

September 2005

# FEDERAL STUDENT LOANS

## Challenges in Estimating Federal Subsidy Costs





Highlights of [GAO-05-874](#), a report to congressional committees

## Why GAO Did This Study

In fiscal year 2004, the federal government made or guaranteed about \$84 billion in loans for postsecondary education through two loan programs—the Federal Family Education Loan Program (FFELP) and the Federal Direct Loan Program (FDLP). Under FFELP, private lenders fund the loans and the government guarantees them a minimum yield and repayment if borrowers default. When the interest rate paid by borrowers is lower than the guaranteed minimum yield, the government pays lenders special allowance payments (SAP). Under FDLP, the U.S. Treasury funds the loans that are originated through participating schools. Under the Federal Credit Reform Act (FCRA) of 1990 the government calculates, for purposes of the budget, the net cost of extending or guaranteeing credit over the life of a loan, called a subsidy cost. Agencies generally update, or reestimate, subsidy costs annually to include actual program results and adjust future program estimates.

GAO examined (1) whether reestimated subsidy costs have differed from original estimates for FFELP and FDLP loans disbursed in fiscal years 1994 through 2004, (2) what factors explain changes between reestimated and original subsidy rates—that is subsidy cost estimates per \$100 disbursed; and (3) which federal costs and revenues associated with the student loan programs are not included in subsidy cost estimates.

[www.gao.gov/cgi-bin/getrpt?GAO-05-874](http://www.gao.gov/cgi-bin/getrpt?GAO-05-874).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Cornelia Ashby at (202) 512-7215 or [ashbyc@gao.gov](mailto:ashbyc@gao.gov).

# FEDERAL STUDENT LOANS

## Challenges in Estimating Federal Subsidy Costs

### What GAO Found

Both FFELP and FDLP subsidy cost reestimates have differed from original estimates for loans made in fiscal years 1994 through 2004, reflecting the challenges inherent in estimating the actual costs of loans made under each of these federal loan programs. Reestimated subsidy costs for FFELP loans were close to or lower than original estimates for loans made in fiscal years 1994 to 2002, but higher than originally estimated for loans made in fiscal years 2003 and 2004. FDLP reestimated subsidy costs were generally similar to or higher than originally estimated for loans made in fiscal years 1994 through 2004.

Differences between original and reestimated subsidy cost estimates per \$100 disbursed were, in part, due to market interest rates that were lower than originally forecasted, greater than anticipated loan consolidation, and the availability of additional data on student loans. Each of these factors has affected reestimated subsidy costs for each loan program in a different way. For example, interest rates fell to lower than expected levels in 2001 and the condition persisted through 2004. For FFELP, lower than expected interest rates have made the difference between the borrower interest rate and lender yield smaller than expected resulting in lower SAP paid to lenders, which in turn resulted in lower reestimated subsidy cost estimates. For FDLP, lower than expected interest rates contributed to higher reestimated subsidy costs because the government received smaller interest payments from borrowers than originally anticipated and, in some cases, the rate paid by student borrowers fell below the government's fixed borrowing rate.

Certain federal costs and revenues associated with the student loan programs, such as federal administrative expenses, some costs of risk associated with lending money over time, and federal tax revenues generated by both student loan programs, are not included in subsidy cost estimates. For example, under current law, federal administrative expenses are excluded from subsidy cost estimates. Moreover, both loan programs generate federal tax revenues from private sector companies and investors that are encompassed in the revenue portion of the budget but are not included in subsidy cost calculations. Estimating the amount of federal tax revenues generated by the loan programs would be difficult and was beyond the scope of our review.

Education reviewed a draft copy of this report and did not have any comments.

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### Abbreviations

FCRA	Federal Credit Reform Act of 1990
FDLP	William D. Ford Direct Loan Program
FFELP	Federal Family Education Loan Program
HEA	Higher Education Act
OMB	Office of Management and Budget
PLUS	Parent Loans for Undergraduate Students
SAP	special allowance payments

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United States Government Accountability Office  
Washington, DC 20548

September 29, 2005

Congressional Committees

In fiscal year 2004, the federal government made or guaranteed about \$84 billion in loans to assist students in paying for their postsecondary education under title IV of the Higher Education Act (HEA), as amended. Federal student loans are primarily administered through two programs: the Federal Family Education Loan Program (FFELP) and the William D. Ford Direct Loan Program (FDLP). The federal government's role in financing and administering loans for these two programs differs significantly. Under FFELP, private lenders, such as banks, fund the loans, and the federal government guarantees FFELP lenders a minimum yield on the loans they make and repayment if borrowers default. When the interest rate paid by borrowers is lower than the minimum yield guaranteed to lenders, the government pays lenders the difference—a subsidy called special allowance payments (SAP). Additionally, state-designated guaranty agencies receive federal funding to perform a variety of administrative functions in FFELP and also work with lenders and borrowers to prevent loan defaults and collect on the loans after default. Under FDLP, the U.S. Treasury funds the loans, which are originated through participating schools. The Department of Education contracts with private-sector firms to provide administrative functions for its student loan programs.

In general, which program a student uses to obtain a loan depends upon which program the student's school has chosen to use. Both FFELP and FDLP offer students and their parents the same types of loans to pay for postsecondary education—Stafford subsidized, Stafford unsubsidized, Parent Loans for Undergraduate Students (PLUS), and consolidation loans. The interest rate borrowers pay on Stafford and PLUS loans is a variable rate based on a statutory formula.<sup>1</sup> Subsidized loans are awarded

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<sup>1</sup>The formula for calculating borrower interest rates on Stafford loans currently being disbursed is based on the 91-day Treasury bill (T-bill) rate plus 1.7 percent while the borrower is in school, and plus 2.3 percent when the borrower is in repayment. Stafford rates are capped at 8.25 percent. The formula in effect for calculating interest rates on PLUS loans currently being disbursed is based on the 91-day T-bill rate plus 3.1 percent, and the PLUS rates are capped at 9 percent. Borrower rates are reset on July 1 each year, based on the T-bill rate from the last Treasury auction conducted before June 1.

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based on a student's financial need and the federal government pays the interest on behalf of students while they are attending school and during a brief grace period when the student first leaves school. Unsubsidized and PLUS loans are available to borrowers regardless of financial need, and borrowers are responsible for interest payments during the life of the loan. Consolidation loans allow borrowers to combine multiple federal student loans into a single loan with a fixed interest rate based on the weighted average of the interest rates in effect on the loans being consolidated.

In recent years, competition between FFELP and FDLP has been credited with improving services provided for both schools and borrowers and enhancing borrower benefits, but there has been ongoing debate about whether the costs and benefits of one program outweigh those of the other. Assessing and comparing the total costs and benefits of the two loan programs would require consideration of, among other things, costs incurred by schools in operating the loan programs, quality of services provided to schools and borrowers, benefits to society and individuals from postsecondary education, as well as federal costs and revenues generated by each loan program—federal budgetary costs. With respect to the latter, the technical nature of how the government accounts for the federal budgetary costs of the two loan programs, and disagreement about whether estimates of subsidy costs fully represent federal costs have made debate about comparing costs of the loan programs challenging.

The Federal Credit Reform Act of 1990 (FCRA) significantly changed the way that the federal government accounted for the budgetary costs of credit programs, including FFELP and FDLP. Prior to FCRA, the government calculated costs on a cash basis—whereby costs and revenues were recorded when money was paid or received. On a cash basis, direct loans initially appeared to be as expensive as grants because the budget did not recognize the expected repayment of direct loans. Loan guarantees, on the other hand, initially appeared to be cost free (or could even appear to make money because of upfront fees paid by borrowers and lenders to the government) because the budget did not recognize expected federal payments to lenders as a consequence of loan defaults. Under FCRA, the government calculates, for purposes of the budget, the net cost to the government of extending or guaranteeing credit over the life of a loan—called the subsidy cost. FCRA was enacted to require agencies to measure the lifetime costs of a loan in a way that would permit better cost comparisons between guaranteed and direct loans, and between credit and non-credit programs (e.g., grants). Agencies are required to estimate the subsidy cost to the government of a direct loan or a loan guarantee based on the net present value of all estimated cash

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flows, excluding administrative costs, when preparing their annual budget.<sup>2</sup> Agencies generally update or revise these estimates, called reestimates, annually to take into account changes in interest rates and other conditions. To provide Congress with information about federal costs for the student loan programs to use as it considers reauthorization of the HEA, we examined:

1. whether reestimated subsidy costs have differed from original estimates for FFELP and FDLP loans disbursed in fiscal years 1994 through 2004;
2. what factors explain changes between reestimated and original subsidy rates—that is, subsidy cost estimates per \$100 disbursed; and
3. which federal costs and revenues associated with the student loan programs are not included in subsidy cost estimates.

To determine whether subsidy cost estimates have changed over time, we compared original subsidy cost estimates to the most recent estimates by analyzing subsidy cost estimates and reestimates for loans made and guaranteed in each fiscal year, called a loan cohort, from 1994—the first fiscal year loans were disbursed through FDLP—to 2004.<sup>3</sup> We collected and analyzed this information for loan cohorts by loan type in both FFELP and FDLP as presented in the Budget of the United States Government. On the basis of our review of the documentation for these data, we determined that the data were sufficiently reliable for the purpose of our examination. To determine the factors that explain changes in subsidy cost estimates, we reviewed documentation prepared by the Department of Education (Education) for its financial statement audits and interviewed Education officials. To determine which federal costs and revenues are not included in the subsidy cost estimates, we reviewed the HEA and related regulations, FCRA, Office of Management and Budget

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<sup>2</sup>“Present value” is the worth of future streams of returns or costs for a program in terms of money paid immediately. In calculating present value, future amounts are converted into their “money now” equivalents using a discount rate. For purposes of making subsidy cost estimates, the discount rate is determined by the Office of Management and Budget (OMB) and is generally the average annual interest rate for marketable zero-coupon U.S. Treasury securities with the same maturity from the date of disbursement as the cash flow being discounted.

