## Actuarial Report

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\begin{array}{r}
\text { CANADA STUDENT FINANCIAL } \\
\text { ASSISTANCE PROGRAM } \\
\text { as at } 31 \text { July } 2022
\end{array}
$$

## Office of the Chief Actuary

Office of the Superintendent of Financial Institutions
Canada
$12^{\text {th }}$ Floor, Kent Square Building
255 Albert Street
Ottawa, Ontario
K1A OH2

E-mail: oca-bac@osfi-bsif.gc.ca
Web site: www.osfi-bsif.gc.ca
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23 June 2023

Jonathan Wallace<br>Director General, Canada Student Financial Assistance Program<br>Employment and Social Development Canada<br>200 Montcalm Street<br>Montcalm Building, Tower 2-1st Floor<br>Gatineau, QC<br>K1A 0J9

Dear Jonathan Wallace:

As per the business plan for 2023-2024 to 2025-2026, I am pleased to submit the Actuarial Report on the Canada Student Financial Assistance Program, prepared as at 31 July 2022. This report is prepared for the CSFA Program to support internal accounting requirements as well as your partners' needs between statutory reports.

Yours sincerely,


Laurence Frappier, FCIA, FSA
Managing Director
Office of the Chief Actuary

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## Glossary

The amount that is set aside in the expectation of a cost that will be incurred at a future
Allowance date. In this report, there is an allowance to cover the future cost of students benefiting from the RAP, and two allowances (principal and interest) to cover the risk of future default. Each allowance is determined as at 31 July.

Allowance for Allowance based on the program's conditions as at 31 March. Public Accounts

Provision rates Allowance divided by the related outstanding portfolio.

[^0]
## 2 Introduction

Since 1 August 2000, the Canada Student Financial Assistance Program (CSFA Program) is directly financed by the Government and the Office of the Chief Actuary has the mandate to conduct an actuarial review of the program.

### 2.1 Purpose

Section 19.1 of the Canada Student Financial Assistance Act defines the mandate given to the Chief Actuary, that is, to 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 2022, is provided to support Employment and Social Development Canada (ESDC) accounting and policy analysis requirements. It also supports ESDC's partners, the Office of the Auditor General, the Treasury Board Secretariat and the Department of Finance.

### 2.2 Scope

The report includes a forecast of the CSFA Program's costs and revenues for 25 years (through the loan year 2046-2047), and shows estimates of:

- the number of students receiving grants or loans under the CSFA Program;
- the amount of new grants or 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.

This valuation report is based on the program provisions as described in Appendix A.
Appendices $B$ and $C$ provide information on data, assumptions and methodologies. Appendix $D$ illustrates the new loans and grants issued by institution type and Appendix E offers information on concessionary terms.

### 2.3 Recent Program Changes

This section summarizes recent changes that were implemented in the loan year ending 31 July 2022 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 2021 | Flexibility to use current year's income instead of previous year's income to determine eligibility for Canada Student Grants (part of a three-year pilot project introduced in 20182019 made permanent). | Budget 2021 / <br> Approved |
| 1 August 2022 | Expand access to supports for students and borrowers with persistent or prolonged disabilities that are not necessarily permanent. | Budget 2021 / <br> Approved |
| 1 November 2022 | Increase accessibility to the RAP by increasing RAP income thresholds and reducing the maximum affordable payment. | Budget 2021 / <br> Approved |
| 1 April 2023 | Permanently eliminating interest on Canada Student Loans. | 2022 Fall Economic Statement / Approved |
| $\begin{aligned} & \text { 2023-2024 } \\ & \text { (expected) } \end{aligned}$ | Increase by $50 \%$ the maximum amount of loans that can be forgiven for doctors and qualifying nurses working in underserved rural or remote communities. | Budget 2022 / <br> Pending Regulatory Approval |
| $\begin{aligned} & 2024-2025 \\ & \text { (expected) } \end{aligned}$ | Expand the reach of the Canada Student Loan forgiveness for doctors and qualifying nurses to more rural communities. | Budget 2023 / Pending Regulatory Approval |
| To be determined | Expand the list of professionals eligible for loan forgiveness while working in under-served rural or remote communities. | Budget 2022 / <br> Not considered in this report as details are not finalized |


| Temporary Changes |  |  |
| :---: | :---: | :---: |
| Start/End Date | Description | Source |
| 1 April 2021 to <br> 31 March 2022 | Waiver of interest accrual on student loans. | Bill C-14 / Approved |
| 1 August 2021 to <br> 31 July 2023 | Double the amount for the following Canada Student Grants (CSGs): <br> - grant for full-time students (CSG-FT) <br> - grant for part-time students (CSG-PT) <br> - grant for students with permanent disabilities (CSG-PD) <br> - grant for full-time students with dependants (CSG-FTDEP) <br> - grant for part-time students with dependants (CSG-PTDEP) <br> 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 threeyear pilot project introduced in the loan year 2018-2019). | Budget 2021 / <br> Approved |
| 1 April 2022 to 31 March 2023 | Extend the waiver of interest accrual on student loans. | Budget 2021 / <br> Approved |
| 1 August 2023 to 31 July 2024 (expected) | 40\% increase (compared with the loan year 2019-2020) to the amount for the following CSGs: <br> - grant for full-time students (CSG-FT) <br> - grant for part-time students (CSG-PT) <br> - grant for students with disabilities (CSG-D) <br> - grant for full-time students with dependants (CSG-FTDEP) <br> - grant for part-time students with dependants (CSG-PTDEP) <br> Increase the weekly student loan limit, from \$210 to \$300. <br> Waiving the requirement for mature students, aged 22 years or older, to undergo credit screening in order to qualify for federal student grants and loans for the first time. | Budget 2023 / Pending Regulatory Approval |

## 3 Main Assumptions

Several assumptions are needed to determine the future long-term costs of the CSFA Program. All assumptions used in this report are best-estimate assumptions and do not include any margin for adverse deviations. Assumptions used in the previous report were revised to incorporate new experience.
Table 1, Table 2 and Table 3 show a summary of the main assumptions used in this report for the loan year following the report's valuation date and the last loan year of the projection period, compared with those used in the previous report. A complete description of the assumptions is provided in Appendix C.

Table 1 Demographic Assumptions

|  | Current Report |  | Previous Report |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2022-2023 | 2046-2047 | 2021-2022 | 2045-2046 |
| Base Population | CPP31st | CPP31st | CPP30th | CPP30th |
| Enrolment Rate (15 to 64) | 6.6\% | 6.9\% | 6.8\% | 6.9\% |
| Loan Uptake Rate | 43.7\% | 50.0\% | 42.3\% | 52.2\% |

Table 2 Economic Assumptions

|  | Current Report |  | Previous Report |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2022-2023 | 2046-2047 | 2021-2022 | 2045-2046 |
| Inflation | 5.6\% | 2.0\% | 4.6\% | 2.0\% |
| Real Wage Increase | -1.1\% | 0.9\% | 0.7\% | 1.0\% |
| Cost of Borrowing (Government) | 3.0\% | 3.7\% | 2.1\% | 3.7\% |
| Cost of Borrowing (Students) | 0.0\% | 0.0\% | 0.0\% | 4.3\% |
| Tuition Increase | 3.5\% | 3.8\% | 1.9\% | 3.8\% |

Table 3 Prepayments and Net Default Rate Assumptions

|  | Current Report |  | Previous Report |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $2022-2023$ |  | $2046-2047$ | $2021-2022$ | $2045-2046$ |
|  | $12.5 \%$ | $15.0 \%$ | $15.0 \%$ | $17.5 \%$ |  |
| Prepayments | $6.7 \%$ | $6.9 \%$ | $7.9 \%$ | $8.1 \%$ |  |

(1) Expected net default rate for all future loan years for the consolidation cohort year shown in the table.

Table 4 shows a summary of the provision rates as at July $31^{\text {st }}$ of the year following the report's valuation date and the ultimate provision rates used in this report compared with those used in the previous report. A complete description of the provision rates is provided in Appendix C. Also, the provision rates as at 31 July 2023 are used to determine the allowance for Public Accounts, as shown in section 4.3.

Table 4 Provision Rates

|  | Current Report |  | Previous Report |  |
| :---: | :---: | :---: | :---: | :---: |
|  | As at 31 July 2023 | Ultimate | As at 31 July 2022 | Ultimate |
| RAP - Principal |  |  |  |  |
| In-Study | 6.9\% | 6.7\% | 7.2\% | 7.2\% |
| In Repayment (net of RAP) | 1.9\% | 2.3\% | 1.8\% | 2.0\% |
| In RAP (all stages combined) | 36.2\% | 29.5\% | $45.3 \%{ }^{(1)}$ | 32.5\% |
| Bad Debt - Principal |  |  |  |  |
| In-Study | 5.9\% | 5.9\% | 6.7\% | 6.7\% |
| In Repayment | 3.5\% | 4.2\% | 4.8\% | 4.7\% |
| In Default | 69.5\% | 68.4\% | 77.0\% | 78.1\% |
| Bad Debt - Interest |  |  |  |  |
| In Default | 60.3\% | N/A | 72.3\% | 70.1\% |

(1) The higher allowance rate was mostly due to the lower number of RAP users in the loan year and was expected to be temporary.

## 4 Projections

This section presents projections of the various CSFA Program's components required to determine the forecasts of the total net cost. First, the total amount of new loans and grants issued are projected. Then, the portfolios for the three types of regimes (guaranteed, risk-shared and direct loan regimes) are projected and the sub-portfolios for the direct loan regime are used to determine the projection of allowances under the same regime. Finally, total expenses and total revenues are projected separately to determine the resulting total net costs. All steps involved in these forecasts are shown in this section.

### 4.1 Total New Grants and Loans

The projection of the total amount of new grants issued under the CSFA Program depends on many factors as illustrated by the following formula:


Table 5 presents the projection of new grants issued. This projection of the amount of new grants issued, along with the associated projection of students, is broken down by institution type in Appendix D.

Table 5 New Grants Issued

| Loan Year | Covered Population (15 to 64) (thousands) (1) | Enrolment Rates (\%) <br> (2) | Grant <br> Uptake <br> Rate (\%) <br> (3) | Students in CSFA Receiving a Grant (thousands) $(4)=(1) *(2) *(3)$ | Average Grant (\$) (5) | New Grants Issued (\$ millions) (4) * (5) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 18,621 | 6.8 | 42.7 | 544 | 5,985 | 3,256 |
| 2022-2023 | 18,796 | 6.6 | 44.4 | 549 | 6,202 | 3,408 |
| 2023-2024 | 18,981 | 6.7 | 44.6 | 567 | 4,194 | 2,377 |
| 2024-2025 | 19,141 | 6.8 | 45.0 | 587 | 2,995 | 1,758 |
| 2025-2026 | 19,274 | 6.9 | 45.0 | 601 | 3,002 | 1,805 |
| 2026-2027 | 19,379 | 6.9 | 44.6 | 601 | 3,006 | 1,806 |
| 2027-2028 | 19,480 | 7.0 | 44.2 | 601 | 3,010 | 1,809 |
| 2028-2029 | 19,565 | 7.0 | 43.8 | 600 | 3,019 | 1,810 |
| 2029-2030 | 19,644 | 7.0 | 43.4 | 597 | 3,025 | 1,807 |
| 2030-2031 | 19,731 | 7.0 | 43.0 | 595 | 3,033 | 1,803 |
| 2031-2032 | 19,834 | 7.0 | 42.6 | 591 | 3,044 | 1,798 |
| 2032-2033 | 19,957 | 7.0 | 42.1 | 586 | 3,058 | 1,791 |
| 2033-2034 | 20,079 | 6.9 | 41.6 | 578 | 3,079 | 1,781 |
| 2034-2035 | 20,195 | 6.9 | 41.1 | 571 | 3,101 | 1,769 |
| 2035-2036 | 20,303 | 6.8 | 40.5 | 562 | 3,125 | 1,756 |
| 2036-2037 | 20,405 | 6.8 | 39.9 | 554 | 3,153 | 1,747 |
| 2037-2038 | 20,545 | 6.8 | 39.4 | 550 | 3,174 | 1,744 |
| 2038-2039 | 20,700 | 6.8 | 39.0 | 547 | 3,186 | 1,743 |
| 2039-2040 | 20,863 | 6.8 | 38.6 | 545 | 3,197 | 1,742 |
| 2040-2041 | 21,027 | 6.8 | 38.2 | 543 | 3,210 | 1,741 |
| 2041-2042 | 21,195 | 6.7 | 37.8 | 540 | 3,223 | 1,741 |
| 2042-2043 | 21,369 | 6.7 | 37.4 | 539 | 3,239 | 1,746 |
| 2043-2044 | 21,545 | 6.8 | 37.0 | 540 | 3,251 | 1,755 |
| 2044-2045 | 21,715 | 6.8 | 36.6 | 541 | 3,262 | 1,766 |
| 2045-2046 | 21,876 | 6.8 | 36.3 | 543 | 3,272 | 1,778 |
| 2046-2047 | 22,026 | 6.9 | 35.9 | 546 | 3,282 | 1,793 |

The average grant amount is higher over the first three loan years due to the temporary increase in the maximum amount of grants. The number of borrowers receiving a grant is expected to decrease slightly over the projection period as less students become eligible, as described in Appendix C.

The following formula is used for the projection of the total amount of new loans issued under the CSFA Program:

## Chart 2 Formula for Loans Issued



Table 6 presents the projection of new loans issued. This projection of the amount of new loans issued, along with the associated projection of students, is broken down by institution type in Appendix D.

Table 6 New Loans Issued

| Loan Year | Covered Population (15 to 64) (thousands) (1) | Enrolment <br> Rates (\%) <br> (2) | Loan Uptake Rate (\%) <br> (3) | Students in CSFA <br> Receiving a Loan (thousands) $(4)=(1) *(2) *(3)$ | Average Loan (\$) <br> (5) | New Loans Issued (\$ millions) $(4) *(5)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 18,621 | 6.8 | 43.8 | 558 | 5,266 | 2,940 |
| 2022-2023 | 18,796 | 6.6 | 43.7 | 541 | 5,576 | 3,015 |
| 2023-2024 | 18,981 | 6.7 | 46.8 | 595 | 7,289 | 4,334 |
| 2024-2025 | 19,141 | 6.8 | 50.0 | 652 | 6,312 | 4,119 |
| 2025-2026 | 19,274 | 6.9 | 50.3 | 671 | 6,419 | 4,308 |
| 2026-2027 | 19,379 | 6.9 | 50.2 | 675 | 6,517 | 4,403 |
| 2027-2028 | 19,480 | 7.0 | 50.1 | 681 | 6,610 | 4,501 |
| 2028-2029 | 19,565 | 7.0 | 50.0 | 686 | 6,679 | 4,579 |
| 2029-2030 | 19,644 | 7.0 | 50.0 | 689 | 6,741 | 4,643 |
| 2030-2031 | 19,731 | 7.0 | 50.0 | 691 | 6,798 | 4,700 |
| 2031-2032 | 19,834 | 7.0 | 50.0 | 694 | 6,850 | 4,751 |
| 2032-2033 | 19,957 | 7.0 | 50.0 | 695 | 6,894 | 4,794 |
| 2033-2034 | 20,079 | 6.9 | 50.0 | 696 | 6,933 | 4,824 |
| 2034-2035 | 20,195 | 6.9 | 50.1 | 695 | 6,969 | 4,847 |
| 2035-2036 | 20,303 | 6.8 | 50.1 | 695 | 7,002 | 4,864 |
| 2036-2037 | 20,405 | 6.8 | 50.1 | 696 | 7,032 | 4,891 |
| 2037-2038 | 20,545 | 6.8 | 50.1 | 699 | 7,059 | 4,932 |
| 2038-2039 | 20,700 | 6.8 | 50.1 | 702 | 7,083 | 4,976 |
| 2039-2040 | 20,863 | 6.8 | 50.1 | 707 | 7,105 | 5,020 |
| 2040-2041 | 21,027 | 6.8 | 50.1 | 711 | 7,124 | 5,065 |
| 2041-2042 | 21,195 | 6.7 | 50.1 | 715 | 7,142 | 5,110 |
| 2042-2043 | 21,369 | 6.7 | 50.1 | 722 | 7,157 | 5,169 |
| 2043-2044 | 21,545 | 6.8 | 50.1 | 730 | 7,170 | 5,236 |
| 2044-2045 | 21,715 | 6.8 | 50.1 | 740 | 7,181 | 5,311 |
| 2045-2046 | 21,876 | 6.8 | 50.1 | 750 | 7,191 | 5,391 |
| 2046-2047 | 22,026 | 6.9 | 50.0 | 761 | 7,200 | 5,478 |

Overall, the total new loans issued is expected to increase from $\$ 2,940$ million in 2021-2022 to \$3,015 million in 2022-2023. In 2046-2047, projected new loans issued total \$5,478 million, which corresponds to an average annual increase of $2.5 \%{ }^{1}$. This average annual increase can be attributed to two factors: an average annual increase in the number of students in the program of $1.2 \%$ and an average annual increase in the average loan size of $1.3 \%$ over the projection period.

