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**Subsidy Estimates  
for Guaranteed  
and Direct  
Student Loans**







# **Subsidy Estimates for Guaranteed and Direct Student Loans**

November 2005

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## **Notes**

Unless otherwise indicated, all years referred to in this paper are fiscal years.

Numbers in the text and tables may not add up to totals because of rounding.

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# Preface

**T**he federal government assists students and their parents in meeting the costs of post-secondary education through two student loan programs, the Federal Family Education Loan Program and the William D. Ford Direct Loan Program. Although the two programs provide similar benefits to borrowers, their structures and operations differ greatly. As a result, the federal government's cash flows for the two programs differ, as do its net budgetary costs when calculated as specified in the Federal Credit Reform Act.

This Congressional Budget Office (CBO) paper—prepared at the request of the Senate Budget Committee—describes how the agency estimates the budgetary costs of the two student loan programs and what factors account for the differences in those costs. In accordance with CBO's mandate to provide impartial analysis, the paper makes no recommendations.

Justin Humphrey of the Budget Analysis Division wrote the paper under the supervision of Paul Cullinan, Peter Fontaine, and Robert Sunshine. Nabeel Alsalam, Chad Chirico, Robert Dennis, Douglas Hamilton, Arlene Holen, Deborah Kalcevic, Marvin Phaup, and Dennis Zimmerman provided valuable comments.

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## Summary

**T**hrough two major loan programs, the federal government assists students and their parents in meeting the costs of postsecondary education. Under the Federal Family Education Loan (FFEL) Program, private lenders make loans to students or parents and the federal government pays a portion of the interest received by those lenders and guarantees the loans to protect lenders against significant losses resulting from borrowers' defaults, deaths, or disabilities. The William D. Ford Direct Loan Program offers the same types of loans, but in that program, the federal government makes the loans directly to the students.

The student loan programs convey substantial financial benefits to borrowers because of their favorable terms, including interest rates that are below those on purely private loans, deferment of debt service, and the option to consolidate one or more variable-rate loans into a single fixed-rate loan with an extended maturity. Although both programs are designed to provide the same kinds of loans, and the borrowers and their behavior are similar, the programs differ in their basic structure and operation, resulting in cash flows and net budgetary costs to the federal government that are very different.

Using the procedures specified in the Federal Credit Reform Act, the Congressional Budget Office (CBO) estimates that loans made under the FFEL program have higher budgetary costs to the government than direct loans do.<sup>1</sup> According to CBO's estimates, the overall subsidy rate (that is, the net budgetary costs measured as a percentage of the amount lent) for loans originated in 2006 in the FFEL program is about 15 percent, whereas the rate for the direct loan program is about -2 percent—meaning that for every \$1 in loans, the federal government incurs budgetary costs of \$0.15 in the FFEL pro-

gram and realizes budgetary savings of \$0.02 in the direct loan program.<sup>2</sup>

The government does not really “make money” providing student loans—the subsidy calculations under the Credit Reform Act are not designed to fully capture the economic costs to the government of the assistance that the student loan programs provide, nor do they capture all of the effects of the programs on federal spending and revenues. This paper deals only with the subsidy estimates as currently calculated under the credit reform framework, which are the present values of estimated cash flows for the two types of loans.

Several factors account for the different subsidy rates for the two programs. The two biggest factors are the government's payments to lenders in the FFEL program and the government's collection of interest in the direct loan program at a rate that is higher than the discount rate used in the subsidy calculation, which is the interest rate on Treasury securities. A third, lesser factor is the difference in how much of the recoveries on defaulted loans the government retains in the two programs. Finally, a small portion can be ascribed to the fact that the subsidy calculations for the two programs treat administrative costs differently.

First, under the FFEL program, the government makes payments to private lenders, which are designed to encourage them to participate in the program by offering them interest rates that are often higher than those paid by the borrowers. For example, while a borrower is enrolled in school, the borrower's interest rate on a Stafford loan is the 91-day Treasury bill rate plus 1.70 percentage points (currently about 4.7 percent).<sup>3</sup> The federal government pays the lender either that rate or a rate equal to

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1. Credit reform was enacted as part of Public Law 101-508, and its provisions became title V of the Congressional Budget and Impoundment Control Act.

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2. Like CBO, the Office of Management and Budget also projects that the subsidy rate for the FFEL program is higher than that for the direct loan program. See *Budget of the United States Government, Fiscal Year 2006*, Appendix, p. 371.

the rate on commercial paper (promissory notes usually issued by corporations) plus 1.74 percentage points (about 5.5 percent for the quarter ending September 30, 2005), whichever rate is higher. Later, when the borrower begins repaying the loan, the government pays the difference between the borrower's rate and the lender's yield (both of which are set 0.60 percentage points higher than the rates that applied when the borrower was in school). Paying the higher interest rate to lenders creates a budgetary cost that does not exist in the direct loan program. That cost accounts for about 7 percentage points of the difference in subsidy rates between the FFEL and direct loan programs for loans made in 2006.

The second major source of the spread between subsidy rates for the two programs is the difference between the borrower's interest rate and the discount rate. In both programs, borrowers pay the same rate of interest, and cash flows are discounted at the same rate. However, in the direct loan program, the government is the recipient of those payments, and the calculation of the subsidy rates generally shows a net gain to the government because the principal and interest payments it receives are discounted at a different, and generally lower, rate than borrowers pay.<sup>4</sup> That factor also accounts for about 7 percentage points of the difference in subsidy rates for loans originated in 2006.

A third factor, accounting for about 1.5 percentage points in the spread in subsidy rates between the two programs,

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3. Stafford loans are low-interest loans available to both undergraduate and graduate students who generally must be enrolled at least half time at the postsecondary level.
  4. For example, CBO's March 2005 baseline projects the borrower's rate for 2006 (based on the 91-day Treasury bill plus 2.30 percentage points) to be 6.2 percent for borrowers during repayment. (The interest-rate formula is scheduled to switch to a fixed rate of 6.8 percent in July 2006.) In contrast, CBO's projections for rates used to discount future cash flows are much lower. The March 2005 baseline forecast for 2006 is 4.0 percent for the 364-day bill and 5.3 percent for the 10-year bond.

is the different procedures for collecting amounts owed on defaulted loans. When a borrower in the FFEL program defaults, the federal government reimburses the lender for much of its loss and assumes responsibility for the loan. If a guaranty agency recovers some or all of the amount owed on the defaulted loan, it incurs the cost of collections and retains a portion of those collections. When a borrower in the direct loan program defaults, however, the federal government alone retains all of the recovered funds. Although the federal government incurs costs for the collections, those costs are not included in the subsidy rate.

Finally, that difference in treatment of administrative costs also accounts for some of the spread in subsidy rates. Under credit reform, the subsidy cost calculations for loans and loan guarantees exclude most of the administrative costs that the federal government incurs to operate the programs; those costs are funded separately. But most of the administrative costs of the FFEL program are borne by the private-sector lenders—paid for out of the payments they receive from borrowers and the government.<sup>5</sup> Thus, those costs are incorporated in the subsidy costs of the guarantees. As a result, the exclusion of the government's administrative costs has a somewhat larger effect on the subsidy rate for direct loans than on those for guaranteed loans.

CBO estimates that including the federal government's administrative costs in the subsidy rate for the direct loan program would raise that rate by approximately 1.5 percentage points; including all federal administrative costs of the FFEL program would raise its subsidy rate by approximately 0.8 percentage points. As a result, the treatment of administrative costs accounts for less than 1 percentage point of the difference in the subsidy rates between the two programs.

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5. Some administrative costs related to collections are included in the subsidy rate for the FFEL program.



# Subsidy Estimates for Guaranteed and Direct Student Loans

## The Student Loan Programs

The Federal Family Education Loan (FFEL) Program and the William D. Ford Direct Loan Program provide loans to assist undergraduate and graduate students and the parents of undergraduate students in meeting the costs of postsecondary education. Institutions of higher education (or in some cases, academic units within an institution) choose to participate in either the FFEL program or the direct loan program; all of their students who seek loans must participate in the chosen loan program. While the overall goals of the two programs are the same, their operations are quite different.<sup>1</sup>

### The Federal Family Education Loan Program

Under the FFEL program, created in 1965 and formerly known as the Guaranteed Student Loan Program, private lenders (such as banks and credit unions as well as some institutions of higher education) make the loans. The federal government pays a portion of the interest received by those lenders; guarantees them against significant losses resulting from borrowers' defaults, deaths, or disabilities; and provides funds to the guaranty agencies that administer certain aspects of the program for the federal government.

### The William D. Ford Direct Loan Program

Created by the Omnibus Budget Reconciliation Act of 1993 and implemented in 1994, the direct loan program offers the same types of loans as the FFEL program does, but in the direct loan program, the federal government serves as the lender.<sup>2</sup> The direct loan program was

required by statute to attain at least a 60 percent share of the total volume of student loans by 1998, but the highest loan volume achieved by the program was 34 percent, which occurred during the 1997-1998 academic year.

### The FFEL and Direct Loan Programs Today

Today, FFEL loans account for about three-quarters of all new student loans and direct loans account for the remaining quarter. The Congressional Budget Office (CBO) estimates that in 2005, the FFEL program made more than 10 million loans to students and parents totaling about \$44 billion, and the direct loan program made nearly 3.2 million loans totaling about \$15 billion.

The FFEL and direct loan programs offer two main types of loans: Stafford loans and parent loans to undergraduate students, termed PLUS loans. Most borrowers also have the option to consolidate multiple Stafford or PLUS loans into one consolidation loan. Stafford loans constitute the bulk of all loans (and are therefore the focus of this paper). CBO estimates that Stafford loans accounted for about 93 percent of loans made in 2005.

### Stafford Loans

Stafford loans are low-interest loans available to both undergraduate and graduate students who generally must be enrolled at least half time at the postsecondary level. For Stafford loans disbursed before July 1, 2006, while bor-

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1. For more details on the programs, see Congressional Research Service, *Federal Student Loans: Terms and Conditions for Borrowers*, CRS Report RL30655 (June 29, 2005); and *The Administration of Federal Student Loan Programs: Background and Provisions*, CRS Report RL30656 (June 29, 2005). For a broader analysis, see Congressional Budget Office, *Private and Public Contributions to Financing College Education* (January 2004).