<sup>3</sup>Original cost estimates for a given loan cohort are based on the estimate that appeared in the Budget of the United States Government for the fiscal year a loan was made or guaranteed. The most recent reestimates are based on the fiscal year 2006 budget.

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(OMB) guidance, Education's financial statements and auditor reports, and the federal budget. We also interviewed officials with Education, OMB, the Congressional Budget Office, and an FFELP lender and reviewed studies about estimating the costs of the student loan programs. Moreover, we gathered data from Education on federal administrative costs in each loan program and reviewed literature about discounting cash flows and incorporating risk into cost estimates. We conducted our work in accordance with generally accepted government auditing standards from January 2005 to August 2005.

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## Results in Brief

Both FFELP and FDLP subsidy cost reestimates differed from original estimates for loans made in fiscal years 1994 through 2004, reflecting the challenges inherent in estimating the costs of loans made under each of the federal student loan programs. Differences in total subsidy cost estimates were driven both by differences between expected and actual loan volume, as well as changes in subsidy rates—that is, subsidy cost estimates per \$100 disbursed. Reestimated subsidy costs for FFELP loans were close to or lower than original estimates for loans made in fiscal years 1994 to 2002, but higher than originally estimated for loans made in fiscal years 2003 and 2004. After controlling for loan volume, reestimated FFELP subsidy costs per \$100 of loans disbursed were often lower than originally estimated. FDLP reestimated subsidy costs were generally similar to or higher than originally estimated for loans made in fiscal years 1994 through 2004 both at the aggregate level and after controlling for loan volume. Moreover, while some original estimates of FDLP subsidy costs per \$100 of loans disbursed projected a net gain for the government, subsequent reestimates project a smaller gain or even a net cost to government, thus illustrating that originally anticipated increases in federal revenues may not, in fact, ultimately materialize. Although FDLP reestimated subsidy costs have been higher than originally expected, they have generally remained lower than those of FFELP. According to Education officials, FDLP subsidy cost estimates per \$100 disbursed are lower than those of FFELP because, even though long-term estimates of interest subsidies to borrowers and default costs are roughly equivalent under both programs, under FFELP there are large cash outflows in the form of special allowance payments to lenders while under FDLP there are large cash inflows, net of payments to Treasury, in the form of borrower interest payments and no SAP paid to lenders.

Differences between original and reestimated subsidy cost estimates per \$100 disbursed were, in part, due to market interest rates that were lower than originally forecasted by OMB, greater than anticipated loan



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consolidation, and the availability of additional data on student loan borrowers. For FFELP, lower than expected interest rates made the difference between the borrower interest rate and lender yield smaller than expected, resulting in lower SAP paid to lenders, which, in turn, resulted in lower reestimated subsidy cost estimates. In the case of FDLP, lower than expected interest rates have resulted in lower than expected interest payments from borrowers to the government, thus leading to higher reestimated subsidy costs. Additionally, higher than anticipated consolidation loan volume, resulting, in part, from low interest rates, contributed to differences between original and reestimated subsidy costs for both programs. In FFELP, it contributed to lower reestimated subsidy costs for the underlying loan cohorts repaid by consolidation loans, because the length of time Education anticipated paying SAP to lenders was shortened. Estimated subsidy costs for recently disbursed FFELP consolidation loans, which reflect costs associated with default risk and SAP to lenders, are, however, quite large in comparison to previous years. In FDLP, greater than expected prepayment due to consolidation decreased the anticipated interest payments on the underlying loans, which, in turn, contributed to higher reestimated subsidy cost estimates of the underlying loan cohorts. Furthermore, additional data for both FFELP and FDLP loans have enabled Education to refine its cash flow model when it reestimated subsidy costs. For example, according to Education officials, data on FFELP and FDLP borrowers' use of deferment options that allow them to delay making payments on a loan when they return to school or are experiencing economic hardship only recently became available. Education refined its model to explicitly include assumptions about borrowers' use of deferment, which has improved its cash flow estimates.

Certain federal costs and revenues associated with the student loan programs are not included in subsidy cost estimates, such as federal administrative expenses, some costs of risk associated with lending money over time, and federal tax revenues generated by both student loan programs. Under current law, federal administrative expenses are excluded from subsidy cost estimates. For the fiscal year 2005 loan cohort, Education estimated that cost estimates for FDLP would increase by \$1.45 and for FFELP by \$0.69 per \$100 in loans disbursed if federal administrative expenses were included. The large difference is because the federal government is primarily responsible for administering the FDLP while in FFELP lenders and guaranty agencies perform administrative tasks. In addition, subsidy cost estimates do not include all risk that the government incurs by lending money over time. Subsidy cost estimates factor in anticipated cash flows from the loans, which incorporate some

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risks that the government incurs, such as credit risk represented by a default rate—the rate at which the government expects borrowers not to pay back their student loans. However, some risks are not explicitly included in subsidy cost estimates, such as interest rate risk—unanticipated fluctuations in the interest rate due to changes in the economy that cause changes in the present value of the loans’ cash flows. Lastly, both loan programs generate federal tax revenues from private-sector companies and investors that participate in the federal student loan programs. These revenues are encompassed in the revenue portion of the budget but are not included in subsidy cost calculations. Estimating the amount of federal tax revenues generated by the loan programs would be challenging. Calculations of total federal costs would be enhanced were these additional costs and revenues considered, though doing so may require complex methodologies and/or data that are not currently readily available.

We provided Education with a copy of our draft report for review and comment. Education reviewed the report and did not have any comments.

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## Background

The federal government makes loans to students through private- and public-sector lenders in the FFELP or directly to students through FDLP. These two programs are among the largest of the federal government’s credit programs. At the end of 2004, there were about \$245 billion in outstanding FFELP loans, about 20 percent of total federal guaranteed loans outstanding, and \$107 billion in outstanding FDLP loans, about 43 percent of total federal direct loans outstanding.

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## Types of Federal Loans and Terms for Borrowers

Students and parents are able to borrow the same types of loans through FFELP and FDLP, which include:

- Subsidized and Unsubsidized Stafford Loans—variable rate loans available to students. The federal government pays the interest on behalf of subsidized loan borrowers while the student is in school and during a brief grace period when the student first leaves school.
- PLUS Loans—variable rate loans made to parents, on behalf of students. The borrower pays all interest costs.
- Consolidation Loans—borrowers may combine multiple federal student loans into a single loan. The interest rate is fixed based on the weighted average of the interest rates in effect on the loans being consolidated.

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Under either loan program borrowers are able to repay loans earlier than required, with no penalty. The programs have several repayment options available to borrowers. For Stafford and PLUS loans, the standard repayment in both loan programs is a fixed amount per month for up to 10 years. Borrowers have other repayment options that allow them to extend repayment for up to 30 years, gradually increase the monthly payment, or base monthly payments on their adjusted gross income. The criteria for some of the alternative repayment options are different in FFELP and FDLP. For consolidation loans, the repayment terms depend on the loan amount. Moreover, borrowers that graduate, leave school, or become a less than half-time student are given a 6-month grace period before they must begin to repay their Stafford or consolidation loans.<sup>4</sup> All borrowers may postpone repayment through deferment or forbearance if they meet certain criteria and the loan is not in default. Deferment is allowed for borrowers who remain in a postsecondary school at least half-time, a graduate program, or have experienced economic hardship. For borrowers who are temporarily unable to meet repayment obligations but are not eligible for deferment, lenders may grant a temporary and limited time period in which these borrowers do not need to repay their student loans, called forbearance.

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## Developing Subsidy Cost Estimates

The FCRA guidance issued by OMB and accounting standards provide the framework for the process Education uses to calculate subsidy costs for student loans. Subsidy costs are calculated by estimating the federal government's future cash flows for loans made or guaranteed in a particular fiscal year, called a loan cohort. In estimating cash flows for a loan cohort, Education must make assumptions about loan characteristics and future borrower behavior, such as:

- type and dollar amount of loans obligated or guaranteed, and
- how many borrowers will pay early, pay late, or default on their loans and at what point in time.

Moreover, the model used to estimate future cash flows includes assumptions about future interest rates. OMB provides Education with interest rate assumptions that are used for the discount rate, borrower

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<sup>4</sup>A less than half-time student takes one to five credits in a postsecondary school. An unsubsidized Stafford borrower pays interest while in the grace period but the government continues to pay the interest for subsidized Stafford borrowers during this time.

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interest rate, and lender yields. Education aggregates cash flows by loan cohort, loan type, and risk category, which reflects the differences in the likelihood of default. Education has five risk categories, which include, in order of higher to lower risk of default: (1) students at proprietary schools, (2) students at 2-year colleges, (3) freshman and sophomores at 4-year colleges, (4) juniors and seniors at 4-year colleges, and (5) students at graduate schools.

