2(1)	335.0
2024-2025	262.7	36.4	0.4	0.0	45.9	345.4
2025-2026	268.1	39.3	0.3	0.0	47.2	354.9
2026-2027	274.3	41.3	0.3	-	49.0	364.9
2027-2028	280.2	43.4	0.2	-	52.4	376.2
2028-2029	285.9	45.5	0.2	-	53.5	385.1
2029-2030	291.1	48.0	0.1	-	54.6	393.8
2030-2031	296.2	51.0	0.1	-	55.7	403.0
2031-2032	301.1	54.0	-	-	56.8	411.9
2032-2033	305.4	56.9	-	-	57.8	420.1
2033-2034	309.1	59.9	-	-	58.8	427.8
2034-2035	312.6	61.3	-	-	59.7	433.6
2035-2036	316.4	62.6	-	-	60.5	439.5
2036-2037	321.3	63.9	-	-	61.3	446.5
2037-2038	326.0	65.1	-	-	62.1	453.2
2038-2039	330.9	66.3	-	-	62.8	460.0
2039-2040	336.1	67.5	-	-	63.6	467.2
2040-2041	341.6	68.7	-	-	64.4	474.7
2041-2042	347.3	69.9	-	-	65.1	482.3
2042-2043	353.0	71.1	-	-	65.9	490.0
2043-2044	358.6	72.3	-	-	66.7	497.6
2044-2045	364.1	73.5	-	-	67.4	505.0
2045-2046	373.0	74.7	-	-	68.2	515.9

(1) The increase is due to the proposed change in Budget 2022 to the loans forgiveness program for doctors and nurses, i.e., increase the maximum amount of doctors and nurses forgivable loans by 50%.

Details on the risks to the Government are provided below:

Risks to the Government	
Direct Loans	**Provision for bad debts (principal and interest)**: Cost of the default risk assumed by the Government in directly disbursing loans to students.
Risk-Shared	**Risk premium**: Amount paid to lending institutions by the Government based on the value of loans consolidating in a year.
	Put-backs and Refunds to financial institutions: ➢ Put-backs fees is a way to transfer some of the risk back to the Government. ➢ The Government has 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 if and which loans to sell). ➢ The Government pays a put-back fee of five cents on the dollar for these loans. ➢ Recoveries from income tax refunds are shared with the financial institutions at a rate of 75% of the amount recovered in excess of the put-back fees.
Guaranteed	**Claims for defaulted loans**: the Government bears the entire risk of defaulted loans.
Loans Forgiven	**Due to death**: during the period of study, repayment or after the loan has defaulted.
	Due to severe permanent disability: As of August 2009, limited to borrowers who, due to their severe permanent disability, are unable to pay their loans and will never be able to repay them.
	For doctors and nurses: Portion of loans for family physicians and nurses who practice in under-served rural or remote communities. Budget 2022 proposed to increase by 50% the maximum amount of doctors and nurses forgivable loans under the loan forgiveness program starting in loan year 2023-2024. Budget 2022 also proposed to expand the current list of eligible professionals and definition or rural communities under the loans forgiveness program.

2.5.3 Other Expenses

Alternative payments are made directly to Quebec, the Northwest Territories and Nunavut, as they do not participate in the CSFA Program. 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 short-term projection of the administrative fees was provided by ESDC. All collection activities on defaulted loans are fulfilled by CRA and a cost is included in the projected general administrative fees for this purpose.

As shown in Table 17, and notwithstanding impacts from temporary measures, total expenses associated with the program increase from $3.6 billion in 2024-2025[1] to $5.0 billion in 2045-2046. On average, total expenses are projected to increase at an annual rate of 1.7%.

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)
2020-2021	3,893.9	406.4	487.2	35.1	99.3	4,921.9
2021-2022	3,783.4	196.3	927.4[(2)]	36.7	106.0	5,049.8
2022-2023	3,890.6	240.4	1,065.4[(2)]	38.0	117.1	5,351.5
2023-2024	2,388.3	335.0	1,118.4[(2)]	39.0	117.9	3,998.6
2024-2025	2,417.5	345.4	645.1	40.3	119.1	3,567.4
2025-2026	2,469.1	354.9	659.2	41.5	125.3	3,650.0
2026-2027	2,509.5	364.9	685.9	42.8	135.8	3,738.9
2027-2028	2,562.5	376.2	712.3	44.1	139.9	3,835.0
2028-2029	2,615.7	385.1	740.5	45.4	144.2	3,930.9
2029-2030	2,666.1	393.8	767.4	46.8	148.6	4,022.7
2030-2031	2,717.2	403.0	793.8	48.2	153.2	4,115.4
2031-2032	2,767.1	411.9	818.4	49.7	157.9	4,205.0
2032-2033	2,815.3	420.1	840.8	51.2	162.7	4,290.1
2033-2034	2,857.9	427.8	861.6	52.8	167.7	4,367.8
2034-2035	2,885.3	433.6	878.3	54.4	172.8	4,424.4
2035-2036	2,907.6	439.5	885.7	56.1	178.1	4,467.0
2036-2037	2,939.9	446.5	889.3	57.8	183.6	4,517.1
2037-2038	2,973.0	453.2	891.9	59.6	189.2	4,566.9
2038-2039	3,007.5	460.0	896.5	61.4	195.0	4,620.4
2039-2040	3,044.3	467.2	898.6	63.3	201.0	4,674.4
2040-2041	3,083.5	474.7	900.0	65.2	207.1	4,730.5
2041-2042	3,124.2	482.3	901.5	67.2	213.4	4,788.6
2042-2043	3,166.8	490.0	903.6	69.3	220.0	4,849.7
2043-2044	3,208.8	497.6	908.5	71.4	226.7	4,913.0
2044-2045	3,249.3	505.0	914.5	73.6	233.7	4,976.1
2045-2046	3,296.7	515.9	918.3	75.8	240.8	5,047.5

(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.
(2) This includes the temporary doubling of the grants.

[1] First loan year not impacted by temporary measures.

2.5.4 Total Revenue

Interest revenues from the direct loan regime (shown in Table 18) include:

- Interest earned from student loans in repayment;
- Interest accrued on defaulted loans; and
- Interest portion of the RAP.

These interest revenues are net of interest on loans forgiven. They are also reduced by the Government’s cost of borrowing for loans in repayment and in default (only for the interest accrued expected to be recovered). 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, revenues mainly come from recoveries of principal and interest from defaulted loans owned by the Government. A small portion of revenues are coming from good-standing loans in repayment that were bought back from financial institutions in loan year 2021-2022.

Total revenues, notwithstanding the temporary waiver of interest, are projected to increase at an average rate of 2.7% per year between 2023-2024[1] and 2045-2046.

[1] First loan year following the end of the waiver of interest between 1 April 2021 and 31 March 2023.

Table 18 Total Revenues

Loan Year	Direct Loan: Interest Revenues	Direct Loan: Borrowing Cost	Direct Loan: Net Interest Revenues	Risk-Shared[1]: Principal and Interest from Recovery	Guaranteed: Principal and Interest from Recovery	Total Revenues
	($ million)		($ million)	($ million)	($ million)	($ million)
2020-2021	199.9[2,3]	-147.4	52.5	1.4	2.2	56.1
2021-2022	5.1[3]	-299.8	-294.7	2.1	3.3	-289.3
2022-2023	154.3[3]	-423.4	-269.1	2.2	2.8	-264.1
2023-2024	490.5	-367.7	122.8	2.1	2.1	127.0
2024-2025	506.6	-375.0	131.6	1.9	1.4	134.9
2025-2026	533.2	-397.6	135.6	1.7	0.0	137.3
2026-2027	548.2	-410.4	137.8	1.5	0.0	139.3
2027-2028	580.7	-438.3	142.4	1.3	0.0	143.7
2028-2029	615.8	-468.1	147.7	1.1	0.0	148.8
2029-2030	652.7	-499.4	153.3	0.8	-	154.1
2030-2031	691.3	-531.8	159.5	0.4	-	159.9
2031-2032	731.0	-565.0	166.0	0.0	-	166.0
2032-2033	769.4	-598.5	170.9	0.0	-	170.9
2033-2034	810.5	-632.2	178.3	-	-	178.3
2034-2035	832.6	-648.2	184.3	-	-	184.3
2035-2036	852.9	-663.2	189.7	-	-	189.7
2036-2037	871.6	-677.1	194.5	-	-	194.5
2037-2038	889.9	-690.4	199.5	-	-	199.5
2038-2039	907.2	-703.1	204.0	-	-	204.0
2039-2040	923.5	-715.2	208.2	-	-	208.2
2040-2041	939.3	-727.1	212.2	-	-	212.2
2041-2042	954.8	-738.8	216.1	-	-	216.1
2042-2043	970.3	-750.5	219.8	-	-	219.8
2043-2044	985.8	-762.4	223.4	-	-	223.4
2044-2045	1,001.5	-774.5	227.0	-	-	227.0
2045-2046	1,017.5	-786.8	230.6	-	-	230.6

(1) Include net interest revenues on loans bought back by the Government from financial institutions in loan year 2020-2021.
(2) Interest revenues are lower than usual in loan year 2020-2021 as they are based on an interest rate corresponding to prime rate for eight months (from 1 August 2020 to 31 March 2021) and to 0% for four months (from 1 April to 31 July 2021) as a result of the temporary waiver of interest.
(3) The decrease in interest revenues is due to the temporary waiver of interest on loans from 1 April 2021 to 31 March 2023.

