## CBO's June 2017 Baseline Projections for the Student Loan Program.

These six tables detail the costs, loan volumes, and subsidy rates for the direct student loan program for CBO's June 2017 baseline.
Table 1 includes the cost projections for each budget account associated with the student loan programs using estimating procedures established in the Federal Credit Reform Act (FCRA).

Table 2 includes the projections of loan volume and subsidy rates for the direct student loans using FCRA.
Table 3 includes expenditures for student aid administration.
Table 4 includes the projection of the borrower interest rates.
Table 5 includes the cost projections for the student loan programs using fair-value estimating procedures
Table 6 includes the federal subsidy rates for student loans using fair-value estimating procedures.
The differences between FCRA and fair value estimating procedures are as follows:
FCRA requires that the lifetime costs of student loans be recorded up front on an accrual basis (that is, they are recognized in the year in which the loan is made). The lifetime cost of a federal loan-called its subsidy cost-is measured by discounting all of the expected future cash flows associated with the loan to a present value at the date the loan is disbursed. Those cash flows include the amounts disbursed, principal repaid, interest received, fees charged, and net losses that accrue from defaults.

Under the rules specified in FCRA, the present value of expected future cash flows is calculated by discounting those cash flows using the rates on U.S. Treasury securities with similar terms to maturity. For instance, the yield on a Treasury security maturing in one year is used to discount cash flows one year from disbursement, a two-year rate is used for cash flows two years from disbursement, and so on.

In contrast, under the fair-value estimating procedures, estimates are based on market values-market prices or approximations of market prices when directly comparable figures are unavailable-which more fully account for the cost of the risk the government incurs. The fairvalue approach accounts for the cost of market risk, which FCRA procedures using Treasury rates, do not.

The definitions of budget authority, program obligations, and outlays as they apply to the student loan program subsidy or "program" accounts are as follows:

Subsidy budget authority figures express what total subsidy costs would be if all the loans for which an eligible application was received during a year were made. In reality, not all loans are disbursed because prospective borrowers either do not show up for school or decide not to take all or part of the loan for which they applied.

Subsidy obligations are the costs associated with all loans for which there will be at least one cash disbursement (shown on the attached tables as Net Annual Loan Volume). Typically, the subsidy obligation estimates are not included in budget tables.

Subsidy outlays reflect the subsidy obligations adjusted for the timing of the cash disbursements. Because of the multiple disbursement requirements and the timing of the academic school years compared to the federal fiscal year, only about two-thirds of the dollars are disbursed to the borrowers during the first fiscal year. The remaining are disbursed in the following year.

Table 1.
Student Loan Program Budget Account Totals, Federal Credit Reform—CBO's June 2017 Baseline

|  |  | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2017-2027 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Guaranteed Student Loans |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Program Account ${ }^{1}$ | Budget Authority | 10,786 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10,786 |
|  | Outlays | 10,786 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10,786 |
| Program Liquidating Account | Budget Authority | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Outlays | -243 | -215 | -191 | -169 | -149 | -130 | -113 | -98 | -86 | -75 | -65 | -1,534 |
| Federal Student Loan Reserve Fund | Budget Authority | -521 | -468 | -426 | -412 | -363 | -322 | -263 | -214 | -176 | -145 | -119 | -3,429 |
|  | Outlays | -521 | -468 | -426 | -412 | -363 | -322 | -263 | -214 | -176 | -145 | -119 | -3,429 |
| Subtotal, Guaranteed Loans | Budget Authority | 10,265 | -468 | -426 | -412 | -363 | -322 | -263 | -214 | -176 | -145 | -119 | 7,357 |
|  | Outlays | 10,022 | -683 | -617 | -581 | -512 | -452 | -376 | -312 | -262 | -220 | -184 | 5,823 |
| Direct Student Loans |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Program Account ${ }^{1}$ | Budget Authority | 24,749 | -10,021 | -7,908 | -6,806 | -6,233 | -5,807 | -5,907 | -6,127 | -6,350 | -6,604 | -6,846 | -43,859 |
|  | Outlays | 23,810 | -9,389 | -7,718 | -6,463 | -5,806 | -5,392 | -5,334 | -5,500 | -5,701 | -5,921 | -6,144 | -39,558 |
| Student Aid Administration |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Student Aid Administration (Discretionary) ${ }^{2}$ | Budget Authority | 1,575 | 1,610 | 1,645 | 1,680 | 1,717 | 1,757 | 1,796 | 1,836 | 1,879 | 1,923 | 1,967 | 19,386 |
|  | Outlays | 1,535 | 1,584 | 1,623 | 1,658 | 1,694 | 1,732 | 1,771 | 1,811 | 1,852 | 1,895 | 1,939 | 19,095 |
| Student Aid Administration (Mandatory) ${ }^{3}$ | Budget Authority | $1,857$ |  | $1,987$ | 2,052 | 2,120 | 2,193 | 2,273 | 2,348 | 2,410 | 2,459 | 2,505 | 24,127 |
|  | Outlays | 1,689 | 1,906 | 1,971 | 2,035 | 2,102 | 2,175 | 2,253 | 2,329 | 2,395 | 2,446 | 2,494 | 23,795 |
| Subtotal, Student Aid Administration | Budget Authority | 3,432 | 3,532 | 3,632 | 3,732 | 3,837 | 3,950 | 4,069 | 4,185 | 4,290 | 4,382 | 4,472 | 43,513 |
|  | Outlays | $3,224$ | 3,490 | 3,594 | 3,693 | 3,796 | 3,907 | 4,024 | 4,140 | 4,247 | 4,342 | 4,432 | 42,889 |
| Total Student Loans |  | $38,446$ | $-6,957$ | -4,703 | $-3,486$ | $-2,759$ | $-2,179$ | -2,101 | -2,157 | -2,236 | -2,367 | -2,493 | 7,010 |
|  | Outlays | $37,056$ | $-6,582$ | -4,741 | -3,351 | -2,522 | -1,937 | -1,686 | -1,672 | -1,716 | -1,799 | -1,895 | 9,154 |