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2. The direct loan program was initially established as a pilot program in the 1992 reauthorization of the Higher Education Act but was not implemented before the 1993 reconciliation legislation authorized the full program. Earlier, the federal government provided loans directly to college students under the National Defense Act of 1958, which created the National Defense Loan Program. That program was later renamed the National Direct Loan Program and then the Federal Perkins Loan Program. The Perkins program, which did not receive new appropriations in 2005, is a smaller, campus-based loan program in which institutions received matching funds from the federal government.

rowers are in school, in a grace period following school, or in another authorized period of deferment, the interest rate charged is the 91-day Treasury bill rate (converted to an equivalent full-year interest rate) plus 1.70 percentage points, adjusted annually, up to a cap of 8.25 percent.<sup>3</sup> When borrowers begin to repay the loans, the rate changes to the 91-day Treasury bill rate plus 2.30 percentage points (again capped at 8.25 percent). Those rates are currently 4.7 percent and 5.3 percent, respectively. Based on the last auction of Treasury bills in May, the rates are determined once each year and apply for most variable-rate loans during the upcoming 12-month period beginning in July.<sup>4</sup> A set of amendments to the Higher Education Act in 2002 changed the rates that borrowers pay on most future loans from variable to fixed. Consequently, under current law, all Stafford loans disbursed after June 30, 2006, will have a fixed rate of 6.8 percent.

For loans made by private institutions, the interest received by the lenders is generally different from that paid by the borrowers; the government makes up the difference. For Stafford loans, lenders receive interest at the commercial paper rate plus 1.74 percentage points when borrowers are in school and at the commercial paper rate plus 2.34 percentage points during repayment, except when the rate paid by borrowers is higher, in which case the lenders receive just the borrowers' payments. (The rates paid to lenders were 5.5 percent and 6.1 percent, respectively, for the quarter ending September 30, 2005.) Those yields, which are calculated quarterly, will continue to be at variable rates after June 30, 2006. When the lender-yield formula provides a rate above that paid by borrowers, the government pays the difference to lenders in the form of special allowance payments (SAPs).

There are two types of Stafford loans:

- *Subsidized loans*—Borrowers pay no interest on subsidized loans while they are enrolled in school, during

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3. The grace period is the six-month period beginning when borrowers cease to be enrolled in an institution of higher education (because of either graduation or withdrawal), during which time they do not pay interest on the loans. Borrowers may be granted a deferment if they enroll in additional postsecondary coursework or encounter a period of unemployment or economic hardship.
  4. From July 1994 to June 1998, rates were based on the 91-day Treasury bill rate plus 3.1 percentage points when the loan was in repayment and 2.5 percentage points otherwise.

the six-month grace period after leaving school, and during other deferment periods. Students must show financial need to qualify for subsidized loans. CBO estimates that subsidized loans accounted for about 57 percent of all Stafford loans made in 2005.

- *Unsubsidized loans*—Borrowers are responsible for the interest on unsubsidized loans at all times, and all students qualify, regardless of need. Borrowers may pay the interest on these loans while they are in school, or the interest can be capitalized in the principal when borrowers begin repayment. Unsubsidized loans still cost borrowers less than private loans because the interest rates set by the federal government are lower. CBO estimates that unsubsidized loans accounted for about 43 percent of all Stafford loans made in 2005.

Undergraduate students may borrow between \$2,625 and \$10,500 per year (up to a maximum of \$46,000 for all undergraduate years for dependent students) in subsidized and unsubsidized loans, depending on their year in school and dependency status. Most graduate students may borrow up to \$18,500 per year (with no more than \$8,500 in subsidized loans), up to a maximum of \$138,500 in total undergraduate and graduate loans.<sup>5</sup> The standard repayment period for Stafford loans is 10 years.

## Cash Flows in the FFEL and Direct Loan Programs

The cash flows associated with each loan portfolio are the basis for calculating the subsidy rate. Because a loan can be outstanding in excess of 30 years from disbursement, not only do the payments and receipts have to be estimated, but the timing of those payments over the entire life of the loan must also be projected. Such timing is important because a subsidy estimate is calculated by discounting the cash flows back to the year of the loan's disbursement to reflect the time value of money (the value today of \$100 to be received in a future year is less than the value of \$100 received now).

The repayment plan selected by a borrower has a large impact on the length and timing of the cash flows. Borrowers in the FFEL and direct loan programs can choose

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5. Students in certain medical degree programs have higher loan limits. For example, medical, dental, and veterinary students may borrow up to \$38,500 per year, up to a total of \$189,125.

from among several repayment plans, but even within a single plan, repayment options may vary slightly between the programs. The most common repayment options include the following:

- *Standard repayment plan*—Under this plan, borrowers make fixed monthly payments of at least \$50 for up to 10 years. This is the default repayment plan for both programs.
- *Consolidation*—Under this repayment option, borrowers consolidate all of their loans into a single loan with a fixed interest rate. That rate is based on the weighted average of the rates on those loans that are consolidated, rounded up to the nearest one-eighth of one percent.<sup>6</sup>
- *Graduated repayment plan*—Borrowers in this plan make smaller payments early in the repayment period and larger payments in the later years; payments are tailored for those borrowers whose income will increase over time.
- *Extended repayment plan*—The extended repayment plan may allow borrowers a longer repayment period than the 10-year window in the standard repayment plan.<sup>7</sup>

Borrowers in the FFEL program who are enrolled in the graduated or extended repayment plans are still limited to

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6. CBO and the Department of Education treat consolidation loans differently in computing subsidy rates. On the basis of section 502(5)(c) of the Federal Credit Reform Act of 1990, CBO considers a consolidated loan to be a part of an original loan. The department treats it as a new loan and therefore calculates the subsidy rates separately for the original loan and the consolidated loan.
  7. In addition to the four plans listed here, the FFEL program also offers an income-sensitive repayment plan, and the direct loan program offers an income-contingent repayment plan. In the income-sensitive plan, borrowers' monthly payments are based on their loan amount and annual income, and payments rise or fall with income. Under that plan, borrowers have 10 years to repay the loan and five years of eligibility for forbearance. In the income-contingent plan, monthly payments are based on the loan amount, interest rates, family size, and annual income, and payments rise and fall with income. After 25 years, the remaining loan balance is forgiven in the income-contingent plan.

a 10-year repayment period unless they have received their loans since 1998 and have outstanding loans in excess of \$30,000. Those borrowers who want to extend their repayment period beyond 10 years and do not meet those criteria must consolidate their loans.

CBO uses data from the National Student Loan Data System (NSLDS) to project the timing of loan disbursements, the length of time borrowers are enrolled in school, borrowers' behavior (such as patterns of default and consolidation), and other factors (such as tax refund offsets).<sup>8,9</sup> Using those data, CBO's economic forecasts, and information from the Department of Education and other sources, CBO estimates the timing of aggregate cash flows for different types of loans and borrowers' characteristics in both of the loan programs.

The government's cash flows for guaranteed and direct loans include various components (see Table 1). The importance of the components varies significantly between the programs, depending on how long the borrower remains in school, how long and what type of repayment options the borrower exercises (including the option to consolidate multiple loans), whether the borrower defaults or the loan is discharged, and other factors. This paper highlights the most common and significant characteristics of the cash flows but does not address all of the nuances that are incorporated in the calculations of the subsidy rates.<sup>10</sup> The examples that follow illustrate common repayment patterns and are designed to illustrate how the government's cash flows differ under the two programs.

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8. The NSLDS is the Department of Education's centralized database for tracking student aid, by borrower, through its entire life cycle, from approval to repayment. The database receives information directly from institutions of higher education, guaranty agencies, lenders in the direct loan program, and other Department of Education programs.
  9. The Internal Revenue Service may withhold a federal tax refund as repayment on a defaulted student loan.
  10. The discussion and examples do not include the specific effects of some factors that influence CBO's estimates, such as the timing of disbursements, the impact of students who leave school early or attend schools that close, borrowers' participation in loan forgiveness programs for teachers, or the differences in the timing and amounts of collections of defaulted loans resulting from varying collection methods.

**Table 1.**  
**The Federal Government's Cash Flows for Student Loans, by Type of Loan**

Component of Cash Flow	Guaranteed Loans	Direct Loans
Principal Disbursement		X
Fees Collected or Paid at Origination	X	X
Interest Paid to Lenders While Borrowers Are in School	X	
Interest Not Collected from Borrowers While They Are in School		X
Special Allowance Payments	X	
Principal Repayment		X
Interest Paid While Loans Are in Repayment		X
Defaults and Subsequent Collections	X	X

Source: Congressional Budget Office.

Note: X = applicable to that type of loan.

### Cash Flows for a Subsidized Loan Repaid in Full Under a Standard Repayment Plan

This section describes the cash flows for a subsidized loan in the FFEL and direct loan programs when a student repays the principal and interest under one of the standard repayment plans.<sup>11</sup> The next section discusses how the cash flows differ if a borrower defaults on or consolidates an original loan.

**The FFEL Program.** The cash flows for a subsidized loan in the FFEL program can be divided into three main categories: payments and receipts that occur at the time of the loan's disbursement; payments made to the lender while the borrower is enrolled in school; and payments

made to the lender while the loan is in repayment. When calculating the net present value of those cash flows, the timing is important. A federal payment or receipt at the time of a loan's disbursement will have a higher net present value than a payment or receipt during the loan's repayment because the former happens earlier in the life of the loan.

*Cash Flows at the Loan's Disbursement.* Two types of federal receipts and a federal disbursement occur when a lender makes a loan through the FFEL program.

First, the Department of Education charges the lender an origination fee of 0.5 percent of the principal on all loans. Second, the department charges the lender a borrower's origination fee of 3 percent of the principal. The lender pays that fee directly to the federal government and then has the choice of whether or not to pass some or all of the cost on to the borrower. Both of those fees are designed to help offset some of the federal government's costs of insuring and subsidizing student loans.<sup>12</sup> Third, the federal government pays the guaranty agency a onetime loan-processing and issuance fee of 0.40 percent of the loan's principal to cover the administrative costs associated with the disbursement.<sup>13</sup>

Thus, for a \$3,000 guaranteed loan, the government would collect a lender's origination fee of \$15 and a borrower's origination fee of \$90 and would pay the guaranty agency a loan-processing and issuance fee of \$12.