### 4.1.1 Population

Any eligible student enrolled in a designated post-secondary institution (excluding students from Quebec, Nunavut and the Northwest Territories) can apply for a loan under the CSFA program. Students aged 15-29 represent the largest segment of the student population and are used for illustrative purposes thereafter. As shown in Table 7, the population aged 15-29 is expected to increase from 5,012,000 in 2021-2022 to 5,934,000 in 2046-2047, or 0.7\% per year.

[^1]
### 4.1.2 Post-Secondary Enrolment

Table 7 shows the evolution of the number of eligible students (age group 15-29, age group 3064 and total) enrolled full-time in a post-secondary institution for the covered population

Table 7 Population and Post-secondary Enrolment of Participating Provinces

| Loan Year | Covered Population (15-29) (thousands) | Covered Population (30-64) (thousands) | Students <br> Enrolled Full- <br> Time (15-29) <br> (thousands) | Students Enrolled FullTime (30-64) (thousands) | Students Enrolled FullTime (Total) (thousands) | Increase <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 5,012 | 13,608 | 1,129 | 146 | 1,275 | N/A |
| 2022-2023 | 5,030 | 13,766 | 1,077 | 159 | 1,237 | -3.0 |
| 2023-2024 | 5,102 | 13,879 | 1,116 | 154 | 1,270 | 2.7 |
| 2024-2025 | 5,160 | 13,981 | 1,152 | 153 | 1,305 | 2.7 |
| 2025-2026 | 5,202 | 14,072 | 1,184 | 152 | 1,336 | 2.4 |
| 2026-2027 | 5,228 | 14,151 | 1,195 | 151 | 1,347 | 0.8 |
| 2027-2028 | 5,262 | 14,218 | 1,210 | 151 | 1,360 | 1.0 |
| 2028-2029 | 5,296 | 14,268 | 1,220 | 150 | 1,370 | 0.7 |
| 2029-2030 | 5,327 | 14,317 | 1,227 | 150 | 1,377 | 0.5 |
| 2030-2031 | 5,354 | 14,376 | 1,232 | 150 | 1,382 | 0.4 |
| 2031-2032 | 5,387 | 14,448 | 1,236 | 150 | 1,387 | 0.3 |
| 2032-2033 | 5,422 | 14,535 | 1,239 | 151 | 1,390 | 0.2 |
| 2033-2034 | 5,455 | 14,624 | 1,239 | 151 | 1,390 | 0.0 |
| 2034-2035 | 5,477 | 14,718 | 1,238 | 152 | 1,389 | -0.1 |
| 2035-2036 | 5,492 | 14,811 | 1,236 | 152 | 1,388 | -0.1 |
| 2036-2037 | 5,498 | 14,907 | 1,236 | 153 | 1,389 | 0.1 |
| 2037-2038 | 5,523 | 15,022 | 1,241 | 154 | 1,396 | 0.4 |
| 2038-2039 | 5,550 | 15,150 | 1,247 | 156 | 1,403 | 0.5 |
| 2039-2040 | 5,583 | 15,280 | 1,254 | 157 | 1,411 | 0.6 |
| 2040-2041 | 5,621 | 15,406 | 1,261 | 158 | 1,419 | 0.6 |
| 2041-2042 | 5,669 | 15,526 | 1,268 | 160 | 1,428 | 0.6 |
| 2042-2043 | 5,719 | 15,650 | 1,280 | 161 | 1,442 | 0.9 |
| 2043-2044 | 5,772 | 15,773 | 1,295 | 163 | 1,458 | 1.1 |
| 2044-2045 | 5,828 | 15,888 | 1,313 | 164 | 1,477 | 1.3 |
| 2045-2046 | 5,882 | 15,994 | 1,332 | 166 | 1,498 | 1.4 |
| 2046-2047 | 5,934 | 16,092 | 1,354 | 167 | 1,521 | 1.5 |

The total number of enrolled students is expected to increase from its current level of 1,275,000 to $1,521,000$ at the end of the projection period. Students aged $15-29$ represent more than $85 \%$ of the total post-secondary enrolment. Overall, the aggregate enrolment rate for students aged $15-29$ is expected to remain between $21 \%$ and $23 \%$ over the next 25 years.

### 4.1.3 Students Receiving a Loan or a Grant

Enrolled students must apply to receive a loan or a grant. The ratio of loan or grant recipients to enrolled students is called the uptake rate. Table 8 shows the increasing uptake rate, from $52.5 \%$ in 2021-2022 to $54.0 \%$ in 2046-2047. This, combined with the increase in students enrolled in post-secondary education, results in 151,000 more students in the program over the projection (from 670,000 students in 2021-2022 to 821,000 in 2046-2047).

The number of students in the CSFA receiving a loan is 558,000 for the loan year 2021-2022.

Table 8 Loan and/or Grant Recipients

| Loan Year | Students Enrolled Full-Time (thousands) | Uptake Rate (\%) | Students in CSFA Receiving a Loan and/or a Grant (thousands) | Increase <br> (\%) | Students in CSFA Receiving a Loan (thousands) | Students in <br> CSFA <br> Receiving a Grant (thousands) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 1,275 | 52.5 | 670 | N/A | 558 | 544 |
| 2022-2023 | 1,237 | 54.2 | 670 | 0.0 | 541 | 549 |
| 2023-2024 | 1,270 | 54.0 | 685 | 2.3 | 595 | $567{ }^{(1)}$ |
| 2024-2025 | 1,305 | 53.9 | 703 | 2.6 | 652 | $587{ }^{(1)}$ |
| 2025-2026 | 1,336 | 54.1 | 723 | 2.9 | 671 | 601 |
| 2026-2027 | 1,347 | 54.0 | 728 | 0.7 | 675 | 601 |
| 2027-2028 | 1,360 | 53.9 | 734 | 0.8 | 681 | 601 |
| 2028-2029 | 1,370 | 53.9 | 739 | 0.7 | 686 | 600 |
| 2029-2030 | 1,377 | 53.9 | 742 | 0.5 | 689 | 597 |
| 2030-2031 | 1,382 | 53.9 | 745 | 0.4 | 691 | 595 |
| 2031-2032 | 1,387 | 53.9 | 748 | 0.3 | 694 | 591 |
| 2032-2033 | 1,390 | 53.9 | 749 | 0.2 | 695 | 586 |
| 2033-2034 | 1,390 | 53.9 | 750 | 0.1 | 696 | 578 |
| 2034-2035 | 1,389 | 53.9 | 750 | 0.0 | 695 | 571 |
| 2035-2036 | 1,388 | 54.0 | 749 | -0.1 | 695 | 562 |
| 2036-2037 | 1,389 | 54.0 | 750 | 0.1 | 696 | 554 |
| 2037-2038 | 1,396 | 54.0 | 753 | 0.5 | 699 | 550 |
| 2038-2039 | 1,403 | 54.0 | 757 | 0.5 | 702 | 547 |
| 2039-2040 | 1,411 | 54.0 | 762 | 0.6 | 707 | 545 |
| 2040-2041 | 1,419 | 54.0 | 766 | 0.6 | 711 | 543 |
| 2041-2042 | 1,428 | 54.0 | 771 | 0.6 | 715 | 540 |
| 2042-2043 | 1,442 | 54.0 | 779 | 0.9 | 722 | 539 |
| 2043-2044 | 1,458 | 54.0 | 787 | 1.1 | 730 | 540 |
| 2044-2045 | 1,477 | 54.0 | 797 | 1.3 | 740 | 541 |
| 2045-2046 | 1,498 | 54.0 | 808 | 1.4 | 750 | 543 |
| 2046-2047 | 1,521 | 54.0 | 821 | 1.5 | 761 | 546 |

(1) The increase is mainly due to an expected shift in enrolments, from private colleges to public colleges, where students have a higher grant uptake rate (see Appendix D).

### 4.1.4 Average Loan Size

The amount of student loan depends on the expected need of the student. Table 9 summarizes the main elements of the student need calculation. All students who receive a loan or a grant are included. The student net need in Table 9 is then determined as a percentage of the student need less admissible grants.

| Loan Year | Resources <br> (1) | Tuition <br> (2) | Other Expenses <br> (3) | Total Expenses $(4)=(2)+(3)$ | Average Student Need $(5)=(4)-(1)$ | Average Grant for Net Need Calculation (6) | CSFA Average Student Net Need $(7)=(5) * 60 \%-(6)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 3,000 | 8,900 | 13,600 | 22,600 | 19,500 | 4,900 | 6,800 |
| 2022-2023 | 3,100 | 9,300 | 14,400 | 23,700 | 20,600 | 4,800 | 7,500 |
| 2023-2024 | 3,200 | 9,500 | 14,700 | 24,200 | 21,100 | 3,300 | 9,400 |
| 2024-2025 | 3,300 | 10,000 | 15,100 | 25,100 | 21,800 | 2,300 | 10,800 |
| 2025-2026 | 3,300 | 10,500 | 15,400 | 25,900 | 22,600 | 2,300 | 11,200 |
| 2026-2027 | 3,400 | 11,000 | 15,700 | 26,700 | 23,400 | 2,300 | 11,700 |
| 2027-2028 | 3,500 | 11,600 | 16,000 | 27,600 | 24,200 | 2,300 | 12,200 |
| 2028-2029 | 3,600 | 12,000 | 16,300 | 28,400 | 24,800 | 2,200 | 12,600 |
| 2029-2030 | 3,600 | 12,500 | 16,700 | 29,100 | 25,500 | 2,200 | 13,100 |
| 2030-2031 | 3,700 | 13,000 | 17,000 | 30,100 | 26,300 | 2,200 | 13,500 |
| 2031-2032 | 3,800 | 13,500 | 17,300 | 30,900 | 26,900 | 2,200 | 14,000 |
| 2032-2033 | 3,900 | 14,000 | 17,700 | 31,700 | 27,800 | 2,200 | 14,500 |
| 2033-2034 | 4,000 | 14,500 | 18,000 | 32,600 | 28,600 | 2,200 | 15,000 |
| 2034-2035 | 4,100 | 15,100 | 18,400 | 33,600 | 29,500 | 2,100 | 15,500 |
| 2035-2036 | 4,200 | 15,700 | 18,900 | 34,400 | 30,300 | 2,100 | 16,000 |
| 2036-2037 | 4,300 | 16,200 | 19,300 | 35,500 | 31,200 | 2,100 | 16,500 |
| 2037-2038 | 4,400 | 16,900 | 19,600 | 36,500 | 32,100 | 2,100 | 17,200 |
| 2038-2039 | 4,600 | 17,600 | 20,000 | 37,700 | 33,000 | 2,100 | 17,700 |
| 2039-2040 | 4,700 | 18,200 | 20,500 | 38,700 | 34,000 | 2,100 | 18,400 |
| 2040-2041 | 4,800 | 19,000 | 20,800 | 39,800 | 35,000 | 2,000 | 18,900 |
| 2041-2042 | 5,000 | 19,700 | 21,300 | 41,000 | 36,000 | 2,000 | 19,500 |
| 2042-2043 | 5,100 | 20,500 | 21,700 | 42,200 | 37,100 | 2,000 | 20,200 |
| 2043-2044 | 5,200 | 21,200 | 22,200 | 43,400 | 38,200 | 2,000 | 20,900 |
| 2044-2045 | 5,400 | 22,000 | 22,500 | 44,700 | 39,200 | 2,000 | 21,500 |
| 2045-2046 | 5,600 | 23,000 | 23,000 | 46,000 | 40,400 | 2,000 | 22,200 |
| 2046-2047 | 5,700 | 23,800 | 23,500 | 47,400 | 41,600 | 2,000 | 23,000 |

The average grant for the need calculation 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 the loan year 2021-2022 is \$5,985. The average grant for the first three loan years is higher due to the temporary increase in grants.

As shown in Table 10, 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 fixed weekly student loan limit of $\$ 210$, with the only exception being the loan year 2023-2024 where the limit is $\$ 300$.

Over time, more students reach the loan limit without their needs being completely fulfilled. This is shown in Table 10, where the percentage of students at the loan limit is projected to increase from 57.6\% in 2024-2025 to 92.4\% in 2046-2047.

Table 10 Average Loan Size

| Loan Year | New Loans Issued (\$ million) <br> (1) | Increase <br> (\%) | Students in CSFA Receiving a Loan (thousands) <br> (2) | Average Loan Size (\$) <br> (1) / (2) | Increase <br> (\%) | \% of Students at Limit <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 2,940 | N/A | 558 | 5,266 | N/A | 37.3 |
| 2022-2023 | 3,015 | 2.5 | 541 | 5,576 | 5.9 | 40.8 |
| 2023-2024 | 4,334 | 43.8 | 595 | 7,289 | 30.7 | 29.8 |
| 2024-2025 | 4,119 | -5.0 | 652 | 6,312 | -13.4 | 57.6 |
| 2025-2026 | 4,308 | 4.6 | 671 | 6,419 | 1.7 | 60.2 |
| 2026-2027 | 4,403 | 2.2 | 675 | 6,517 | 1.5 | 63.1 |
| 2027-2028 | 4,501 | 2.2 | 681 | 6,610 | 1.4 | 65.8 |
| 2028-2029 | 4,579 | 1.7 | 686 | 6,679 | 1.0 | 68.3 |
| 2029-2030 | 4,643 | 1.4 | 689 | 6,741 | 0.9 | 70.7 |
| 2030-2031 | 4,700 | 1.2 | 691 | 6,798 | 0.8 | 73.0 |
| 2031-2032 | 4,751 | 1.1 | 694 | 6,850 | 0.8 | 75.6 |
| 2032-2033 | 4,794 | 0.9 | 695 | 6,894 | 0.6 | 77.9 |
| 2033-2034 | 4,824 | 0.6 | 696 | 6,933 | 0.6 | 79.7 |
| 2034-2035 | 4,847 | 0.5 | 695 | 6,969 | 0.5 | 81.2 |
| 2035-2036 | 4,864 | 0.4 | 695 | 7,002 | 0.5 | 82.5 |
| 2036-2037 | 4,891 | 0.6 | 696 | 7,032 | 0.4 | 83.8 |
| 2037-2038 | 4,932 | 0.8 | 699 | 7,059 | 0.4 | 85.0 |
| 2038-2039 | 4,976 | 0.9 | 702 | 7,083 | 0.3 | 86.1 |
| 2039-2040 | 5,020 | 0.9 | 707 | 7,105 | 0.3 | 87.2 |
| 2040-2041 | 5,065 | 0.9 | 711 | 7,124 | 0.3 | 88.2 |
| 2041-2042 | 5,110 | 0.9 | 715 | 7,142 | 0.2 | 89.2 |
| 2042-2043 | 5,169 | 1.2 | 722 | 7,157 | 0.2 | 90.1 |
| 2043-2044 | 5,236 | 1.3 | 730 | 7,170 | 0.2 | 90.9 |
| 2044-2045 | 5,311 | 1.4 | 740 | 7,181 | 0.2 | 91.5 |
| 2045-2046 | 5,391 | 1.5 | 750 | 7,191 | 0.1 | 92.0 |
| 2046-2047 | 5,478 | 1.6 | 761 | 7,200 | 0.1 | 92.4 |

The average loan amount is lower over the first two loan years due to the temporary doubling of the grants. The average loan for the loan year 2023-2024 is higher than the previous and following loan years, despite the temporary increase of grants. This is due to the temporary increase to the weekly student loan limit ( $\$ 210$ to $\$ 300$ ). The percentage of students at the limit of $29.8 \%$ for the loan year 2023-2024 is also based on a maximum weekly student loan of $\$ 300$ instead of the standard $\$ 210$.