Components may not add up to totals because of rounding.
${ }^{1}$ Fiscal year 2017 totals include adjustments for actual year-to-date spending and the costs of credit reestimates and loan modifications. These totals are changes to the estimated costs of outstanding loans originated in years prior to 2017. Those totals are:

| Guaranteed Loan Program Account: | Direct Student Loan Program Account |  |  |
| :--- | ---: | ---: | ---: |
| Budget Authority: | 10,786 | Budget Authority: | 28,794 |
| Outlays: | 10,786 | Outlays: | 28,794 |

${ }^{2}$ Projections of discretionary spending for administering student aid are based on an inflation of the budget authority provided in the most recent appropriations act rather than on an estimate of the future costs of administering the program. This total does not reflect any potential reductions in spending stemming from the across-the-board cut that is part of the final appropriations act
${ }^{3}$ Projections of mandatory spending for administering student aid are based on estimated future costs of administering federal loan programs.

Table 2.
Total Direct Loan Program (New Loans Only), Federal Credit Reform-CBO's June 2017 Baseline

|  | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total All New Loans ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |
| Net Annual Loan Volume (Millions of dollars) | 97,285 | 100,910 | 104,463 | 107,810 | 111,417 | 115,552 | 120,024 | 124,321 | 128,904 | 133,775 | 138,953 |
| Net Number of Loans (Thousands) | 17,031 | 17,424 | 17,826 | 18,175 | 18,515 | 18,940 | 19,413 | 19,907 | 20,378 | 20,883 | 21,423 |
| Average Loan Amount | \$5,712 | \$5,791 | \$5,860 | \$5,932 | \$6,018 | \$6,101 | \$6,183 | \$6,245 | \$6,326 | \$6,406 | \$6,486 |
| Subsidy Rate ${ }^{\text {b, }, \text {, d }}$ | -10.56\% | -8.90\% | -6.82\% | -5.71\% | -5.07\% | -4.57\% | -4.48\% | -4.48\% | -4.48\% | -4.49\% | -4.48\% |
| Subsidized Student Loans |  |  |  |  |  |  |  |  |  |  |  |
| Net Annual Loan Volume (Millions of dollars) | 22,224 | 22,964 | 23,789 | 24,548 | 25,268 | 26,122 | 27,060 | 28,093 | 29,060 | 30,089 | 31,186 |
| Net Number of Loans (Thousands) | 6,729 | 6,884 | 7,061 | 7,214 | 7,352 | 7,526 | 7,719 | 7,934 | 8,126 | 8,330 | 8,548 |
| Average Loan Amount | \$3,303 | \$3,336 | \$3,369 | \$3,403 | \$3,437 | \$3,471 | \$3,506 | \$3,541 | \$3,576 | \$3,612 | \$3,648 |
| Subsidy Rate ${ }^{\mathrm{b}, \mathrm{c}, \mathrm{d}}$ | 3.63\% | 5.63\% | 7.78\% | 8.86\% | 9.52\% | 10.03\% | 10.13\% | 10.11\% | 10.10\% | 10.09\% | 10.08\% |
| Unsubsidized Student Loans: Undergraduate |  |  |  |  |  |  |  |  |  |  |  |
| Net Annual Loan Volume (Millions of dollars) | 23,307 | 24,071 | 24,864 | 25,593 | 26,293 | 27,141 | 28,089 | 29,147 | 30,150 | 31,233 | 32,403 |
| Net Number of Loans (Thousands) | 6,729 | 6,881 | 7,037 | 7,172 | 7,295 | 7,456 | 7,639 | 7,849 | 8,039 | 8,245 | 8,469 |
| Average Loan Amount | \$3,464 | \$3,498 | \$3,533 | \$3,569 | \$3,604 | \$3,640 | \$3,677 | \$3,714 | \$3,751 | \$3,788 | \$3,826 |