*Federal Payments While the Borrower Is in School.* The federal government makes two types of payments to lenders in the FFEL program while student borrowers are enrolled in postsecondary education. Both of those payments represent budgetary costs in the calculation of the subsidy rate. The first is termed the in-school interest payment, which is made on behalf of the borrower. Stu-

11. Cash flows for an unsubsidized loan are very similar to those for a subsidized loan. In the FFEL program, the only difference for an unsubsidized loan is that the federal government does not pay the lender the in-school interest subsidy. In the direct loan program, the only difference for an unsubsidized loan is that the student must either pay the accrued interest while he or she is in school or have the interest capitalized into the principal of the loan.

12. Guaranty agencies may charge borrowers an insurance premium of up to 1.0 percent. The receipt of that premium is recorded in the budget as income to the federal student loan reserve fund and is not part of the subsidy calculation. The reserve fund, which is the property of the federal government and is managed by guaranty agencies, is an account used to pay claims by lenders. Thus, to the extent that the premium is not charged to borrowers, federal receipts are diminished.

13. For loans originated after October 1, 1998, and prior to October 1, 2003, the loan-processing and issuance fee was 0.65 percent of each guaranteed loan, paid on the gross loan amount disbursed.

dent borrowers are not responsible for interest payments on subsidized loans while they are enrolled in school or during their six-month grace period after leaving school (or other authorized periods of deferment).

The second is the special allowance payment, which is designed to encourage private lenders to participate in the FFEL program. SAPs are subsidy payments made to compensate lenders for the difference between the statutorily set interest rate charged to borrowers and the rate guaranteed to lenders.

For Stafford loans, lenders receive no less than the three-month commercial paper rate plus 1.74 percentage points while students are in school. The quarterly SAP (currently about 0.8 percent) is the difference, if positive, between that interest rate and the borrower's rate, times the principal, divided by four. If the difference is negative, lenders do not receive a SAP. Unlike the borrower's interest rate, which is adjusted annually, the SAP is adjusted and paid quarterly.

For a \$3,000 loan, the SAP (for the third quarter of calendar year 2005) while the borrower was in school would have amounted to about \$6 (the total will change each quarter as the commercial paper rate changes). As recently as the second quarter of 2005, when interest rates were lower, the difference between the two interest rates and the resulting SAP was much greater; in that quarter, the SAPs on a \$3,000 loan were about \$14.

CBO estimates interest payments and SAPs on variable-rate loans and SAPs on direct loans using statistical techniques designed to capture the effects of volatility in interest rates. Specifically, such estimates are based on Monte Carlo simulations, a technique based on statistical inference regarding the uncertainty in estimates and projections of economic variables.<sup>14</sup> In particular, the Monte Carlo simulations account for the likelihood that interest rates will differ from CBO's baseline assumptions.

The methodology enables CBO to estimate the costs (or savings) of different interest rate caps, for example. Although CBO's assumptions for interest rates in its current baseline do not result in rates for borrowers as high as the

8.25 percent caps, such rates are nevertheless possible. The simulations take into account the range of possible interest rates and indicate how often the caps may be constraining and by how much the caps can reduce the effective interest rates for borrowers.

*Federal Payments on Loans During the Loan's Repayment.* The government's only cash flow associated with the FFEL program when the loan is in repayment is the quarterly SAP (except for deferment periods and for loan forgiveness). During that phase of the loan, the SAP calculation changes slightly (mirroring a change in the borrower's interest rate). For Stafford loans, lenders receive the sum of the three-month commercial paper rate plus 2.34 percentage points. When the borrower's rate is higher than the target rate for lenders, the borrower's rate acts as a floor on lenders' income, and the SAP is zero.

For a \$3,000 loan, the SAP during the first quarter of repayment would be about \$6. In addition, the SAP will change each quarter as the borrower repays the principal and the lender's yield changes.

**The Direct Loan Program.** The government's cash flows for a typical direct loan are quite different from those for the typical guaranteed loan described above.

*Cash Flows at the Loan's Disbursement.* Two kinds of cash flows occur at the time the federal government disburses a direct loan. The first is the disbursement of the loan to the individual borrower. The federal government provides 100 percent of the capital to fund the student loan and transmits it to the student.

The second cash flow is the origination fee, which is paid by the student borrower to the federal government (the fee is netted against the loan disbursement). As in the FFEL program, the federal government charges borrowers a 3.0 percent origination fee to help offset some of the costs of subsidizing student loans. Unlike borrowers in the FFEL program, however, borrowers in the direct loan program are charged an up-front origination fee of only 1.5 percent when the loan is disbursed.<sup>15</sup> Borrowers who make their first 12 monthly loan payments within six

14. For further information, see Congressional Budget Office, *A Framework for Projecting Interest Rate Spreads and Volatilities* (January 2000); and *How CBO Analyzes the Sources of Lenders' Interest Income on Guaranteed Student Loans* (June 2004).

15. Many lenders in the FFEL program pay some or all of the origination fee on behalf of borrowers. Because the federal government receives a full 3 percent fee up front regardless of who pays it, the arrangement between lenders and borrowers has no effect on the government's cash flows in the FFEL program.

days of the due date are forgiven the additional 1.5 percent fee. CBO estimates that most borrowers, however, fail to make those payments and have the additional 1.5 percent fee added to the original principal and amortized over the life of the loan.

For a \$3,000 loan, the initial disbursement (net of the 1.5 percent fee of \$45) would be \$2,955.

*Cash Flows During Repayment.* Because the federal government is the lender in the direct loan program, the borrower repays the federal government directly. The borrower is responsible for repaying both the principal and interest on the loan, and the borrower’s interest rate in the direct loan program is the same as in the FFEL program. On subsidized loans, the interest owed while the borrower is in school is forgiven, and the borrower makes no payment to the federal government. On unsubsidized loans, if the borrower does not pay the interest as it accrues while he or she is in school (and most do not), it is added to the principal of the loan when the borrower begins to repay the loan.

**The Impact of Loan Defaults and Consolidations on Cash Flows**

The federal payments and receipts described above assume the standard repayment of loans in both the FFEL and direct loan programs. Cash flows will differ, however, if the borrower defaults, consolidates his or her loans, defers payments, enters forbearance, has loans forgiven, dies, or is disabled.

**Cash Flows for the Collections on a Defaulted Loan.**

A loan is considered to be in default if the borrower fails to make a payment for 270 days (330 days if payments are due less frequently than each month). In the past, defaults were a major concern, in part because of some schools whose students defaulted at particularly high rates. But changes made in the 1990s helped reduce those high default rates. Many of the changes had their greatest effects on proprietary schools (for-profit institutions run by individuals or corporations). For example, the cohort’s default rate at those schools dropped from a high of about 41 percent in 1990 to about 7 percent in 2003. The elimination of some schools has helped lower the 2003 cohort’s default rate to 4.5 percent, the lowest level in the history of the program.<sup>16</sup> Because of the low default rate and the implementation of new collection tools to recover the amounts owed on defaulted loans,

**Table 2.**  
**The Federal Government’s Cash Flows for Collections on Defaulted Student Loans, by Type of Loan**

Component of Cash Flow	Guaranteed Loans	Direct Loans
Payments of Principal and Accrued Interest to Lenders Through Guaranty Agencies	X	
Loss of Principal and Interest Payments from Borrowers		X
Partial Share of Collections on Defaults	X	
100 Percent Share of Collections on Defaults		X
Default Penalty	X	X

Source: Congressional Budget Office.

Note: X = applicable to that type of loan.

net default rates have become a much smaller part of federal subsidy costs for loans than they were in the not-so-distant past.<sup>17</sup>

When a borrower defaults in the FFEL program, the federal government, in essence, assumes responsibility for the loan. There are significant differences in how amounts owed on defaulted loans are recovered in the FFEL and direct loan programs, however, which make the government’s cash flows different (see Table 2).

16. That rate is the percentage of borrowers who began repaying their loans between October 1, 2002, and September 30, 2003, and defaulted before September 30, 2004. Data for later periods are not yet available.

17. Both guaranty agencies and the Department of Education can obtain address and wage information for delinquent borrowers from the National Directory of New Hires, which provides information on all newly hired employees in the United States, and garnish wages to collect amounts owed on defaulted loans from delinquent borrowers. In addition, the Department of Education can use tax refund offsets to collect amounts owed. Historical default recovery ratios from the NSLDS indicate that for each dollar paid out for a federal default claim in the FFEL program, the government ultimately collected an average of \$1.25 (undiscounted) through those various collection means.



**Box 1.****Guaranty Agencies and the Federal Government**

Guaranty agencies play a critical role within the operations of the Federal Family Education Loan Program. Under contracts with the federal government, the agencies administer the federal guarantee program for lenders, attempt to recover amounts owed on defaulted loans, work with borrowers so that they resume payments on defaulted loans, and perform other activities. In turn, the federal government supplies the funding for the guarantees, shares in the recoveries, and provides some funding for the agencies' administrative costs.

A guaranty agency's finances are organized into a nonfederal account for its operating fund and a federal account for its student loan reserves.

An agency's operating fund pays for processing applications, disbursing loans, and activities aimed at averting defaults or collecting on defaulted loans. That fund's income, primarily derived from federal payments, consists of loan-processing and issuance fees, an account-maintenance fee, fees dedicated to averting defaults, and retained default collections. Those disbursements and collections are part of a

guaranty agency's budget and do not appear in the federal budget.

The outlays from the federal fund consist of payments to lenders for the guarantees and to the guaranty agency's operating fund for activities to avert defaults. Receipts for the account include reimbursements from the Department of Education for payments to lenders, a portion of default collections, borrowers' insurance premiums, and other receipts. The net income of a guaranty agency's federal fund appears on the outlay side of the federal budget; it does not affect the subsidy calculations.

Because the federal government owns the federal fund, payments to that fund from a government agency, such as payments from the Department of Education, have no effect on the total federal budget because they exactly offset the Treasury's outlays for the payments (that is, they are intragovernmental transactions). In contrast, borrowers' payments of premiums are governmental receipts and are reflected in the net income of the fund, thereby reducing net federal spending.

Whether or not any recoveries are made and how long after default they are made also affect the budgetary cost of the loan to the federal government. If, for example, amounts owed on a loan are never recovered or only partially recovered, the subsidy cost of the loan will be higher than if all amounts owed are fully recovered or the borrower pays a default penalty.