### 4.2 Portfolios

This section presents projections of the portfolio for all three regimes described in Appendix A (guaranteed, risk-shared and direct loan regimes). The amounts for loans in-study represent loans issued to students who are still in the post-secondary educational system. Loans in repayment consist of outstanding loans that have already consolidated and were not returned to the Government (defaulted loans).

### 4.2.1 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. The projection of the direct loan portfolio (principal only) is shown in Table 11.

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Table 11 Direct Loan Portfolio (in millions of dollars)

| As at July 31 | Loans In-Study | Loans in Repayment | Defaulted Loans | Total |
| :---: | :---: | :---: | :---: | :---: |
| 2022 | 8,121 | 12,718 | 2,434 | 23,273 |
| 2023 | 7,621 | 13,080 | 2,522 | 23,223 |
| 2024 | 9,200 | 12,545 | 2,588 | 24,333 |
| 2025 | 9,972 | 12,644 | 2,609 | 25,225 |
| 2026 | 10,658 | 12,855 | 2,638 | 26,151 |
| 2027 | 11,215 | 13,092 | 2,678 | 26,985 |
| 2028 | 11,662 | 13,457 | 2,734 | 27,853 |
| 2029 | 12,036 | 13,857 | 2,798 | 28,691 |
| 2030 | 12,349 | 14,269 | 2,862 | 29,480 |
| 2031 | 12,615 | 14,673 | 2,940 | 30,228 |
| 2032 | 12,841 | 15,063 | 3,030 | 30,934 |
| 2033 | 13,032 | 15,424 | 3,121 | 31,577 |
| 2034 | 13,189 | 15,751 | 3,210 | 32,150 |
| 2035 | 13,315 | 16,044 | 3,297 | 32,656 |
| 2036 | 13,417 | 16,299 | 3,378 | 33,094 |
| 2037 | 13,509 | 16,518 | 3,451 | 33,478 |
| 2038 | 13,605 | 16,721 | 3,518 | 33,844 |
| 2039 | 13,710 | 16,905 | 3,582 | 34,197 |
| 2040 | 13,821 | 17,073 | 3,641 | 34,535 |
| 2041 | 13,936 | 17,233 | 3,695 | 34,864 |
| 2042 | 14,055 | 17,387 | 3,748 | 35,190 |
| 2043 | 14,188 | 17,539 | 3,799 | 35,526 |
| 2044 | 14,340 | 17,695 | 3,848 | 35,883 |
| 2045 | 14,511 | 17,861 | 3,897 | 36,269 |
| 2046 | 14,700 | 18,041 | 3,943 | 36,684 |
| 2047 | 14,907 | 18,236 | 3,990 | 37,133 |

The outstanding direct loans in the in-study portfolio is projected to decrease to $\$ 7.6$ billion as at 31 July 2023 due to lower loans issued (which is the result of the temporary increased grants). The outstanding direct loans portfolio is projected to increase from $\$ 23.3$ billion as at 31 July 2022 to $\$ 27.0$ billion five years later. By the end of the 2046-2047 loan year, the portfolio is projected to reach $\$ 37.1$ billion.

The outstanding direct loan portfolio as at 31 July 2022 is retrospectively derived from the experience ${ }^{1}$ during loan years 2000-2001 to 2021-2022 as follows²:
New loans issued
Plus the interest accrued during the non-repayment period ${ }^{3}$
Minus repayments ${ }^{4}$
Minus loans forgiven and debt reductions in repayment ${ }^{5}$
Minus defaulted loans written off

| $\$ 53.3$ billion |
| :---: |
| $\$ 1.4$ billion |
| $\$ 28.6$ billion |
| $\$ 1.2$ billion |
| $\$ 1.6$ billion |
| $\$ 23.3$ billion |

[^2]
### 4.2.2 Defaulted Loans Portfolio - Principal

Table 12 provides the calculation details for the projection of the defaulted loans portfolio (principal only) under the direct loan regime.

Table 12 Defaulted Loans (in millions of dollars)

| Loan Year | New Defaulted |  |  | Write-offs <br> (4) | Balance 31 July$(1+2)-(3+4)$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Balance 1 August <br> (1) | Loans <br> (2) | Collected Loans <br> (3) |  |  |
| 2021-2022 | 2,283 ${ }^{(1)}$ | 390 | 105 | 134 | 2,434 |
| 2022-2023 | 2,434 | 379 | 111 | 180 | 2,522 |
| 2023-2024 | 2,522 | 381 | 134 | 181 | 2,588 |
| 2024-2025 | 2,588 | 343 | 146 | 177 | 2,609 |
| 2025-2026 | 2,609 | 353 | 152 | 171 | 2,638 |
| 2026-2027 | 2,638 | 364 | 158 | 166 | 2,678 |
| 2027-2028 | 2,678 | 376 | 161 | 159 | 2,734 |
| 2028-2029 | 2,734 | 398 | 166 | 168 | 2,798 |
| 2029-2030 | 2,798 | 418 | 170 | 184 | 2,862 |
| 2030-2031 | 2,862 | 437 | 173 | 186 | 2,940 |
| 2031-2032 | 2,940 | 451 | 178 | 183 | 3,030 |
| 2032-2033 | 3,030 | 464 | 184 | 189 | 3,121 |
| 2033-2034 | 3,121 | 475 | 188 | 197 | 3,210 |
| 2034-2035 | 3,210 | 484 | 194 | 204 | 3,297 |
| 2035-2036 | 3,297 | 492 | 198 | 214 | 3,378 |
| 2036-2037 | 3,378 | 500 | 203 | 224 | 3,451 |
| 2037-2038 | 3,451 | 507 | 208 | 233 | 3,518 |
| 2038-2039 | 3,518 | 513 | 212 | 237 | 3,582 |
| 2039-2040 | 3,582 | 518 | 215 | 244 | 3,641 |
| 2040-2041 | 3,641 | 523 | 219 | 250 | 3,695 |
| 2041-2042 | 3,695 | 527 | 222 | 253 | 3,748 |
| 2042-2043 | 3,748 | 532 | 225 | 257 | 3,799 |
| 2043-2044 | 3,799 | 537 | 228 | 259 | 3,848 |
| 2044-2045 | 3,848 | 541 | 231 | 262 | 3,897 |
| 2045-2046 | 3,897 | 547 | 233 | 268 | 3,943 |
| 2046-2047 | 3,943 | 553 | 236 | 269 | 3,990 |

(1) This value is revised from the previous report ( $\$ 2,288$ million).

Collected loans (principal recoveries) are expected to increase starting in 2023-2024 following the removal of interest accrual since a higher share of total recoveries will be applied to outstanding principal instead of outstanding interest.

The balance of loans in default (principal only) was $\$ 2,434$ million as at 31 July 2022. The defaulted loans portfolio is projected to reach $\$ 3,990$ million by the end of the projection period.

As shown in Table 12, an amount of $\$ 134$ million was written off in 2021-2022. The corresponding amount in 2022-2023 is $\$ 180$ million and includes all the non-recoverable loans that were identified and approved for write-off by ESDC and CRA between July 2021 and June 2022. These write-offs were approved on 30 March 2023, via Royal Assent of Bill C-43
(Appropriation Act No. 5, 2022-2023). The decision to write off particular loans is part of a multistep process inevitably resulting in some volatility in the actual amount written off from year to year.

### 4.2.3 Defaulted Loans Portfolio - Interest

The projection of the balance of interest on defaulted loans is presented in Table 13.

| Loan Year | Balance 1 August <br> (1) | Interest Transferred in Default <br> (2) | Interest Accrued (3) | Interest Collected <br> (4) | Write-offs (5) | Balance July 31 $(1+2+3)-(4+5)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | $338{ }^{(1)}$ | 0 | 8 | 31 | 35 | 280 |
| 2022-2023 | 280 | -2 | 0 | 24 | 41 | 213 |
| 2023-2024 | 213 | -1 | 0 | 23 | 29 | 159 |
| 2024-2025 | 159 | -1 | 0 | 14 | 24 | 120 |
| 2025-2026 | 120 | 0 | 0 | 10 | 18 | 92 |
| 2026-2027 | 92 | 0 | 0 | 7 | 13 | 71 |
| 2027-2028 | 71 | 0 | 0 | 5 | 8 | 57 |
| 2028-2029 | 57 | 0 | 0 | 4 | 6 | 47 |
| 2029-2030 | 47 | 0 | 0 | 4 | 5 | 39 |
| 2030-2031 | 39 | 0 | 0 | 3 | 4 | 32 |
| 2031-2032 | 32 | 0 | 0 | 2 | 3 | 27 |
| 2032-2033 | 27 | 0 | 0 | 2 | 3 | 23 |
| 2033-2034 | 23 | 0 | 0 | 1 | 2 | 19 |
| 2034-2035 | 19 | 0 | 0 | 1 | 2 | 16 |
| 2035-2036 | 16 | 0 | 0 | 1 | 2 | 13 |
| 2036-2037 | 13 | 0 | 0 | 1 | 2 | 10 |
| 2037-2038 | 10 | 0 | 0 | 1 | 2 | 7 |
| 2038-2039 | 7 | 0 | 0 | 0 | 2 | 5 |
| 2039-2040 | 5 | 0 | 0 | 0 | 1 | 4 |
| 2040-2041 | 4 | 0 | 0 | 0 | 1 | 2 |
| 2041-2042 | 2 | 0 | 0 | 0 | 1 | 1 |
| 2042-2043 | 1 | 0 | 0 | 0 | 0 | 1 |
| 2043-2044 | 1 | 0 | 0 | 0 | 0 | 1 |
| 2044-2045 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2045-2046 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2046-2047 | 0 | 0 | 0 | 0 | 0 | 0 |

(1) This value is revised from the previous report (\$337 million).

Interest accrual on student loans was temporarily waved in loan years 2021-2022 and 2022-2023 (up to March 31, 2023). Moreover, the 2022 Fall Economic Statement permanently eliminated interest on Canada Student Loans. However, interest is still accruing in some special cases for certain borrowers in defaults that have a court judgement. The interest transferred in defaults can be negative due to expected rehabilitations, recalls and other adjustments that occur during the year.

Table 13 shows that the net interest returned to the Government in the loan year 2021-2022 was nil (i.e., the value transferred with newly defaulted principal was offset by rehabilitations). An additional amount of $\$ 8$ million in interest was accrued during the loan year 2021-2022 on the principal balance of the recoverable defaulted loans portfolio at the beginning of the loan year.

In the loan year 2021-2022, $\$ 35$ million in interest was written off. As shown in Table 13, the balance of interest in default was $\$ 338$ million at the beginning of the loan year 2021-2022 and it decreased to $\$ 280$ million as at 31 July 2022. The balance of interest in default is projected to be fully eliminated by the end of the projection period as interest no longer accrues on loans.

### 4.2.4 Guaranteed and Risk-Shared Regimes

Table 14 presents the projections of the guaranteed and risk-shared loans owned by financial institutions and by the Government, as well as the loans returned to the Government because of default (principal only). The guaranteed and risk-shared regimes are gradually being phased out.

Table 14 Guaranteed and Risk-Shared Regimes Portfolio (in millions of dollars)

| As at July 31 | Loans in Study or Repayment |  | Loans in Default |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (with financial institutions) | (bought back by the Government) | (Returned t | vernment) |  |
|  | Guaranteed and Risk-Shared | Guaranteed and Risk-Shared ${ }^{(1)}$ | Guaranteed | Risk-Shared | Total |
| 2022 | $14^{(2)}$ | 14 | 45 | 31 | 104 |
| 2023 | 10 | 10 | 39 | 27 | 86 |
| 2024 | 7 | 6 | 34 | 24 | 71 |
| 2025 | 3 | 3 | 29 | 21 | 56 |
| 2026 | 0 | 0 | 24 | 18 | 42 |
| 2027 | 0 | 0 | 20 | 14 | 34 |
| 2028 | 0 | 0 | 15 | 11 | 26 |
| 2029 | 0 | 0 | 11 | 8 | 19 |
| 2030 | 0 | - | 8 | 5 | 13 |
| 2031 | 0 | - | 4 | 3 | 7 |
| 2032 | 0 | - | - | 0 | 0 |
| 2033 | 0 | - | - | 0 | 0 |
| 2034 | 0 | - | - | - | 0 |
| 2035 | - | - | - | - | - |
| 2036 | - | - | - | - | - |
| (1) Most guaranteed and risk-shared loans were bought back by the Government from financial institutions in order to phase out these old regimes. |  |  |  |  |  |

At the end of the 2021-2022 loan year, the sum of all loans coming from the guaranteed and risk-shared regimes that are owned by the Government amounts to approximately $\$ 147^{1}$ million.

### 4.2.5 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 current limit of $\$ 34$ billion was last increased in June 2019.

Table 15 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 returned² to the Government from financial institutions.

In comparison with Table 11, which show the projection of the loan portfolio at the end of loan years, Table 15 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

[^3]
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beginning and at the end of the loan year. The peak usually occurs in the middle of the loan year (January) and is $1 \%$ to $4 \%$ higher than the aggregate amount at the end of the loan year.

Table 11 shows an aggregate amount of outstanding direct loans of $\$ 23.3$ billion as at 31 July 2022. Table 15 shows that the aggregate amount of outstanding direct loans reached $\$ 24.0$ billion in October 2021 (loan year 2021-2022) and \$24.4 billion in December 2022 (loan year 2022-2023).

The projection shows that the $\$ 34$ billion limit is expected to be reached during the loan year 2034-2035 if the program's provisions do not change and assumptions materialize. The limit is reached one year earlier than estimated in the previous report.

Table 15 Estimated Peak of Aggregate Amount of Outstanding Loans (in millions of dollars)

| Loan Year | Direct Loans | Risk-Shared Loans | Total |
| :---: | :---: | :---: | :---: |
| 2021-2022 | 24,041 | 32 | 24,073 |
| 2022-2023 | 24,379 | 29 | 24,408 |
| 2023-2024 | 25,496 | 25 | 25,521 |
| 2024-2025 | 26,335 | 22 | 26,357 |
| 2025-2026 | 27,294 | 19 | 27,313 |
| 2026-2027 | 28,201 | 16 | 28,217 |
| 2027-2028 | 29,087 | 13 | 29,100 |
| 2028-2029 | 29,977 | 10 | 29,987 |
| 2029-2030 | 30,826 | 7 | 30,833 |
| 2030-2031 | 31,620 | 4 | 31,624 |
| 2031-2032 | 32,365 | 1 | 32,366 |
| 2032-2033 | 33,059 | 0 | 33,059 |
| 2033-2034 | 33,684 | 0 | 33,684 |
| 2034-2035 | 34,236 | - | 34,236 |
| 2035-2036 | 34,721 | - | 34,721 |
| 2036-2037 | 35,147 | - | 35,147 |
| 2037-2038 | 35,542 | - | 35,542 |
| 2038-2039 | 35,919 | - | 35,919 |
| 2039-2040 | 36,284 | - | 36,284 |
| 2040-2041 | 36,637 | - | 36,637 |
| 2041-2042 | 36,981 | - | 36,981 |
| 2042-2043 | 37,335 | - | 37,335 |
| 2043-2044 | 37,707 | - | 37,707 |
| 2044-2045 | 38,106 | - | 38,106 |
| 2045-2046 | 38,537 | - | 38,537 |
| 2046-2047 | 39,000 | - | 39,000 |

### 4.3 Allowances

This section presents projections of the three allowances under the direct loan regime described in Appendix A. There is an allowance for the RAP (principal) to cover the future cost of students benefiting from this program, and two allowances for bad debt (principal and interest) to cover the risk of future default.