2.5.5 Net Cost of the Program

Table 19 shows projected 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 information expressed in 2021 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	Changes	Direct Loan	Risk-Shared & Guaranteed
	($ million)		($ million)	(%)	($ million)	
2020-2021	4,921.9	56.1	4,865.8		4,859.9	5.9
2021-2022	5,049.8	-289.3	5,339.1	9.7%	5,338.8	0.3
2022-2023	5,351.5	-264.1	5,615.6	5.2%	5,615.1	0.5
2023-2024	3,998.6	127.0	3,871.6	-31.1%	3,870.7	0.9
2024-2025	3,567.4	134.9	3,432.5	-11.3%	3,431.0	1.5
2025-2026	3,650.0	137.3	3,512.7	2.3%	3,510.4	2.3
2026-2027	3,738.9	139.3	3,599.6	2.5%	3,597.8	1.8
2027-2028	3,835.0	143.7	3,691.3	2.5%	3,690.2	1.1
2028-2029	3,930.9	148.8	3,782.1	2.5%	3,781.5	0.6
2029-2030	4,022.7	154.1	3,868.6	2.3%	3,868.4	0.2
2030-2031	4,115.4	159.9	3,955.5	2.2%	3,955.2	0.3
2031-2032	4,205.0	166.0	4,039.0	2.1%	4,038.9	0.1
2032-2033	4,290.1	170.9	4,119.2	2.0%	4,119.2	0.0
2033-2034	4,367.8	178.3	4,189.5	1.7%	4,189.6	0.0
2034-2035	4,424.4	184.3	4,240.1	1.2%	4,240.3	0.0
2035-2036	4,467.0	189.7	4,277.3	0.9%	4,277.3	0.0
2036-2037	4,517.1	194.5	4,322.6	1.1%	4,322.5	-
2037-2038	4,566.9	199.5	4,367.4	1.0%	4,367.3	-
2038-2039	4,620.4	204.0	4,416.4	1.1%	4,416.3	-
2039-2040	4,674.4	208.2	4,466.2	1.1%	4,466.3	-
2040-2041	4,730.5	212.2	4,518.3	1.2%	4,518.2	-
2041-2042	4,788.6	216.1	4,572.5	1.2%	4,572.5	-
2042-2043	4,849.7	219.8	4,629.9	1.3%	4,629.9	-
2043-2044	4,913.0	223.4	4,689.6	1.3%	4,689.6	-
2044-2045	4,976.1	227.0	4,749.1	1.3%	4,749.0	-
2045-2046	5,047.5	230.6	4,816.9	1.4%	4,816.9	-

As shown in Table 19, the initial net annual cost for the direct loan regime is $4.9 billion for the 2020-2021 loan year. The net cost is projected to increase between loan year 2024-2025[1] and loan year 2045-2046 from $3.4 billion to $4.8 billion, representing an annual average increase of 1.6%.

It is important to specify that the net costs shown in Table 19 include the amount of CSGs disbursed. The amount of grants disbursed is $3,188 million in 2020-2021, representing 66% of the net cost in that loan year. It is higher from 2020-2021 to 2022-2023 due to the doubling of the CSGs announced by the Government in response to COVID-19. Additionally, starting in loan year 2022-2023, disability grants issued are revised upward to reflect the expected change in disability definition that will increase eligibility to the CSG-PD and CSG-PDSE. Moreover, the net costs also include yearly expenses to account for provisions that recognize in advance the risk of future losses associated with student loans.

1 First loan year not impacted by temporary measures.

In 2021 constant dollars (Table 20), the cost of the direct loan regime increases on average by 0.1% per year, from $3.1 billion in loan year 2024-2025[1] to $3.1 billion at the end of the projection.

Table 20 Net Annual Cost of the Program (in millions of 2021 constant dollars)(1)

Loan Year	All Regimes: Total Expenses ($ million)	All Regimes: Total Revenues ($ million)	Total Net Cost of the Program ($ million)	Net Cost of the Program: Direct Loan ($ million)	Net Cost of the Program: Risk-Shared & Guaranteed ($ million)
2020-2021	4,921.9	56.1	4,865.8	4,859.9	5.9
2021-2022	4,825.8	-276.5	5,102.3	5,102.0	0.3
2022-2023	4,970.8	-245.3	5,216.1	5,215.7	0.5
2023-2024	3,637.0	115.5	3,521.5	3,520.7	0.8
2024-2025	3,182.8	120.4	3,062.5	3,061.1	1.3
2025-2026	3,198.3	120.3	3,078.0	3,075.9	2.0
2026-2027	3,219.7	120.0	3,099.8	3,098.2	1.6
2027-2028	3,246.6	121.7	3,124.9	3,124.0	0.9
2028-2029	3,272.4	123.9	3,148.5	3,148.0	0.5
2029-2030	3,293.9	126.2	3,167.8	3,167.6	0.2
2030-2031	3,315.5	128.8	3,186.7	3,186.5	0.2
2031-2032	3,334.0	131.6	3,202.4	3,202.3	0.1
2032-2033	3,348.4	133.4	3,215.0	3,215.0	0.0
2033-2034	3,356.6	137.0	3,219.6	3,219.7	0.0
2034-2035	3,348.7	139.5	3,209.2	3,209.3	0.0
2035-2036	3,330.5	141.4	3,189.1	3,189.1	0.0
2036-2037	3,318.4	142.9	3,175.5	3,175.4	0.0
2037-2038	3,306.4	144.4	3,161.9	3,161.9	-
2038-2039	3,297.4	145.6	3,151.8	3,151.7	-
2039-2040	3,288.9	146.5	3,142.5	3,142.5	-
2040-2041	3,282.2	147.2	3,135.0	3,134.9	-
2041-2042	3,277.1	147.9	3,129.2	3,129.2	-
2042-2043	3,274.1	148.4	3,125.7	3,125.7	-
2043-2044	3,272.6	148.8	3,123.8	3,123.8	-
2044-2045	3,271.1	149.2	3,121.9	3,121.8	-
2045-2046	3,275.0	149.6	3,125.3	3,125.3	-

(1) For a given year, the value in 2021 constant dollars is equal to the corresponding value divided by the cumulative inflation for that year.

[1] First loan year not impacted by temporary measures.

3 Conclusion

The Canada Student Financial Assistance Program (CSFA Program) promotes accessibility to postsecondary education for those who demonstrate financial need by providing grants and loans, thereby encouraging successful and timely completion of postsecondary 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 2020. The present report as at 31 July 2021 is prepared mainly to support ESDC's accounting requirements and partners' need.

During the 2020-2021 loan year, 542,000 students received a Canada Student Grant (CSG) for a total of $3,188 million. Total CSGs are expected to decrease in 2023-2024 after the end of the temporary doubling of grants and to increase thereafter to $1,972 million in 2045-2046.

During the 2020-2021 loan year, 576,000 students received a loan for a total amount of new loans issued of $3,969 million. The amount of new loans issued is projected to decrease to $2,929 million in 2021-2022 as the weekly maximum loan limit reverts back to $210 and grants are doubled. The amount of loans issued is projected to reach $5,600 million in 2045-2046.

The direct loan portfolio is projected to increase from $23 billion as at 31 July 2021 to $39 billion in 25 years. According to the projections, the aggregate amount of outstanding student loans is expected to exceed the $34 billion limit in 2035-2036. The total annual net cost of the Government's involvement in the CSFA Program, which is the difference between expenses and revenues, is expected to grow from $4.9 billion in 2020-2021 to $5.6 billion by 2022-2023, reducing to $3.4 billion by 2024-2025 and finally gradually increasing to $4.8 billion by the end of the projection period. The short-term net cost is impacted by the temporary measures announced in Budget 2021.

Allowances for the **Public Accounts** as at **31 March 2022**:

Bad Debt – Principal:	$3,037 million
Bad Debt – Interest:	$ 209 million
RAP – Principal:	$1,768 million

COVID-19 Pandemic

More than two years have passed since the beginning of the COVID-19 pandemic. The situation remains fluid and will likely continue to evolve for some time. While employment is returning to a pre-pandemic level, there are still uncertainties regarding the future state of Canada's economy. For instance, current inflation is higher than historically seen in the last 30 years. Additionally, the temporary measures that were introduced by the Government within the CSFA Program to alleviate the impact of the pandemic on students and borrowers are set to expire at the end of the loan year 2022-2023. The final impacts of this health and economic crisis will likely generate some differences in the future.

4 Actuarial Opinion

In our opinion, considering that this Actuarial Report on the Canada Student Financial Assistance Program was prepared pursuant to the Canada Student Financial Assistance Act:

- the data on which this report is based are sufficient and reliable for the purposes of this report;
- the assumptions used are, individually and in aggregate, reasonable and appropriate for the purposes of this report; and
- the methods employed are appropriate for the purposes of this report.

This report has been prepared, and our opinion given, in accordance with accepted actuarial practice in Canada, in particular, the General Standards of the Standards of Practice of the Canadian Institute of Actuaries.

Subsequent events occurred after the valuation date. The first subsequent event consists of upcoming permanent changes to the program proposed in Budget 2021 and Budget 2022, as described in Section 2.1. In order to provide projections based on up-to-date information, these changes were considered in our report. However, the allowances determined for Public Accounts as at 31 March 2022 were based on the existing program's provisions as of that date. Budget 2021 changes are awaiting government approval, and Budget 2022 changes were announced after the Public Accounts valuation date of 31 March 2022 and have expected implementation dates that are later than 31 March 2022.

The second subsequent event consists of the recent evolution of inflation in Canada. Since the purpose of our report is to present results based on the conditions as at 31 July 2021, it is not considered in this report. For information purposes only, allowances determined for the Public Accounts as at 31 March 2022 would not be significantly impacted by a higher than expected inflation over a short-term period.

Assia Billig, FCIA, FSA
Chief Actuary

Mathieu Désy, FCIA, FSA

Thierry Truong, FCIA, FSA

Ottawa, Canada
7 September 2022

Appendix A — Summary of Program Provisions

The Canada Student Financial Assistance Program (CSFA Program) 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 CSFA Program 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.

A.1 Eligibility Criteria

In order to be eligible for financial assistance, a student must be a Canadian citizen, permanent resident, protected person within the meaning of the Immigration and Refugee Protection Act or a person registered as an Indian under the Indian Act, and must demonstrate the need for financial assistance, which is determined by the Need Assessment Process under the program. The assessed need is the difference between the student's costs and the student's resources. A student must also fulfill a series of criteria (scholastic standard and financial) to be considered for financial assistance. Each year, upon application with their province of residence, financial assistance is available to full-time students regardless of age, and since 1983, financial assistance is also available to part-time students.

A multi-year student financial assistance agreement was implemented in all jurisdictions starting in the 2013-2014 loan year. It is referred to as the 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.