| Subsidy Rate ${ }^{\text {b, }, \text {, d }}$ | -5.56\% | -4.43\% | -2.85\% | -2.23\% | -1.75\% | -1.34\% | -1.29\% | -1.33\% | -1.35\% | -1.37\% | -1.39\% |
| Unsubsidized Student Loans: Graduate |  |  |  |  |  |  |  |  |  |  |  |
| Net Annual Loan Volume (Millions of dollars) | 28,103 | 29,177 | 30,129 | 31,049 | 32,158 | 33,418 | 34,758 | 35,868 | 37,256 | 38,736 | 40,314 |
| Net Number of Loans (Thousands) | 1,971 | 2,022 | 2,063 | 2,101 | 2,150 | 2,208 | 2,269 | 2,314 | 2,375 | 2,440 | 2,509 |
| Average Loan Amount | \$14,260 | \$14,431 | \$14,604 | \$14,780 | \$14,957 | \$15,137 | \$15,318 | \$15,502 | \$15,688 | \$15,876 | \$16,067 |
| Subsidy Rate ${ }^{\text {b, c, d }}$ | -14.35\% | -12.05\% | -9.45\% | -7.78\% | -6.93\% | -6.29\% | -6.16\% | -6.21\% | -6.22\% | -6.25\% | -6.26\% |
| GradPLUS Student Loans |  |  |  |  |  |  |  |  |  |  |  |
| Net Annual Loan Volume (Millions of dollars) | 10,041 | 10,653 | 11,231 | 11,804 | 12,456 | 13,174 | 13,932 | 14,602 | 15,389 | 16,218 | 17,091 |
| Net Number of Loans (Thousands) | 578 | 595 | 609 | 622 | 637 | 654 | 672 | 683 | 699 | 716 | 732 |
| Average Loan Amount | \$17,371 | \$17,892 | \$18,429 | \$18,982 | \$19,552 | \$20,138 | \$20,742 | \$21,365 | \$22,005 | \$22,666 | \$23,346 |
| Subsidy Rate ${ }^{\text {b, c, d }}$ | -16.34\% | -13.82\% | -10.81\% | -9.23\% | -8.35\% | -7.69\% | -7.56\% | -7.60\% | -7.61\% | -7.63\% | -7.65\% |
| Parent Loans |  |  |  |  |  |  |  |  |  |  |  |
| Net Annual Loan Volume (Millions of dollars) | 13,612 | 14,044 | 14,450 | 14,816 | 15,242 | 15,697 | 16,186 | 16,612 | 17,050 | 17,499 | 17,960 |
| Net Number of Loans (Thousands) | 1,025 | 1,042 | 1,056 | 1,067 | 1,081 | 1,097 | 1,114 | 1,127 | 1,139 | 1,152 | 1,165 |
| Average Loan Amount | \$13,285 | \$13,484 | \$13,686 | \$13,892 | \$14,100 | \$14,312 | \$14,526 | \$14,744 | \$14,965 | \$15,190 | \$15,418 |
| Subsidy Rate ${ }^{\text {b, }, \text {, d }}$ | -30.21\% | -30.03\% | -29.08\% | -28.71\% | -28.39\% | -28.18\% | -28.18\% | -28.25\% | -28.27\% | -28.31\% | -28.33\% |

Components may not add up to totals because of rounding.
a. Totals exclude consolidation loans stemming from loans issuied prior to 2017.
b. The subsidy rate is the net present value of the future federal cash flows divided by the loan dollars disbursed to borrowers each year. For example, the 2018 federal cost associated with the $\$ 100,910$ million in new
oan volume would be $-\$ 8,981$ million or $-8.90 \%$ of the new loan volume $\left[\$ 100,910^{*}-.0890=-\$ 8,981\right]$. In other words, the federal government will save on average about 9 cents for each new dollar loaned in 2018.
Subsidy rates do not include federal administrative costs associated with disbursing and servicing loans. Those administrative costs are included in the budget on a cash basis (see Table 3).
d. Subsidy rates were calculated using CBO's June 2017 interest rate forecast.