The provision rates used to determine the 2022-2023 allowance and the ultimate provision rates are presented in Appendix C. The portfolios to which those provision rates apply are presented in Table 11.

The Government sets up a separate allowance in the Public Accounts for Guaranteed and RiskShared Loans. This allowance calculation is not included in this report. Expenses related to those loans are presented in Table 20 and Table 21.

### 4.3.1 Allowance for the Repayment Assistance Plan

Table 16 provides the calculation details for the projection of the allowance for the Repayment Assistance Plan (RAP) - principal under the direct loan regime ${ }^{1}$.

Table 16 Allowance for Repayment Assistance Plan - Principal (in millions of dollars)

| Loan Year | Allowance 1 August <br> (1) | RAP Expenses <br> (2) | Allowance 31 July (3) | Yearly Expense (3) - (1-2) |
| :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 2,125 | 156 | 2,448 ${ }^{(1)}$ | 479 |
| 2022-2023 | 2,448 | 172 | 2,075 | -201 |
| 2023-2024 | 2,075 | 194 | 2,178 | 297 |
| 2024-2025 | 2,178 | 201 | 2,258 | 281 |
| 2025-2026 | 2,258 | 208 | 2,341 | 291 |
| 2026-2027 | 2,341 | 212 | 2,427 | 298 |
| 2027-2028 | 2,427 | 220 | 2,510 | 303 |
| 2028-2029 | 2,510 | 227 | 2,591 | 308 |
| 2029-2030 | 2,591 | 231 | 2,672 | 312 |
| 2030-2031 | 2,672 | 237 | 2,750 | 315 |
| 2031-2032 | 2,750 | 245 | 2,825 | 320 |
| 2032-2033 | 2,825 | 252 | 2,894 | 321 |
| 2033-2034 | 2,894 | 260 | 2,957 | 323 |
| 2034-2035 | 2,957 | 267 | 3,012 | 322 |
| 2035-2036 | 3,012 | 273 | 3,058 | 319 |
| 2036-2037 | 3,058 | 278 | 3,099 | 319 |
| 2037-2038 | 3,099 | 286 | 3,142 | 329 |
| 2038-2039 | 3,142 | 294 | 3,181 | 333 |
| 2039-2040 | 3,181 | 301 | 3,216 | 336 |
| 2040-2041 | 3,216 | 307 | 3,249 | 340 |
| 2041-2042 | 3,249 | 311 | 3,280 | 342 |
| 2042-2043 | 3,280 | 316 | 3,311 | 347 |
| 2043-2044 | 3,311 | 319 | 3,342 | 350 |
| 2044-2045 | 3,342 | 323 | 3,375 | 356 |
| 2045-2046 | 3,375 | 326 | 3,411 | 362 |
| 2046-2047 | 3,411 | 329 | 3,449 | 367 |

(1) Calculated using the allowance rates (as at 31 July 2022) from the previous report but updated with the actual outstanding balances.

The allowance for the RAP - principal is estimated at $\$ 2,448$ million as at 31 July 2022, which is higher than the $\$ 2,323$ million projected in the previous report. For the loan year 2021-2022, the yearly expense for the allowance for RAP - principal allowance is $\$ 479$ million, which reflects the revision, that was done in the previous report, to the estimated cost of the RAP threshold changes and the new expanded disability definition. The allowance is lower as at 31 July 2023 mainly due to the partial recognition of the recent lower RAP utilization experience.

[^4]
## Allowance for Public Accounts (RAP - Principal)

Provision rates used to determine the allowance for Public Accounts were based on the program's conditions as of 31 March 2023.

- $6.9 \%$ of the outstanding balance of loans in-study, which is $\$ 8,198$ million as at 31 March 2023;
- $1.9 \%$ of the outstanding balance of loans in repayment (reduced by loans in the RAP - all stages), which is \$9,850 million as at 31 March 2023;
- $36.2 \%$ of the outstanding balance of loans in the RAP (all stages), which is $\$ 3,465$ million as at 31 March 2023.
- Total allowance RAP - principal as at 31 March 2023: \$2,007 million.


### 4.3.2 Allowance for Bad Debt - Principal

Table 17 provides the calculation details for the projection of the allowance for bad debt - principal under the direct loan regime.

Table 17 Allowance for Bad Debt - Principal (in millions of dollars)

| Loan Year | Allowance 1 August <br> (1) | Write-offs <br> (2) | Allowance 31 July <br> (3) | Yearly Expense <br> (3) - (1-2) |
| :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 3,001 | 134 | 3,035 ${ }^{(1)}$ | 168 |
| 2022-2023 | 3,035 | 180 | 2,659 | -196 |
| 2023-2024 | 2,659 | 181 | 2,734 | 256 |
| 2024-2025 | 2,734 | 177 | 2,799 | 242 |
| 2025-2026 | 2,799 | 171 | 2,880 | 252 |
| 2026-2027 | 2,880 | 166 | 2,971 | 257 |
| 2027-2028 | 2,971 | 159 | 3,076 | 264 |
| 2028-2029 | 3,076 | 168 | 3,178 | 270 |
| 2029-2030 | 3,178 | 184 | 3,267 | 273 |
| 2030-2031 | 3,267 | 186 | 3,358 | 277 |
| 2031-2032 | 3,358 | 183 | 3,455 | 280 |
| 2032-2033 | 3,455 | 189 | 3,548 | 282 |
| 2033-2034 | 3,548 | 197 | 3,636 | 285 |
| 2034-2035 | 3,636 | 204 | 3,717 | 285 |
| 2035-2036 | 3,717 | 214 | 3,790 | 287 |
| 2036-2037 | 3,790 | 224 | 3,855 | 289 |
| 2037-2038 | 3,855 | 233 | 3,913 | 291 |
| 2038-2039 | 3,913 | 237 | 3,969 | 293 |
| 2039-2040 | 3,969 | 244 | 4,021 | 296 |
| 2040-2041 | 4,021 | 250 | 4,069 | 298 |
| 2041-2042 | 4,069 | 253 | 4,118 | 302 |
| 2042-2043 | 4,118 | 257 | 4,166 | 305 |
| 2043-2044 | 4,166 | 259 | 4,215 | 308 |
| 2044-2045 | 4,215 | 262 | 4,266 | 313 |
| 2045-2046 | 4,266 | 268 | 4,316 | 318 |
| 2046-2047 | 4,316 | 269 | 4,369 | 322 |

(1) Calculated using the allowance rates (as at 31 July 2022) from the previous report but updated with the actual outstanding balances.

The allowance for bad debt - principal is estimated at $\$ 3,035$ million as at 31 July 2022, which is higher than the $\$ 3,018$ million projected in the previous report. For the loan year 2021-2022, the yearly expense for the allowance for bad debt - principal is $\$ 168$ million. The allowance is lower starting 31 July 2023 mainly due to the revision of some assumptions. Expected rehabilitations and recalls are increased to reflect recent experience. Expected recoveries are increased due to the elimination of the interest accrual (i.e., recoveries will be fully attributable to the outstanding
principal balance instead of having a share applied to the outstanding interest balance).

## Allowance for Public Accounts (Bad Debt - Principal)

Provision rates used to determine the allowance for Public Accounts were based on the program's conditions as of 31 March 2023.

- $5.9 \%$ of the outstanding balance of loans in-study, which is $\$ 8,198$ million as at 31 March 2023;
- $3.5 \%$ of the outstanding balance of loans in repayment, which is $\$ 13,315$ million as at 31 March 2023; and
- $69.5 \%$ of the outstanding balance of loans in default, which is $\$ 2,449$ million as at 31 March 2023.
- Total allowance bad debt - principal as at 31 March 2023: $\$ 2,652$ million.


### 4.3.3 Allowance for Bad Debt - Interest

The projection of the allowance for bad debt - interest under the direct loan regime is presented in Table 18.

| Loan Year | Allowance 1 August <br> (1) | Write-offs <br> (2) | Allowance July 31 <br> (3) | Yearly expense <br> (3) - (1-2) |
| :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 224 | 35 | 201 ${ }^{(1)}$ | 12 |
| 2022-2023 | 201 | 41 | 129 | -32 |
| 2023-2024 | 129 | 29 | 99 | 0 |
| 2024-2025 | 99 | 24 | 75 | 0 |
| 2025-2026 | 75 | 18 | 57 | 0 |
| 2026-2027 | 57 | 13 | 44 | 0 |
| 2027-2028 | 44 | 8 | 36 | 0 |
| 2028-2029 | 36 | 6 | 30 | 0 |
| 2029-2030 | 30 | 5 | 25 | 0 |
| 2030-2031 | 25 | 4 | 21 | 0 |
| 2031-2032 | 21 | 3 | 19 | 0 |
| 2032-2033 | 19 | 3 | 16 | 0 |
| 2033-2034 | 16 | 2 | 13 | 0 |
| 2034-2035 | 13 | 2 | 11 | 0 |
| 2035-2036 | 11 | 2 | 10 | 0 |
| 2036-2037 | 10 | 2 | 8 | 0 |
| 2037-2038 | 8 | 2 | 6 | 0 |
| 2038-2039 | 6 | 2 | 4 | 0 |
| 2039-2040 | 4 | 1 | 3 | 0 |
| 2040-2041 | 3 | 1 | 2 | 0 |
| 2041-2042 | 2 | 1 | 1 | 0 |
| 2042-2043 | 1 | 0 | 1 | 0 |
| 2043-2044 | 1 | 0 | 0 | 0 |
| 2044-2045 | 0 | 0 | 0 | 0 |
| 2045-2046 | 0 | 0 | 0 | 0 |
| 2046-2047 | 0 | 0 | 0 | 0 |

The allowance for bad debt - interest is estimated at $\$ 201$ million as at 31 July 2022, which is higher than the $\$ 195$ million projected in the previous report. For the loan year 2021-2022, the yearly expense for the allowance for bad debt - interest is $\$ 12$ million. There are no more yearly expenses after the permanent removal of the interest accrual. However, there is an allowance for the current outstanding interest balance, which is projected to be gradually written-off over the next years.

The provision rates used to determine the allowances for Public Accounts were based on the conditions of the program as of 31 March 2023. The resulting allowance for Public Accounts as at 31 March 2023 corresponds to $\$ 139$ million.

### 4.4 Total Expenses

As shown in Table 19, and notwithstanding impacts from temporary measures, total expenses associated with the program increase from $\$ 4.0$ billion in 2025-20261 to $\$ 5.1$ billion in 2046-2047. On average, total expenses are projected to increase at an annual rate of 1.1\%.

| Loan Year | Student Related Expenses | Government Liabilities on Outstanding Loans | Alternative Payments | Administrative Expenses |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Fees Paid to Provinces | General |  |
| 2021-2022 | 4,211.0 | 220.8 | 927.4 | 34.8 | 107.4 | 5,501.4 |
| 2022-2023 | 3,875.0 | -191.2 | 999.2 | 36.2 | 119.1 | 4,838.3 |
| 2023-2024 | 3,326.1 | 300.8 | 1,147.9 | 37.0 | 118.1 | 4,929.9 |
| 2024-2025 | 2,736.8 | 300.1 | 886.1 | 38.0 | 118.9 | 4,079.9 |
| 2025-2026 | 2,820.3 | 311.8 | 742.0 | 39.1 | 120.1 | 4,033.4 |
| 2026-2027 | 2,876.5 | 318.2 | 772.9 | 40.3 | 121.9 | 4,129.9 |
| 2027-2028 | 2,936.9 | 328.1 | 799.8 | 41.5 | 125.6 | 4,231.9 |
| 2028-2029 | 2,995.7 | 335.7 | 830.1 | 42.8 | 129.4 | 4,333.6 |
| 2029-2030 | 3,049.6 | 342.2 | 862.4 | 44.1 | 133.3 | 4,431.5 |
| 2030-2031 | 3,101.8 | 347.6 | 895.0 | 45.4 | 137.3 | 4,527.1 |
| 2031-2032 | 3,152.1 | 352.5 | 926.4 | 46.8 | 141.4 | 4,619.2 |
| 2032-2033 | 3,199.6 | 356.4 | 952.3 | 48.2 | 145.7 | 4,702.3 |
| 2033-2034 | 3,240.4 | 359.5 | 974.3 | 49.7 | 150.1 | 4,773.9 |
| 2034-2035 | 3,246.5 | 361.9 | 991.9 | 51.2 | 154.6 | 4,806.1 |
| 2035-2036 | 3,245.5 | 363.8 | 994.7 | 52.7 | 159.3 | 4,816.0 |
| 2036-2037 | 3,250.1 | 366.3 | 992.7 | 54.3 | 164.1 | 4,827.5 |
| 2037-2038 | 3,270.0 | 369.5 | 989.2 | 55.9 | 169.1 | 4,853.7 |
| 2038-2039 | 3,284.0 | 372.9 | 989.3 | 57.6 | 174.2 | 4,877.9 |
| 2039-2040 | 3,298.3 | 376.3 | 991.3 | 59.4 | 179.4 | 4,904.7 |
| 2040-2041 | 3,312.6 | 379.7 | 993.3 | 61.1 | 184.8 | 4,931.6 |
| 2041-2042 | 3,327.1 | 383.1 | 990.5 | 63.0 | 190.4 | 4,954.1 |
| 2042-2043 | 3,347.8 | 387.4 | 986.3 | 64.9 | 196.2 | 4,982.5 |
| 2043-2044 | 3,372.9 | 392.1 | 983.9 | 66.9 | 202.1 | 5,017.8 |
| 2044-2045 | 3,402.1 | 397.3 | 980.6 | 68.9 | 208.2 | 5,057.1 |
| 2045-2046 | 3,434.4 | 403.0 | 974.7 | 71.0 | 214.5 | 5,097.6 |
| 2046-2047 | 3,470.6 | 408.1 | 965.6 | 73.1 | 221.0 | 5,138.3 |

The larger student related expenses over the first three loan years and the larger alternative payments over the first four loan years are mainly due to the temporary increase of the grants. The reduction in Government liabilities in the loan year 2022-2023 is mostly due to the immediate recognition of the impact of removing interest accrual on all future years for all outstanding student loans.

[^5]
### 4.4.1 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 20.