Since the 2016-2017 loan year, the value of student-owned vehicles has been eliminated from the student's total resources in the need assessment process in all jurisdictions to better reflect the needs of students who commute or work while studying.

Starting in the 2017-2018 loan year, the student's resources definition was modified to consider only the student contribution as well as the parental or spousal contribution, if applicable. The student contribution is comprised of the fixed student contribution, merit-based scholarships, need-based bursaries, and targeted resources.

The fixed student contribution depends on the borrower's previous year's gross annual family income, family size and the number of weeks of study. Students with gross family income from the previous year equal to or below a low-income threshold will contribute up to $1,500 per academic year. Students with gross family income from the previous year above a low-income threshold will contribute $1,500 plus an additional 15% of income above the threshold up to a maximum total contribution of $3,000 per academic year. The low-income thresholds vary depending on the student's family size. The previous year's gross family income is defined by the applicable student category. For independent students and single parent, family income is comprised of the student's income only. For dependent students, family income is comprised of the student's parental income only. In the case of a married or common-law student, family income is comprised of the student's and the spouse's or partner's income. Indigenous learners, students with permanent disabilities, students with dependants and current or former Crown wards are exempted from the fixed student contribution.

The expected contribution from merit-based scholarships and need-based bursaries is equivalent to the combined assessed actual amount less an exemption of $1,800 per loan year.

Targeted resources are those provided to help with specific educational costs and may include funds received from municipal, provincial, or federal governments (e.g., training allowances from the skills portion of Employment Insurance benefits), or from the private sector (e.g., room and board provided by an employer while a full-time student). They are assessed at 100%.

Parents of single dependent students are expected to contribute to their children's education. The amount of parental contribution depends on family income and size, but do not depend on the living situation of the student.

The spouses and partners of married or common-law students are expected to make a spousal contribution equal to 10% of their gross family income exceeding the low-income thresholds. Spouses and partners at or below the low-income threshold, as well as those who are themselves full-time students, are not expected to make any spousal contribution.

For loan year 2020-2021, students were not required to make their fixed contribution; no spousal contribution was required either. This temporary measure was introduced by the Government in response to the COVID-19 pandemic.

Budget 2021 proposed to change the disability definition from permanent to persistent or prolonged when determining the fixed student contribution exemption starting with loan year 2022-2023.

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 CSFA Program. On behalf of the Government of Canada, the provinces and territory determine whether students require financial assistance as well as their eligibility for the CSFA Program. 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 CSFA Program covers around 60% of the assessed need up to a maximum of $210 per week. For loan year 2020-2021, this maximum was temporarily increased to $350 per week to help alleviate the effects of the COVID-19 pandemic. The participating provinces and territory complement the CSFA Program 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 and is responsible for the administration of student loans and grants. The NSLSC processes all applicable documentation from loans' disbursement to their consolidation and repayment for the federal portion of the loans, as well as for the provincial portion of integrated loans. It keeps students informed of all available options to assist in repaying their loans. The NSLSC is run by a private entity contracted by the government.

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.

- Guaranteed Loan Regime: 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.
- Risk-Shared Loan Regime: 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.
- Direct Loan Regime: 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 loan administered through the NSLSC instead of managing two separate loans (federal and provincial).

A.2 Canada Student Grants

Canada Study Grants were introduced in 1995 as non-repayable grants administered by the participating provinces on behalf of the Federal Government. These grants were taxable and assisted students with permanent disabilities, high-need part-time students, women pursuing certain doctoral studies and students with dependants. Canada Access Grants were then introduced in the 2005-2006 loan year and included grants for students from low-income families as well as grants for students with permanent disabilities.

The Canada Student Grants (CSGs), implemented in August 2009, provide 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. These grants are not taxable.

The CSGs include:

- **CSG-FT**: a grant of up to $375 per month of study for full-time university undergraduate or college students who fall below the maximum threshold based on family size and income. To be eligible, a student's academic program must be at least two years (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 $20,000 per school year to help cover exceptional education-related costs associated with a student's permanent disability.
- **CSG-FTDEP**: a grant of up to $200 per month of full-time study based on family size and income, for every dependent child under the age of 12.
- **CSG-PT**: a grant of up to $1,800 per school year for part-time students who fall below the maximum threshold based on family size and income.
- **CSG-PTDEP**: a grant of up to $40 per week of study for part-time students with one or two children under 12 years of age and up to $60 per week of study for students with three or more children under 12 years of age, up to a maximum of $1,920 per year. The exact amount payable for each week depends on family size and income.

Grants' amounts are stated in the *Canada Student Financial Assistance Regulations*. The thresholds and phase-out rates for CSG-FT, CSG-FTDEP, CSG-PT and CSG-PTDEP are based on family size and income and are set out in Schedule 4 of the Regulations.

Starting in the 2018-2019 loan year, a three-year pilot project provides an additional $200 per month, or $1,600 per standard 8-month academic year, in grants to eligible adult learners returning to school full-time after 10 years have passed since leaving secondary school. This pilot project also makes it easier for students to qualify for grants. Budget 2021 proposed to extend the top-up grant for two additional loan years, up to July 2023, and to make permanent the CSG assessment flexibility that was introduced with the pilot project (i.e., flexibility to use current year's income instead of previous year's income to determine eligibility for CSGs).

In response to the COVID-19 pandemic, the Government announced on 22 April 2020, that the maximum amount for the following grants would be doubled for loan year 2020-2021: CSG-FT, CSG-PD, CSG-FTDEP, CSG-PT and CSG-PTDEP. Budget 2021 proposed to extend the doubling of the grants for loan years 2021-2022 and 2022-2023.

Budget 2021 proposed to change the disability definition from permanent to persistent or prolonged when determining the eligibility to the CSG-PD and CSG-PDSE starting with loan year 2022-2023.

A.3 Loan Benefit

A.3.1 In-study Interest Subsidy

The CSFA Program provides an interest-free loan during the borrower's study period and during the six-month non-repayment 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 at consolidation and the remaining loan's lifetime is repaid with interest, loans under the CSFA Program are currently not considered as having significant concessionary terms according to the

Directive on Accounting Standards (GC 3050 Loans Receivable). This could change in the future if the repayment terms and conditions for student loans changed. Appendix E presents more details.

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.

As of 1 January 2012, part-time students do not accrue interest on their loans while they are studying. This change occurred to align part-time and full-time loans.

A.3.2 Loan Consolidation

During the first six months following the end of the study period (six-month non-repayment period), all loans previously received by a student are added together and consolidated. No payment is required and, effective on 1 November 2019, student loans no longer accrue interest during this period. 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 loans balance, repayment options and available repayment assistance measures. Starting on 1 November 2019, the floating interest rate is lowered to prime, from its previous rate of prime plus 2.5 percentage points. This is the rate chosen by approximately 99 per cent of CSFA Program borrowers. At the same time, the fixed interest rate is lowered to prime (at the time of consolidation) plus 2.0 percentage points, from its previous rate of prime plus 5.0 percentage points.

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.

Budget 2019 also proposed more flexibility for borrowers who take a temporary leave from their studies for medical or parental reasons, including mental health leaves. Borrowers will be eligible for an interest-free and payment-free leave for a maximum period of 18 months. This change was implemented on 1 October 2020.

On 18 March 2020, the Government announced that due to the COVID-19 pandemic, loan repayments would be suspended and interest would cease to accumulate between 30 March 2020 and 30 September 2020. In addition, Bill C-14 waived the interest accrual on student loans for fiscal year 2021-2022 and Budget 2021 proposed to extend this waiver for one more year, up to 31 March 2023.

A.3.3 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 five years from 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 loan's required monthly payment.

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 in loan year 2009-2010, the Repayment Assistance Plan (RAP) replaced 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).

At the beginning of loan year 2016-2017, the RAP income thresholds were increased to ensure that students would not be required to repay their student loan until they earned at least $25,000 per year ($25,000 being the threshold for a single student with no dependants, which scales up based on family size).

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 leaving school. The borrower's monthly affordable payment, if any, goes directly 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 amortizing 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.

Budget 2019 proposed to expand the eligibility for loan rehabilitation after a borrower defaults on their student loan. This change is effective on 1 January 2020. Financially vulnerable borrowers in default could access support such as the RAP and begin making affordable payments on their outstanding debt again.

Borrowers with a permanent disability who are not eligible for the Severe Permanent Disability Benefit have access to the RAP-PD. Additional expenses related to costs faced by permanently disabled borrowers are taken into account in the income calculation when they apply for RAP-PD. Similar to all borrowers in RAP Stage 2, additional student loans or grants are not available under RAP-PD until existing loans are paid in full. However, interest-free status may be available for existing loans if the borrower returns to school.

Budget 2019 proposed to remove the existing restriction that states that borrowers with a permanent disability are no longer eligible for additional loans and grants if they have been out of study for five years and have used the RAP. This modification took effect in the 2020-2021 loan year.

Budget 2021 proposed to increase the thresholds for the RAP starting in loan year 2022-2023. The threshold for borrowers living alone will increase to $40,000 while thresholds for borrowers from larger households will be modified to match the Canada Student Grants thresholds, which increase with inflation. Additionally, the cap on monthly RAP student loan payments will be reduced from 20 per cent of household income to 10 per cent. Moreover, Budget 2021 also proposed to change the disability definition from permanent to persistent or prolonged when determining eligibility to the RAP-PD. None of these proposed changes are in effect at the time this report was written.

A.3.4 Loan Forgiveness

The Minister has the authority, upon application and qualification, to forgive a 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.

Budget 2019 proposed to expand the eligibility for the Severe Permanent Disability Benefit making it possible for more student borrowers with severe permanent disabilities to qualify for loan forgiveness. This modification took effect in the 2019-2020 loan year.

Budget 2022 proposed to increase by 50% the maximum amount of doctors and nurses forgivable loans under the loan forgiveness program starting with loan year 2023-2024. Budget 2022 also proposed to expand the current list of eligible professionals and definition or rural communities under the loans forgiveness program. None of these proposed changes are in effect at the time this report was written.