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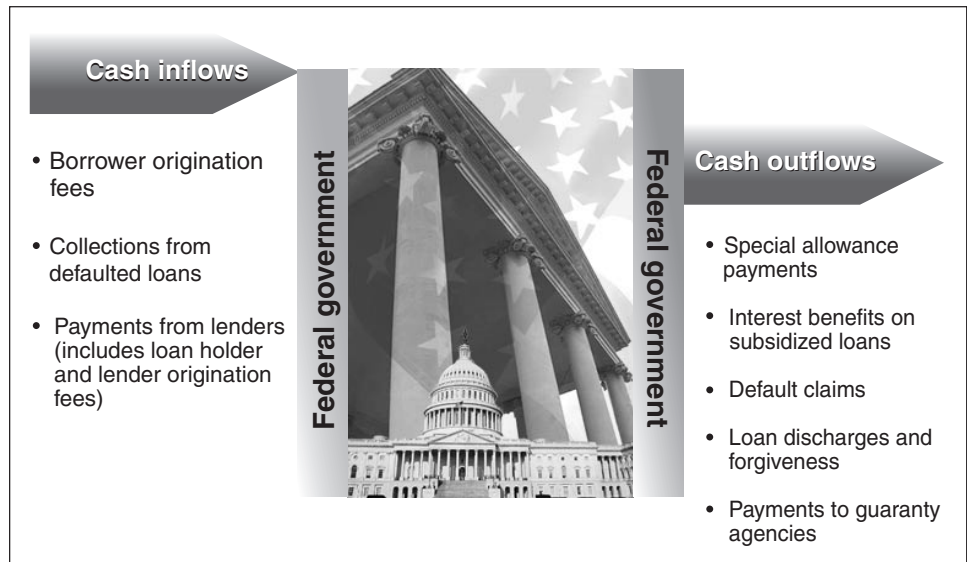
### Federal Government's Role in Each Loan Program and Difference in Cash Flows

Although the method for calculating the subsidy cost is the same for both FFELP and FDLP, the federal government's role in each loan program differs significantly, which, in turn, affects the type and timing of cash flows in each program. In FFELP, private lenders, such as banks, fund the loans, and the federal government guarantees lenders a statutorily specified minimum yield that is tied to, and varies with, market financial instruments. When the interest rate paid by borrowers is below that yield, the federal government gives lenders subsidy payments, called SAP. Moreover, the federal government, through state-designated guaranty agencies, guarantees repayment of loans if borrowers default. Guaranty agencies provide insurance to lenders for 98 percent of the unpaid principal of defaulted loans. The federal government, in turn, pays guaranty agencies 95 percent of their default claims.<sup>5</sup> Guaranty agencies also perform various administrative functions in the FFELP. As shown in figure 1, under FFELP cash inflows to the federal government include fees and other payments from lenders and outflows from the federal government include SAP and default payments. FFELP cash flows are spread out over the life of the loan.

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<sup>5</sup>For loans disbursed on or after October 1, 1998.

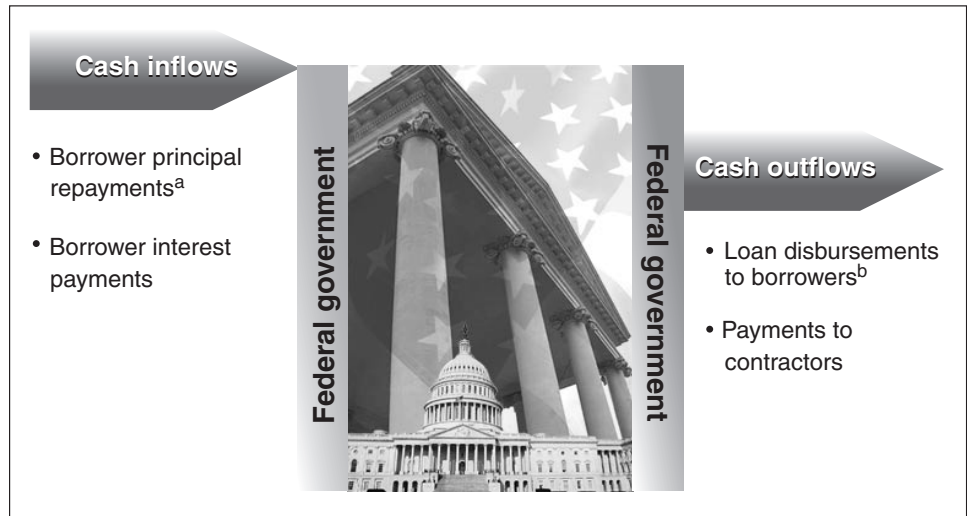
**Figure 1: FFELP Cash Flows Used in Subsidy Cost Estimates**



Source: GAO analysis.

Under FDLP, the U.S. Treasury funds the loans, which are originated through participating schools and contractors. Education’s Office of Federal Student Aid is responsible for delivering funds to schools participating in FDLP, monitoring its contracts, and providing technical assistance to schools. Education contracts with private-sector companies to perform various administrative activities in FDLP, such as originating and servicing loans, and collecting defaulted loans. As shown in figure 2, FDLP cash inflows to the federal government are repayments of principal and interest payments and outflows include loan disbursements to borrowers. Because the federal government funds the loans, cash outflows occur in the early years as loan disbursements are made. Cash inflows, in the form of principal repayment and interest payments, occur in later years as borrowers enter repayment.

**Figure 2: FDLP Cash Flows Used in Subsidy Cost Estimates**



Source: GAO analysis.

<sup>a</sup>Principal repayments may be less than disbursements, reflecting defaults, loan discharges, and loan forgiveness.

<sup>b</sup>Loan disbursements are decreased by the amount of origination fees charged to borrowers.

Annually, agencies are generally required to update or “reestimate” loan costs for differences in estimated loan performance, such as differences between assumed and actual default rates, the actual program costs recorded in the accounting records, and new forecasts of future economic conditions, such as interest rates. Reestimates include all aspects of the original cost estimate, including prepayments, defaults, delinquencies, recoveries, and interest. Reestimates of the credit subsidy allow agency management to compare the original budget estimates with actual program results to identify variances from the original estimate, assess the quality of the original estimate, and adjust future program estimates as appropriate.

## Reestimated Subsidy Costs Differed from Original Estimates for Both Loan Programs

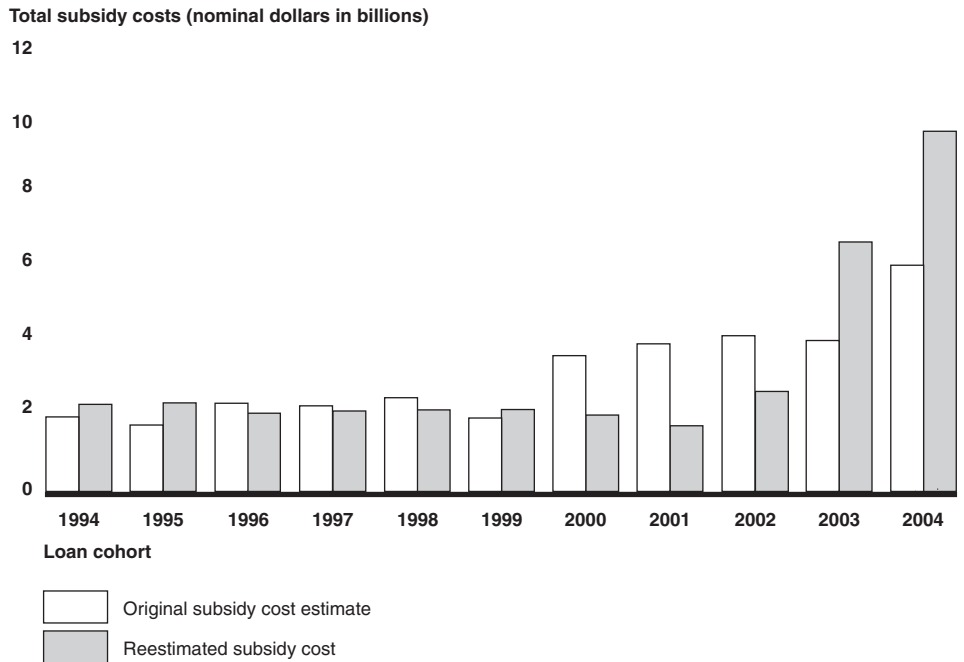
Both FFELP and FDLP reestimated subsidy costs have differed from original estimates for loans made in fiscal years 1994 through 2004, highlighting the challenges in estimating the costs of federal student loans. FFELP reestimated subsidy costs were similar to or lower than original estimates for loans made in fiscal years 1994 to 2002, but higher than originally estimated for loans made in fiscal years 2003 and 2004. In comparison, FDLP reestimated subsidy costs were generally similar to or higher than original estimates for loans made in fiscal years 1994 through

2004. Across all types of loans, FDLP subsidy costs per \$100 of loans disbursed were, for almost all loan cohorts, lower than those of FFELP.

**FFELP Reestimated Subsidy Costs Were Generally Similar to or Lower Than Original Estimates, with the Exception of Loans Disbursed in Fiscal Years 2003 and 2004**

Reestimated subsidy costs for FFELP loans disbursed between fiscal years 1994 and 2002 were, in general, close to or lower than original estimates, while reestimated subsidy costs for loans disbursed in 2003 and 2004 were higher than originally expected, as shown in figure 3.

**Figure 3: Comparison of Total Reestimated FFELP Subsidy Costs to Original Estimates, by Loan Cohort**



Source: GAO analysis of the Budget of the United States Government, fiscal years 1994 to 2006.