*Cash Flows for the Collections on a Defaulted Loan in the FFEL Program.* When a borrower in the FFEL program defaults, the federal government ceases to pay the lender a special allowance payment. Instead, the federal government, acting through a guaranty agency, reimburses the lender for 98 percent of the defaulted principal and accrued interest (see Box 1 for more details on guaranty agencies).<sup>18</sup> The federal government then has 45 days from the default date to make an intragovernmental transfer to reimburse the guaranty agency's federal student loan reserve fund 95 percent of the reimbursement

amount; that payment is reflected in the calculation of the subsidy rate.

The guaranty agency, often relying on a collection agency, attempts to recover the funds from the original borrower. For each dollar recovered by the guaranty agency, the first 5 percent goes to the federal government (through the student loan reserve account); 23 percent of the remaining 95 percent is retained by the guaranty agency, with the rest also going to the federal government. The guaranty agency may also choose to charge the borrower a fee of up to 18.5 percent of the outstanding principal on a defaulted loan. When the penalty is applied, it is often subtracted from the borrower's initial repayments once he or she begins repayment.

18. Some lenders who meet certain criteria are reimbursed for 100 percent of the defaulted principal and interest.

If the guaranty agency is unsuccessful in collecting the defaulted loan, it will be assigned to the Department of Education.<sup>19</sup> If the department is successful, the federal government retains all of the recovered funds.

*Cash Flows for the Collections on a Defaulted Loan in the Direct Loan Program.* The Department of Education charges the 18.5 percent penalty for all borrowers who default in the direct loan program. Because the defaulted loans come directly from the federal government, the Department of Education is not responsible for reimbursing any other entities for the loans. In addition, in the direct loan program, the federal government, not the guaranty agency, initially works with the collection agency to get the defaulted borrower to resume payments. As a result, the department receives all of the recovered funds. The cost of recovering the amounts owed on the defaulted loan is not considered in the subsidy rate, as it is part of federal administrative costs.

**Cash Flows for a Consolidated Repayment Option.** Consolidation allows a borrower to combine his or her current loans into a single loan, in many cases extending the repayment period. The interest rate, which becomes fixed to the borrower after consolidation, is based on the weighted average of the rates on those loans that are consolidated, rounded up to the nearest one-eighth of one percent. Thus, different borrowers with variable-rate Stafford loans may end up paying different interest rates on their consolidated loans. Because all Stafford loans disbursed after June 30, 2006, will have fixed rates of 6.8 percent, borrowers who consolidate those loans will have their interest rate rounded up to 6.875 percent. Cash flows for consolidated loans vary between the two programs (see Table 3).

*Cash Flows for a Consolidation Option Under the FFEL Program.* When a borrower consolidates a guaranteed loan, the federal government charges the lender in the FFEL program an origination fee of 0.5 percent of the principal and pays a processing fee of 0.40 percent to the guaranty agency to cover administrative costs. In addition, the federal government charges the lender a loan

19. A guaranty agency must assign to the Department of Education any student loan that meets all of the following criteria as of April 15 of each year: the unpaid principal balance is at least \$100; the loan has been held by the guaranty agency for at least five years; a payment has not been received on the loan in the last year; and a judgment has not been made against the borrower.

**Table 3.**  
**The Federal Government’s Cash Flows for the Consolidation Repayment Option, by Type of Loan**

Component of Cash Flow	Guaranteed Loans	Direct Loans
Loan Consolidation Fee	X	
Lender's Origination Fee	X	
Loan-Processing Fee	X	
Higher Special Allowance Payments	X	
Higher Interest Rate Paid to Government During Repayment <sup>a</sup>		X

Source: Congressional Budget Office.

Note: X = applicable to that type of loan.

a. With variable-rate loans, some borrowers will actually pay less interest when they consolidate, if interest rates subsequently rise.

consolidation fee, equal to 1.05 percent of outstanding principal, each year the consolidation loan is in repayment. That fee is designed to offset the higher SAPs, which provide the lender with a minimum yield equal to the commercial paper rate plus 2.64 percentage points on all consolidated loans (as opposed to the commercial paper rate plus 2.34 percentage points for Stafford loans prior to consolidation) and to reflect the lender’s lower cost in servicing a single larger loan rather than several smaller ones. The lender pays the loan consolidation fee regardless of whether or not the federal government owes a SAP to the lender.

*Cash Flows for a Consolidation Under the Direct Loan Program.* Cash flows in the direct loan program for a consolidated loan are very similar to those for the original loan. When variable-rate loans are consolidated, the borrower pays a rate based on the weighted average of the rates on those loans, rounded up to the nearest one-eighth of one percent. When fixed-rate loans are consolidated, the borrower pays 6.875 percent interest. In either case, the amount of interest paid will be higher than before. Often, though, borrowers in the FFEL program consolidate their loans so they may take a longer period of time to repay them, although the degree to which they can extend payments depends in part on their overall indebtedness. Borrowers in the direct loan program can extend their repay-

ment period beyond 10 years by participating in the extended repayment plan, so they are less likely to consolidate their loans to extend their repayment period.

### Other Costs Incurred by the Federal Government in Both Programs

Under several other scenarios, the federal government may bear some or all of the costs of student loans, either temporarily or permanently, in both the FFEL and direct loan programs. They include the following:

- *Deferment*—A borrower may receive a deferment if he or she enrolls in additional postsecondary coursework or encounters a period of unemployment or economic hardship. The federal government pays the interest on a subsidized loan while it is in deferment, but the borrower is still responsible for any interest that accrues (at the in-school rate) on an unsubsidized loan. For an unsubsidized loan in the direct loan program, deferment delays the repayment of principal and interest. A borrower may defer his or her payments for a total of up to 36 months.
- *Forbearance*—A borrower who is willing but unable to continue payments on student loans may be granted forbearance, which is temporary relief from the obligation for repayment. Unlike the case during deferment, however, interest will continue to accrue (at the repayment rate) on both subsidized and unsubsidized loans during this time. Generally, the goal of forbearance is to prevent the borrower from defaulting on a loan. In some cases, the lender (either a private lender or the Department of Education) and the borrower may agree to lower the borrower's monthly payments; in other cases, the lender may allow the borrower to stop making payments for a period of time. A borrower may be granted forbearance for up to 36 months.
- *Loan discharge*—In certain extreme cases, a borrower may have his or her loan discharged and be completely freed from all obligation to repay the loan. In the case of the borrower's death or total and permanent disability, the borrower is forgiven 100 percent of the loan, and, in the FFEL program, the government reimburses the lender for the principal and accrued interest on the loan.
- *Loan forgiveness*—In other situations, a portion of a borrower's loan debt may be forgiven. For example, a student who becomes a full-time teacher for five consecutive years in a designated elementary or secondary

school serving students from low-income families can receive up to \$5,000 in loan forgiveness.<sup>20</sup>

### Examples of Subsidy Rate Calculations

The cash flows just described are used to calculate the FFEL and direct loan programs' subsidy rates. The examples in this section provide a sense of how cash flows and subsidy rates might vary under different circumstances but do not necessarily represent the typical timing or budgetary costs of events such as defaults or consolidations for either program. Under credit reform procedures, the subsidy rate for each program is the sum of the discounted cash flows for all loans associated with the program divided by total loan volume. (See Box 2 for a description of how credit subsidies are calculated.)

This paper deals only with the subsidy estimates in the credit reform framework, which is not intended to capture the programs' full economic costs to the government. Beyond the costs reflected in the budget, economic costs incorporate valuations of risk, potential impacts on federal revenues, administrative costs, and other factors. In addition, the estimates are based on projections of key variables for many years into the future and therefore are quite uncertain. Participation rates, interest rates, default rates, prepayment patterns, and other aspects of the programs' operations are very likely to differ from those assumed in the estimates. The history of credit reestimates in the student loan accounts of the federal budget offers ample evidence of that divergence. Between 1994 and 2004, the Department of Education added about \$6 billion to the \$33 billion that it had initially estimated for the subsidy costs.

### Subsidy Costs of Loans Under the FFEL and Direct Loan Programs

As an illustration, consider a student who borrows \$3,000, finishes school and completes the grace period in two years, and begins to repay the loan at the beginning of the third year under a standard 10-year repayment plan (see Table 4). To reflect current law, the example assumes a variable interest rate. Because different students are enrolled for various lengths of time and select different repayment options, the timing and amounts of the cash flows may look very different for any two borrowers, even if both repay their student loans in their entirety.

20. Under P.L. 108-409, borrowers who meet that criterion and teach math, science, or special education are eligible for up to \$17,500.

**Box 2.****Credit Reform**

The Federal Credit Reform Act (FCRA) of 1990 and subsequent legislation changed the way the costs of federal loan programs are shown in the budget, shifting from a cash basis to a net-present-value basis beginning in 1992.<sup>1</sup> Under credit reform, the estimated net cost to the federal government of a direct loan or loan guarantee over the entire life of that loan is recorded as an outlay in the budget when the loan is disbursed. The “subsidy” cost for a credit program for a particular year is the estimated net present value (NPV) of all future cash flows associated with loans made during the year. Present-value calculations are used to reflect the fact that the value today of \$1 to be received in a future year is less than the value of \$1 received now. Under that process, known as discounting, future cash flows are expressed in terms of today’s dollars. FCRA requires the calculation of present values by discounting expected cash flows at the interest rates on Treasury securities (the rates at which the government borrows money). The individual discounted cash flows, representing federal expenditures and receipts anticipated during each year of the expected life of the loans, are then summed to determine the total costs of the loans. The basic equation for NPV is expressed as follows:

$$\text{NPV} = \text{cash flow year 1} + \text{cash flow year 2} / (1 + \text{discount rate}) + \text{cash flow year 3} / (1 + \text{discount rate})^2, \text{ and so on.}$$

1. Credit reform was enacted as part of Public Law 101-508, and its provisions became title V of the Congressional Budget and Impoundment Control Act.

For example, assuming annual cash payments of \$100 per year over five years with a discount rate of 5 percent, the NPV calculation would be the following:

$$\text{NPV} = 100 + 100/(1 + .05) + 100/(1 + .05)^2 + 100/(1 + .05)^3 + 100/(1 + .05)^4$$

From the perspective of the federal budget, that stream of payments is equivalent to a single payment of \$447.41 in year 1. The Balanced Budget Act of 1997 introduced a new method of discounting, commonly referred to as a basket-of-zeroes calculation. In that calculation, a different discount rate is applied to each year’s cash flow.<sup>2</sup> That rate is the interest rate that would be paid on a zero-coupon bond issued by the federal government and maturing in the same year as the cash expenditure or receipt. For example, an expenditure or receipt occurring three years after the year of disbursement would be discounted using the interest rate on a three-year zero-coupon bond, and one occurring after six years would be discounted using the interest rate on a six-year zero-coupon bond.