Appendix B — Data

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

B.1 Direct Loans Issued

Table 21 presents information extracted from ESDC's data files on the amount of direct loans issued and the number of students for loan years 2000-2001 to 2020-2021. According to the Monthly Financial Information Schedule (MFIS), the total amount of loans issued in 2020-2021 rounded to the million was $3,968, which is nearly identical to the value calculated using the data file. These data were found to be complete.

Table 21 Direct Loans Issued and Number of Students

Loan Year	Amount of Loans Issued ($ million)	Number of Students
2000-2001	1,573	343,746
2001-2002	1,507	328,671
2002-2003	1,549	331,042
2003-2004	1,648	342,264
2004-2005	1,633	339,204
2005-2006	1,936	345,549
2006-2007	1,916	344,214
2007-2008	2,004	353,548
2008-2009	2,071	366,145
2009-2010	2,088	403,566
2010-2011	2,225	427,054
2011-2012	2,412	450,246
2012-2013	2,583	477,394
2013-2014	2,721	497,636
2014-2015	2,723	495,297
2015-2016	2,722	496,998
2016-2017	2,627	497,045
2017-2018	3,352	592,091
2018-2019	3,575	625,135
2019-2020	3,449	607,861
2020-2021	3,969	576,463

B.2 Direct Loans Consolidated

Table 22 presents the amount of consolidated direct loans, the amounts that were reversed due to students returning to school and the accrued interest during the six-month non-repayment period according to the MFIS. These data closely match consolidations from individual data for the most recent years. 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	Consolidations	Amounts from the MFIS Reversal	Amounts from the MFIS Interest Accrued	Total Amount Consolidated[1]
	($ million)			
	(1)	(2)	(3)	(1) - (2) + (3)
2000-2001	65.7	4.1	0.7	62.2
2001-2002	901.0	154.9	26.0	772.2
2002-2003	1,211.9	262.7	39.6	988.8
2003-2004	1,434.3	326.6	43.7	1,151.4
2004-2005	1,632.6	388.4	52.6	1,296.7
2005-2006	1,720.0	435.4	61.8	1,346.4
2006-2007	1,936.3	499.8	82.7	1,519.3
2007-2008	2,100.8	571.8	90.4	1,619.3
2008-2009	2,187.5	638.2	74.8	1,624.0
2009-2010	2,302.3	703.3	54.9	1,654.0
2010-2011	2,464.8	762.0	65.3	1,768.1
2011-2012	2,580.8	799.9	72.1	1,852.9
2012-2013	2,684.9	801.3	75.0	1,958.6
2013-2014	2,797.6	788.3	78.8	2,088.2
2014-2015	2,909.9	797.6	82.0	2,194.3
2015-2016	3,034.1	852.6	81.7	2,263.2
2016-2017	3,082.9	904.2	83.6	2,262.2
2017-2018	3,072.5	963.8	88.3	2,197.0
2018-2019	3,396.2	966.0	110.0	2,540.2
2019-2020	3,723.7	983.5	85.7[2]	2,825.9
2020-2021	3,905.9	1,326.6	0.0	2,579.3

(1) The net consolidated amount represents the total consolidation for the year less all reversals regardless of the original consolidation year.
(2) As of 1st November 2019, there is no more interest accrual during the six-month non-repayment period.

B.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 2020-2021 loan year, there were $55.6 million in recoveries. This amount includes recoveries for loans that could have been transferred in default in any loan year between 2000-2001 and now.

Table 23 shows that the balance of the portfolio in default is $2,288.0 million as at 31 July 2021 based on the information extracted from the data file. There is a non-material difference between the balance determined in the DARS/PSCD data file received and the balance provided by ESDC from their accounting system. As at 31 March 2022, this difference is about $6.9 million

($2,387.6 million in DARS/PSCD and $2,380.7 million from ESDC's accounting system), which represents 0.3%.

Table 23 Direct Loans Default Portfolio - Principal

Loan Year	Defaults	Account Adjustments	Rehabilitated	Net Defaults	Recoveries	Write-Offs	Balance
		($ million)			($ million)		($ million)
	(1)	(2)	(3)	(4)=(1)-(2)-(3)	(5)	(6)	(7) = Previous year's balance + (4)-(5)-(6)
2000-2001	5.3	-	-	5.3	0.3	-	5.0
2001-2002	5.0	-	0.1	4.9	0.7	-	9.1
2002-2003	244.3	0.6	17.5	226.2	23.8	-	211.6
2003-2004	265.9	12.4	3.1	250.4	48.8	-	413.1
2004-2005	364.4	19.0	2.2	343.2	83.0	-	673.3
2005-2006	275.6	12.3	7.8	255.5	85.6	-	843.2
2006-2007	257.7	8.7	5.8	243.2	83.7	0.2	1,002.5
2007-2008	303.4	11.1	5.0	287.4	91.8	0.3	1,197.8
2008-2009	308.3	8.7	7.0	292.6	85.4	-	1,404.9
2009-2010	301.2	6.1	10.9	284.3	81.1	-	1,608.2
2010-2011	335.2	6.4	18.0	310.8	92.8	-	1,826.2
2011-2012	382.8	6.9	34.9	341.0	99.3	220.9	1,847.0
2012-2013	353.4	5.9	31.4	316.1	105.0	167.6	1,890.5
2013-2014	372.9	12.5	39.0	321.3	113.0	-	2,098.8
2014-2015	357.6	6.3	39.3	312.0	120.2	218.0	2,072.6
2015-2016	346.0	2.0	40.9	303.1	118.5	131.7	2,125.9
2016-2017	350.4	2.6	73.8	274.1	114.8	136.1	2,149.1
2017-2018	340.6	-0.9	73.6	267.9	113.7	155.1	2,148.3
2018-2019	353.1	2.1	67.7	283.3	114.5	126.1	2,191.0
2019-2020	306.3	1.9	65.9	238.5	78.3	138.2	2,213.0
2020-2021	349.5	3.9	68.7	276.8	55.6	146.1	2,288.0

B.4 Repayment Assistance Plan

The Repayment Assistance Plan (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			
	MFIS			Data Files
Loan Year	Stage 2	PD	Total	Total
	($ million)			
2009-2010	3.3[(1)]	1.2	4.4[(1)]	2.8
2010-2011	2.9	6.1	8.9	10.2
2011-2012	6.3	11.7	18.1	17.1
2012-2013	11.1	12.9	24.0	24.3
2013-2014	16.7	15.5	32.2	32.7
2014-2015	25.5	20.2	45.7	44.1
2015-2016	33.8	23.4	57.2	56.2
2016-2017	45.8	28.9	74.7	73.3
2017-2018	59.0	31.4	90.4	90.0
2018-2019	70.1	34.5	104.5	103.9
2019-2020	56.6	25.6	82.2	81.6
2020-2021	99.6	47.5	147.1	146.4

	Interest Payments				
	MFIS				Data Files
Loan Year	Stage 1	Stage 2	PD	Total	Total
	($ million)				
2009-2010	67.5[(2)]	0.5	0.7	68.7[(2)]	73.7
2010-2011	82.7	1.8	3.0	87.5	87.6
2011-2012	94.1	3.9	5.8	103.8	101.9
2012-2013	106.1	6.5	6.1	118.7	119.3
2013-2014	119.2	9.3	6.8	135.3	139.1
2014-2015	131.3	12.9	8.5	152.7	153.9
2015-2016	137.8	15.4	9.3	162.5	164.0
2016-2017	154.3	19.2	11.1	184.7	182.3
2017-2018	182.2	27.0	13.6	222.8	219.4
2018-2019	199.3	34.6	16.6	250.5	245.3
2019-2020	96.8	18.9	8.6	124.3	125.3
2020-2021	40.2	6.6	3.6	50.4	51.5

(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 C — Assumptions and Methodology

C.1 Growth of Total Loans Issued

The growth of total loans issued varies based on the number of students receiving a loan through the CSFA Program, the evolution of students' needs and the loan limit.

C.1.1 Evolution of Number of Students Receiving a Loan

The number of students in the CSFA Program is affected by the demographic evolution of the population, the post-secondary enrolment and the loan uptake rate.

C.1.1.1 Demographic Projections

Demographic projections are based on the population projected in the 30th Actuarial Report on the Canada Pension Plan as at 31 December 2018. More specifically, it starts with the Canadian and Québec populations on 1 July 2018, to which future fertility, mortality and migration assumptions are applied. The Canadian population is adjusted to exclude the non-participating province of Québec as well as the Northwest Territories, Nunavut, and non-permanent residents. The CPP population projections are essential in determining the future number of students expected to pursue a post-secondary education.

C.1.1.2 Post-secondary Enrolment

The number of students enrolled full-time in post-secondary institutions is separated by labour force status (in or not in the labour force), age group, gender and institution type (whether students attend university, a public college or a private college). Since international students are not eligible to participate in the CSFA Program, they are excluded from the enrolment numbers.

For each sub-group, historical enrolment data and recent enrolment trends are analyzed. From these, expected future enrolment rates are determined. The future enrolment rates are then multiplied with the corresponding population subset (in or not in the labour force) to determine the expected number of students enrolled full-time.

Table 25 presents full-time post-secondary enrolment rates by age group, separated according to their labour force status, for loan years 2020-2021, 2030-2031 and 2045-2046. In 2020-2021, 47% of students aged 15 to 29 who were enrolled full-time in post-secondary institutions were also participating in the labour force while 53% of them were not participating in the labour force.