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From fiscal years 1994 to 1999, reestimated subsidy costs for FFELP were typically close to original estimates, while loans disbursed from fiscal year 2000 to fiscal year 2002 had reestimated subsidy costs that were lower than original estimates, ranging from \$1.5 to \$2.2 billion lower. Reestimated subsidy costs for loans disbursed in fiscal years 2003 and 2004 were \$2.7 and \$3.6 billion higher than original estimates. Differences between reestimated and original subsidy costs estimates for the 2003 and 2004 loan cohorts were in part due to significant differences between expected and actual loan volume. For example, Education originally estimated about \$40 billion in FFELP loans would be disbursed in 2003 when actually \$69 billion was disbursed that year. The large difference was primarily due to a significantly higher volume of FFELP consolidation loans than originally estimated and the relatively high subsidy costs per \$100 of these loans compared to consolidation loans made in previous years.

After controlling for loan volume, FFELP reestimated subsidy costs per \$100 disbursed were generally close to or lower than original subsidy cost estimates across loan types. As shown in table 1, for FFELP Stafford unsubsidized and PLUS loans, reestimated subsidy costs per \$100 disbursed were lower for all loan cohorts than what was originally estimated—except fiscal year 1999. For subsidized Stafford loans, about two-thirds of the loan cohorts had lower reestimated subsidy costs per \$100 disbursed. Slightly over half of all consolidation loan cohorts had lower reestimated subsidy costs per \$100 disbursed than originally estimated.



**Table 1: FFELP Reestimated and Original Subsidy Cost Estimates per \$100 Disbursed, by Loan Type and Loan Cohort**

Loan type	Estimate	Loan cohort (fiscal year)										
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Stafford subsidized	Original	\$15.59	\$15.31	\$22.84	\$22.75	\$18.80	\$16.41	\$21.25	\$23.53	\$23.14	\$16.81	\$17.64
	Reestimated	19.62	20.59	19.94	19.98	19.03	18.21	16.16	13.40	12.39	14.18	15.41
Stafford unsubsidized	Original	0.63	3.79	4.74	6.77	7.27	0.90	7.89	8.38	6.85	4.61	4.92
	Reestimated	-0.45	0.26	0.01	0.34	0.99	2.54	2.02	1.84	2.34	3.67	3.87
PLUS	Original	2.50	2.75	1.64	3.33	3.65	-1.91	6.32	5.38	3.92	4.67	3.26
	Reestimated	0.36	0.73	0.98	0.99	1.00	1.89	1.40	1.55	1.62	1.87	1.60
Consolidation	Original			7.86	0.06	0.75	-3.55	2.35	2.91	3.51	10.19	15.76
	Reestimated	-0.64	0.47	0.57	-0.17	2.12	1.15	0.80	-0.46	3.11	11.21	15.98

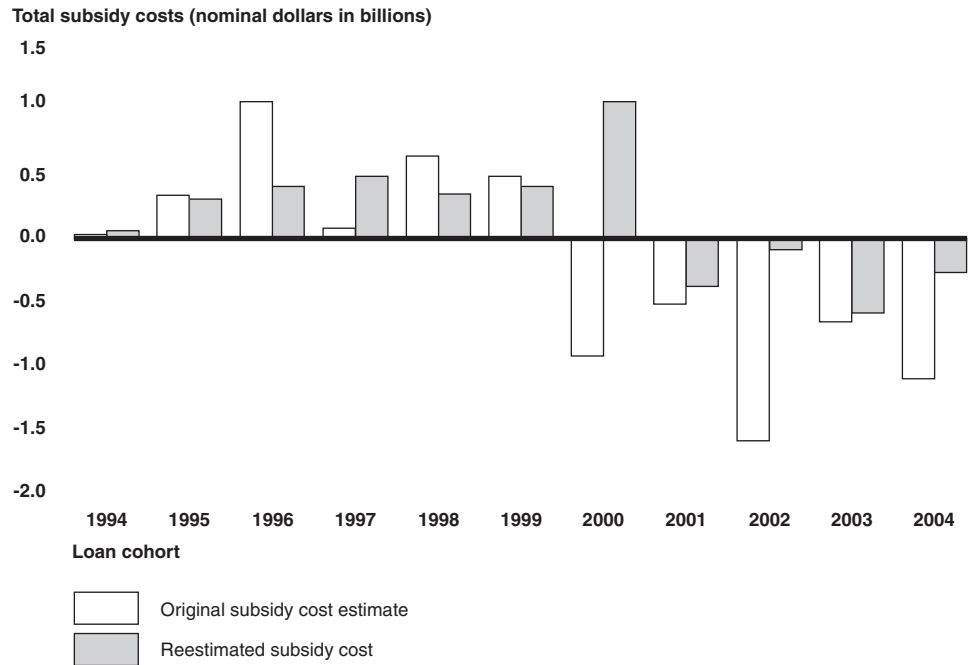
Source: GAO analysis of the Budget of the United States Government fiscal years 1994 to 2006.

Note: Original subsidy cost estimates are the rates that appeared in the appendix to the budget for the associated fiscal year. Reestimated subsidy cost estimates are the rates that appeared in table 8 of the credit supplement of the fiscal year 2006 budget. Negative amounts represent revenue to the government and occur when expected cash inflows exceed cash outflows. Positive amounts represent a cost to the government. Cost estimates for FFELP subsidized loans are considerably higher than those for all other loan types because the government pays the borrowers' interest costs during the student's in-school, grace, and deferment periods.

**FDLP Reestimated Subsidy Costs Were Generally Similar to or Higher Than Original Estimates**

Reestimated subsidy costs for FDLP loans were in general similar to or higher than original estimates for loans disbursed between fiscal years 1994 and 2004. For FDLP loans disbursed between fiscal years 1994 and 1999, total reestimated subsidy costs were in general close to original estimates, but there was one loan cohort that had higher reestimated subsidy costs and another with much lower reestimated subsidy costs than originally expected, as shown in figure 4.

**Figure 4: Comparison of Total Reestimated FDLP Subsidy Costs and Original Estimates, by Loan Cohort**



Source: GAO analysis of the Budget of the United States Government, fiscal years 1994 to 2006.

In comparison, reestimated subsidy costs for FDLP loans disbursed between fiscal years 2000 and 2004 were higher than original estimates. In some cases original estimates projected a net gain for the government, but subsequent reestimates project a smaller gain or even a net cost for the government. For example, original subsidy cost estimates of the fiscal year 2000 loan cohort projected a net gain of \$930 million for the government and reestimated subsidy costs project a net cost of \$1.1 billion. Such swings in estimated subsidy costs illustrate that originally anticipated federal revenues may not, in fact, ultimately materialize. Differences between total reestimated and original subsidy cost estimates were not driven by differences between original and actual loan volume, but rather by changes in the subsidy rates—that is, subsidy costs per \$100 disbursed.

FDLP reestimated subsidy costs per \$100 disbursed were usually close to or higher than original subsidy cost estimates across loan types. For example, as shown in table 2, reestimated subsidy costs per \$100 disbursed for FDLP Stafford unsubsidized, and PLUS loans were, for almost all loan cohorts, higher than original estimates. For Stafford

subsidized and consolidation loans, slightly over half of the loan cohorts had reestimated subsidy costs that were higher than originally estimated.

**Table 2: FDLP Reestimated and Original Subsidy Cost Estimates Per \$100 Disbursed, by Loan Type and Loan Cohort**

Loan type	Estimate	Loan cohort (fiscal year)										
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Stafford subsidized	Original	\$12.42	\$14.45	\$16.54	\$10.38	\$13.65	\$13.79	\$4.06	\$8.03	\$2.66	\$4.97	-\$0.12
	Reestimated	13.75	13.21	11.23	11.22	10.10	12.41	14.81	11.24	6.89	2.52	4.06
Stafford unsubsidized	Original	-2.44	-6.99	-1.66	-11.77	-6.93	-7.78	-16.38	-14.36	-22.20	-12.25	-14.91
	Reestimated	-6.50	-5.13	-6.00	-5.25	-5.13	-0.91	2.99	2.01	-0.94	-5.67	-5.70
PLUS	Original	-4.86	-3.71	-11.10	-9.36	-6.34	-9.49	-13.41	-12.36	-16.21	-9.80	-14.72
	Reestimated	0.81	-1.30	-2.88	-2.54	-2.76	-0.95	2.21	1.45	-1.20	-4.80	-4.48
Consolidation	Original			-0.59	-6.59	-0.14	-0.61	-7.72	-3.92	-6.96	-3.75	1.13
	Reestimated		2.23	0.77	1.58	-0.51	-2.97	1.62	-3.42	-4.29	-6.00	-1.75

Source: GAO analysis of the Budget of the United States Government, fiscal years 1994 to 2006.

Note: Original subsidy cost estimates are the rates that appeared in the appendix to the budget for the associated fiscal year. Reestimated subsidy cost estimates are the rates that appeared in table 7 of the credit supplement of the fiscal year 2006 budget. Negative amounts represent revenue to the government and occur when expected cash inflows exceed cash outflows. Positive amounts represent a cost to the government. FDLP Stafford subsidized loans will typically have positive subsidy costs because the government does not collect interest payments from borrowers during students' in-school, grace, or deferment periods.

For most Stafford unsubsidized and PLUS loan cohorts, and slightly over half of consolidation loan cohorts, reestimated subsidy costs per \$100 disbursed were higher than the original estimate, but still project a net gain for the federal government. For example, Stafford unsubsidized loans disbursed in fiscal year 1998 were originally estimated to have a net gain of \$6.93 for every \$100 in loans disbursed. Reestimated subsidy costs show that the projected net gain for these same loans is estimated to be \$5.13 per \$100 disbursed. Some loan cohorts that originally projected a net gain for the federal government have reestimated subsidy costs with a net cost to the government. For example, PLUS loans disbursed in fiscal year 2000 that were originally projected to have a net gain of \$13.41 per \$100 disbursed were subsequently reestimated to have a net cost of \$2.21 per \$100 disbursed.