Under FCRA, the cash flows for loans exclude most of the federal government’s administrative costs for operating both programs. That exclusion has a somewhat larger effect on the subsidy rates for direct loans. Under that statute, those expenditures are specifically designated to remain on a cash basis.

2. Prior to the enactment of the Balanced Budget Act, a single discount rate was used, assigned according to the typical maturity of the loans in a program.

**Table 4.**

**Comparison of Subsidy Costs for a Hypothetical \$3,000 Loan Under the FFEL and Direct Loan Programs**

(Dollars)

	Nominal Cash Flows												Total (Discounted)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
<b>Guaranteed Loan Under the FFEL Program</b> (Subsidy rate: 15.0 percent)													
Interest Costs and Up-Front Fees													
In-school interest	137	171	-	-	-	-	-	-	-	-	-	-	301
Borrower's origination fee	-90	-	-	-	-	-	-	-	-	-	-	-	-90
Lender's origination fee	-15	-	-	-	-	-	-	-	-	-	-	-	-15
Special Allowance Payments													
During school or grace period	44	38	-	-	-	-	-	-	-	-	-	-	81
During repayment period	-	-	33	32	30	27	25	21	17	13	8	3	161
Loan-Processing Fee	12	-	-	-	-	-	-	-	-	-	-	-	12
<b>Total Costs</b>	<b>88</b>	<b>209</b>	<b>33</b>	<b>32</b>	<b>30</b>	<b>27</b>	<b>25</b>	<b>21</b>	<b>17</b>	<b>13</b>	<b>8</b>	<b>3</b>	<b>450</b>
<b>Direct Loan</b> (Subsidy rate: -2.1 percent)													
Disbursement													
Principal disbursement	3,000	-	-	-	-	-	-	-	-	-	-	-	3,000
Borrower's origination fee	-45	-	-	-	-	-	-	-	-	-	-	-	-45
Repayment													
Principal	-	-	-222	-238	-255	-272	-290	-310	-330	-352	-375	-400	-2,151
Interest	-	-	-195	-178	-160	-142	-124	-105	-84	-62	-39	-14	-866
<b>Total Costs</b>	<b>2,955</b>	<b>0</b>	<b>-417</b>	<b>-416</b>	<b>-415</b>	<b>-415</b>	<b>-414</b>	<b>-414</b>	<b>-414</b>	<b>-414</b>	<b>-414</b>	<b>-414</b>	<b>-63</b>

Source: Congressional Budget Office.

Notes: These numbers assume that the loan is made in 2006 and that repayments follow a standard 10-year plan.

Interest and special allowance payments are estimated using a statistical technique designed to reflect the probability that interest rates will be higher or lower than CBO projects.

FFEL = Federal Family Education Loan; - = not applicable.

In the example at hand, the subsidy rate in the FFEL program is 15.0 percent (\$450 in discounted cash flows divided by the \$3,000 loan), meaning that for every \$1 loaned, the federal government incurs a net budgetary cost of \$0.15. The subsidy rate for the loan under the direct loan program is -2.1 percent (-\$63 in discounted cash flows divided by the \$3,000 loan), meaning that the federal government records a budgetary savings of \$0.02 for every \$1 loaned.

**Components of the Subsidy Costs in the FFEL Program.**

The subsidy rate is derived by calculating the net present value of all the cash payments and receipts and dividing that total by the loan amount. The components and their impact on the FFEL subsidy are the following:

- *In-school and grace period interest*—In the example, the federal government makes interest payments to the lender of \$137 for the first year and \$171 for the second (for a total net present value of \$301).

- *Borrower's origination fee*—This receipt totals \$90 (3 percent of the principal) and reduces the cost of the loan to the federal government. Because the fee occurs at the time that the loan is disbursed, the nominal and discounted values are the same.
- *Lender's origination fee*—This receipt is \$15 in this instance, slightly reducing the subsidy rate.
- *Special allowance payments*—To cover the SAPs, the federal government pays the lender a net-present-value amount of \$81 while the borrower is enrolled in post-secondary education and \$161 while the loan is in repayment. For this example, the SAPs constitute the largest component of the subsidy cost.
- *Loan-processing fee*—This fee, paid to the guaranty agency, increases the cost of the loan to the federal government by \$12.

#### **Components of the Subsidy Costs in the Direct Loan Program.**

In the direct loan program, the federal government provides the loan directly to the borrower, and the borrower repays the federal government the principal and accrued interest, so the major components of the subsidy rate are quite different from those in the FFEL program:

- *Loan disbursement*—In this example, the federal government disburses the loan principal of \$3,000.
- *Borrower's origination fee*—The federal government's receipts from the borrower's origination fee total \$45. The scenario assumes that, like the majority of student loan borrowers, the individual fails to make the first 12 payments within six days of the due date (but does so within 15 days of the due date), so the second half of the origination fee is added to the outstanding principal after the borrower's 12th payment.
- *Loan repayment*—The net present value of payments to the government of principal and interest, including the second half of the origination fee, totals \$3,017. Because the discount rate used to determine the net present value of these cash flows is lower than the interest rate paid by the borrower, the government shows a budgetary gain on this loan under the procedures of credit reform.

**Subsidy Costs When a Borrower Defaults.** Not all borrowers repay their loans under the standard 10-year repayment plan. If the borrower defaults on his or her loan

and some or all of the amount owed on the defaulted loan is collected, the cash flows and corresponding subsidy rates are different from what they are when the borrower adheres to the standard repayment plan.

In its sample scenario, CBO assumes that a borrower defaults in the third year and that some of the amount owed is recovered, although neither the guaranty agency (in the example for the FFEL program) nor the federal government (in the example for the direct loan program) is able to collect all of the defaulted principal and interest (see Table A-1 in Appendix A). As discussed earlier, if, when, and how much of the defaulted loan is recovered all have an impact on the budgetary cost of the loan to the federal government.

The subsidy rate for this hypothetical defaulted loan (with variable interest rates) in the FFEL program is 30.5 percent, 15.5 percentage points higher than the subsidy rate under the 10-year standard repayment plan. A substantial portion of the higher subsidy rate occurs in this example because, although the federal government pays no SAPs on the defaulted loan, the guaranty agency is able to recover only a portion of the defaulted principal and interest and then retains some of those funds to cover its administrative costs.

For the comparable direct loan, the subsidy rate is 14.6 percent. Because the federal government is unable to recover all of the defaulted principal and interest, the subsidy rate is 16.7 percentage points higher in this example than in the example with a standard repayment.

#### **Subsidy Costs When a Borrower Consolidates Loans.**

The cash flows and resultant subsidy rates also differ if the borrower consolidates his or her student loans. Again, many factors, including when the borrower consolidates and the interest rate at that time, will have a large impact on the budgetary cost of the consolidation to the government.

In a sample scenario, the subsidy rate is 14.7 percent for a \$3,000 subsidized loan (with variable interest rates) made in the FFEL program when the borrower consolidates it with other student loans (see Table A-2 in Appendix A).<sup>21</sup> That subsidy rate is slightly lower than

21. In accordance with the provisions of the Federal Credit Reform Act of 1990, CBO considers consolidation to be a repayment option and not a separate loan.

**Table 5.**

**Examples of the Impact on Subsidy Rates of the Length of a Borrower’s Enrollment Period, by Type of Loan**

(Subsidy rate, in percent)

	Four Years in School Plus Grace Period		Two Years in School Plus Grace Period		One Year in School Plus Grace Period	
	Guaranteed Loans	Direct Loans	Guaranteed Loans	Direct Loans	Guaranteed Loans	Direct Loans
Standard 10-Year Repayment	26.6	9.5	15.0	-2.1	7.4	-7.6
Immediate Default with Recovery	39.8	24.2	30.5	14.6	23.5	10.0
Loan Consolidation at End of Grace Period	26.5	4.7	14.7	-4.3	6.6	-9.9

Source: Congressional Budget Office.

Note: The subsidy rates shown here are illustrative; they do not necessarily represent the actual experience of the student loan programs. The calculations assume variable interest rates for borrowers.

that for the loan that was repaid over 10 years because increased costs from the higher SAPs, which are paid over 12 years instead of 10, are more than offset by the loan consolidation fee paid by the lender. The higher SAPs are the result of two changes that occur with consolidations. First, the borrower converts a variable-rate loan to a fixed-rate one, which has the effect of increasing the likely gap between the borrower’s rate and the lender’s rate because the former no longer moves roughly in tandem with the latter. The gap widens further if interest rates are generally rising. Second, the lender formula provides an additional 0.3 percentage points above the commercial paper rate for consolidation loans.

For the comparable direct loan, the subsidy rate for the same consolidated loan is -4.3 percent. That more-negative subsidy rate results from the additional two years of interest paid by the borrower over the 12-year repayment period, rather than the 10-year period, and by the higher interest rate paid on the consolidation loan (because it is rounded up to the nearest one-eighth).<sup>22,23</sup>

22. As with other aspects of the loan programs, the credit reform calculations do not necessarily provide a good measure of the economic costs to the government of loan consolidations. A forthcoming CBO paper will describe and assess those costs.

23. CBO’s scenarios described in the text and presented in Tables 4, A-1, and A-2 assume variable interest rates. Appendix B includes corollary scenarios that assume fixed rates.

**Impact of the Length of Enrollment on Subsidy Costs**

Subsidy estimates vary considerably depending on the timing of events. For example, the length of time the borrower is enrolled in postsecondary education affects the subsidy rates significantly. A loan issued earlier during an individual’s postsecondary enrollment increases the period over which the government pays in-school interest and SAPs in the FFEL program, thus increasing the budgetary cost of the loan. Longer in-school periods also delay the repayment of principal and interest in the direct loan program, reducing the net present value of those payments. Thus, for the examples previously discussed, a shorter enrollment period results in a lower subsidy cost (see Table 5).

**Sources of Difference in Subsidy Rate Calculations**

Although the FFEL and direct loan programs are designed to provide the same kinds of loans to individual borrowers, the cash flows of the two programs and their net budgetary costs to the government under credit reform differ substantially. In the direct loan program, the federal government makes a loan to the borrower and the borrower repays the principal and pays interest on that loan to the federal government. In the FFEL program, a transaction involves four parties: the borrower; the private lender; the guaranty agency; and the federal government, which subsidizes the lender if the borrower’s inter-

est rate drops below a certain point and reimburses the lender—through the guaranty agency—for most of its loss should the borrower default, die, or become disabled. Therefore, the budgetary gains or losses calculated under credit reform procedures are divided up differently for the two programs, with some of the gains in the FFEL program accruing to private-sector parties.