Table 3.
Student Aid Administration-CBO's June 2017 Baseline


Note: Components may not add up to totals because of rounding
a. In the budget, funds for default prevention are included in the Student Loan Reserve Fund Account and funds for administering pre-1992 loans are included in the Liquidating Account. For purposes of this table, both are included in the total for administration.
b. Some of the funds for discretionary administrative costs are used for other student aid programs such as Pell grants

Table 4.
Projection of Borrower Interest Rates-CBO's June 2017 Baseline


## Notes:

Borrower interest rates are fixed for the life of the loan. The borrower interest rate is adjusted based on the last auction in May for the 10-year Treasury rate. That rate is in effect for all newly issued loans from July 1 through the following June 30 .

The borrower interest rates used for estimating the cost of the student loan program are different from the rates shown above. The rates used for cost estimating purposes are projected using a Monte Carlo method to capture the effect of having a cap on interest rates under current law.

Table 5.
Student Loan Program Budget Account Totals, Fair Value Estimating Procedures-CBO's June 2017 Baseline

|  |  | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2017-2027 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Guaranteed Loans ${ }^{1}$ | Budget Authority | 10,265 | -468 | -426 | -412 | -363 | -322 | -263 | -214 | -176 | -145 | -119 | 7,357 |
|  | Outlays | 10,022 | -683 | -617 | -581 | -512 | -452 | -376 | -312 | -262 | -220 | -184 | 5,823 |
| Direct Loans ${ }^{1}$ | Budget Authority | 42,305 | 14,647 | 15,689 | 15,033 | 16,116 | 16,516 | 17,248 | 17,869 | 18,541 | 19,242 | 20,012 | 213,218 |
|  | Outlays | 40,575 | 12,466 | 13,401 | 13,305 | 13,772 | 14,314 | 14,868 | 15,445 | 16,017 | 16,623 | 17,279 | 188,064 |
| Student Aid Administration | Budget Authority | 3,432 | 3,532 | 3,632 | 3,732 | 3,837 | 3,950 | 4,069 | 4,185 | 4,290 | 4,382 | 4,472 | 43,513 |
|  | Outlays | 3,224 | 3,490 | 3,594 | 3,693 | 3,796 | 3,907 | 4,024 | 4,140 | 4,247 | 4,342 | 4,432 | 42,889 |
| Total Student Loans | Budget Authority | 56,002 | 17,711 | 18,895 | 18,353 | 19,591 | 20,145 | 21,054 | 21,839 | 22,655 | 23,479 | 24,365 | 264,088 |
|  | Outlays | 53,821 | 15,273 | 16,378 | 16,418 | 17,056 | 17,769 | 18,515 | 19,273 | 20,002 | 20,745 | 21,527 | 236,776 |

[^0]Table 6.
Federal Subsidy Rates, Fair Value Estimating Procedures-CBO's June 2017 Baseline

|  | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All Loans | 12.12\% | 12.67\% | 13.12\% | 12.17\% | 12.63\% | 12.48\% | 12.55\% | 12.56\% | 12.57\% | 12.57\% | 12.59\% |
| Subsidized Loans | 26.08\% | 26.77\% | 26.95\% | 25.76\% | 26.25\% | 25.94\% | 26.02\% | 26.00\% | 25.99\% | 25.98\% | 25.97\% |
| Unsubsidized Loans: Undergraduate | 18.49\% | 18.43\% | 18.06\% | 16.33\% | 16.66\% | 16.21\% | 16.25\% | 16.21\% | 16.20\% | 16.17\% | 16.16\% |
| Unsubsidized Loans: Graduate | 9.13\% | 10.32\% | 11.49\% | 11.23\% | 11.85\% | 11.99\% | 12.08\% | 12.04\% | 12.03\% | 12.00\% | 11.99\% |
| GradPLUS Loans for Students | 7.06\% | 8.38\% | 9.84\% | 9.45\% | 10.10\% | 10.23\% | 10.31\% | 10.28\% | 10.27\% | 10.25\% | 10.24\% |
| Parent Loans | -11.67\% | -12.10\% | -12.19\% | -13.38\% | -13.16\% | -13.41\% | -13.42\% | -13.47\% | -13.49\% | -13.53\% | -13.54\% |

 or $12.12 \%$ of the new loan volume $\$ 100,910 . .1212=\$ 12,230]$. In other words, the federal government will spend on average about 12 cents for each new doilar loaned in 2018 .
Subsidy rates do not include federal administrative costs associated with disbursing and servicing loans. Those administrative costs are included in the budget on a cash basis (see Table 5).


[^0]:    Components may not add up to totals because of rounding.
    ${ }^{1}$ Fiscal year 2017 totals include the costs of credit reestimates and loan modifications. These totals are changes to the estimated costs of outstanding loans originated in years prior to 2017. Those totals are:

    | Guaranteed Loan Program Account: | Direct Student Loan Program Account |  |  |
    | :--- | :--- | ---: | ---: |
    | Budget Authority: | 10,786 | Budget Authority: | 28,794 |
    | Outlays: | 10,786 | Outlays: | 28,794 |