### FDLP Reestimated Subsidy Costs Were Lower Than FFELP Reestimated Subsidy Costs

For all loans disbursed between fiscal years 1994 and 2004, FDLP reestimated subsidy costs were lower than FFELP reestimated subsidy costs in aggregate and after controlling for loan volume. Reestimated total subsidy costs for FDLP loans were \$2.5 billion compared to \$36.6 billion for FFELP loans, as shown in table 3 below.

**Table 3: Comparison of Reestimated and Original Subsidy Cost Estimates for All Loans Disbursed between Fiscal Years 1994 and 2004**

Loan program	Original total subsidy cost estimate <sup>a</sup> (billions)	Reestimated total subsidy cost <sup>b</sup> (billions)	Difference between cost estimates (billions)	Total loan volume disbursed (billions)	Reestimated subsidy cost per \$100 disbursed <sup>c</sup>
FFELP	\$35.2	\$36.6	\$1.4	\$396	\$9.20
FDLP	-\$2.1	\$2.5	\$4.6	\$150	\$1.70

Source: GAO analysis of the Budget of the United States Government, fiscal years 1994 to 2006.

<sup>a</sup>Original subsidy cost estimates are the sum of the subsidy cost estimates for each of the fiscal year 1994 to fiscal year 2004 cohorts, as presented in the appendix to the budget for the associated fiscal year. Negative amounts represent a gain to the government.

<sup>b</sup>Reestimated subsidy costs are the total subsidy costs listed in the credit supplement of the fiscal year 2006 budget.

<sup>c</sup>The subsidy costs per \$100 disbursed are based on the reestimated total subsidy costs divided by the total loan volume disbursed. These subsidy costs are not directly comparable to those reported in the budget; subsidy costs shown are based on loans disbursed whereas under FCRA subsidy costs are based on loans originated.

After controlling for loan volume and comparing reestimated subsidy costs across the four types of loans—Stafford subsidized and unsubsidized, PLUS, and consolidation—FDLP reestimated subsidy costs per \$100 disbursed were in general lower than FFELP reestimated subsidy costs per \$100 disbursed. (See app. I for comparisons of reestimated subsidy costs of FDLP and FFELP loans, by loan type.) The difference between the reestimated subsidy cost for FDLP and FFELP varied significantly and depended on the type of loan and the year that the loan was disbursed. For example, reestimated subsidy costs per \$100 disbursed for FDLP subsidized Stafford loans disbursed in fiscal year 2003 were \$11.66 lower than for FFELP subsidized Stafford loans, while the difference for the same loans disbursed in 2000 was \$1.35 per \$100 disbursed.

The primary reason for the difference in subsidy cost estimates between FFELP and FDLP were differences in the structure of the programs rather than the characteristics of the borrowers. According to Education officials, estimates of long-term costs associated with subsidizing borrowers' interest; canceling repayment of loans due to death, disability, and bankruptcy; and defaulted loans are roughly equivalent in both programs. However, under FFELP there are larger cash outflows in the form of SAP to lenders than cash inflows of lender fees, while in FDLP there are large cash inflow projections, net of interest payments to Treasury, in the form of borrower interest payments and no SAP or guaranty fees.

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## Recent Low Interest Rates, Increased Loan Consolidation, and Additional Data Contributed to Differences between Reestimated and Original Subsidy Cost Estimates

Differences between original and reestimated subsidy cost estimates per \$100 disbursed can be explained, in part, by lower than expected market interest rates, greater than anticipated loan consolidation, and more data on student loans incorporated into cash flow model. Differences between actual and expected interest rates and rates of consolidations affected reestimated subsidy costs for each loan program in a different way. For example, lower than expected interest rates over the last several years have resulted in lower reestimated subsidy cost estimates for FFELP and higher reestimated subsidy costs for FDLP. Larger than expected volumes of consolidation loans, which stemmed in part from low interest rates, contributed to lower FFELP reestimated subsidy costs for the underlying loan cohorts and higher FDLP reestimated subsidy cost estimates of the underlying loan cohorts. Furthermore, the availability of additional data for both FFELP and FDLP loans have enabled Education to refine its cash flow model, which has also contributed to differences between reestimated and original subsidy costs.

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## Interest Rates Lower Than Previously Forecasted Contributed to Differences between Reestimated and Original Subsidy Cost Estimates

Interest rates fell to lower than expected levels in 2001 and persisted at those levels through 2004, which affected subsidy cost estimates in both FFELP and FDLP because estimates, especially for the FDLP, are highly sensitive to changes between projected and actual interest rates. Cost estimates for the loan programs are sensitive to such changes because borrower interest rates in both FFELP and FDLP and the lender yield in the FFELP, are variable rates. As a result, differences between projected and actual interest rates can have a significant impact on estimates of cash flows in both loan programs. OMB's interest rate projections made prior to 2001, as well as those by other government agencies and the private sector, were considerably higher than actual interest rates for 2001 and beyond. For example, as shown in table 4, actual interest rates from 2001 to 2003 were substantially lower than OMB's forecasts of interest rates used in the budget for fiscal year 1999 and fluctuated slightly from year to year. To the degree that such fluctuations were unanticipated, they contributed to volatility in subsidy cost reestimates from year to year.

**Table 4: OMB Interest Rate Projections for the 91-day Treasury Bill as Shown in the 1999 President’s Budget Compared to CBO’s Projections and Actual Interest Rates**

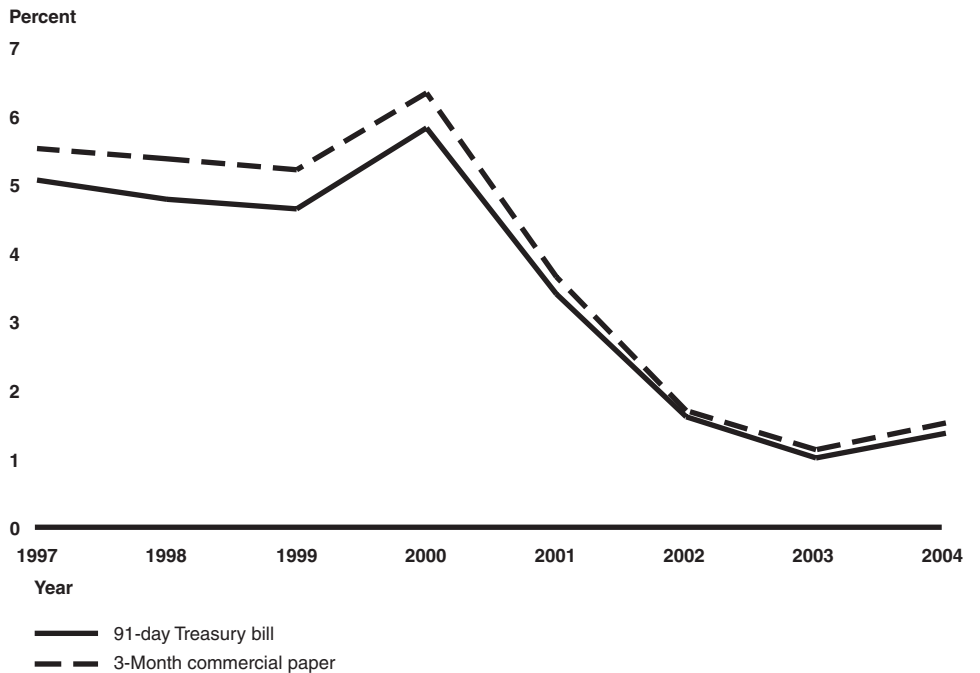
Year	OMB’s 1999 interest rate projection	CBO’s January 1999 interest rate projections	Actual interest rate
1999	4.9	5.2	4.64
2000	4.8	4.8	5.82
2001	4.7	4.7	3.4
2002	4.7	4.7	1.61
2003	4.7	4.7	1.01

Source: Budget of the United States Government, fiscal year 1999 and Federal Reserve data.

For FFELP, lower than expected interest rates have resulted in lower than expected SAP to lenders, which, in turn, resulted in lower reestimated subsidy cost estimates. As interest rates decreased, the difference, or spread, between the 3-month commercial paper (CP) and the 91-day Treasury bill narrowed.<sup>6</sup> For example, as can be seen in figure 5, the average rates on the 91-day T-bill and the 3-month CP were 5.82 and 6.33, respectively, in 2000, a difference of 0.51. However, in 2004 the difference between the two rates was 0.15. The spread between commercial paper and Treasury bill rates serves as the primary basis for SAP payments to the lenders, and, as the spread narrowed, Education paid lower SAP, thus lowering reestimated subsidy costs.

<sup>6</sup>The lender yield is calculated quarterly and for loans originated on or after January 1, 2000, is the 3-month commercial paper rate plus a supplement (for Stafford loans the supplement is 1.74 while the borrower is in school or in a grace or deferment period and 2.34 otherwise). The borrower interest rate is set annually, and for loans originated on or after July 1, 1998, is the 91-day T-bill plus a supplement (for Stafford loans the supplement is 1.70 while in school/grace/deferment and 2.30 otherwise).