In CBO's March 2005 baseline projections, the estimated subsidy rate for student loans issued in 2006 is about 15 percent for the FFEL program and about -2 percent for the direct loan program, meaning that for every \$1 in loans, the federal government incurs a budgetary cost of \$0.15 in the FFEL program and records a budgetary saving of \$0.02 in the direct loan program.<sup>24</sup> Several factors account for that spread.

### Special Allowance Payments to Lenders

One of the two biggest factors is the yield provided to lenders in the FFEL program. Borrowers pay interest at the 91-day Treasury bill rate plus 1.70 percentage points, while lenders receive either the borrower's interest rate or the commercial paper rate plus 1.74 percentage points (whichever is higher). Because the commercial paper rate plus 1.74 percentage points is generally higher than the borrower's rate, the government pays the difference to lenders in the form of special allowance payments, which is a cost that does not exist in the direct loan program.

In CBO's simple scenario in which a student borrows \$3,000 and repays the loan under a standard 10-year repayment plan, for example, the SAPs account for more than half of the subsidy cost for the FFEL program (see Table 4 on page 11). Overall, CBO estimates that this factor accounts for roughly 7 percentage points of the difference in the subsidy rates between the FFEL and direct loan programs for loans in 2006.

### Discounting and Interest Rates

A second major factor results from the difference between the borrower's interest rate and the discount rate used in

the present-value calculation. In the calculation of the subsidy rate for the direct loan program, principal and interest payments are discounted at a different, and generally lower, rate than the borrower pays. The result is a net budgetary gain to the federal government that does not exist in the FFEL program. In general, as long as the borrower's interest rate on a loan is higher than the rate at which the federal government discounts the loan, the federal budget will show that the government earns money on the loan (barring other factors such as default or consolidation).

For example, in CBO's scenario based on standard repayment (presented in Table 4), the net present value of the principal and interest payments (\$3,017) is greater than the government's initial disbursement of \$3,000 because the interest rate on the loan (which ranges from 5.1 percent to 6.6 percent) is greater than the discount rate (which ranges from 4.0 percent to 5.3 percent).<sup>25</sup> Overall, CBO estimates that this factor accounts for approximately 7 percentage points of the difference in subsidy rates between the FFEL and direct loan programs for loans in 2006.

### Net Collections on Defaulted Loans

A third, much smaller factor in the spread between subsidy rates is the difference in procedures for collecting defaulted loans in the two programs. When a borrower in the FFEL program defaults, the federal government reimburses the lender for most of the defaulted funds, and a guaranty agency attempts to recover them. If the guaranty agency is able to collect the funds, it retains a portion of them, so the government does not receive all of the recovered funds. When a borrower in the direct loan program defaults, however, the federal government alone retains any recovered funds. (Although the Department of Education incurs collection costs that average about 16 percent of a defaulted loan, those administrative costs are not included in the subsidy calculation, as specified by the Credit Reform Act.) Because the default rate for student loans is relatively low, this factor has only a small effect, about 1.5 percentage points, on the difference in subsidy rates for the two programs. (The cohort's default rate for loans originated in 2003 was 4.5 percent, the lowest level in the history of the programs.)

24. Appendix C shows the impact of different components in the FFEL and direct loan programs on CBO's overall subsidy rates for loans originated in 2006 in its March 2005 baseline by each loan type—subsidized, unsubsidized, and PLUS. Appendix D describes how the programs functioned before the most recent reauthorization (in 1998) of the Higher Education Act and presents some of the major legislative and administrative changes that have affected the subsidy rates for both programs.

25. Those interest rates are based on CBO's economic forecast in its March 2005 baseline and do not necessarily reflect actual interest rates.



**Administrative Costs**

According to statute, most of the government's costs to administer the loan programs are recorded on a cash basis and are not included in the subsidy rate calculation. According to CBO's estimates, including the government's

administrative costs in the FFEL program would raise its subsidy rate by approximately 0.8 percentage points; including the administrative costs of the direct loan program would raise its subsidy rate by approximately 1.5 percentage points.



# A

## Sample Subsidy Rates When a Borrower Defaults or Consolidates Loans

**T**o supplement its scenario in which a borrower repays his or her loan under a standard 10-year repayment schedule, the Congressional Budget Office created scenarios in which the borrower defaults or consolidates his or her loans. Table A-1 shows the details of the subsidy rate in a scenario in which a student borrows \$3,000 for

two years and defaults on that loan in the third year, and some of the defaulted funds are recovered. Table A-2 shows the details of the rate in a scenario in which a student borrows \$3,000 for two years and then consolidates that loan with other student loans in the third year.

**Table A-1.**

### Comparison of Subsidy Costs for a Hypothetical \$3,000 Variable-Rate Loan Under the FFEL and Direct Loan Programs When the Borrower Defaults and Some Funds Are Recovered

(Dollars)

	Nominal Cash Flows								
	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Guaranteed Loan Under the FFEL Program (Subsidy rate: 30.5 percent)</b>									
Interest Costs and Up-Front Fees									
In-school interest	137	171	-	-	-	-	-	-	-
Borrower's origination fee	-90	-	-	-	-	-	-	-	-
Lender's origination fee	-15	-	-	-	-	-	-	-	-
Special Allowance Payments									
During school or grace period	44	38	-	-	-	-	-	-	-
During repayment period	-	-	24	-	-	-	-	-	-
Net Claim Payments									
Federal payments	-	-	2,925	-	-	-	-	-	-
Federal share of recoveries	-	-	-231	-470	-445	-335	-278	-239	-201
Loan-Processing Fee	12	-	-	-	-	-	-	-	-
<b>Total Costs</b>	<b>88</b>	<b>209</b>	<b>2,719</b>	<b>-470</b>	<b>-445</b>	<b>-335</b>	<b>-278</b>	<b>-239</b>	<b>-201</b>
<b>Direct Loan (Subsidy rate: 14.6 percent)</b>									
Disbursement									
Principal disbursement	3,000	-	-	-	-	-	-	-	-
Borrower's origination fee	-45	-	-	-	-	-	-	-	-
Default Recoveries	-	-	-307	-588	-537	-409	-332	-281	-230
<b>Total Costs</b>	<b>2,955</b>	<b>0</b>	<b>-307</b>	<b>-588</b>	<b>-537</b>	<b>-409</b>	<b>-332</b>	<b>-281</b>	<b>-230</b>

Source: Congressional Budget Office.

Notes: Interest and special allowance payments are estimated using a statistical technique designed to reflect the probability that interest rates will be higher or lower than CBO projects. Recovery rates for each program are based on historical patterns of collections on defaulted loans.

FFEL = Federal Family Education Loan; - = not applicable.

**Table A-1.**

Nominal Cash Flows											Total
2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	(Discounted)
<b>Guaranteed Loan Under the FFEL Program</b>											
<b>(Subsidy rate: 30.5 percent)</b>											
-	-	-	-	-	-	-	-	-	-	-	301
-	-	-	-	-	-	-	-	-	-	-	-90
-	-	-	-	-	-	-	-	-	-	-	-15
-	-	-	-	-	-	-	-	-	-	-	81
-	-	-	-	-	-	-	-	-	-	-	22
-	-	-	-	-	-	-	-	-	-	-	2,682
-155	-110	-91	-91	-71	-18	-18	-13	-8	-4	-4	-2,079
-	-	-	-	-	-	-	-	-	-	-	12
<b>-155</b>	<b>-110</b>	<b>-91</b>	<b>-91</b>	<b>-71</b>	<b>-18</b>	<b>-18</b>	<b>-13</b>	<b>-8</b>	<b>-4</b>	<b>-4</b>	<b>914</b>
<b>Direct Loan</b>											
<b>(Subsidy rate: 14.6 percent)</b>											
-	-	-	-	-	-	-	-	-	-	-	3,000
-	-	-	-	-	-	-	-	-	-	-	-45
-179	-128	-102	-102	-77	-20	-20	-15	-10	-5	-5	-2,518
<b>-179</b>	<b>-128</b>	<b>-102</b>	<b>-102</b>	<b>-77</b>	<b>-20</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>-5</b>	<b>437</b>

**Table A-2.**

### Comparison of Subsidy Costs for a Hypothetical \$3,000 Variable-Rate Loan Under the FFEL and Direct Loan Programs with Loan Consolidation After the Grace Period

(Dollars)

	Nominal Cash Flows					
	2006	2007	2008	2009	2010	2011
<b>Guaranteed Loan Under the FFEL Program (Subsidy rate: 14.7 percent)</b>						
Interest Costs and Up-Front Fees						
In-school interest	137	171	-	-	-	-
Borrower's origination fee	-90	-	-	-	-	-
Lender's origination fee	-15	-	-15	-	-	-
Loan consolidation fee	-	-	-31	-29	-27	-25
Special Allowance Payments						
During school or grace period	44	38	-	-	-	-
During repayment period	-	-	56	54	52	48
Loan-Processing Fee	12	-	12	-	-	-
<b>Total Costs</b>	<b>88</b>	<b>209</b>	<b>23</b>	<b>26</b>	<b>25</b>	<b>24</b>
<b>Direct Loan (Subsidy rate: -4.3 percent)</b>						
Disbursement						
Principal disbursement	3,000	-	-	-	-	-
Borrower's origination fee	-45	-	-	-	-	-
Repayment						
Principal	-	-	-171	-182	-195	-209
Interest	-	-	-200	-188	-176	-162
<b>Total Costs</b>	<b>2,955</b>	<b>0</b>	<b>-371</b>	<b>-371</b>	<b>-371</b>	<b>-371</b>

Source: Congressional Budget Office.

Notes: Interest and special allowance payments are estimated using a statistical technique designed to reflect the probability that interest rates will be higher or lower than CBO projects.

FFEL = Federal Family Education Loan; - = not applicable.







# B

## Examples of Subsidy Rates Calculated Using the Fixed Interest Rates That Take Effect in 2006

**U**nder current law, on all new loans issued after June 30, 2006, borrowers will pay a fixed rate of 6.8 percent rather than the variable rate that is adjusted annually. Replacing the variable rate with the fixed rate changes the subsidy costs. This appendix displays the subsidy costs for the hypothetical loans discussed earlier (in Tables 4, A-1, and A-2), applying the new fixed rates rather than variable rates (used in the preceding tables).