Table 20 Student Related Expenses (in millions of dollars)

| Loan Year | Direct Loan |  |  |  | Risk-Shared and Guaranteed Loans |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Interest <br> Subsidy - <br> Before Consolidation | Interest <br> Subsidy After Consolidation | RAP Interest | Provision <br> RAP - <br> Principal | RAP - Interest and Principal | Canada <br> Student <br> Grants | Total |
| 2021-2022 | 193.8 | 280.8 | 0.1 | 478.6 | 1.5 | 3,256.2 | 4,211.0 |
| 2022-2023 | 252.1 | 415.1 | 0.0 | -200.9 | 0.8 | 3,407.8 | 3,875.0 |
| 2023-2024 | 265.2 | 386.7 | 0.0 | 296.4 | 0.8 | 2,376.9 | 3,326.1 |
| 2024-2025 | 303.7 | 394.1 | 0.0 | 280.1 | 0.8 | 1,758.1 | 2,736.8 |
| 2025-2026 | 325.4 | 398.2 | 0.0 | 291.4 | 0.7 | 1,804.7 | 2,820.3 |
| 2026-2027 | 355.3 | 418.0 | 0.0 | 297.2 | 0.0 | 1,806.1 | 2,876.5 |
| 2027-2028 | 382.8 | 442.2 | 0.0 | 303.2 | 0.0 | 1,808.7 | 2,936.9 |
| 2028-2029 | 408.4 | 469.3 | 0.0 | 308.1 | 0.0 | 1,810.0 | 2,995.7 |
| 2029-2030 | 432.5 | 497.9 | 0.0 | 312.0 | 0.0 | 1,807.2 | 3,049.6 |
| 2030-2031 | 455.6 | 527.6 | 0.0 | 315.6 | 0.0 | 1,803.0 | 3,101.8 |
| 2031-2032 | 477.8 | 558.0 | 0.0 | 318.8 | 0.0 | 1,797.5 | 3,152.1 |
| 2032-2033 | 499.0 | 588.3 | 0.0 | 321.5 | 0.0 | 1,790.8 | 3,199.6 |
| 2033-2034 | 519.3 | 618.1 | 0.0 | 322.1 | 0.0 | 1,780.8 | 3,240.4 |
| 2034-2035 | 524.6 | 630.5 | 0.0 | 322.3 | 0.0 | 1,769.1 | 3,246.5 |
| 2035-2036 | 528.8 | 641.5 | 0.0 | 319.1 | 0.0 | 1,756.1 | 3,245.5 |
| 2036-2037 | 532.5 | 651.2 | 0.0 | 319.0 | 0.0 | 1,747.4 | 3,250.1 |
| 2037-2038 | 536.3 | 660.1 | 0.0 | 329.3 | 0.0 | 1,744.3 | 3,270.0 |
| 2038-2039 | 540.3 | 668.3 | 0.0 | 332.8 | 0.0 | 1,742.6 | 3,284.0 |
| 2039-2040 | 544.7 | 675.7 | 0.0 | 336.1 | 0.0 | 1,741.8 | 3,298.3 |
| 2040-2041 | 549.2 | 682.7 | 0.0 | 339.4 | 0.0 | 1,741.4 | 3,312.6 |
| 2041-2042 | 553.9 | 689.3 | 0.0 | 342.5 | 0.0 | 1,741.4 | 3,327.1 |
| 2042-2043 | 559.0 | 695.9 | 0.0 | 346.4 | 0.0 | 1,746.5 | 3,347.8 |
| 2043-2044 | 564.9 | 702.4 | 0.0 | 350.9 | 0.0 | 1,754.7 | 3,372.9 |
| 2044-2045 | 571.5 | 709.1 | 0.0 | 356.0 | 0.0 | 1,765.5 | 3,402.1 |
| 2045-2046 | 578.8 | 716.2 | 0.0 | 361.5 | 0.0 | 1,778.0 | 3,434.4 |
| 2046-2047 | 586.8 | 723.8 | 0.0 | 367.4 | 0.0 | 1,792.6 | 3,470.6 |

Starting on 1 April 2023, there is permanently no interest accrual on student loans. This results in higher interest subsidies after the loans consolidate. The negative value of $\$ 200.9$ million for the RAP provision mainly stems from the immediate recognition of the expected reduction in the RAP utilization for all future years on all outstanding loans. Assumptions for the RAP are provided in Appendix C.

Interest subsidies are still projected for the Risk-Shared and Guaranteed loans for the first 4 years of the projection. However, those results were removed from Table 20 since they are negligible (they round to $\$ 0.0 \mathrm{M}$ ).

In the loan year 2021-2022, a total of $\$ 3,256$ million of Canada Student Grants were disbursed. Those grants are projected to increase slightly in 2022-2023 (due to the change in the definition of disability), to decrease in 2023-2024 (due to the change in the temporary grant increase from

## 22 | Projections

an additional 100\% to 40\%, compared with the loan year 2019-2020) and to decrease again in 2024-2025 (due to the removal of the temporary grant increase).

### 4.4.2 Government Liabilities on Outstanding Loans

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 and permanent disability. Loans forgiven for family physicians and qualifying nurses practicing in under-served rural or remote communities are also included in Table 21 below.

Table 21 Government Liabilities on Outstanding Loans (in millions of dollars)

| Loan Year | Direct Loan |  | Risk-Shared <br> Risk Premium, Put-Backs \& Refunds to FIs | GuaranteedClaims forDefaulted Loans | Loans Forgiven | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Provision for Bad Debt |  |  |  |  |  |
|  | Principal | Interest |  |  |  |  |
| 2021-2022 | 167.5 | 12.4 | 0.2 | -0.2 | 40.9 | 220.8 |
| 2022-2023 | -196.3 | -31.7 | 0.0 | 0.0 | 36.7 | -191.2 |
| 2023-2024 | 255.3 | 0.0 | 0.0 | 0.0 | 45.5 | 300.8 |
| 2024-2025 | 241.8 | 0.0 | 0.0 | 0.0 | 58.3 | 300.1 |
| 2025-2026 | 252.5 | 0.0 | 0.0 | 0.0 | 59.3 | 311.8 |
| 2026-2027 | 257.0 | 0.0 | 0.0 | 0.0 | 61.3 | 318.2 |
| 2027-2028 | 263.8 | 0.0 | 0.0 | - | 64.2 | 328.1 |
| 2028-2029 | 269.3 | 0.0 | 0.0 | - | 66.4 | 335.7 |
| 2029-2030 | 273.5 | 0.0 | 0.0 | - | 68.7 | 342.2 |
| 2030-2031 | 276.9 | 0.0 | 0.0 | - | 70.7 | 347.6 |
| 2031-2032 | 279.9 | 0.0 | 0.0 | - | 72.5 | 352.5 |
| 2032-2033 | 282.4 | 0.0 | - | - | 74.0 | 356.4 |
| 2033-2034 | 284.2 | 0.0 | - | - | 75.3 | 359.5 |
| 2034-2035 | 285.6 | 0.0 | - | - | 76.3 | 361.9 |
| 2035-2036 | 286.6 | 0.0 | - | - | 77.2 | 363.8 |
| 2036-2037 | 288.2 | 0.0 | - | - | 78.1 | 366.3 |
| 2037-2038 | 290.6 | 0.0 | - | - | 78.9 | 369.5 |
| 2038-2039 | 293.2 | 0.0 | - | - | 79.7 | 372.9 |
| 2039-2040 | 295.8 | 0.0 | - | - | 80.5 | 376.3 |
| 2040-2041 | 298.4 | 0.0 | - | - | 81.3 | 379.7 |
| 2041-2042 | 301.1 | 0.0 | - | - | 82.0 | 383.1 |
| 2042-2043 | 304.5 | 0.0 | - | - | 82.8 | 387.4 |
| 2043-2044 | 308.5 | 0.0 | - | - | 83.6 | 392.1 |
| 2044-2045 | 312.9 | 0.0 | - | - | 84.4 | 397.3 |
| 2045-2046 | 317.7 | 0.0 | - | - | 85.3 | 403.0 |
| 2046-2047 | 322.0 | 0.0 | - | - | 86.1 | 408.1 |

The increase in loans forgiven is due to the upcoming increase in the maximum amount of forgivable loans by $50 \%$ in the loans forgiveness program for doctors and qualifying nurses a well as the expected expansion of the program to more rural communities.

The reductions in the provision for bad debt in the loan year 2022-2023 are mostly due to the full recognition of the impact of removing interest accrual on student loans going forward.

### 4.4.3 Other Expenses

Other expenses are composed of alternative payments and administrative expenses (fees paid to participating province and general expenses) and are presented in Table 19. 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.

### 4.5 Total Revenues

With the permanent elimination of interest accrual, revenues for the direct loan regime have nearly been reduced to zero. Only a small share of loans in default still accrues interest. It is expected that these loans will also be reduced to zero in the short-term future.

Under the guaranteed and risk-shared regimes, revenues come from recoveries of principal and interest from defaulted loans owned by the Government.

As shown in Table 22, total revenues are projected to decrease to $\$ 0$.

Table 22 Total Revenues (in millions of dollars)

| Loan Year | Direct Loan Interest Revenues | Risk-Shared <br> Principal and Interest from Recovery | Guaranteed <br> Principal and Interest from Recovery | Total Revenues |
| :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 9.9 | 1.8 | 2.5 | 14.1 |
| 2022-2023 | 0.0 | 1.8 | 2.9 | 4.7 |
| 2023-2024 | 0.0 | 1.6 | 2.5 | 4.1 |
| 2024-2025 | 0.0 | 1.5 | 2.2 | 3.7 |
| 2025-2026 | 0.0 | 1.4 | 1.9 | 3.2 |
| 2026-2027 | 0.0 | 1.2 | 1.6 | 2.8 |
| 2027-2028 | 0.0 | 1.0 | 1.3 | 2.3 |
| 2028-2029 | 0.0 | 0.7 | 1.0 | 1.8 |
| 2029-2030 | 0.0 | 0.5 | 0.8 | 1.3 |
| 2030-2031 | 0.0 | 0.4 | 0.5 | 0.9 |
| 2031-2032 | 0.0 | 0.2 | 0.5 | 0.8 |
| 2032-2033 | 0.0 | 0.0 | - | 0.0 |
| 2033-2034 | 0.0 | 0.0 | - | 0.0 |
| 2034-2035 | 0.0 | - | - | 0.0 |
| 2035-2036 | 0.0 | - | - | 0.0 |
| 2036-2037 | 0.0 | - | - | 0.0 |
| 2037-2038 | 0.0 | - | - | 0.0 |
| 2038-2039 | 0.0 | - | - | 0.0 |
| 2039-2040 | 0.0 | - | - | 0.0 |
| 2040-2041 | 0.0 | - | - | 0.0 |
| 2041-2042 | 0.0 | - | - | 0.0 |
| 2042-2043 | 0.0 | - | - | 0.0 |
| 2043-2044 | 0.0 | - | - | 0.0 |
| 2044-2045 | 0.0 | - | - | 0.0 |
| 2045-2046 | 0.0 | - | - | 0.0 |
| 2046-2047 | 0.0 | - | - | 0.0 |

### 4.6 Total Net Cost

Table 23 shows projected total expenses, total revenues and the total net cost of the program for all three regimes for the projection period. The expenses and revenues shown correspond to values presented earlier in this report.

Table 23 Net Annual Cost of the Program (in millions of dollars)

| Loan Year | Total Expenses | Total Revenues | Total Net Cost | Changes | Direct Loan | Risk-Shared \& Guaranteed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 5,501.4 | 14.1 | 5,487.3 | N/A. | 5,489.4 | -2.1 |
| 2022-2023 | 4,838.3 | 4.7 | 4,833.6 | -11.9\% | 4,837.3 | -3.8 |
| 2023-2024 | 4,929.9 | 4.1 | 4,925.8 | 1.9\% | 4,929.0 | -3.2 |
| 2024-2025 | 4,079.9 | 3.7 | 4,076.2 | -17.2\% | 4,079.0 | -2.8 |
| 2025-2026 | 4,033.4 | 3.2 | 4,030.2 | -1.1\% | 4,032.7 | -2.5 |
| 2026-2027 | 4,129.9 | 2.8 | 4,127.2 | 2.4\% | 4,129.9 | -2.7 |
| 2027-2028 | 4,231.9 | 2.3 | 4,229.6 | 2.5\% | 4,231.9 | -2.3 |
| 2028-2029 | 4,333.6 | 1.8 | 4,331.9 | 2.4\% | 4,333.6 | -1.8 |
| 2029-2030 | 4,431.5 | 1.3 | 4,430.1 | 2.3\% | 4,431.4 | -1.3 |
| 2030-2031 | 4,527.1 | 0.9 | 4,526.3 | 2.2\% | 4,527.1 | -0.9 |
| 2031-2032 | 4,619.2 | 0.8 | 4,618.4 | 2.0\% | 4,619.2 | -0.8 |
| 2032-2033 | 4,702.3 | 0.0 | 4,702.3 | 1.8\% | 4,702.3 | 0.0 |
| 2033-2034 | 4,773.9 | 0.0 | 4,773.9 | 1.5\% | 4,773.9 | 0.0 |
| 2034-2035 | 4,806.1 | 0.0 | 4,806.1 | 0.7\% | 4,806.1 | 0.0 |
| 2035-2036 | 4,816.0 | 0.0 | 4,816.0 | 0.2\% | 4,816.0 | 0.0 |
| 2036-2037 | 4,827.5 | 0.0 | 4,827.5 | 0.2\% | 4,827.5 | 0.0 |
| 2037-2038 | 4,853.7 | 0.0 | 4,853.7 | 0.5\% | 4,853.7 | - |
| 2038-2039 | 4,877.9 | 0.0 | 4,877.9 | 0.5\% | 4,877.9 | - |
| 2039-2040 | 4,904.7 | 0.0 | 4,904.7 | 0.5\% | 4,904.7 | - |
| 2040-2041 | 4,931.6 | 0.0 | 4,931.6 | 0.5\% | 4,931.6 | - |
| 2041-2042 | 4,954.1 | 0.0 | 4,954.1 | 0.5\% | 4,954.1 | - |
| 2042-2043 | 4,982.5 | 0.0 | 4,982.5 | 0.6\% | 4,982.5 | - |
| 2043-2044 | 5,017.8 | 0.0 | 5,017.8 | 0.7\% | 5,017.8 | - |
| 2044-2045 | 5,057.1 | 0.0 | 5,057.1 | 0.8\% | 5,057.1 | - |
| 2045-2046 | 5,097.6 | 0.0 | 5,097.6 | 0.8\% | 5,097.6 | - |
| 2046-2047 | 5,138.3 | 0.0 | 5,138.3 | 0.8\% | 5,138.3 | - |

As shown in Table 23, the initial net annual cost for the direct loan regime is $\$ 5.5$ billion for the loan year 2021-2022. The net cost is projected to increase between the loan year 2025-20261 and the loan year 2046-2047 from $\$ 4.0$ billion to $\$ 5.1$ billion, representing an annual average increase of $1.1 \%$.

The net costs shown in Table 23 include the amount of grants disbursed, representing 59\% of the net cost for the loan year 2021-2022. 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.

[^6]
## 5 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. They consist of upcoming temporary and permanent changes to the program proposed in the Fall Economic Statement and in Budget 2023, as described in Section 2.3. In order to provide projections based on up-to-date information, these changes were considered in our report.


Laurence Frappier, FCIA, FSA
Managing Director


Mathieu Désy, FCIA, FSA


Thierry Truong, FCIA, FSA

Ottawa, Canada
23 June 2023

## 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 applied to loan years preceding August 1995 while the subsequent Canada Student Financial Assistance Act applies to loan years starting after July 1995.

The population covered by the CSFA Program is the Canadian population excluding nonpermanent residents as well as the non-participating province and territories of Québec, Northwest Territories and Nunavut.

## 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 loan year 2013-2014. 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.

Starting in the loan year 2017-2018, 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 a disability recognized by the CSFA Program, 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.