**Figure 5: Comparison of Rates for 3-month Commercial Paper and 91-day Treasury Bill, 1997 to 2004**

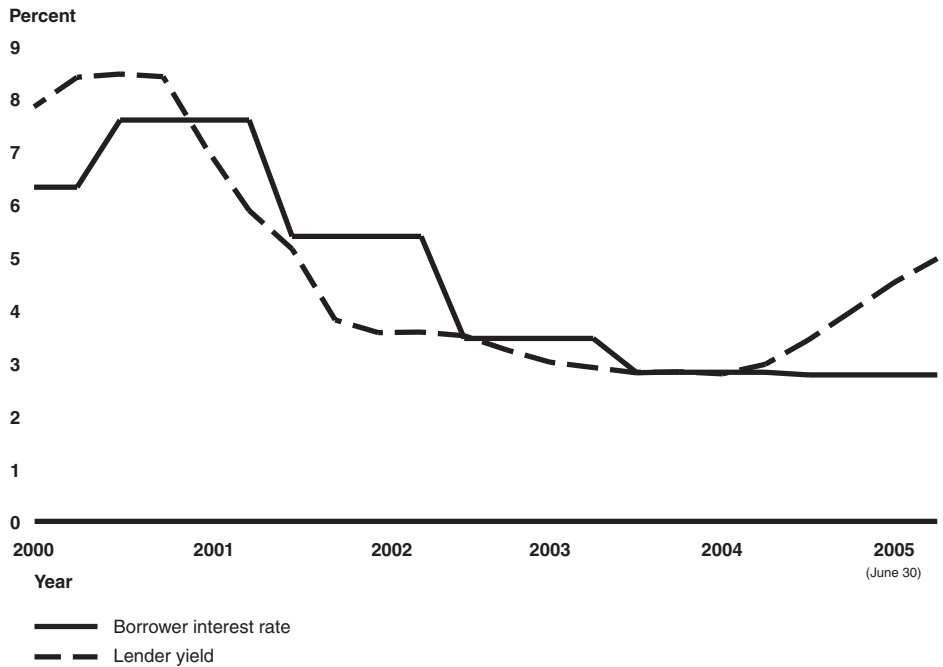


Source: GAO analysis of Federal Reserve Bank Data.

Note: Rates for 3-month Commercial Paper and 91-day Treasury bill are annual averages quoted on a discount basis and are not comparable to bond yields.

The climate of declining interest rates not only narrowed the spread between the T-bill rate and the CP rate and reduced SAP payments, it also eliminated SAP payments for some loans because interest rates paid by borrowers were higher than the guaranteed lender yield. Whether SAP is paid on a loan can change during a year because borrower interest rates are adjusted annually based on the final auction of T-bills before June 1 of each year while lender yields are adjusted each quarter. Thus in a climate of declining interest rates, SAP on certain loans was eliminated because the 3-month CP rate—on which the lender yield is based—fell, for a particular quarter, below the annually adjusted borrower rate. SAP was zero in 50 percent of the quarters for Stafford loans issued after January 1, 2000 through July 1, 2005. This is illustrated in figure 6, where one can also see that the more recent climate of rising interest rates could lead to increased SAP.

**Figure 6: Comparison of Borrower Interest Rate to Lender Yield for Loans Disbursed on or after January 1, 2000**



Source: GAO analysis of Department of Education data.

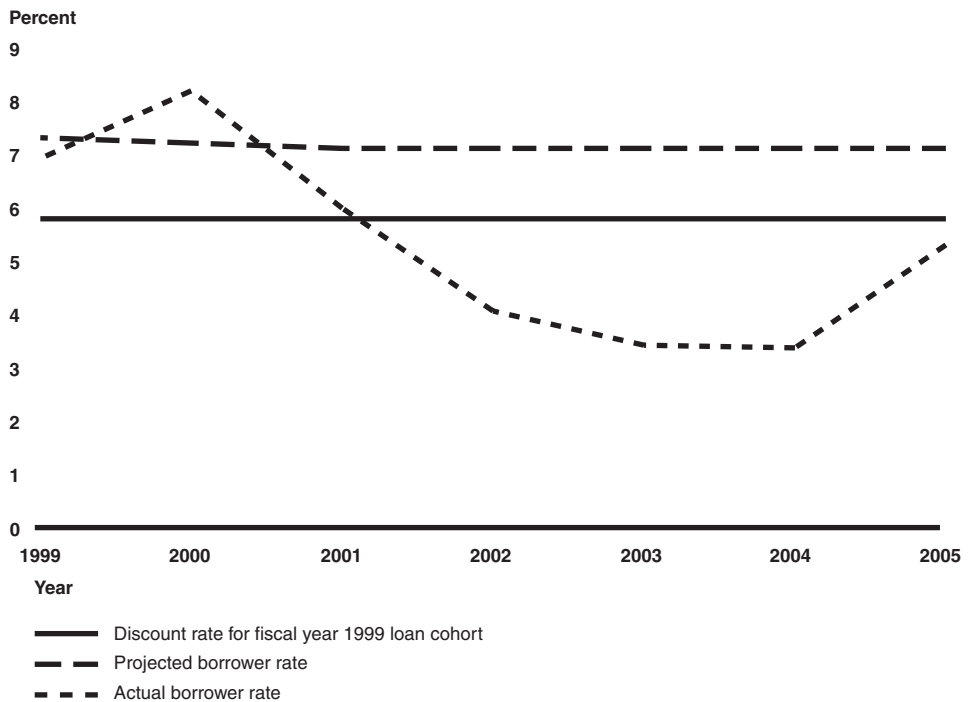
Note: Lender yield is for loans made on or after January 1, 2000, and the borrower interest rate is for loans made on or after July 1, 1998, while borrower is in repayment.

In contrast, lower than expected interest rates contributed to higher reestimated FDLP subsidy costs. Under FDLP, the government had originally anticipated larger interest payments from borrowers as they repaid their loans because original subsidy cost estimates were based on forecasts that did not anticipate the significant decline in interest rates. Lower than expected interest rates thus resulted in lower than expected cash inflows to the government and higher FDLP subsidy cost reestimates. For example, using the numbers in table 4, one can see that original subsidy cost estimates made for the 1999 loan cohort assumed that interest rates on the 91-day Treasury bill would be 4 times higher than they actually were when some students would be entering repayment on loans they obtained in 1999. Moreover, original estimates were based on the assumption that the interest rate paid by borrowers on those loans would be higher than the interest rate Education pays to Treasury for borrowing the funds to make the loans. As can be seen in figure 7, the borrower interest rate fell below the discount rate (rate paid to Treasury) in 2001.



Again, such a climate of lower than anticipated interest rates led to higher reestimates of subsidy costs. As interest rates rise, the interest paid by borrowers will increase—possibly to rates higher than the discount rate.

**Figure 7: Actual and Projected Borrower Interest Rate for a Stafford Loan in Repayment Compared to the Discount Rate for the Fiscal Year 1999 Loan Cohort**



Source: GAO analysis of Department of Education data.

Note: Borrower interest rate is for a Stafford loan disbursed in fiscal year 1999 in repayment status. The projected borrower rate was calculated using the Department of Education's 1999 projections of the 91-day Treasury bill and adding 2.30 percentage points.

Lower than expected interest rates also affected the actual rate used to discount cash flows for FFELP and FDLP subsidy cost estimates. When subsidy cost estimates are first prepared for the budget, agencies use an estimated discount rate. Education sets the actual discount rate when a loan cohort is fully disbursed. Because subsidy cost estimates are prepared prior to when a loan is disbursed, it is expected that differences between the estimated and actual discount rate will contribute to differences between reestimated and original subsidy cost estimates. For example, the actual discount rate for loans disbursed in fiscal year 2002 was lower than originally estimated, which lowered reestimated subsidy costs slightly in both FFELP and FDLP.

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Higher Than Expected  
Consolidation Volume Was  
Another Factor  
Contributing to  
Differences between  
Reestimated and Original  
Subsidy Cost Estimates

Higher than expected consolidation volume, which stemmed in part from low interest rates, also affected reestimated subsidy costs. As we have previously reported, the number of borrowers consolidating their loans has increased substantially over the last several years.<sup>7</sup> Consolidation activity has been higher than expected in both loan programs since fiscal year 1999. When borrowers consolidated their student loans and locked in recent low interest rates, they effectively paid off the underlying loans—Stafford subsidized and unsubsidized and PLUS—ahead of schedule and started a new consolidation loan. With the new consolidation loans, borrowers began new repayment periods that could be up to 30 years from when the consolidation loans were made. Because Education calculates subsidy costs for consolidation loans separately, it must adjust original estimates of the underlying loans to reflect unanticipated prepayments. Education considers the consolidation a new loan in the year that the loan was disbursed. Figures 8 and 9 provide a simplified example of consolidation from both the borrower’s and Education’s perspective.

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<sup>7</sup>GAO, *Student Loan Programs: As Federal Costs of Loan Consolidation Rise, Other Options Should Be Examined*, [GAO-04-101](#) (Washington, D.C.: Oct. 31, 2003); and GAO, *Student Loan Programs: Lower Interest Rates and Higher Loan Volume Have Increased Federal Consolidation Loans*, [GAO-04-568T](#) (Washington, D.C.: Mar. 29, 2004).

**Figure 8: Consolidation Example: Borrower's Perspective**

A borrower had three student loans from two lenders in repayment and consolidated them before July 1, 2005. The borrower had three motivations for consolidation:

1. Interest rates on Stafford loans are variable and, at the time, were historically very low. On July 1, 2005, interest rates were expected to increase by about 2 percentage points for Stafford loans. (This expectation prompted a surge in consolidation activity among student loan borrowers in the weeks leading up to the interest rate change.)
2. Consolidation would lock in a relatively low fixed interest rate, extend the borrower's repayment period, and result in a lower monthly payment amount.
3. Consolidation would result in one monthly payment instead of two monthly payments to the two lenders.