### Subsidy Costs Under a Standard 10-Year Repayment Plan

The estimated subsidy cost on a fixed-rate loan under the Federal Family Education Loan (FFEL) Program when the borrower adheres to a standard 10-year repayment plan is 17.9 percent, or 2.9 percentage points higher than that for a variable-rate loan (see Table B-1 compared with Table 4). In this scenario, the borrower's effective interest rate is higher because the 6.8 percent fixed rate is higher than CBO's projection of the variable interest rate. As a result, the federal government makes larger in-school interest payments. Moreover, because the borrower's interest rate no longer moves in tandem with the lender's rate, when interest rates rise the federal government owes larger special allowance payments (SAPs) to the lender, raising the subsidy rate.

For the comparable loan in the William D. Ford Direct Loan Program, the subsidy rate is -3.4 percent, or 1.3 percentage points lower than that for a variable-rate loan. Again, because the fixed interest rate for borrowers is higher than the effective variable interest rate, the federal government receives more in interest payments.

### Subsidy Costs When a Borrower Defaults and Collections Ensur

In a scenario in which the borrower defaults in year 3 and most, but not all, of the defaulted funds are recovered, the subsidy rate for a fixed-rate loan in the FFEL program is 32.5 percent and for such a loan in the direct loan program, 14.4 percent (see Table B-2 compared with Table A-1). As is the case with a variable-rate loan, the subsidy rate for a fixed-rate loan with a default and recovery is higher than the subsidy rate for a loan with the standard 10-year repayment because not all of the defaulted funds are recovered. And, as with the previous case, the subsidy costs are higher for the FFEL program (because of higher in-school interest payments) and lower for the direct loan program (because the government receives higher collections resulting from higher interest charged to the borrower).

### Subsidy Costs When a Borrower Consolidates Loans

In a scenario in which the borrower consolidates a fixed-rate student loan in year 3, the subsidy rate in the FFEL program is 14.3 percent (see Table B-3 compared with Table A-2). The cost to the federal government is lower than that for a loan that is repaid over 10 years because the increased consolidation fee, paid over 12 years, more than covers the increased SAPs. In such a scenario for the direct loan program, the subsidy rate is -5.0 percent.

**Table B-1.**

**Comparison of Subsidy Costs for a Hypothetical \$3,000 Fixed-Rate Loan Under the FFEL and Direct Loan Programs**

(Dollars)

	Nominal Cash Flows												Total (Discounted)	
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
<b>Guaranteed Loan Under the FFEL Program</b> (Subsidy rate: 17.9 percent)														
Interest Costs and Up-Front Fees														
In-school interest	204	204	-	-	-	-	-	-	-	-	-	-	-	400
Borrower's origination fee	-90	-	-	-	-	-	-	-	-	-	-	-	-	-90
Lender's origination fee	-15	-	-	-	-	-	-	-	-	-	-	-	-	-15
Special Allowance Payments														
During school or grace period	12	26	-	-	-	-	-	-	-	-	-	-	-	37
During repayment period	-	-	39	38	36	33	29	25	20	15	9	3	193	
Loan-Processing Fee	12	-	-	-	-	-	-	-	-	-	-	-	-	12
<b>Total Costs</b>	<b>123</b>	<b>230</b>	<b>39</b>	<b>38</b>	<b>36</b>	<b>33</b>	<b>29</b>	<b>25</b>	<b>20</b>	<b>15</b>	<b>9</b>	<b>3</b>	<b>537</b>	
<b>Direct Loan</b> (Subsidy rate: -3.4 percent)														
Disbursement														
Principal disbursement	3,000	-	-	-	-	-	-	-	-	-	-	-	-	3,000
Borrower's origination fee	-45	-	-	-	-	-	-	-	-	-	-	-	-	-45
Repayment														
Principal	-	-	-220	-236	-252	-270	-289	-309	-331	-354	-379	-405	-2,148	
Interest	-	-	-200	-185	-168	-151	-132	-111	-90	-67	-42	-15	-909	
<b>Total Costs</b>	<b>2,955</b>	<b>0</b>	<b>-421</b>	<b>-421</b>	<b>-421</b>	<b>-421</b>	<b>-421</b>	<b>-421</b>	<b>-421</b>	<b>-421</b>	<b>-421</b>	<b>-421</b>	<b>-103</b>	

Source: Congressional Budget Office.

Notes: These numbers assume that the loan is made in 2006 and that repayments follow a standard 10-year plan.

Special allowance payments are estimated using a statistical technique designed to reflect the probability that interest rates will be higher or lower than CBO projects.

FFEL = Federal Family Education Loan; - = not applicable.



**Table B-2.**

### Comparison of Subsidy Costs for a Hypothetical \$3,000 Fixed-Rate Loan Under the FFEL and Direct Loan Programs When the Borrower Defaults and Some Funds Are Recovered

(Dollars)

	Nominal Cash Flows									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	
<b>Guaranteed Loan Under the FFEL Program</b> (Subsidy rate: 32.5 percent)										
Interest Costs and Up-Front Fees										
In-school interest	204	204	-	-	-	-	-	-	-	-
Borrower's origination fee	-90	-	-	-	-	-	-	-	-	-
Lender's origination fee	-15	-	-	-	-	-	-	-	-	-
Special Allowance Payments										
During school or grace period	12	26	-	-	-	-	-	-	-	-
During repayment period	-	-	29	-	-	-	-	-	-	-
Net Claim Payments										
Federal payments	-	-	2,929	-	-	-	-	-	-	-
Federal share of recoveries	-	-	-231	-471	-446	-336	-278	-239	-201	-
Loan-Processing Fee	12	-	-	-	-	-	-	-	-	-
<b>Total Costs</b>	<b>123</b>	<b>230</b>	<b>2,727</b>	<b>-471</b>	<b>-446</b>	<b>-336</b>	<b>-278</b>	<b>-239</b>	<b>-201</b>	
<b>Direct Loan</b> (Subsidy rate: 14.4 percent)										
Disbursement										
Principal disbursement	3,000	-	-	-	-	-	-	-	-	-
Borrower's origination fee	-45	-	-	-	-	-	-	-	-	-
Default Recoveries	-	-	-307	-589	-537	-409	-333	-281	-230	-
<b>Total Costs</b>	<b>2,955</b>	<b>0</b>	<b>-307</b>	<b>-589</b>	<b>-537</b>	<b>-409</b>	<b>-333</b>	<b>-281</b>	<b>-230</b>	

Source: Congressional Budget Office.

Notes: Special allowance payments are estimated using a statistical technique designed to reflect the probability that interest rates will be higher or lower than CBO projects. Recovery rates for each program are based on historical patterns of collections on defaulted loans.

FFEL = Federal Family Education Loan; - = not applicable.

**Table B-2.**

Nominal Cash Flows											Total
2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	(Discounted)
<b>Guaranteed Loan Under the FFEL Program</b>											
<b>(Subsidy rate: 32.5 percent)</b>											
-	-	-	-	-	-	-	-	-	-	-	400
-	-	-	-	-	-	-	-	-	-	-	-90
-	-	-	-	-	-	-	-	-	-	-	-15
-	-	-	-	-	-	-	-	-	-	-	37
-	-	-	-	-	-	-	-	-	-	-	27
-	-	-	-	-	-	-	-	-	-	-	2,685
-155	-110	-91	-91	-71	-18	-18	-13	-8	-4	-4	-2,081
-	-	-	-	-	-	-	-	-	-	-	12
<b>-155</b>	<b>-110</b>	<b>-91</b>	<b>-91</b>	<b>-71</b>	<b>-18</b>	<b>-18</b>	<b>-13</b>	<b>-8</b>	<b>-4</b>	<b>-4</b>	<b>974</b>
<b>Direct Loan</b>											
<b>(Subsidy rate: 14.4 percent)</b>											
-	-	-	-	-	-	-	-	-	-	-	3,000
-	-	-	-	-	-	-	-	-	-	-	-45
-179	-128	-102	-102	-77	-20	-20	-15	-10	-5	-5	-2,552
<b>-179</b>	<b>-128</b>	<b>-102</b>	<b>-102</b>	<b>-77</b>	<b>-20</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>-5</b>	<b>433</b>

**Table B-3.**

### Comparison of Subsidy Costs for a Hypothetical \$3,000 Fixed-Rate Loan Under the FFEL and Direct Loan Programs with Loan Consolidation After the Grace Period

(Dollars)

	Nominal Cash Flows						
	2006	2007	2008	2009	2010	2011	2012
<b>Guaranteed Loan Under the FFEL Program (Subsidy rate: 14.3 percent)</b>							
Interest Costs and Up-Front Fees							
In-school interest	204	204	-	-	-	-	-
Borrower's origination fee	-15	-	-15	-	-	-	-
Lender's origination fee	-90	-	-	-	-	-	-
Loan consolidation fee	-	-	-31	-29	-27	-25	-23
Special Allowance Payments							
During school or grace period	12	26	-	-	-	-	-
During repayment period	-	-	43	41	41	39	36
Loan-Processing Fee	12	-	12	-	-	-	-
<b>Total Costs</b>	<b>123</b>	<b>230</b>	<b>9</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>13</b>
<b>Direct Loan (Subsidy rate: -5.0 percent)</b>							
Disbursement							
Principal disbursement	3,000	-	-	-	-	-	-
Borrower's origination fee	-45	-	-	-	-	-	-
Repayment							
Principal	-	-	-169	-181	-194	-208	-223
Interest	-	-	-204	-192	-179	-165	-151
<b>Total Costs</b>	<b>2,955</b>	<b>0</b>	<b>-373</b>	<b>-373</b>	<b>-373</b>	<b>-373</b>	<b>-373</b>

Source: Congressional Budget Office.

Notes: Special allowance payments are estimated using a statistical technique designed to reflect the probability that interest rates will be higher or lower than CBO projects.

FFEL = Federal Family Education Loan; - = not applicable.