Table 25 Full-time Post-Secondary Enrolment Rate by Labour Force Status

		2020-2021	2030-2031	Change in Enrolment	2045-2046	Change in Enrolment
		(1)	(2)	(2)/(1)-1	(3)	(3)/(1)-1
		(%)	(%)	(%)	(%)	(%)
In Labour Force (Represents 47% of total enrolment 15-29 in 2020-2021)	15-19[(1)]	22.5	21.8	-2.8	21.8	-2.9
	20-24	25.2	25.4	1.0	25.4	0.8
	25-29	4.9	4.8	-1.6	4.8	-1.6
	15-29	15.7	16.1	2.8	16.1	2.8
Not In Labour Force (Represents 53% of total enrolment 15-29 in 2020-2021)	15-19[(1)]	21.9	28.1	28.6	28.1	28.5
	20-24	76.0	74.9	-1.4	74.9	-1.4
	25-29	23.1	24.0	3.6	24.0	3.8
	15-29	37.1	40.6	9.3	40.5	9.0
Total Enrolment Over Population 15-29	15-19[(1)]	22.1	25.0	12.8	24.9	12.4
	20-24	39.2	37.6	-4.1	37.1	-5.3
	25-29	8.2	7.5	-8.1	7.3	-10.8
	15-29	22.7	23.3	2.8	23.0	1.6

(1) The population aged 15-19 includes high school students who are not considered in the post-secondary enrolment rate. When considering all education levels, including high school, between 80% and 85% of the population 15-19 was in school based in the last five years.

Over the projection period, the enrolment rate for students not in the labour force is expected to increase while the enrolment rate for students in the labour force is expected to decrease.

C.1.1.3 Loan Uptake Rate

The loan uptake is projected based on the type of educational institution (university, public college or private college). A trend is defined for each group based on historical data, current socio-economic conditions and the future expected mix of the student population.

The number of students in the CSFA Program is determined by multiplying the number of students enrolled full-time by the loan uptake.

C.1.2 Evolution of Student Need

ESDC provided CSFA Program need assessment data for loan year 2019-2020. The CSFA Program generally provides 60% of the total assessed need, while the participating province or territory of residence provides the remaining 40%. If a student is eligible for a grant, the amount received as a grant reduces the calculated need, resulting in a net need. The projected annual net need increases come from the projected increases in expenses (tuition, compulsory fees and other expenses) partially offset by the projected increases in resources and grants. These net need increases are calculated separately for each group (university, public college and private college students) over the 25-year projection period.

C.1.2.1 Tuition

Tuition fees are, in part, determined by government policies. Thus, they are projected using provincial and/or university budgets, along with recent and historical experience of tuition fee increases. The short-term projected increases in tuition fees are shown in Table 26.

Table 26 Short-term Increase of Tuition Expenses

Province	Weight	2021-2022(1)	2022-2023(2)	2023-2024(3)	2024-2025(3)
	(%)	(%)	(%)	(%)	(%)
Newfoundland	1.3	1.4	29.6	29.0	28.1
Prince Edward Island	0.4	1.1	2.0	2.0	2.0
Nova Scotia	4.9	3.1	3.0	3.0	3.0
New Brunswick	2.9	2.0	3.0	3.0	3.0
Ontario	53.2	0.0	0.0	3.8	3.8
Manitoba	2.0	3.4	3.6	3.6	3.6
Saskatchewan	3.0	3.7	3.6	3.6	3.6
Alberta	18.2	7.7	7.0	2.3	2.1
British Columbia	14.1	0.9	2.0	2.0	2.0
Weighted Average		1.9	2.4	3.5	3.5

(1) Increases based on Canadian undergraduate tuition published by Statistics Canada (table 37-10-0045-01).
(2) Increases based on provincial and/or university budgets.
(3) Increases based on historical experience or expected future increases.

Long-term estimates of tuition are based on past increases in tuition relative to increases in inflation. Loan years 2019-2020 and 2020-2021 represented outlier points in terms of tuition increase due to the 10% decrease in tuition during the first year and to the tuition freeze in the following year, both enacted by the Ontario Government. Therefore, they were excluded in the calculations of historical average increases. Over the 10-year period ending in 2018-2019, tuition increases have been, on average, close to inflation plus 1.75%. Therefore, the ultimate tuition increase is 3.75%.

However, the tuition increase in loan year 2021-2022 and the expected tuition increase in loan year 2022-2023 are lower than the inflation for the same periods. To remain consistent with historical average increases, it is assumed that there will be a catchup in the near future. Therefore, an adjustment of 0.7% per year is made to the projected tuition increase starting from loan years 2024-2025 to 2027-2028 (as shown in Table 2). Afterwards, the tuition increase is equal to the ultimate assumption of inflation plus 1.75%.

The starting point for the 2019-2020 tuition fees is calculated from the need assessment data file and represents the average tuition fees for students who received a loan. Tuition fees were calculated for each of the three student groups (university, public college and private college) and a weighted average was determined based on the number of students in each group. This calculation resulted in a tuition fee estimate of $8,200 for loan year 2019-2020. The estimated weighted average tuition fees (including compulsory fees) for 2020-2021 are $8,300 based on an annual tuition increase of 2.2%.

C.1.2.2 Other Expenses

Other expenses are considered to be any student expense other than tuition fees. These expenses include books, shelter, food, clothing and transportation and are assessed by the participating provinces and territory. The average expense is calculated from the need assessment data file and represents the average expenses for students who receive a loan. The estimated average for other expenses is $12,900 for loan year 2019-2020; it increases to $13,100 in loan year 2020-2021 based on an inflation increase of 1.8%.

C.1.2.3 Student Resources

Student resources include student, parental and spousal contributions. Increased resources reduce the maximum loan available to students through the need analysis. Student need is summarized in Table 6.

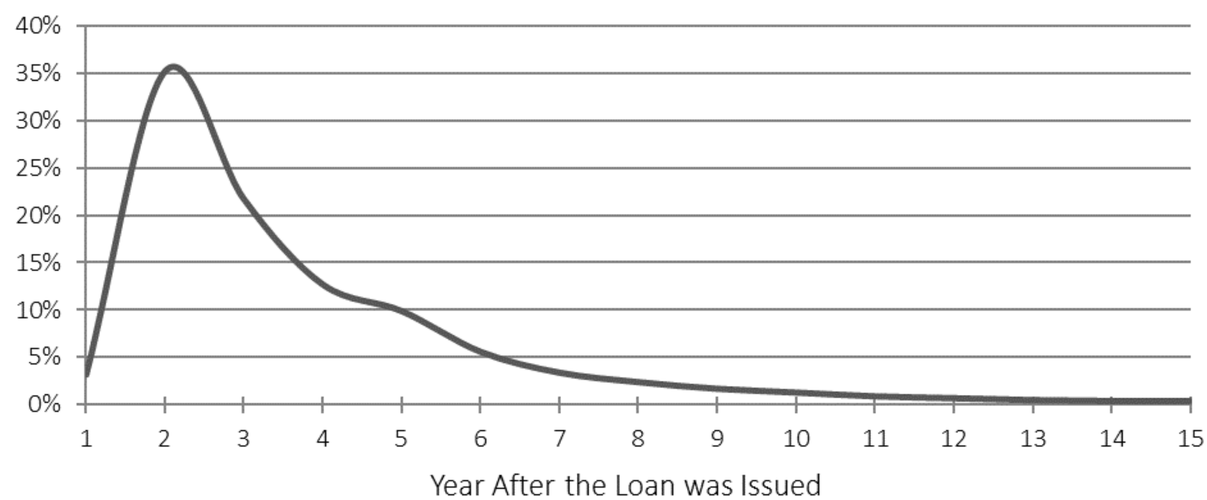
The starting point for average resources in 2019-2020 is calculated from the need assessment data file and represents the average resources for students who received a loan. The salary portion of average resources is then projected using the wage increase assumption, while the standard of living used to determine the parental contribution is projected using the inflation assumption. As such, the estimated student average resources is $1,600 for 2020-2021, due to the temporary removal of the fixed student contribution and of the spousal contribution for that year. This amount increases to $3,400 in loan year 2021-2022.

C.2 Consolidation

Under the direct loan regime, loans are assumed to consolidate according to the distribution of consolidation by year shown in Chart 1 over a period of fifteen years after a loan is issued. This distribution is built using the experience of direct loan consolidations.

Each year, some borrowers having previously consolidated their student loans choose to return to school. For projection purposes, the consolidated loan amounts in each future loan year are calculated net of loans for borrowers who returned to school. Hence, the students only consolidate once for modeling purposes.

Chart 1 Distribution of Consolidation



The next sections provide a summary of the assumptions and methodology used to determine the three allowances (Bad Debt – Principal, Bad Debt – Interest and RAP – Principal).

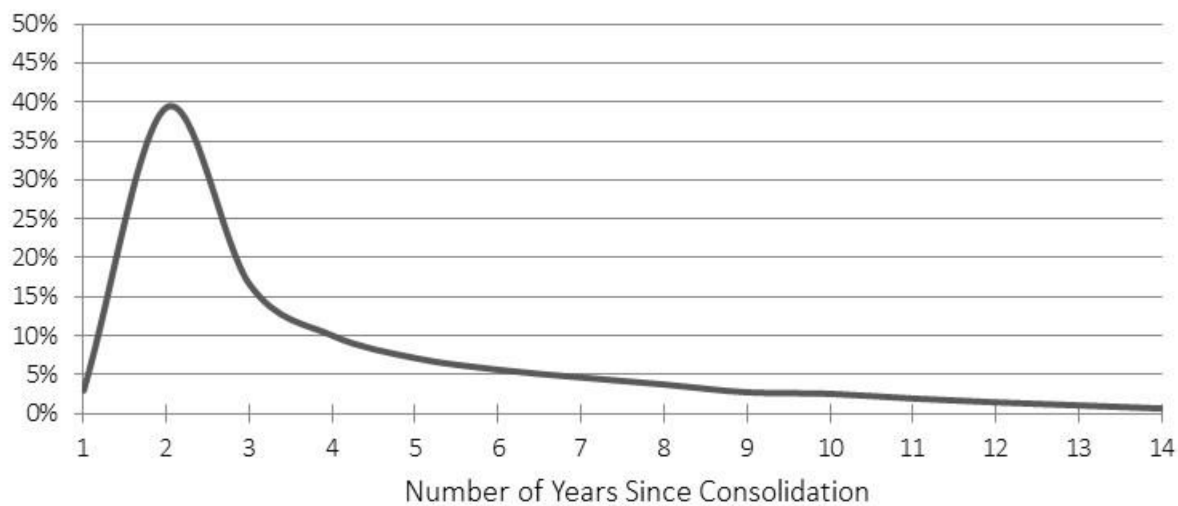
C.3 Allowance for Bad Debt – Principal

The calculation of the allowance for bad debt – principal is based on several assumptions, namely the gross default rate, the loans rehabilitations and recalls, the loans recoveries and the prepayments. These assumptions are based on historical observations and the actuary's best estimates.