<b>Loan type and cohort</b>	<b>Interest rate (prior to July 1, 2005)</b>	<b>Interest rate (post July 1, 2005)</b>	<b>Outstanding balance</b>
Unsubsidized Stafford - 2000	3.37	5.30	\$2,840
Subsidized Stafford - 2000	3.37	5.30	1,460
Unsubsidized Stafford - 1997	4.17	6.10	5,700

Upon consolidation, (1) the borrower locked in an interest rate equal to the weighted average of the interest rates on the three loans, rounded to the nearest higher 1/8<sup>th</sup> of 1 percent, (2) the three loans were considered paid in full, and (3) the borrower had one consolidation loan in the amount of \$10,000 with a fixed interest rate of 3.875 percent made in the fiscal year 2005 loan cohort. See figure 9 for how this consolidation would be treated by Education.

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**Figure 9: Consolidation Example: Education's Perspective**

Case 1: Continuing the previous example, assume that the loans were made through FFELP and have been in repayment since January 2002. Assume also that Education expected the repayment to lenders on these underlying loans to continue into January 2012, at which time the loans would be fully repaid. In estimating the subsidy costs of the loans, Education made assumptions about the likelihood that the borrower would default (based on the type of school attended as well as the borrower's payment history since 2002) and the amount of SAP that would be paid to lenders through 2012.

However, now that the underlying loans are paid in full, reestimated subsidy costs for the 2000 and 1997 origination cohorts reflect the unexpected changes, and would be lower for these three specific loans than original estimates.

The new consolidation loan is part of the 2005 loan cohort. Education makes assumptions about expected repayment and likelihood of paying SAP. The borrower rate is fixed and relatively low compared to projected market interest rates in the future. Because the yield that the government guarantees the lender is variable and market interest rates are expected to rise in the future, Education's estimated subsidy costs for the new consolidation loan includes expectations that SAP payments to the lender will be necessary and will increase in the future. The net effect may be higher subsidy costs for the consolidation loan than those estimated for the three underlying loans.

Case 2: Assume instead that the three Stafford loans were made through FDLP (i.e., the two lender assumption from figure 8 does not apply and the borrower was not motivated to consolidate to reduce the number of monthly payments). Again assume that the loans have been in repayment since January 2002 and that Education expected repayment on the underlying loans to continue into January 2012.

The borrower's FDLP consolidation resulted in a shorter repayment period to Education for the three Stafford underlying loans and less interest payments than had been expected for the three loans. Thus, reestimated subsidy costs would be higher (i.e., the inflow of interest payments from the borrowers would be less) than original estimates for these three underlying loans. If the interest rate paid by the borrower was less than the rate paid by Education to borrow the funds to make the loans, then prepaying a loan would not necessarily result in higher reestimated subsidy costs.

The new consolidation loan is part of the 2005 loan cohort. The borrower rate is fixed and relatively low compared to projected market interest rates in the future. The net effect may be higher subsidy costs for the consolidation loan than those estimated for the three underlying loans.

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Consolidation activity has been particularly high for FFELP loans, increasing from about \$7 billion in fiscal year 2000 to \$37 billion in fiscal year 2004. Education had not anticipated such an increase in consolidation loans, which contributed to lower reestimated subsidy costs for the underlying loan cohorts. Under FFELP, consolidation loans shortened the length of time Education anticipated paying SAP to lenders and eliminated default risk on the underlying loans, thus lowering reestimated subsidy costs. Estimated subsidy costs for recent consolidation cohorts, which reflect costs associated with default risk and SAP to lenders, are quite large in comparison to previous consolidation loan cohorts. For example, reestimated subsidy costs per \$100 disbursed for consolidation loans made in 2003 were \$11.21 and in 2004 were \$15.98 compared to \$3.11 for consolidation loans made in 2002. The increase is due in part because borrowers locked in lower fixed interest rates on their consolidation loans and the minimum yield guaranteed to lenders is projected to be much higher than the fixed interest rate paid by borrowers, thus requiring the government to pay higher SAP than they would have on the 2002 loans.

Consolidation activity in FDLP also increased—from \$5 billion in fiscal year 2000 to \$8 billion in fiscal year 2004. As borrowers consolidated their loans, they repaid the underlying loans that shortened the length of time Education had expected to receive interest payments on these loans. According to Education, it had calculated that the interest payments from borrowers would contribute positively to Education’s cash flows because expected interest rates that borrowers paid to Education were higher than the rate Education paid to borrow the funds. However, greater than expected prepayment due to consolidation decreased the anticipated interest payments on the underlying loans, which in turn contributed to higher reestimated subsidy cost estimates of the underlying loan cohorts.<sup>8</sup> Moreover, as we reported in August 2004, large amounts of FDLP loans—about \$7.5 billion between 1998 and 2002—were consolidated into FFELP.<sup>9</sup> As a result, Education will not receive any of the future projected interest payments on those loans that are now FFELP loans, which also contributed to higher reestimated FDLP subsidy costs. Additionally, for

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<sup>8</sup>If the interest rate paid by the borrower was less than the rate paid by Education to borrow the funds to make the loans, then prepaying a loan would not necessarily result in higher reestimated subsidy costs.

<sup>9</sup>GAO, *Student Consolidation Loans: Further Analysis Could Lead to Enhanced Default Assumptions for Budgetary Cost Estimates*, [GAO-04-843](#) (Washington, D.C.: Aug. 20, 2004).

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the FDLP loans consolidated into FFELP, the government may need to pay SAP that it otherwise would not have had to pay.

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### Availability of Additional Data for Both FFELP and FDLP Loans Have Enabled Education to Refine Its Cash Flow Model

More data for both FFELP and FDLP loans has allowed Education to make refinements to its cash flow model, a result of changes made by Education to address recommendations in our prior reports and by Education's auditors.<sup>10</sup> The addition of data about borrower behavior to the cash flow model has also contributed to the differences between reestimated and original subsidy costs. For example, Education officials reported that in recent years, data on FFELP and FDLP borrowers' use of deferment options, which allow them to delay making payments on a loan when they return to school or are experiencing economic hardship, has become available. With this data Education is able to explicitly include in its model the number of students using deferment options and project the effect on cash flows in both FFELP and FDLP, rather than implicitly including deferments in its model through adjustments in the length of time a loan was expected to be in repayment. According to Education officials, more FFELP borrowers than they had predicted have used deferment options and, when this data was incorporated into FFELP's cash flow model, it contributed to an increase in reestimated FFELP subsidy costs of \$5 billion in fiscal year 2003. Education reported that deferment data will be added to the FDLP cash flow model and will be reflected in reestimated subsidy costs in the fiscal year 2007 Budget of the United States Government.

Education also noted that more data has become available in FDLP because the program has been in existence for 10 years and in FFELP because of improvements made by guaranty agencies. Previously, Education had based its FDLP cash flow assumptions on FFELP data, but Education now has data on when borrowers default or enter repayment based on FDLP borrowers. According to Education, actual defaults in FDLP have not been much different from the assumptions made using FFELP data because defaults are best predicted by the borrower and the type of school attended rather than from which loan program the student borrowed. According to Education officials, guaranty agencies—that are

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<sup>10</sup>GAO, *Department of Education's Federal Direct Loan Programs: Status of Recommendations to Improve Cost Estimates and Presentation of Update Cash Flow Information*, [GAO-04-567R](#) (Washington, D.C.: Mar. 29, 2004); and GAO, *Department of Education: Key Aspects of the Federal Direct Loan Program's Cost Estimates*, [GAO-01-197](#) (Washington, D.C.: Jan. 12, 2001).

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responsible for reporting on the status of a loan, i.e., in repayment, deferred, defaulted, or in-school—have made changes in their data systems and the quality checks on the data. As a result, Education has been better able to estimate default rates, subsequent collections, and their effect on cash flows in FFELP. In particular, Education noted that there have been improvements in the data Education uses in estimating of collections of defaulted loans in both FFELP and FDLP, which showed higher than originally estimated collections and contributed to lower reestimated subsidy costs.

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### Certain Federal Costs and Revenues Associated with the Student Loan Programs Are Not Included in Subsidy Cost Estimates

Additional federal costs and revenues associated with the student loan programs, such as federal administrative expenses, some costs of risk associated with lending money over time, and federal tax revenues generated by both student loan programs are not included in subsidy cost estimates. These are important factors to consider when determining costs of the student loan programs; however, they are difficult to measure. Under current law, federal administrative expenses are excluded from subsidy cost estimates. In addition, subsidy cost estimates do not explicitly include all risk that the government incurs by lending money over time. Moreover, both loan programs generate federal tax revenues that are not included in subsidy cost calculations.

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### Federal Administrative Expenses, by Law, Are Not Included in Subsidy Cost Estimates

Under FCRA, federal administrative expenses are excluded from subsidy cost estimates. Federal administrative expenses for the student loan programs have been accounted for in Education's budget on a cash basis—showing how much money is allocated for administering all federal student aid programs in one fiscal year. The federal government is primarily responsible for administering the FDLP and, for the most part, Education has contracted with private-sector companies to perform administrative tasks, such as originating and servicing loans. In the FFELP, lenders and guaranty agencies perform administrative functions. In addition to the SAP paid to lenders to guarantee a minimum yield, which includes coverage of the administrative expenses incurred, Education pays guaranty agencies account maintenance fees for their administrative costs. In fiscal year 2006, Education requested \$939 million for administrative expenses for all federal student loan and grant aid programs. Of this amount, \$238 million was for FFELP administrative expenses and \$388 million was for FDLP administrative expenses.