## 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 the sum of the maximum grant (for eligible students) and a maximum of $\$ 210$ per week in student loans. Budget 2023 proposed a temporary increase to the maximum for the loan year 2023-2024, increasing it to $\$ 300$ per week. 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 six provinces: Ontario (August 2001), Saskatchewan (August 2001), Newfoundland and Labrador (April 2004), New Brunswick (May 2005), British Columbia (August 2011) and Manitoba (July 2022). 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

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 a disability recognized by the CSFA Program 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 with a family income that falls below the maximum threshold (which scales up based on family size). To be eligible, a student's academic program must be at least two years ( 60 weeks) in duration.
- CSG-D: a grant of $\$ 2,000$ per school year for students with a disability recognized by the CSFA Program.
- CSG-DSE: a grant of up to \$20,000 per school year to help cover exceptional educationrelated costs associated with a student's disability recognized by the CSFA Program.
- 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 with a family income that falls below the maximum threshold (which scales up based on family size).
- 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 loan year 2018-2019, 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 the loan year 2020-2021: CSGFT, CSG-PD ${ }^{1}$, CSG-FTDEP, CSG-PT and CSG-PTDEP. Budget 2021 extended the doubling of the grants for loan years 2021-2022 and 2022-2023.

Budget 2023 proposed to increase by 40\% (compared with the loan year 2019-2020) the maximum amount for the following grants for the loan year 2023-2024: CSG-FT, CSG-D, CSGFTDEP, CSG-PT and CSG-PTDEP.

## 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 for both full-time and part-time students. 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.

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.

## 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. With the implementation of the MSFAA, the Canada Student Financial Assistance Regulations were amended to remove the regulatory requirement that borrowers

[^7]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.

In general, the student's monthly payment is calculated based on a standard 114-month repayment period. However, loans with an outstanding balance smaller than $\$ 7,000$ are amortized over a shorter period of time as per ESDC's guidelines.

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.

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

## A.3.3 In Repayment Interest Subsidy

Bill C-14 waived the interest accrual on student loans for fiscal year 2021-2022 and Budget 2021 extended this waiver for one more year, up to 31 March 2023.

The interest accrual is permanently eliminated starting on 1 April 2023.

## A.3.4 Repayment Assistance

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 $10 \%^{1}$ 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 $10 \%$ 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 disability).

At the beginning of the 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). It was further increased in the loan year 2022-2023 to \$40,000 while thresholds for borrowers from larger households were modified to match the Canada Student Grants thresholds. All thresholds also now increase with inflation, every year, on August $1^{\text {st }}$.

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

[^8]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 disability recognized by the CSFA Program). 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 disability recognized by the CSFA Program) 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 disability recognized by the CSFA Program who are not eligible for the Severe Permanent Disability Benefit have access to the RAP-D¹. Additional expenses related to costs faced by borrowers with a disability recognized by the CSFA Program are taken into account in the income calculation when they apply for RAP-D. Similar to all borrowers in RAP Stage 2, additional student loans or grants are not available under RAP-D until existing loans are paid in full.

## A.3.5 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), registered nurses, registered practical nurses, licensed practical nurses, registered psychiatric nurses and nurse practitioners (together referred to as "qualifying nurses" throughout the report) 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 2022 proposed to increase by $50 \%$ the maximum amount of doctors and qualifying 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 under the loans

[^9]32 | Appendix A - Summary of Program Provisions
forgiveness program.
Budget 2023 proposed to expand the reach of the Canada Student Loan forgiveness for doctors and qualifying nurses to more rural communities.

Budget 2023 also announced the Government's intent to expand the list of eligible occupations.

## 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 24 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 2021-2022. According to the Monthly Financial Information Schedule (MFIS), the total amount of loans issued in 2021-2022 rounded to the million was $\$ 2,940$, which is identical to the value calculated using the data file. These data were found to be complete.

## Table 24 Direct Loans Issued (in millions of dollars) and Number of Students

| Loan Year | Amount of Loans Issued |  | 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 |  |
| $2021-2022$ | 2,940 | 558,356 |  |

## B. 2 Direct Loans Consolidated

Table 25 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 25 Direct Loans Consolidated (in millions of dollars)

|  | Consolidations <br> (1) | Reversal ${ }^{(1)}$ <br> (2) | Interest Accrued (3) | Total Amount Consolidated $(1)-(2)+(3)$ |
| :---: | :---: | :---: | :---: | :---: |
| 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 | 2,825.9 |
| 2020-2021 | 3,905.9 | 1,326.6 | 0.0 | 2,579.3 |
| 2021-2022 | 4,491.4 | 1,130.9 | 0.0 | 3,360.5 |

(1) Includes all reversals regardless of the original consolidation year.

## B. 3 Defaults and Recoveries for Direct Loans

Table 26 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 six-year limitation period.

Adjustments, rehabilitations, recoveries and write-offs shown in Table 26 represent the amounts recorded in each loan year, regardless of the time of default. For example, in the loan year 2021-2022, there were $\$ 105.4$ 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 26 shows that the balance of the portfolio in default is $\$ 2,439.7$ million as at 31 July 2022 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 of $\$ 2,283$ million as at 31 July 2021 and $\$ 2,434$ million as at 31 July 2022.

Table 26 Direct Loans Default Portfolio - Principal (in millions of dollars)

| Loan Year | Defaults | Account Adjustments | Rehabilitated | Net Defaults | Recoveries | Write-Offs | Balance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 350.3 | 3.7 | 69.8 | 276.8 | 55.6 | 146.1 | 2,288.0 |
| 2021-2022 | 487.6 | 15.7 | 81.1 | 390.8 | 105.4 | 133.7 | 2,439.7 |

## 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 27 and Table 28 present 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 27 Repayment Assistance Plan - Principal Payments (in millions of dollars)

| Loan Year | MFIS |  |  | Data Files |
| :---: | :---: | :---: | :---: | :---: |
|  | Stage 2 | PD | Total | Total |
| 2009-2010 | 3.3 | 1.2 | 4.4 | 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 |
| 2021-2022 | 105.9 | 49.8 | 155.7 | 156.2 |

Table 28 Repayment Assistance Plan - Interest Payments (in millions of dollars)

| Loan Year | MFIS |  |  |  | Data Files |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stage 1 | Stage 2 | PD | Total | Total |
| 2009-2010 | 67.5 | 0.5 | 0.7 | 68.7 | 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 |
| 2021-2022 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 |

## Appendix C - Assumptions and Methodology

Several economic and demographic assumptions are needed to determine the future long-term costs of the CSFA Program. The assumptions are determined by considering historical experience, recent trends and forward looking expectations. These assumptions reflect the actuary's best judgment and are referred to as "best-estimate" assumptions.

Chart 3 shows the typical evolution of CSFA loans starting from the moment they are issued. Multiple underlying assumptions and methodologies are needed to determine the expected path of a loan issued through the Program. Those assumptions and methodologies are described in this Appendix.

## Chart 3 Evolution of CSFA Loans Issued Through the Program



## C. 1 Demographic

## C.1.1 Covered Population Projections

Demographic projections are based on the population projected in the 31st Actuarial Report on the Canada Pension Plan as at 31 December 2021. More specifically, it starts with the Canadian and Québec populations on 1 July 2021, to which future fertility, mortality and migration assumptions, as shown in Table 29, 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.

| Table 29 Demographic Assumptions |  |
| :--- | :--- | :--- |
| Total fertility rate for Canada (ultimate) | 1.54 per woman (for 2029+) |
| Mortality | Statistics Canada Life Tables with CPP 31st assumed future <br> improvements |
| Net migration rate for Canada (ultimate) | $0.64 \%$ of population (for 2031+) |

## C.1.2 Post-secondary Enrolment

Projections of post-secondary enrolment are based on enrolment data from Statistics Canada's Labour Force Survey up to April 2023. The enrolment rates for students enrolled full-time in post-secondary institutions vary according to the following:


Table 30 presents the youth labour force participation rate for participating provinces/territory for ages 15-29, based on the population projected in the 31st Actuarial Report on the Canada Pension Plan as at 31 December 2021.

Table 30 Labour Force Assumptions (in percentage)

| Loan Year |  | Participation Rate |
| :---: | :---: | :---: |
| $2020-2021$ |  | 66.5 |
| $2021-2022$ |  | 68.9 |
| $2022-2023$ | 68.9 |  |
| $2023-2024$ | 68.9 |  |
| $2024-2025$ |  | 69.0 |
| $\bullet$ | $\bullet$ |  |
| $2046-2047$ |  | 71.6 |

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. Since international students are not eligible to participate in the CSFA Program, they are excluded from the enrolment numbers.

Table 31 presents full-time post-secondary enrolment rates by age group, separated according to their labour force status, for loan years 2021-2022, 2031-2032 and 2046-2047. In 2021-2022, $50 \%$ of students aged 15-29 who were enrolled full-time in post-secondary institutions were also participating in the labour force. The projected number of part-time students is assumed to stay equal to the last known loan year and represents about 1\% of total students taking a loan in the CSFA program.

Table 31 Full-time Post-Secondary Enrolment Rate by Labour Force Status (in percentage)

|  |  | 2021-2022 <br> (1) | 2031-2032 <br> (2) | Change in Enrolment (2)/(1)-1 | 2046-2047 <br> (3) | Change in Enrolment (3)/(1)-1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| In Labour Force | 15-19 | 20.2 | 21.9 | 8.2 | 21.9 | 8.1 |
|  | 20-24 | 27.5 | 26.0 | -5.8 | 25.9 | -6.1 |
|  | 25-29 | 5.4 | 4.8 | -10.9 | 4.8 | -11.0 |
|  | 30-64 | 0.7 | 0.8 | 2.8 | 0.8 | 2.9 |
|  | 15-29 | 16.2 | 16.2 | -0.2 | 16.3 | 0.8 |
|  | 15-64 | 4.5 | 4.5 | 0.4 | 4.5 | 1.0 |
| Not In Labour Force | 15-19 | 22.9 | 26.0 | 13.9 | 26.0 | 13.9 |
|  | 20-24 | 70.5 | 74.1 | 5.1 | 74.1 | 5.1 |
|  | 25-29 | 25.0 | 25.0 | 0.0 | 25.0 | 0.2 |
|  | 30-64 | 2.4 | 2.4 | -0.4 | 2.4 | -0.8 |
|  | 15-29 | 36.5 | 39.4 | 7.9 | 39.2 | 7.2 |
|  | 15-64 | 10.1 | 11.9 | 17.7 | 11.7 | 15.5 |
| Total Enrolment Over Population | 15-19 | 21.6 | 24.0 | 11.0 | 23.9 | 10.7 |
|  | 20-24 | 39.0 | 37.8 | -3.0 | 37.3 | -4.3 |
|  | 25-29 | 8.7 | 7.5 | -13.9 | 7.3 | -16.7 |
|  | 30-64 | 1.1 | 1.0 | -3.2 | 1.0 | -3.7 |
|  | 15-29 | 22.5 | 23.0 | 1.9 | 22.8 | 1.3 |
|  | 15-64 | 6.8 | 7.0 | 2.1 | 6.9 | 0.8 |

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 remain nearly the same.

## C.1.3 Loan Uptake Rate and Grant Uptake Rate

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

## Educational Institution

- University
- Public college
- 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 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.

The same methodology is used for both the grant uptake rate and the loan and/or grant uptake rate.

## C.1.4 Consolidation

Under the direct loan regime, loans are assumed to consolidate according to the distribution of consolidation by year shown in Chart 4 over a period of fifteen years after a loan is issued. This distribution is built using the experience of direct loan consolidations. The assumption remains fairly similar to the assumption from the report as at 31 July 2021.

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 4 Distribution of Consolidation Amounts over 15 Years



## C. 2 Economic

## C.2.1 Inflation

Table 32 presents the inflation assumption. The ultimate inflation assumption is consistent with the assumption used in the 31st Actuarial Report on the Canada Pension Plan as at 31 December 2021.

Table 32 Inflation Assumption (in percentage)

| Loan Year |  | Inflation |
| :---: | :---: | :---: | :---: |
| $2022-2023$ |  | 5.6 |
| 2023-2024 |  | 2.4 |
| $2024-2025$ | 2.2 |  |
| $2025-2026$ |  | 2.1 |
| $2026-2027+$ | 2.0 |  |

## C.2.2 Real Wage Increase

Table 33 presents the real wage increase assumption. The ultimate real wage increase is based on the 31st Actuarial Report on the Canada Pension Plan as at 31 December 2021.

Table 33 Real Wage Increase Assumption (in percentage)

| Loan Year |  | Real wage increases |
| :--- | :--- | :--- |
| $2022-2023$ |  | -1.06 |
| $2023-2024$ |  | 0.19 |
| $2024-2025$ |  | 0.55 |
| $2025-2026$ |  | 0.80 |
| $2026-2027+$ | 0.90 |  |

## C.2.3 Cost of Borrowing

Table 34 presents the interest rates assumptions used to calculate the cost of borrowing for the Government and for borrowers.

Table 34 Borrowing Cost (in percentage)

| Loan Year | Government's Cost of Borrowing | Government's <br> Real Cost of Borrowing ${ }^{(1,2)}$ | Prime Rate ${ }^{(3)}$ | Student's Cost of Borrowing |
| :---: | :---: | :---: | :---: | :---: |
| 2022-2023 | 3.0 | -2.6 | 6.2 | 0.0 |
| 2023-2024 | 2.8 | 0.4 | 6.5 | 0.0 |
| 2024-2025 | 2.9 | 0.7 | 6.5 | 0.0 |
| 2025-2026 | 2.9 | 0.8 | 5.8 | 0.0 |
| 2026-2027 | 3.0 | 1.0 | 4.9 | 0.0 |
| 2027-2028 | 3.1 | 1.1 | 4.5 | 0.0 |
| 2028-2029 | 3.2 | 1.2 | 4.4 | 0.0 |
| 2029-2030 | 3.3 | 1.3 | 4.4 | 0.0 |
| 2030-2031 | 3.4 | 1.4 | 4.5 | 0.0 |
| 2031-2032 | 3.5 | 1.5 | 4.5 | 0.0 |
| 2032-2033 | 3.6 | 1.6 | 4.5 | 0.0 |
| 2033-2034+ | 3.7 | 1.7 | 4.6 | 0.0 |

(1) Since the normal repayment period lasts nine and a half years for the majority of loans issued, the historical 10year Government of Canada bond yield, net of inflation, is used as a benchmark to calculate the real cost of borrowing for the Government.
(2) Equals to the Government's cost of borrowing minus inflation.
(3) Average expected interest rate declared by Canadian financial institutions.

The government's cost of borrowing is expected to decrease in the loan year 2023-2024 before gradually increasing up to an ultimate rate of 3.7\% in the loan year 2033-2034.

The student's cost of borrowing is 0\% due to the temporary pause on interest accrual (ending 31 March 2023) and the permanent elimination of interest accrual (starting 1 April 2023).

## C.2.4 Tuition Increase

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 35.

Table 35 Short-term Increase of Tuition Expenses (in percentage)

| Province | Weight | 2021-2022 ${ }^{(1)}$ | 2022-2023 ${ }^{(1)}$ | 2023-2024 ${ }^{(2)}$ | 2024-2025 ${ }^{(2)}$ | 2025-2026(2) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland | 1.3 | -1.7 | 12.4 | 19.9 | 19.9 | 19.9 |
| Prince Edward Island | 0.4 | 1.0 | 1.9 | 1.5 | 1.3 | 1.2 |
| Nova Scotia | 4.6 | 3.3 | 3.2 | 3.0 | 3.0 | 3.0 |
| New Brunswick | 2.9 | 3.3 | 3.6 | 2.3 | 2.1 | 2.0 |
| Ontario | 51.2 | -1.1 | 0.9 | 0.0 | 4.1 | 4.0 |
| Manitoba | 1.9 | 3.3 | 3.7 | 2.8 | 2.8 | 2.8 |
| Saskatchewan | 2.9 | 2.7 | 4.7 | 2.9 | 2.7 | 2.6 |
| Alberta | 21.8 | 7.7 | 9.7 | 5.5 | 2.0 | 2.0 |
| British Columbia | 13.0 | 2.4 | 2.0 | 2.0 | 2.0 | 2.0 |
| Weighted Average |  | 1.8 | 3.5 | 2.1 | 3.4 | 3.4 |

(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, 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 to 2022-2023 represent 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 years, both enacted by the Ontario Government. Therefore, they are 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 increases in loan years 2021-2022 and 2022-2023 were lower than the inflation for the same periods. To remain consistent with historical average increases, it is assumed that there will be a catch-up in the near future. Therefore, an adjustment of $1.6 \%$ per year is made to the projected tuition increase starting from loan years 2024-2025 to 2027-2028 (as shown in Table 36 below). Afterwards, the tuition increase is equal to the ultimate assumption of inflation plus 1.75\%.