C.3.1 Gross Default Rate

A default rate is determined for each consolidation cohort. Consolidation cohorts 2025-2026 and onwards are assumed to have the same ultimate gross default rate of 15.25%. This rate represents the proportion of loans consolidated in a year that are expected to default at some point before they are completely repaid. As shown in Chart 2, the largest proportion of loans goes into default within three years of consolidation. In the short-term, gross default rates were adjusted upward to reflect recent experience.

Chart 2 Default Distribution



C.3.2 Recalls and Rehabilitations Rate

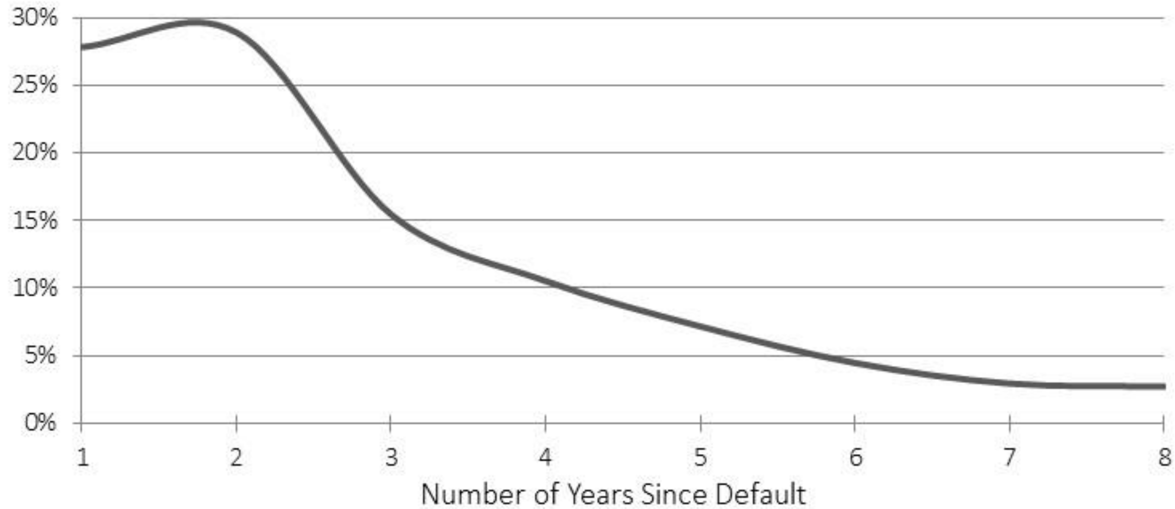
For different reasons, loans can be mistakenly transferred in default. When they are brought back in good standing, the transaction is referred to as a recall. In addition, borrowers who find themselves legitimately in default can bring their loans back in good standing by performing what is called a rehabilitation. Prior to January 2020, borrowers had to pay all outstanding interest and the equivalent of two monthly payments to rehabilitate their loan. Since January 2020, borrowers also have the option to meet the rehabilitation criteria by making two monthly payments and capitalizing the remaining interest on their loan.

Another incentive for borrowers to rehabilitate their loans came with the introduction of the RAP in loan year 2009-2010, since to be eligible for the RAP, borrowers first needed to have a loan in good standing.

Consolidation cohorts 2025-2026 and onwards are assumed to have the same ultimate recalls/rehabilitations rate of 14.0%. In the short-term, this rate was adjusted upward to reflect recent experience.

Chart 3 shows the long-term recalls and rehabilitations distribution once a loan is transferred in default.

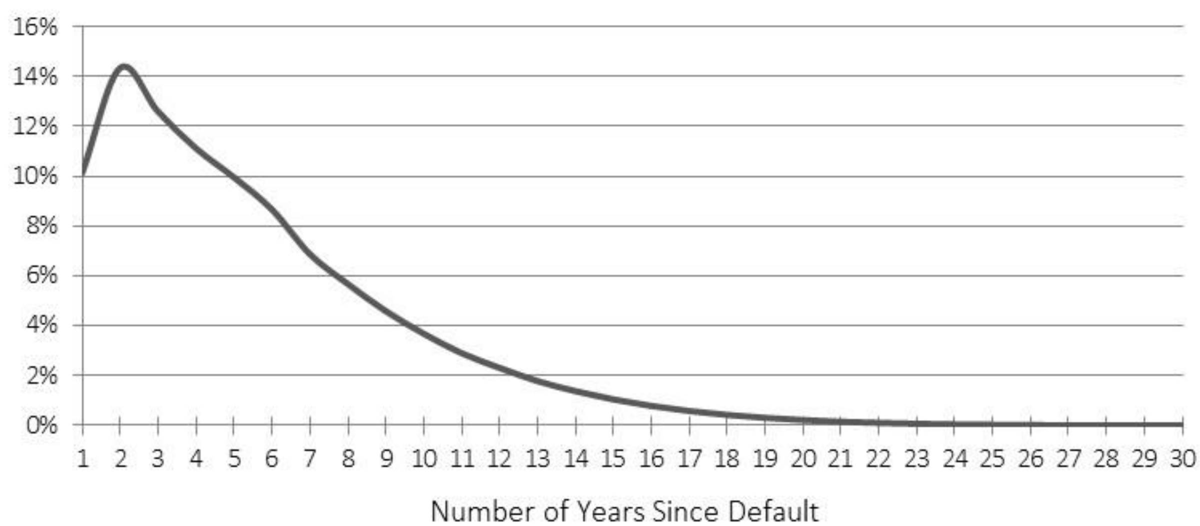
Chart 3 Recalls and Rehabilitations Distribution



C.3.3 Recovery Rate

Recoveries represent monies the program is able to recuperate after loans have defaulted. CRA is responsible for collecting this money on behalf of the program. Recoveries are analysed based on the default year after consolidation. The long-term recovery rate for a default cohort is assumed to be 32.8%. Chart 4 shows the recovery distribution once a loan is transferred in default. Most recoveries are received in the first five years after default.

Chart 4 Recovery Distribution



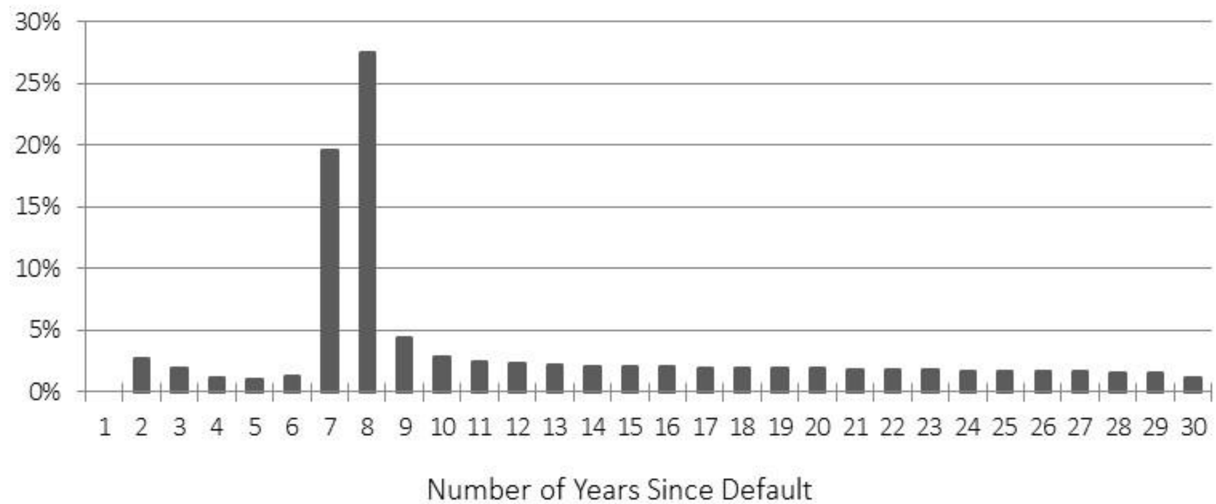
C.3.4 Net Default Rate

The net default rate represents the proportion of consolidated loans that will eventually be written off for each future consolidation cohort. The long-term net default rate corresponds to:

Gross Default Rate x (1 – Recalls and Rehabilitation Rate – Recovery Rate) =
15.25% x (1 – 14.0% – 32.8%) = 8.1%

The amount of loans to be written-off[1] each year is determined using the assumed distribution presented in Chart 5, which was updated from the last report based on recent experience data.

Chart 5 Write-Off Distribution



C.3.5 Bad Debt Provision - Principal

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 provision rates used for the projected allowance as at 31 July 2022[2] shown in this report are:

- 6.7% for loans in-study;
- 4.8% for loans in repayment;
- 77.0% for loans in default

The ultimate provision rates used in this report are:

- 6.7% for loans in-study;
- 4.7% for loans in repayment;
- 78.1% for loans in default

[1] Includes write-offs of defaulted loans that exceed the six-year limitation period as stated in section 16.1 of the Canada Student Financial Assistance Act, as well as small balances of defaulted loans.

[2] The provision rates used for the Public Accounts as at 31 March 2022 are presented in section 2.4.2 of the main report and do not include indirect impacts from the changes to the RAP nor the new disability definition proposed in Budget 2021.

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. The following sections are providing additional details on the three components of the allowance for bad debt – principal.

C.3.5.1 Allowance for loans in study

This allowance corresponds to the net default rate adjusted to account for prepayments (payments received from students prior to consolidation). Based on experience, prepayments amount to approximately 17.5% (increased from the previous report assumption of 15.0%). This results in a long-term provision rate for loans in study of:

[(Net Default Rate) x (1 – Prepayments)] = [(8.1%) x (1 – 17.5%)] = 6.7%

C.3.5.2 Allowance for loans in repayment

This allowance 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. As mentioned previously, the long-term recovery rate for each gross default cohort is expected to be 32.8%; hence, it is assumed that 67.2% (1 – 32.8%) of the projected gross defaulted loans will not be recovered. Therefore, the provision rate on outstanding loans in repayment is 4.7% in the long-term. This provision rate of 4.7% for loans in repayment is lower than the provision rate of 6.7% 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.3.5.3 Allowance for loans in default

The last allowance for bad debt – principal component is the one on the balance of loans in default that will not be recovered. The long-term rate is equal to 78.1%. This rate is higher than the non-recovery rate of 67.2% (1 – 32.8%) 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.