## C

## CBO's Estimates of Subsidy Rates for Various Types of Guaranteed and Direct Student Loans Made in 2006

**A**ccording to the Congressional Budget Office's March 2005 estimates, the overall subsidy rates for loans originated in 2006 in the Federal Family Education Loan (FFEL) Program were about 15 percent and in the William D. Ford Direct Loan Program, about -2 percent. The subsidy rates for the various types of guaranteed and direct student loans vary widely, however, by loan type—subsidized and unsubsidized loans to students and loans to parents. The major elements of the subsidy rates for student loans disbursed in 2006 are displayed in Table C-1. Under current law, loans originated before July 1, 2006, will be variable-rate loans, and those originated after that will be different types of fixed-rate loans.

The major effects of the change are the following:

- The gap between the subsidy rates for guaranteed loans and direct loans is larger—by 5 to 6 percentage

points—for fixed-rate loans than it is for variable-rate loans.

- The switch from variable interest rates to fixed rates raises the budgetary cost for guaranteed loans and decreases it for direct loans.
- The component of the subsidy rates showing the largest change in the guaranteed loan program is the payment for in-school interest on subsidized loans; the largest difference in the direct loan program is in the receipt of interest payments from borrowers.
- In-school interest costs paid by the government (for guaranteed loans) and not collected by the government (in the case of direct loans) account for much of the budgetary cost of subsidized student loans.

**Table C-1.****CBO's Estimates of Federal Subsidy Rates for Variable-Rate and Fixed-Rate Student Loans in 2006**

(Percent)

	Variable Interest Rates	Fixed Interest Rates		Variable Interest Rates	Fixed Interest Rates
	<b>Guaranteed Loans</b>			<b>Direct Loans</b>	
Subsidized Loans			Subsidized Loans		
Fees	-3.5	-3.5	Fees	-1.8	-1.8
In-school interest costs	14.3	16.9	Disbursement	98.8	98.8
Special allowance payments <sup>a</sup>	6.3	6.5	Principal repaid	-59.6	-58.7
Net federal claim payments <sup>b</sup>	2.5	2.5	Interest paid	-25.6	-28.1
Other	2.8	3.5	Other	-3.0	-2.9
<b>Total Subsidy Rate</b>	<b>22.3</b>	<b>25.9</b>	<b>Total Subsidy Rate</b>	<b>9.0</b>	<b>7.4</b>
Unsubsidized Loans			Unsubsidized Loans		
Fees	-3.6	-3.6	Fees	-1.8	-1.8
In-school interest costs	0	0	Disbursement	98.8	98.8
Special allowance payments <sup>a</sup>	7.3	7.8	Principal repaid	-68.5	-69.0
Net federal claim payments <sup>b</sup>	2.6	2.7	Interest paid	-30.7	-34.5
Other	2.5	3.4	Other	-3.7	-3.7
<b>Total Subsidy Rate</b>	<b>8.9</b>	<b>10.3</b>	<b>Total Subsidy Rate</b>	<b>-5.8</b>	<b>-10.1</b>
Loans to Parents			Loans to Parents		
Fees	-3.7	-3.7	Fees	-1.9	-1.9
In-school interest costs	0	0	Disbursement	99.9	99.9
Special allowance payments <sup>a</sup>	2.4	3.9	Principal repaid	-70.0	-70.1
Net federal claim payments <sup>b</sup>	3.1	3.1	Interest paid	-34.0	-37.1
Other	0.9	1.3	Other	-6.2	-6.0
<b>Total Subsidy Rate</b>	<b>2.7</b>	<b>4.6</b>	<b>Total Subsidy Rate</b>	<b>-12.2</b>	<b>-15.2</b>

Source: Congressional Budget Office.

Note: Subsidy rates are shown as a percentage of each dollar loaned.

a. The loan consolidation fee is included with special allowance payments because it offsets interest paid to lenders.

b. Net federal claim payments include the costs of default reimbursements, death and disability payments, and receipts from collections.

## D

## Recent Legislative and Administrative Actions Affecting the Student Loan Programs

**B**oth the Federal Family Education Loan (FFEL) Program and the William D. Ford Direct Loan Program have undergone a host of legislative and administrative changes over the past decade. Since their reauthorization in 1998, some major changes have had a direct impact on the subsidy rates.

### The Borrower's Interest Rate and the Lender's Yield Before the 1998 Reauthorization

From July 1994 to June 1998, both the borrower's interest rate and the lender's yield in the FFEL and direct loan programs were set at the 91-day Treasury bill rate plus 2.5 percentage points while borrowers were in school, within a grace period, or in a period of deferment, and at the Treasury bill rate plus 3.1 percentage points while the loan was in repayment. The borrower's rate was capped at 8.25 percent. In July 1998, a new formula for calculating the variable interest rate on FFEL and direct loans, enacted as part of the Omnibus Budget Reconciliation Act of 1993, was scheduled to take effect. The interest rate paid by borrowers would have been the interest rate on bonds of comparable maturity, plus 1 percentage point, capped at 8.25 percent. Lenders would have received the same rate, without the cap, and the federal government would have covered the difference if the yield to lenders exceeded 8.25 percent.

### Impact of the 1998 Reauthorization of the Higher Education Act

Legislation enacted in 1998 that reauthorized the Higher Education Act lowered both the borrower's interest rate and the lender's yield from their levels between 1994 and 1998, but the reduction for borrowers was greater. Public Law 105-178 established the formula to determine the

borrower's interest rate at a level 50 basis points lower than the yield for lenders.<sup>1</sup> That new payment structure substantially widened the gap between the federal subsidy rate for loans in the FFEL program and that for the direct loan program. The borrower's interest rate and the lender's yield were calculated as follows:

- Borrower's rate—Beginning in October 1998, P.L. 105-178 set the interest rate paid by students for Stafford loans at the 91-day Treasury bill rate plus 1.70 percentage points while borrowers are in school, within the grace period, or in a period of deferment, and at the 91-day Treasury bill rate plus 2.3 percentage points when loans are in repayment (capped at 8.25 percent). The rate is set once a year, using the interest rate on Treasury bills set during the last auction in May, and applies to loans beginning in June.
- Lender's yield—The lender's yield on loans in the FFEL program changed to the 91-day Treasury bill rate plus 2.2 percentage points while borrowers are in school, within the grace period, or in a period of deferment, and to the Treasury bill rate plus 2.80 percentage points while loans are in repayment. Unlike the borrower's interest rate, the lender's yield is calculated quarterly.

The 1998 reauthorization also affected the provisions that apply to the guaranty agencies. First, it clarified that the student loan reserve accounts of guaranty agencies are federal rather than state (or in some cases, nonprofit) accounts. Second, it established a new federal fee to guaranty agencies equal to 0.65 percent of the volume of new loans made in the FFEL program from 1999 through 2003 and 0.40 percent after that time (replacing a 1.0

1. A basis point is one-hundredth of a percentage point.

percent administrative cost allowance). It also lowered the federal reinsurance rate to guaranty agencies from 98 percent to 95 percent. Finally, it lowered guaranty agencies' retention rate on the recovery of defaults from 27 percent to 24 percent through 2004 and to 23 percent after that time.

## Impact of Additional Legislative Changes

Several other laws passed since the 1998 reauthorization of the Higher Education Act have affected the subsidy rates for the FFEL and direct loan programs. They include the Consolidated Appropriations Act for Fiscal Year 2000 (P.L. 106-113), the Ticket to Work and Incentives Improvement Act (P.L. 106-170), and amendments to the Higher Education Act in 2002 (P.L. 107-139).

### The Consolidated Appropriations Act for Fiscal Year 2000

P.L. 106-113, signed into law on November 29, 1999, allowed the Department of Education access to the National Directory of New Hires (NDNH) to assist in tracking down borrowers with defaulted student loans. The NDNH, which was originally designed to help locate individuals who were delinquent on child support payments, provides information on all newly hired employees in the United States. The department matches its records on delinquent borrowers with the NDNH to obtain their address and wage information. That practice has helped both guaranty agencies and the department track down delinquent borrowers and increase recoveries.

### The Ticket to Work and Incentives Improvement Act

P.L. 106-170, enacted on December 17, 1999, changed the benchmark for the lender's yield on student loans from the 91-day Treasury bill rate to the commercial paper rate with a three-month maturity. The change affected the lender's yield only on loans disbursed between January 1, 2000, and July 1, 2003, and did not have any impact on the borrower's rate.

### Amendments to the Higher Education Act in 2002

P.L. 107-139, which was enacted on January 24, 2002, extended the provision applying commercial rates to the lender's yield to loans disbursed after July 1, 2003. In addition, it extended the structural difference between the borrower's rate and the lender's yield first introduced in the 1998 reauthorization and extended, until July 2006, the variable interest rates for borrowers. Finally, it re-

placed the variable rates with a fixed rate beginning in July 2006 and, with one exception, permanently extended the lender yield rates set by the 1999 legislation.

## Administrative Changes

In addition to the legislative changes, the Department of Education instituted several administrative changes that, to varying degrees, increased the subsidy costs of the direct loan program.

### Reduction in Origination Fees

In June 1999, the Department of Education lowered the origination fee on direct student loans from 4 percent to 3 percent. That lower fee became effective on July 16, 1999, for the processing of all new direct loans with a first disbursement date on or after August 15, 1999.<sup>2</sup>

### Direct Withdrawal of Funds

Using the authority provided under subsection 444(b)(7) of the Higher Education Act, the department published a notice of rulemaking that provided a repayment incentive to borrowers participating in the direct loan program. The change, effective on November 1, 1999, reduced interest rates for borrowers by 25 basis points when they repaid their loans through automatic electronic withdrawals from their bank accounts.

### On-Time Payments

In August 2000, the department established a 1.5 percent up-front interest rebate for on-time payment of loans in the direct loan program.<sup>3</sup> Beginning in the 2000-2001 academic year, the federal government provided a rebate to borrowers who made their first 12 loan payments within six days of the due date. The rebate was changed to be disbursed to borrowers up front (by reducing the origination fee from 3 percent to 1.5 percent) and rescinded if they failed to make their first 12 payments on time.

2. See the direct loan bulletin by the U.S. Department of Education, DLB-99-39, June 1, 1999. At the time, the change was controversial. For background, see the memorandum from Robert P. Murphy, General Counsel, General Accounting Office, to the Honorable Bill Goodling, House of Representatives, "Direct Student Loans: Legality of Regulations Authorizing Origination Fee Reduction," September 29, 1999, available at [www.gao.gov/decisions/archive/283717.pdf](http://www.gao.gov/decisions/archive/283717.pdf).

3. See the direct loan bulletin by the U.S. Department of Education, DLB-00-42, August 1, 2000.