Table 36 Tuition Increase Assumption (in percentage)

| Loan Year | Tuition fee increases |
| :---: | :---: |
| 2021-2022 | 1.80 |
| $2022-2023$ | 3.50 |
| $2023-2024$ | 2.10 |
| $2024-2025$ | 5.00 |
| $2025-2026$ | 5.00 |
| $2026-2027$ | 5.35 |
| $2027-2028$ | 5.35 |
| $2028-2029+$ | Inflation $+1.75 \%$ |

The starting point for the 2020-2021 tuition fees is calculated from the need assessment data file and represents the average tuition fees for students who received a loan or a grant. 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 $\$ 8,700$ for the loan year 2020-2021. The estimated weighted average tuition fees (including compulsory fees) for 2021-2022 is \$8,900 (resulting in an increase of 2.3\% from 2020-2021).

## C. 3 Loan Size

## C.3.1 Student Needs

The projection of the average loan issued is based on the projection of the student net need, capped at the maximum weekly student loan limit. Student net need increases are calculated separately for each group (university, public college and private college students) over the projection period.

## Determining the student net need

Student Need (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 ${ }^{1}$ and, when applicable, parental or spousal contributions.
- Projected to increase using economic assumptions.


## Grants reduction:

- Grants 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.

ESDC provided CSFA Program need assessment data for the loan year 2020-2021. The CSFA Program generally aims to provide $60 \%$ of the total assessed need, while the participating province or territory of residence aims to provide the remaining $40 \%$.

## C.3.2 Other Student Expenses

Other expenses are considered to be any student expense other than tuition fees and are projected to increase with inflation. 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 or a grant (the projection is made individually by university, public college and private college). The estimated average for other expenses is $\$ 12,900$ for the Ioan year 2020-2021; it increases to $\$ 13,600$ in the loan year 2021-2022 based on an increase of 5.4\% ${ }^{2}$.

## C.3.3 Student Resources

The starting point for average resources in 2020-2021 is calculated from the need assessment data file and represents the average resources for students who received a loan or a grant. 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 (the projection is made individually by university, public college and private college). The estimated student average resources is $\$ 1,500$ for 2020-2021, which includes the temporary removal of the fixed student contribution and of the spousal contribution for that year. This amount increases to \$3,000 in the loan year 2021-2022.

## C. 4 Grants

For the loan year 2021-2022, the actual cost of Canada Student Grants (CSGs) was $\$ 3,256$ million. The total amount of grants disbursed under the CSG is projected to decrease

[^10]over the projection period as fewer borrowers become eligible for the CSG-FT due to the family income (inflation plus real wage) increasing at a faster pace than the grant thresholds (inflation).

For loan years 2020-2021 to 2023-2024, grants are higher due to the temporary doubling of grants (COVID-19 pandemic measures) followed by a 40\% increase (compared with the loan year 2019-2020) in grants. Maximum monthly grant amounts, as set out by the program, are assumed to remain constant for the remaining projection period for the purpose of this valuation.

## C. 5 Repayment for Direct Loans

## C.5.1 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 2021-2022 was $\$ 463$ 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 $15.0 \%$ of loans issued are prepaid. This assumption is based on recent historical experience.

## C.5.2 Normal Payments

Normal payments are made by borrowers that are not in study, RAP nor default. These payments include both the minimum payments (as set out by the repayment agreement) and any additional voluntary payments. The projected normal payments that apply to each consolidation cohorts are shown in Chart 5.

## Chart 5 Normal Payments over 16 Years



The normal payments for each consolidation cohorts for the next four loan years are expected to be lower than historical experience. As such, they are adjusted by the factors shown in Table 37. The repayment experience is expected to revert to its pre-pandemic level.

Table 37 Adjustments to Normal Payments

| Loan Year |  | Multiplicative Adjustments |
| :---: | :---: | :---: |
| $2022-2023$ | $80 \%$ |  |
| $2023-2024$ | $85 \%$ |  |
| $2024-2025$ | $90 \%$ |  |
| $2025-2026$ | $95 \%$ |  |
| $2026-2027+$ | $100 \%$ |  |

## C.5.3 Loans Forgiven

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

Starting with the loan year 2022-2023, loans forgiven for severe permanent disability and death correspond to $0.027 \%$ of loans in study and $0.107 \%$ 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 2021-2022, \$4.2 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 qualifying nurses may be eligible for forgiveness of $\$ 4,000$ per year to a maximum of $\$ 20,000$ over five years. Moreover, Budget 2022 increased the maximum amount of doctors and qualifying nurses forgivable loans by $50 \%$ while Budget 2023 proposed to expand the reach of the Canada Student Loan Forgiveness for doctors and qualifying nurses to more rural communities. The amount forgiven is projected based on the expected new number of doctors and qualifying nurses who received student loans during their studies and are expected to work in an under-served rural or remote community after graduation.

## C. 6 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 (inflation plus real wage). 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).

Table 38 Administrative Expense (in millions of dollars)

| Loan Year | Administrative Expenses |
| :---: | :---: | :---: |
| $2021-2022$ | 107.4 |
| $2022-2023$ | 119.1 |
| $2023-2024$ | 118.1 |
| $2024-2025$ | 118.9 |
| $2025-2026$ | 120.1 |
| $2026-2027$ | 121.9 |
| $2027-2028+$ | Increases with wages |

## C.6.1 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 the loan year 2021-2022, the administrative fees paid to the participating provinces and territory were $\$ 34.8$ million. Future years were projected using wage increases.

## 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 $\$ 927.4$ million for 2021-2022 based on expenses and revenue of 2020-2021 and $\$ 999.2$ million for 2022-2023 based on expenses and revenue of 2021-2022, both including temporary COVID-19 measures.

## C. $7 \quad$ Allowance

Three allowances are projected in this report. There is an allowance for the RAP (principal) to cover the future cost of students benefiting from this program, and two allowances for bad debt (principal and interest) to cover the future cost of students defaulting on their loan. This section provides details related to the assumptions and methodologies used to determine those allowances.

## C.7.1 Repayment Assistance Plan (RAP)

The methodology used to calculate the RAP allowance is based on the following components:
a) The share of loans (as a percentage of the initial consolidation cohort) using the RAP at least once ${ }^{1}$ (based on historical experience);
b) The share of loans in the RAP that will remain in the RAP after each loan year, as not all RAP borrowers end up using the 15-year maximum (based on historical experience);
c) An adjustment for the expected change in future experience due to family income increasing at a rate equal to real wage plus inflation and RAP thresholds increasing at a rate equal to inflation (based on an estimate using economic data);
d) An adjustment for the expected impact for the following recent or upcoming changes that are not already reflected in the historical data (based on an estimate using economic data):

- Impact of the RAP threshold changes in the loan year 2022-2023;
- Impact of the change in the disability definition in the loan year 2022-2023.
e) The required payments for loans in the RAP for each loan year (based on the RAP formula, including the removal of interest accrual); and
f) The share of the required payment paid by the Government (based on historical experience).

Sections C.7.1.1, C.7.1.2 and C.7.1.3 provide information on the resulting loan balances in RAP. Section C.7.1.4 provides additional information on the other RAP assumptions.

Tables 39,40 and 41 show the result of steps (a) to (d) as a percentage of the initial consolidation amount (utilization rates).

## C.7.1.1 RAP - Stage 1

Table 39 shows the long-term utilization rate ${ }^{2}$ assumptions used for RAP-Stage 1. 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 (the first diagonal row of Table 39) generally consists of a partial loan year since most borrowers do not enter the RAP on August $1^{\text {st }}$. 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. The utilization rate is based on the consolidation amounts and is applied by cohort.

[^11]Table 39 RAP-Stage 1 Utilization Rates

| an |  |  | Start Year after Consolidation |  |  |  | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | 1 | 2 | 3 | 4 | 5 | 6 |  |  |
| 1 | 24.8\% |  |  |  |  |  |  |  |
| 2 | 30.0\% | 4.5\% |  |  |  |  |  |  |
| 3 | 19.7\% | 3.4\% | 0.9\% |  |  |  |  |  |
| 4 | 15.0\% | 2.4\% | 0.8\% | 0.4\% |  |  |  |  |
| 5 | 12.1\% | 1.8\% | 0.5\% | 0.4\% | 0.2\% |  |  |  |
| 6 | 6.7\% | 1.5\% | 0.4\% | 0.3\% | 0.2\% | 0.1\% |  |  |
| 7 | 1.7\% | 0.6\% | 0.3\% | 0.2\% | 0.1\% | 0.1\% | 0.1\% |  |
| 8 | 0.9\% | 0.2\% | 0.2\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 9 | 0.6\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.0\% | 0.1\% |
| 10 | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |

## C.7.1.2 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 $6^{\text {th }}$ year after consolidation until the $11^{\text {th }}$ year after consolidation.

Table 40 shows the resulting long-term utilization rate assumptions used for RAP-Stage 2.
Table 40 RAP-Stage 2 Utilization Rates
Start Year after Consolidation

| Loan Year | 6 | Start Year after Consolidation |  |  |  | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 7 | 8 | 9 | 10 |  |
| 6 | 2.4\% |  |  |  |  |  |
| 7 | 3.7\% | 1.3\% |  |  |  |  |
| 8 | 2.9\% | 1.3\% | 0.4\% |  |  |  |
| 9 | 2.2\% | 1.0\% | 0.5\% | 0.2\% |  |  |
| 10 | 1.7\% | 0.7\% | 0.3\% | 0.3\% | 0.2\% |  |
| 11 | 1.3\% | 0.5\% | 0.2\% | 0.2\% | 0.2\% | 0.3\% |
| 12 | 0.9\% | 0.4\% | 0.2\% | 0.1\% | 0.1\% | 0.2\% |
| 13 | 0.6\% | 0.3\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 14 | 0.3\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% |
| 15 | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |

## C.7.1.3 RAP - D

RAP-D is available to borrowers with a disability recognized by the CSFA Program. A borrower who had a RAP-D application approved is eligible to start in the RAP-D 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 41 shows the long-term utilization rate assumptions used for RAP-D.
Table 41 RAP-D Utilization Rates

|  |  | Start Year after Consolidation |  |  |  |  | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Loan Year | 1 | 2 | 3 | 4 | 5 | 6 |  |
| 1 | 2.83\% |  |  |  |  |  |  |
| 2 | 3.21\% | 0.36\% |  |  |  |  |  |
| 3 | 2.01\% | 0.27\% | 0.08\% |  |  |  |  |
| 4 | 1.44\% | 0.18\% | 0.08\% | 0.05\% |  |  |  |
| 5 | 1.02\% | 0.12\% | 0.05\% | 0.05\% | 0.03\% |  |  |
| 6 | 0.76\% | 0.08\% | 0.03\% | 0.03\% | 0.04\% | 0.03\% |  |
| 7 | 0.53\% | 0.06\% | 0.02\% | 0.02\% | 0.02\% | 0.04\% | 0.02\% |
| 8 | 0.37\% | 0.04\% | 0.02\% | 0.01\% | 0.02\% | 0.02\% | 0.03\% |
| 9 | 0.20\% | 0.03\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% | 0.01\% |
| 10 | 0.08\% | 0.01\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |

## C.7.1.4 Other RAP Assumptions

Table 42 provides information on the additional assumptions used to calculate the RAP allowance.

Table 42 Other RAP Assumptions

| Loan Year | Multiplicative <br> Adjustments due to Family Income Growing at a Faster Pace than Thresholds | Short-Term <br> Multiplicative <br> Adjustments to the Share of Loans in RAP |  | Gradual Impact of the Threshold Change |  |  | Government Share of the Required Payment |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | RAP-1, RAP-2 and RAP-D | RAP-1 | $\begin{aligned} & \text { RAP-2 and } \\ & \text { RAP-D } \end{aligned}$ | RAP-1 | RAP-2 | RAP-D | RAP-2 | RAP-D |
| 2022-2023 | 99.6\% per loan year, | 91\% | 97.5\% | 102.4\% | 101.6\% | 102.2\% | 93.0\% | 92.9\% |
| 2023-2024 | up to a maximum | 94\% | 98.4\% | 110.0\% | 104.7\% | 105.6\% | 97.6\% | 98.0\% |
| 2024-2025 | of 94.0\% | 97\% | 99.2\% | 114.0\% | 107.1\% | 105.6\% | 97.6\% | 98.0\% |
| 2025-2026+ | after 15 years | 100\% | 100.0\% | 114.0\% | 109.4\% | 105.6\% | 97.6\% | 98.0\% |

The values presented in the Table 39, Table 40 and Table 41 already include the long-term adjustments for the "Family Income Growing at a Faster Pace than Thresholds" and for the "Gradual Impact of the Threshold Change".

## C.7.1.5 Provisions for RAP-Principal (Stage 2 and D)

The RAP - principal provision covers future costs related to RAP-Stage 2 and RAP-D, 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 2023 shown in this report are:

- 6.9\% for loans in-study;
- $1.9 \%$ for loans in repayment (net of loans in the RAP); and
- $36.2 \%$ for loans in the RAP (all stages combined).

The ultimate provision rates used in this report are:

- $6.7 \%$ for loans in-study;
- $2.3 \%$ for loans in repayment (net of loans in the RAP); and
- $29.5 \%$ 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 16).

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.

## C.7.2 Net Default Rate

Several assumptions are used to determine the expected future amount of defaulted principal that will not be recovered, namely the gross default rate, the loans rehabilitations and recalls, the loans recoveries and the prepayments. These assumptions are revised each year and are based on historical observations and the actuary's best estimates.

The net default rate is used to derive the allowances for bad debt - principal and for bad debt interest shown in sections C.7.3 and C.7.4. It 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 $\times(1-$ Recalls and Rehabilitation Rate - Recovery Rate $)=$
$15.25 \% \times(1-16.5 \%-38.0 \%)=6.9 \%$

The amount of loans to be written-off ${ }^{1}$ each year is determined using the assumed distribution presented in Chart 6, which was updated from the last report based on recent experience data.

## Chart 6 Write-Off Distribution over 30 Years



## C.7.2.1 Gross Default Rate

A default rate is determined for each consolidation cohort. This rate represents the proportion of loans consolidated in a year that are expected to default at some point before they are completely repaid. Consolidation cohorts 2027-2028 and onwards are assumed to have the same ultimate gross default rate of $15.25 \%$ (based on historical experience and unchanged from the previous report). The short-term gross default rates (up to the loan year 2026-2027) are adjusted to reflect recent experience (Section C.7.2.4). As shown in Chart 7, the largest proportion of loans goes into default within three years of consolidation.

## Chart 7 Default Distribution over 14 Years



[^12]52 | Appendix C - Assumptions and Methodology

## C.7.2.2 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 the loan year 2009-2010, since to be eligible for the RAP, borrowers first needed to have a loan in good standing.

Consolidation cohorts 2030-2031 and onwards are assumed to have the same ultimate recalls/rehabilitations rate of $16.5 \%$ (based on historical experience and increased from $14.0 \%$ in the previous report). The short-term recalls/rehabilitations rates (up to the loan year 2029-2030) are adjusted to reflect recent experience (Section C.7.2.4).

Chart 8 shows the long-term recalls and rehabilitations distribution once a loan is transferred in default.