C.4 Allowance for Bad Debt - Interest

The methodology for the calculation of the provision for bad debt – interest takes into account the number of years since default. Interest on defaulted loans is accrued until the loan reaches the “non-recoverable” status. A loan reaches this status when the collection of either principal or interest is not reasonably assured. For projection purposes, a loan becomes “non-recoverable” according to a 30-year distribution and is then gradually written off.

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 methodology involves the calculation of:

- Accrued interest on defaulted loans in each loan year;
- Projected outstanding interest at the end of each loan year based on non-recoverable and recovery rates, applied to outstanding interest at the beginning of the year;
- Projected allowance at the end of each year (obtained by adding the products of outstanding interest accounts with the corresponding provision rate for each year since default).

The annual expense for bad debt – interest in a year is equal to the difference between the total allowance (on recoverable and non-recoverable accounts) 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. A set of provision rates that vary according to the number of years since default was established for the projection. The long-term provision rate is 29.8% of interest accrued in the first year after loans are transferred into default. It increases in each of the six subsequent years before decreasing in the eighth and ninth years (when a large portion of interest is transferred to the "non-recoverable" status because of the six-year limitation period – statute of limitations). After that, the provision rates increase each year to reach 100% in the 20th year. This reflects the increasing difficulty of recovering defaults as time passes. Table 27 shows the provision rates for bad debt – interest, which remain constant throughout the projection period.

Table 27 Provision Rates for Bad Debt – Interest(1)

Year Since Default	Provision Rates (%) - Loan Year 2021-2022(2)	Provision Rates (%) - Long-Term
1st	30.0	29.8
2nd	38.6	38.2
3rd	46.3	47.0
4th	57.1	57.1
5th	67.9	67.7
6th	76.8	77.6
7th	77.4	77.9
8th	69.7	67.9
9th	67.6	70.0
10th	72.5	72.3
11th	76.0	74.6
12th	77.4	76.6
13th	78.8	78.9
14th	81.0	81.2
15th	82.4	84.2
16th	86.0	88.4
17th	92.0	92.1
18th	95.6	95.5
19th	98.4	98.3
20th+	100.0	100.0

(1) Provision rates for bad debt – interest are applied on total interest. Provision rates presented in reports up to 2018 were applied on recoverable interest only (and a rate of 100% was applied on non-recoverable interest).
(2) Same as the provision rates for Public Accounts as at 31 March 2022.

C.5 Allowance for the Repayment Assistance Plan (RAP)

As explained in Appendix A, the two stages of RAP are aimed to help student borrowers, who apply and meet the eligibility criteria, to 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 can elect to apply for either RAP Stage 2 or RAP-PD, on approval of their RAP-PD application.

The methodology used to calculate the allowance for the RAP consists of evaluating the dollar proportion of consolidated loans expected to enter each stage, and to remain in the RAP, each year after consolidation. The assumptions are based on the analysis of the historical data available for each cohort of consolidation.

RAP – Stage 1

Table 28 shows the long-term utilization rate assumptions used for RAP–Stage 1. These rates are applied to the consolidated loans amounts for cohorts 2020-2021 onwards. Many borrowers complete their RAP–Stage 1 over a period longer than five years, hence the utilization rates do not always include the same borrowers from year to year, and some borrowers may be in the plan for only part of a year. The model takes all of this into account by incorporating the average time spent in RAP–Stage 1 in a loan year.

The first year in RAP–Stage 1 (first row of Table 28) generally consists of a partial loan year since most borrowers do not enter the RAP on August 1st. However, if borrowers remain in the RAP for a greater amount of time in the second year, then the utilization rate can be higher than the preceding year.

Table 28 RAP-Stage 1 Utilization Rates (1)

RAP1 Loan Year	Start Year after Consolidation 1	2	3	4	5	6	7	8
1	29.5%	3.3%	0.9%	0.5%	0.3%	0.2%	0.1%	0.1%
2	32.9%	2.7%	0.9%	0.5%	0.3%	0.2%	0.1%	0.1%
3	21.5%	1.8%	0.6%	0.3%	0.2%	0.1%	0.1%	0.0%
4	16.5%	1.4%	0.4%	0.2%	0.1%	0.1%	0.0%	0.0%
5	13.3%	1.1%	0.4%	0.2%	0.1%	0.0%	0.0%	
6	7.2%	0.5%	0.2%	0.1%	0.1%	0.0%		
7	1.9%	0.2%	0.1%	0.0%	0.0%			
8	1.0%	0.1%	0.0%	0.0%				
9	0.6%	0.1%	0.0%					
10	0.4%	0.0%						
11	0.1%							

(1) These rates reflect the expected impact of the changes to the RAP as well as the change in disability definition, both starting in loan year 2022-2023 and proposed in Budget 2021.

RAP –Stage 2

The methodology used to calculate the amount of dollars in RAP–Stage 2 assumes that as borrowers become eligible for RAP–Stage 2 (five years after entering RAP–Stage 1), they immediately enter RAP–Stage 2. This means that a borrower could enter RAP–Stage 2 from the 6th year after consolidation until the 11th year after consolidation.

Table 29 shows the resulting long-term utilization rate assumptions used for RAP–Stage 2.

Table 29 RAP-Stage 2 Utilization Rates (1)

RAP2	Start Year after Consolidation					
Loan Year	6	7	8	9	10	11
6	3.2%	1.1%	0.4%	0.2%	0.2%	0.3%
7	4.9%	1.2%	0.4%	0.3%	0.3%	0.2%
8	4.0%	0.9%	0.3%	0.2%	0.2%	0.1%
9	3.1%	0.7%	0.2%	0.1%	0.1%	0.1%
10	2.3%	0.6%	0.2%	0.1%	0.1%	0.0%
11	1.9%	0.4%	0.1%	0.1%	0.0%	
12	1.3%	0.3%	0.1%	0.0%		
13	1.0%	0.2%	0.0%			
14	0.8%	0.1%				
15	0.2%					

(1) These rates reflect the expected impact of the changes to the RAP as well as the change in disability definition, both starting in loan year 2022-2023 and proposed in Budget 2021.

RAP –PD

RAP–PD is available to borrowers with a permanent disability. A borrower who had a RAP–PD application approved is eligible to start in the RAP–PD as soon as his loan consolidates and can remain in the plan for a period of 9.5 years, when the loan is expected to have been repaid in full.

Table 30 shows the long-term utilization rate assumptions used for RAP–PD.

Table 30 RAP-PD Utilization Rates (1)

RAP-PD	Start Year after Consolidation						
Loan Year	1	2	3	4	5	6	7
1	3.21%	0.22%	0.08%	0.05%	0.04%	0.03%	0.02%
2	3.73%	0.19%	0.09%	0.06%	0.05%	0.03%	0.02%
3	2.52%	0.13%	0.06%	0.04%	0.03%	0.02%	0.01%
4	1.94%	0.09%	0.04%	0.03%	0.02%	0.01%	0.00%
5	1.48%	0.07%	0.03%	0.02%	0.02%	0.00%	0.00%
6	1.19%	0.05%	0.02%	0.01%	0.01%	0.00%	
7	0.90%	0.04%	0.01%	0.00%	0.00%		
8	0.66%	0.02%	0.00%	0.00%			
9	0.39%	0.01%	0.00%				
10	0.17%	0.00%					
11	0.10%						

(1) These rates reflect the expected impact of the changes to the RAP as well as the change in disability definition, both starting in loan year 2022-2023 and proposed in Budget 2021.

Due to the expected change in the disability definition, as proposed in Budget 2021, it is assumed that some borrowers will use RAP-PD (increase in utilization rates in Table 30) instead of RAP-1 or RAP-2 (decrease in utilization rates in Table 28 and Table 29).

Provisions for RAP–Principal (Stage 2 and PD)

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 based on current and long-term 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 used for the projected allowance as at 31 July 2022[1] shown in this report are:

- 7.2% for loans in-study;
- 1.8% for loans in repayment (net of loans in the RAP), and
- 45.3%[2] for loans in the RAP (all stages combined).

The ultimate provision rates used in this report are:

- 7.2% for loans in-study
- 2.0% for loans in repayment (net of loans in the RAP), and
- 32.5% for loans in the RAP (all stages combined).

The lowest provision rate is for the portfolio of loans in repayment. This portfolio 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 than the one for loans in-study.

The highest provision rate is for the portfolio of loans already in the RAP. Having already entered the plan by meeting the eligibility criteria, there is a greater chance that these loans will remain eligible and consequently, remain in the plan.

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 RAP expenses (as shown in Table 12).

The RAP is a plan that was introduced in 2009 and thus, has limited experience. Since students using RAP – Stage 2 repay their loan over a period of 15 years after consolidation, it takes 15 years for a cohort to fully develop its experience. Hence, the first cohort to have full experience will be the 2009 consolidation cohort when it reaches year 2024. The related projection of costs and underlying assumptions will be revised in the future as experience emerges and the provision rates will 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.

[1] The provision rates used for the Public Accounts as at 31 March 2022 are presented in section 2.4.2 of the main report and do not include impacts from the changes to the RAP nor the new disability definition proposed in Budget 2021.

[2] The higher allowance rate than the previous year (34.3% as at 31 July 2021 in the 2020 Actuarial Report) is mostly due to the lower number of RAP users in loan year 2021-2022. This reduction in the number of RAP users is expected to be temporary. As the number of RAP users return to expected experience, the allowance rate will also decrease.

C.6 Other Assumptions

C.6.1 Prepayments and Accelerated Payments for Direct Loans

The analysis of principal payments made by students revealed that some payments are received while the student is still in school or during the non-repayment period (prepayments) and some payments are received in excess of the scheduled payments during the repayment period (accelerated payments).