## Chart 8 Recalls and Rehabilitations Distribution over 14 Years



## C.7.2.3 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 $38.0 \%$ ( $32.8 \%$ in the previous report). This increase in the recovery assumption is mainly due to the expected impact of the permanent elimination of interest accrual, where recoveries would now apply to principal only instead of principal or interest. The recovery rate for the loan year 2022-2023 is adjusted to reflect partially known experience (Section C.7.2.4).

Chart 9 shows the recovery distribution once a loan is transferred in default.

Chart 9 Recovery Distribution over 30 Years


## C.7.2.4 Short-Term Adjustments to the Default Assumptions

Table 43 provides the short-term adjustments that were made to the default assumptions. Current defaults, as well as rehabilitations and recalls, are higher than the ultimate assumption. Recoveries were slightly adjusted downward for the loan year 2022-2023.

Table 43 Short-Term Adjustments to the Default Assumptions

| Loan Year | Multiplicative Adjustments to All Gross Defaults during the Loan Year | Multiplicative Adjustments to All Rehabilitation and Recalls during the Loan Year | Multiplicative Adjustments to All Recoveries during the Loan Year |
| :---: | :---: | :---: | :---: |
| 2022-2023 | 112.2\% | 136.8\% | 95.0\% |
| 2023-2024 | 110.0\% | 132.2\% | 100.0\% |
| 2024-2025 | 107.5\% | 127.6\% | 100.0\% |
| 2025-2026 | 105.0\% | 123.0\% | 100.0\% |
| 2026-2027 | 102.5\% | 118.4\% | 100.0\% |
| 2027-2028 | 100.0\% | 113.8\% | 100.0\% |
| 2028-2029 | 100.0\% | 109.2\% | 100.0\% |
| 2029-2030 | 100.0\% | 104.6\% | 100.0\% |
| 2030-2031+ | 100.0\% | 100.0\% | 100.0\% |

## C.7.3 Bad Debt - 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 2023 shown in this report are:

- $5.9 \%$ for loans in-study;
- $3.5 \%$ for loans in repayment; and
- $69.5 \%$ for loans in default.

The ultimate provision rates used in this report are:

- $5.9 \%$ for loans in-study;
- $4.2 \%$ for loans in repayment; and
- 68.4\% for loans in default.

The level of the total allowance is determined at the end of the loan year. The annual expense 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.

## C.7.3.1 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 15.0\%. This results in a long-term provision rate for loans in study of:
$[($ Net Default Rate $) \times(1-$ Prepayments $)]=[(6.9 \%) \times(1-15.0 \%)]=5.9 \%$

## C.7.3.2 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 $38.0 \%$; hence, it is assumed that $62.0 \%(1-38.0 \%)$ of the projected gross defaulted loans will not be recovered.

The provision rate on outstanding loans in repayment is $4.2 \%$ in the long-term. This provision rate of $4.2 \%$ for loans in repayment is lower than the provision rate of $5.9 \%$ 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.7.3.3 Allowance for loans in default

The last component of the allowance for bad debt - principal is the balance of loans in default that will not be recovered. It is determined by applying rehabilitation, recall and recovery assumptions to loans that have already transferred in default. Those assumptions are lower than for other portfolios 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 rehabilitations, recalls and recoveries have already occurred. Thus, the remaining loans have aged and have an increased risk of loss.

The long-term provision rate is equal to 68.4\%.

## C.7.4 Bad Debt - Interest

The methodology for the calculation of the provision for bad debt - interest is as follows:

- Starting point includes all active borrowers in default as at 31 July 2022;
- The historical experience is used to calculate, for each year, the probabilities of:
- Rehabilitating the loan;
- Having a non-CRA recovery and the amount of the recovery;
- Having a CRA recovery and the amount of the recovery;
- Writing off the loan (assumed to be $100 \%$ for the $30^{\text {th }}$ year).
- Expected experience is generated for each individual borrower and for all future loan years (capped at 30 years after a borrower transferred in default) using the previously calculated probabilities; and
- The allowance rate at any given date is equal to the sum of future write-offs (after the given date) divided by the expected outstanding interest balance (at the given date).
Provision rates can be estimated for each year since default, as shown in Table 44. The provision rate is $24.4 \%$ of interest accrued in the first year after loans are transferred into default. It increases in each of the six subsequent years before remaining at around $60 \%$ for the years after (a significant amount is written off when the six-year limitation period after the consolidation is reached). The aggregate allowance is equal to $60.3 \%$ of the outstanding default interest portfolio as at 31 July 2023.

| Table 44 Provision Rates for Bad Debt - Interest ${ }^{(1)}$ |  |
| :---: | :---: | :---: |
| Year Since Default | Provision Rates (\%) - Loan <br> Year 2022-2023 |
| 1st | 24.4 |
| 2nd | 31.2 |
| 3rd | 38.9 |
| 4th | 49.1 |
| 5th | 62.5 |
| 6th | 73.0 |
| 7th | 74.6 |
| 8th | 60.0 |
| 9th | 57.5 |
| 10th | 57.1 |
| 11th | 60.2 |
| 12th | 59.8 |
| 13th | 59.6 |
| 14th | 59.3 |
| 15th | 60.6 |
| 16th | 60.3 |
| 17th | 60.1 |
| 18th | 61.5 |
| 19th | 58.9 |
| 20th | 63.8 |
| 21st | 64.0 |

(1) Provision rates for bad debt - interest are applied on total interest.
(2) Same as the provision rates for Public Accounts as at 31 March 2023.

The annual expense 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.

## Appendix D - New Loans and Grants by Institution Type

The next four tables present the number of recipients as well as the amounts issued by institution type for both loans and grants.

| Loan Year | University | Public College | Private College | Total |
| :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 303 | 165 | 76 | 544 |
| 2022-2023 | 294 | 175 | 81 | 549 |
| 2023-2024 | 301 | 197 | 68 | 567 |
| 2024-2025 | 304 | 226 | 57 | 587 |
| 2025-2026 | 306 | 236 | 60 | 601 |
| 2026-2027 | 307 | 234 | 59 | 601 |
| 2027-2028 | 309 | 233 | 59 | 601 |
| 2028-2029 | 308 | 233 | 59 | 600 |
| 2029-2030 | 307 | 232 | 58 | 597 |
| 2030-2031 | 306 | 231 | 58 | 595 |
| 2031-2032 | 304 | 230 | 57 | 591 |
| 2032-2033 | 301 | 228 | 57 | 586 |
| 2033-2034 | 297 | 225 | 56 | 578 |
| 2034-2035 | 293 | 222 | 56 | 571 |
| 2035-2036 | 289 | 218 | 55 | 562 |
| 2036-2037 | 285 | 215 | 55 | 554 |
| 2037-2038 | 283 | 213 | 54 | 550 |
| 2038-2039 | 281 | 212 | 54 | 547 |
| 2039-2040 | 280 | 212 | 53 | 545 |
| 2040-2041 | 279 | 211 | 53 | 543 |
| 2041-2042 | 277 | 211 | 52 | 540 |
| 2042-2043 | 277 | 211 | 52 | 539 |
| 2043-2044 | 277 | 211 | 52 | 540 |
| 2044-2045 | 278 | 212 | 51 | 541 |
| 2045-2046 | 279 | 213 | 51 | 543 |
| 2046-2047 | 281 | 214 | 51 | 546 |

## Table 46 Grants Disbursed by Institution Type (in millions of dollars)

| Loan Year | University | Public College | Private College | Total |
| :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 1,725 | 990 | 541 | 3,256 |
| 2022-2023 | 1,730 | 1,084 | 593 | 3,408 |
| 2023-2024 | 1,220 | 823 | 334 | 2,377 |
| 2024-2025 | 883 | 675 | 200 | 1,758 |
| 2025-2026 | 891 | 704 | 209 | 1,805 |
| 2026-2027 | 897 | 701 | 208 | 1,806 |
| 2027-2028 | 903 | 698 | 208 | 1,809 |
| 2028-2029 | 904 | 699 | 208 | 1,810 |
| 2029-2030 | 902 | 698 | 208 | 1,807 |
| 2030-2031 | 900 | 696 | 207 | 1,803 |
| 2031-2032 | 896 | 695 | 207 | 1,798 |
| 2032-2033 | 892 | 693 | 206 | 1,791 |
| 2033-2034 | 886 | 690 | 206 | 1,781 |
| 2034-2035 | 879 | 686 | 204 | 1,769 |
| 2035-2036 | 871 | 682 | 203 | 1,756 |
| 2036-2037 | 866 | 679 | 202 | 1,747 |
| 2037-2038 | 864 | 678 | 202 | 1,744 |
| 2038-2039 | 862 | 678 | 202 | 1,743 |
| 2039-2040 | 861 | 678 | 202 | 1,742 |
| 2040-2041 | 860 | 679 | 203 | 1,741 |
| 2041-2042 | 859 | 679 | 203 | 1,741 |
| 2042-2043 | 861 | 682 | 204 | 1,746 |
| 2043-2044 | 865 | 685 | 205 | 1,755 |
| 2044-2045 | 871 | 689 | 206 | 1,766 |
| 2045-2046 | 878 | 693 | 207 | 1,778 |
| 2046-2047 | 886 | 698 | 209 | 1,793 |


| Loan Year | University | Public College | Private College | Total |
| :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 314 | 143 | 101 | 558 |
| 2022-2023 | 301 | 135 | 104 | 541 |
| 2023-2024 | 332 | 174 | 89 | 595 |
| 2024-2025 | 362 | 218 | 72 | 652 |
| 2025-2026 | 367 | 228 | 75 | 671 |
| 2026-2027 | 372 | 228 | 75 | 675 |
| 2027-2028 | 377 | 229 | 76 | 681 |
| 2028-2029 | 380 | 230 | 76 | 686 |
| 2029-2030 | 381 | 231 | 76 | 689 |
| 2030-2031 | 383 | 232 | 77 | 691 |
| 2031-2032 | 384 | 233 | 77 | 694 |
| 2032-2033 | 385 | 233 | 77 | 695 |
| 2033-2034 | 385 | 234 | 77 | 696 |
| 2034-2035 | 385 | 234 | 77 | 695 |
| 2035-2036 | 384 | 234 | 77 | 695 |
| 2036-2037 | 384 | 234 | 77 | 696 |
| 2037-2038 | 386 | 235 | 78 | 699 |
| 2038-2039 | 388 | 236 | 78 | 702 |
| 2039-2040 | 390 | 238 | 79 | 707 |
| 2040-2041 | 392 | 240 | 79 | 711 |
| 2041-2042 | 394 | 241 | 80 | 715 |
| 2042-2043 | 398 | 244 | 80 | 722 |
| 2043-2044 | 403 | 246 | 81 | 730 |
| 2044-2045 | 408 | 249 | 82 | 740 |
| 2045-2046 | 414 | 252 | 83 | 750 |
| 2046-2047 | 421 | 256 | 84 | 761 |

58 | Appendix D - New Loans and Grants by Institution Type

Table 48 Loans Issued by Institution Type (in millions of dollars)

| Loan Year | University | Public College | Private College | Total |
| :---: | :---: | :---: | :---: | :---: |
| 2021-2022 | 1,535 | 625 | 780 | 2,940 |
| 2022-2023 | 1,553 | 618 | 844 | 3,015 |
| 2023-2024 | 2,310 | 1,044 | 980 | 4,334 |
| 2024-2025 | 2,282 | 1,220 | 617 | 4,119 |
| 2025-2026 | 2,354 | 1,302 | 652 | 4,308 |
| 2026-2027 | 2,421 | 1,325 | 657 | 4,403 |
| 2027-2028 | 2,490 | 1,349 | 662 | 4,501 |
| 2028-2029 | 2,536 | 1,374 | 669 | 4,579 |
| 2029-2030 | 2,574 | 1,396 | 674 | 4,643 |
| 2030-2031 | 2,607 | 1,416 | 678 | 4,700 |
| 2031-2032 | 2,634 | 1,435 | 682 | 4,751 |
| 2032-2033 | 2,655 | 1,452 | 686 | 4,794 |
| 2033-2034 | 2,668 | 1,467 | 688 | 4,824 |
| 2034-2035 | 2,677 | 1,480 | 690 | 4,847 |
| 2035-2036 | 2,682 | 1,491 | 691 | 4,864 |
| 2036-2037 | 2,693 | 1,505 | 693 | 4,891 |
| 2037-2038 | 2,712 | 1,523 | 697 | 4,932 |
| 2038-2039 | 2,732 | 1,541 | 702 | 4,976 |
| 2039-2040 | 2,753 | 1,560 | 707 | 5,020 |
| 2040-2041 | 2,773 | 1,579 | 713 | 5,065 |
| 2041-2042 | 2,793 | 1,597 | 719 | 5,110 |
| 2042-2043 | 2,824 | 1,618 | 727 | 5,169 |
| 2043-2044 | 2,860 | 1,640 | 735 | 5,236 |
| 2044-2045 | 2,902 | 1,664 | 744 | 5,311 |
| 2045-2046 | 2,948 | 1,688 | 754 | 5,391 |
| 2046-2047 | 2,999 | 1,714 | 765 | 5,478 |

## 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 (such as a low interest rate or none at all) should be accounted for based on the substance of the transaction. These standards apply when the loan can be considered more in the nature of a grant. 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 $3.01 \%$, which is the yield equivalent to a zero-coupon yield curve (determined by reference to market yields as at 31 March 2023 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 rate of 0\%; 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.

Three alternate scenarios were tested:

- Doubling the discount rate would result in a concessionary term.
- Increasing the in-study period to 10 years (from the current average of three years) would result in a concessionary term.
- Having students fully repay their loans immediately after consolidation would not result in a concessionary term.


## Appendix F - Acknowledgements

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[^0]:    1 The end of the projection period for the current report is the loan year 2046-2047 and the loan year 2045-2046 for the previous report.

[^1]:    1 The average annual increase in new loans issued post temporary measures, that is, from the loan year 2024-2025 to the loan year 2046-2047, is 1.3\%.
    8 | Projections

[^2]:    ${ }^{1}$ According to the Monthly Financial Information Schedule, the Department 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 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.

[^3]:    1 This is equal to the $\$ 90$ million principal held by the Government ( $\$ 14$ million bought back plus $\$ 45$ million and $\$ 31$ million returned to the Government from Table 14) plus an additional \$57 million of outstanding interest.
    ${ }^{2}$ Loans purchased under an agreement made pursuant to the Canada Student Financial Assistance Act are considered. Good-standing loans purchased by the Government and shown in Table 14 are excluded.

[^4]:    ${ }^{1}$ The RAP - interest allowance is determined by ESDC and does not figure in this report.
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[^5]:    ${ }^{1}$ First loan year not impacted by temporary measures.

[^6]:    ${ }^{1}$ First loan year not impacted by temporary measures.

[^7]:    ${ }^{1}$ Grant for students with a permanent disability, which was changed to the CSG-D starting with the loan year 2022-2023.
    30 | Appendix A - Summary of Program Provisions

[^8]:    ${ }^{1}$ Decreased in the loan year 2022-2023 from 20\%.

[^9]:    ${ }^{1}$ Before Budget 2021, only those with a permanent disability were eligible for RAP - Permanent Disability (RAP-PD).

[^10]:    ${ }^{1}$ A portion of the student's contributions comes from the fixed student contribution set at a maximum of $\$ 3,000$ per loan year.
    ${ }^{2}$ Slightly different than the inflation assumption for the loan year 2021-2022 due to a change in the weights for university, public college and private college.
    44 | Appendix C - Assumptions and Methodology

[^11]:    ${ }^{1}$ For consolidation cohorts that already have data, starting from the latest known.
    ${ }^{2}$ The long-term utilization rate represents the rates for a consolidation cohort once the short-term adjustments no longer apply (i.e., 2025-2026 and after).

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[^12]:    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.