C.6.1.1 Prepayments

Prepayments correspond to payments applied to principal during the period of study and during the six-month non-repayment period after the period of study end date. The amount of prepayments for 2020-2021 was $641 million. Around 30% of this amount is received during the period of study and the remaining 70% is received during the non-repayment period. Over the long-term, it is assumed that around 17.5% of loans issued are prepaid.

C.6.1.2 Accelerated Payments

Normal principal payments received from students are calculated based on a standard 114-month repayment period. However, some students decide to pay more than the required monthly payments during the amortization period. In addition, loans with an outstanding balance smaller than $7,000 are actually amortized over a shorter period of time as per ESDC's guidelines. In both situations, the payment made by the student is greater than their calculated normal payment. The additional amounts paid represent the accelerated payments. Over the long-term, it is assumed that these payments add up to approximately 23% of the sum of normal payments for each loan year.

C.6.2 Alternative Payments

Alternative payments are made directly to the province and territories that do not participate in the CSFA Program, namely Québec, the Northwest Territories, and Nunavut. These payments are projected by multiplying the net cost of the program by the ratio of the population aged 18-24 residing in the non-participating province and territories to the population aged 18-24 residing in the participating provinces and territory.

The expenses included in the calculation are: interest subsidies, RAP – interest expenses for risk-shared and guaranteed regimes, loans forgiven, service providers' costs, CSG, claims, RAP-Stage 2 payments, risk premiums, put-backs, refunds to financial institutions, direct loans' borrowing costs for loans in good standing and default amounts for the direct loan regime. The revenues include: student interest payments, and principal and interest from recoveries. The cost of alternative payments is $487 million for 2020-2021 based on expenses and revenue of 2019-2020 and $927 million for 2021-2022 based on expenses and revenue of 2020-2021, with most of the increase being due to the temporary COVID-19 measures.

C.6.3 Administrative Expenses

ESDC provided estimates of the administrative expenses to support the CSFA Program for the short-term. The costs have been converted to a loan year basis and the extrapolation of future years was done using wage increases. Administrative expenses include ESDC salary and non-salary resources related to the program as well as expenses for service providers and collection costs.

The general administrative fees represent the expenses incurred by the departments involved and fees paid to the National Student Loans Service Centre (NSLSC), which is responsible for the administration of student loans and grants. The NSLSC is run by a private entity contracted by the Government.

Table 31 Administrative Expense

Loan Year	Administrative Expenses
	($ million)
2020-2021	99.3
2021-2022	106.0
2022-2023	117.1
2023-2024	117.9
2024-2025	119.1
2025-2026	125.3
2026-2027	135.8
2027-2028+	Increases with wages

C.6.4 Administrative Fees Paid to Provinces

The administrative expenses include fees paid to the participating provinces and to the Yukon Territory. These fees are paid to administer certain aspects of the CSFA Program. For loan year 2020-2021, the administrative fees paid to the participating provinces and territory were $35.1 million. Future years were projected using wage increases.

C.6.5 Canada Student Grants

For the 2020-2021 loan year, the actual cost of Canada Student Grants (CSGs) was $3,188 million. The total amount of grants disbursed under the CSG is projected to increase over the projection period based on the number of students receiving a loan and includes the doubling of grants for loan years 2020-2021 to 2022-2023 due to the COVID-19 pandemic measures.

C.6.6 Loans Forgiven

There are two categories of loans forgiven: those forgiven for severe permanent disability and death, and those forgiven for family physicians, nurses and nurse practitioners who work in an under-served rural or remote community.

Long-term rates of loans forgiven for severe permanent disability and death correspond to 0.024% of loans in study and 0.109% of loans in repayment. The long-term rate of loans forgiven while in repayment was decreased to reflect recent loans forgiven while in default. In the future, they are expected to directly be forgiven while in repayment instead of defaulting first. In 2020-2021, $5.9 million of loans were forgiven while in default.

Family doctors and family medicine residents are eligible for forgiveness of $8,000 per year to a maximum of $40,000 over five years while nurse practitioners and nurses may be eligible for forgiveness of $4,000 per year to a maximum of $20,000 over five years. Moreover, Budget 2022 proposed to increase the maximum amount of doctors and nurses forgivable loans by 50%. The amount forgiven is projected based on the expected new number of doctors and nurses who received student loans during their studies and are expected to work in an under-served rural or remote community after graduation.

Appendix D — Alternative Interest Scenario

More than two years have passed since the beginning of the COVID-19 pandemic. The unemployment rate for May 2022, the latest data available at the time this report is being written, is at a record low of 5.1%[1]. However, inflation is higher than its pre-pandemic level and its yearly increase currently stands at 7.7%[2] as of May 2022 (compared to May 2021).

With the objective of bringing the inflation rate back to its inflation target range of 1% to 3%, the Bank of Canada has been increasing its policy interest rate. It was increased by 0.25% in March 2022, by 0.50% in April 2022 and by 0.50% in June 2022, resulting in a rate of 1.50% as at the beginning of July 2022.

This alternate scenario presents a hypothetical situation where the Bank of Canada has to raise its policy interest rate faster and to a higher level than under the base scenario in an attempt to control the inflation. It follows that the government's and the student's cost of borrowing increase faster and to a higher level than under the base scenario of this report. Table 32 shows the resulting alternate cost of borrowing under this alternate scenario as well as its comparison with the base scenario (as shown in Table 3):

Table 32 Alternative Interest Scenario - Assumptions

	Alternate Interest Scenario		Difference with the Base Scenario	
Loan Year	Government's Cost of Borrowing	Student's Cost of Borrowing	Government's Cost of Borrowing	Student's Cost of Borrowing
	(%)	(%)	(%)	(%)
2021-2022	2.1	2.8	0.0	0.0
2022-2023	3.5	4.1	0.7	0.7
2023-2024	4.2	4.8	1.3	1.3
2024-2025	4.2	4.8	1.3	1.3
2025-2026	4.2	4.8	1.2	1.2
2026-2027	3.7	4.3	0.7	0.7
2027-2028	3.7	4.3	0.6	0.6
2028-2029	3.7	4.3	0.5	0.5
2029-2030	3.7	4.3	0.4	0.4
2030-2031	3.7	4.3	0.3	0.3
2031-2032	3.7	4.3	0.2	0.2
2032-2033	3.7	4.3	0.1	0.1
2033-2034	3.7	4.3	0.0	0.0

In this alternate scenario, the cost of borrowing is increased up to an additional 1.3% in the short-term. Starting from loan year 2026-2027, the cost of borrowing are set to the ultimate rate of 3.7% (for the Government) and 4.3% (for students), which is identical to the base scenario, albeit reached earlier. Table 33 shows the resulting impact on the CSFA program projected net cost:

[1] Table 14-10-0017-01 Labour force characteristics by sex and detailed age group, monthly, unadjusted for seasonality (x 1,000) https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410001701

[2] Statistics Canada. Table 18-10-0004-13 Consumer Price Index by product group, monthly, percentage change, not seasonally adjusted, Canada, provinces, Whitehorse, Yellowknife and Iqaluit https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810000413

Table 33 Alternative Interest Scenario - Impact on Total Net Cost of the Program

	Alternate Interest Scenario			Difference with the Base Scenario		
Loan Year	Total Expenses	Total Revenues	Total Net Cost of the Program	Total Expenses	Total Revenues	Total Net Cost of the Program
	($ million)	($ million)	($ million)	($ million)	($ million)	($ million)
2021-2022	5,049.8	-289.3	5,339.1	0.0	0.0	0.0
2022-2023	5,423.6	-338.5(1)	5,762.1	72.1	-74.4	146.5
2023-2024	4,226.2	143.4	4,082.8	227.6	16.4	211.2
2024-2025	3,820.1	154.7	3,665.4	252.7	19.8	232.9
2025-2026	3,897.9	156.4	3,741.5	247.9	19.1	228.8
2026-2027	3,906.2	151.5	3,754.7	167.3	12.2	155.1
2027-2028	3,969.7	154.6	3,815.1	134.7	10.9	123.8
2028-2029	4,047.5	158.5	3,889.0	116.6	9.7	106.9
2029-2030	4,119.3	162.4	3,956.9	96.6	8.3	88.3
2030-2031	4,190.7	166.7	4,024.0	75.3	6.8	68.5
2031-2032	4,257.5	171.3	4,086.2	52.5	5.3	47.2
2032-2033	4,318.5	174.4	4,144.1	28.4	3.5	24.9
2033-2034	4,370.9	179.9	4,191.0	3.1	1.6	1.5

(1) The decrease in revenues is due to the temporary waiver of interest on loans from 1 April 2021 to 31 March 2023.

The additional increase in the net cost starts in the loan year 2022-2023 and reaches a peak of $233 million in 2024-2025 (6.8% over the base scenario). Most of the increase in expenses originates from the extra cost of borrowing for the in-study interest subsidy and the interest payments covered by the Government while borrowers are in the RAP. The impact of the alternate scenario on the net cost gradually decreases between 2024-2025 and 2033-2034, where it reaches a similar net cost as the base scenario.

Appendix E — 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 Directive on Accounting Standards (GC 3050 Loans Receivable) 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.

The following items were used to calculate the concessionary terms on new loans issued:

- Discount rate of 2.40%, which is the yield equivalent to a zero-coupon yield curve (determined by reference to market yields as at 31 March 2022 on Government of Canada Bonds and treasury bills) applied to expected cash flows. The higher the discount rate, the more likely it is to have significant concessionary terms;
- Student interest rates presented in Table 3 during the repayment period. Interests start to accrue 6 months after the end of the study period. The student interest rate is higher than the discount 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; and
- Expected repayment cash flows based on historical experience and expected long-term assumptions.

As mentioned in Appendix A of this report, loans under the CSFA Program are currently not considered as having significant concessionary terms according to the Directive on Accounting Standards.

Four alternate scenarios were tested and each would still result in no significant concessionary terms (below 25 per cent of the face value):

- Doubling the discount rate; or
- Reducing the student interest rate to 0%; or
- Increasing the in-study interest free period to 10 years (from the current average of three years); or
- Having students fully repay their loans immediately after consolidation.

Appendix F — Acknowledgements

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