When FCRA was first passed there were concerns about whether agencies could change existing accounting systems to estimate long term

administrative expenses for a loan program. Over the last few years, Education’s Office of Federal Student Aid has been developing a system that allocates its administrative expenses to each student aid program in a particular fiscal year so that management would have information that could be used for decision making purposes. While developing the system, Education officials reported that some administrative expenses are clearly linked to either FFELP or FDLP—such as payments to originate or service FDLP loans, and servicing defaulted FFELP loans. However, other administrative expenses are incurred by both loan programs, such as information systems used to process financial aid applications, thus requiring Education to develop a systematic way to allocate such expenses to FFELP or FDLP.

In the fiscal year 2006 budget, Education included, as supplementary information, modified cost estimates that included estimated administrative expenses. As shown in table 5, if administrative expenses are included, subsidy cost estimates for loans disbursed in fiscal year 2006 would increase by \$1.45 per \$100 disbursed in FDLP and by \$0.69 per \$100 disbursed in FFELP.

**Table 5: Comparison of Cost Estimates per \$100 Disbursed in Fiscal Year 2006 with and without Administrative Expenses**

	<b>Subsidy cost per \$100 disbursed</b>	<b>Modified cost per \$100 disbursed including administrative expenses</b>
FFELP	11.96	12.65
FDLP	-0.53	0.92

Source: Fiscal year 2006 Budget of the United States Government appendix, p. 371.

To produce cost estimates that included administrative expenses, Education not only needed to know how much of an expense was allocated to FDLP or FFELP, but also had to project how such costs might change in the future and whether an expense was paid now or later. For example, servicing costs for an FDLP loan while the borrower is in-school are paid in the first years that a loan is disbursed and are lower than the same costs when a borrower is in repayment that are typically paid several years later. According to Education, determining the timing of the expense was important because expenses in later years were discounted and, therefore, cost less in present value terms than those made in the first year. Moreover, Education officials acknowledged that there are limitations with these estimates because they assumed that administration of student aid programs would remain the same in the future. They reported that there is the possibility that administration processes and



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functions will change based on legislative or technological changes, but it was not possible to develop assumptions that could be used in estimating the effects of any such changes.

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### Current Subsidy Estimates Do Not Incorporate All Risk Associated with Lending Money Over Time

While current subsidy cost estimates account for some risks—uncertainties regarding future cash flows—they do not include all risks incurred when lending money over time. Among the risks borne by any lender are credit risk—the possibility that the loan will not be fully repaid—and interest rate risk—unanticipated fluctuations in the interest rate due to changes in the economy that cause changes in the present value of the loans’ cash flows.<sup>11</sup> Some studies have commented that by not incorporating all risks in subsidy cost estimates, the government does not present an accurate picture of the costs of its credit programs, including both FFELP and FDLP.<sup>12</sup> Risk can be reflected in subsidy cost estimates in different ways. For example, one way is to incorporate it in estimates of cash flows, and another way is to adjust the discount rate to reflect the risk.

Currently, Education incorporates some risks into its FFELP and FDLP subsidy cost estimate model by explicitly adjusting cash flow estimates. For example, credit risk is explicitly incorporated into Education’s subsidy cost model. Cash flow estimates are adjusted to reflect the likelihood that borrowers will default on their loans based primarily on the type of school a borrower attends (e.g., 2-year college, graduate school, etc.). Interest rate risk, however, is not explicitly incorporated into Education’s model. Interest rate fluctuations can affect estimates of SAP and borrower interest payments as well as borrower behavior with respect to loan prepayment and consolidation. Although Education uses estimated prepayment rates in adjusting estimated FFELP and FDLP cash flows, these estimates are based on historical averages rather than an

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<sup>11</sup>For example, the risk of a borrower prepaying a loan is a form of interest rate risk. As discussed previously, when interest rates declined below previously forecasted levels, increasing numbers of borrowers prepaid their variable rate student loans by obtaining a consolidation loan and obtained a low fixed rate of interest for the life of the consolidation loan in doing so.

<sup>12</sup>For example, Congressional Budget Office, *Estimating the Value of Subsidies for Federal Loans and Loan Guarantees* (Washington, D.C.: August 2004); Lucas, Phaup, and Prasad, *Valuing Federal Loans and Loan Guarantees: The Effect of Risk* (October 2003); Zimmerman and Miles, “Substituting Direct Government Lending for Guaranteed Student Loans: How Budget Rules Distorted Economic Decisionmaking,” *National Tax Journal*, December 1994.

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econometric forecast of how interest rates might fluctuate in the future and, thereby, influence borrowers' decisions to prepay or consolidate their loans. Relying on historical averages—especially if such averages do not reflect a variety of interest rate environments and stable loan terms and borrower characteristics—may not reflect the tendency for prepayments to increase or decrease at times when it is advantageous for borrowers.

CBO and others have suggested that, rather than adjusting cash flows, the discount rate could be changed to incorporate certain types of risk, such as interest rate risk, in estimating subsidy costs of federal credit programs. Currently, subsidy cost estimates calculate the net present value of the loans using the “risk-free” discount rate determined by OMB in accordance with FCRA, which reflects the government’s cost of borrowing funds. The rate is known as risk-free because an investor buying a U.S. Treasury instrument knows with certainty what cash flows will be received and when they will be received and there is assumed to be no probability of default on the investment. This risk-free discount rate tends to be relatively low compared to interest rates used to discount cash flows in private industry, where interest rates reflect the market’s valuation of transactions and incorporate considerations of various types of risk. In a 2004 report, CBO proposed, among other methods, using a risk-adjusted discount rate, rather than the risk-free rate, to estimate subsidy costs of federal credit programs.<sup>13</sup> In the case of federal student loans, one way to calculate a risk-adjusted discount rate would be to evaluate the secondary market for student loans, where student loans are often sold to banks or other investors. However, there are limitations to this approach given numerous differences in private-sector versus public sector assessments of risk. Notwithstanding this, the market price of the student loans would reflect the market’s valuation of the loans, because the expected cash flows would have been discounted using a higher discount rate that incorporates risks—such as interest rate risk—that are not included in Education’s subsidy cost model. The present value (price) of loans being sold on the secondary market would tend to be lower than the government’s valuation of similar loans, i.e., loans with similar default risk, loan amount, time to repayment, and other factors. This difference in loan valuation could be helpful in determining a risk-adjusted discount rate to use in calculating the cost to the government, although determining an appropriate rate would be challenging.

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<sup>13</sup>Congressional Budget Office, p. 7.

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Incorporating interest rate risk would affect subsidy cost estimates for both credit programs, FFELP and FDLP. Modeling interest rate risk more systematically through the cash flow estimates would affect prepayment and interest payment projections under FDLP, as well as SAP projections and prepayment activities under FFELP. The extent to which subsidy cost estimates would change for FFELP and FDLP would depend on the interest rate scenarios forecasted and the subsequent effect on cash flows in each program. However, using a risk-adjusted discount rate would have a greater impact on the subsidy cost estimates of FDLP relative to FFELP.<sup>14</sup> This difference would result, in part, because of differences in the amount and timing of cash flows: FDLP has large cash outlays early in a loan's life and large cash inflows later, when loans are in repayment. Thus these late cash inflows would be discounted at a higher rate and would have a smaller present value than under the current discounting methodology. FFELP, on the other hand, generates some cash inflows to the government early while cash outflows occur later as loans default or when SAP payments, if any, are made.

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### Private-Sector Activity in Both Student Loan Programs Generates Tax Revenues for the Federal Government That Are Not Included in Subsidy Cost Estimates

Both FFELP and FDLP generate federal tax revenues that are reflected in the revenue portion of the budget but are not included in subsidy cost calculations. Federal tax revenues are generated by a variety of sources, including private-sector lenders that account for a majority of the lenders that make or hold FFELP loans. Many of these lenders participate actively in the multi-billion dollar financial services industry of taxable and tax-exempt bonds, asset-backed securities, and other debt instruments and pay federal taxes on the income earned from these sources as well as from their student loan business. In addition, other private-sector companies that work with FFELP lenders and investors buying student loan bonds and securities also generate federal tax revenues from the income earned from their participation in FFELP. Moreover, to service and collect defaulted FFELP loans, Education contracts with private-sector companies that are another source of federal tax revenue.

Although FDLP is financed and primarily administered by the federal government, Education contracts with private-sector companies for many key administrative tasks, such as servicing loans while borrowers are in

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<sup>14</sup>For purposes of making subsidy cost estimates for the budget, future cash flows are converted, using a discount rate into their "money now" equivalents to reflect the time value of money.

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school, repayment, or default. In fiscal year 2004 Education reported that it paid \$321 million to private-sector contractors to service student loans and perform other administrative tasks in the FDLP. These private-sector contractors earn income from their participation in FDLP on which they may pay federal taxes. Another source of tax revenue is income tax paid by U.S. investors that hold Treasury securities used to finance FDLP loans.

Estimating the dollar amount of federal tax revenues generated by private sector entities and investors in FFELP and FDLP would be challenging. For example, many lenders are large publicly traded financial services companies with student loans being one portion of their business, making it difficult to identify the tax revenue generated from their student loan business. Moreover, to make an estimate of tax revenues would require knowledge of each lender's profits from its student loan business and applicable tax rates.

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## Concluding Observations

Significant reestimates of subsidy costs over the past 10 years illustrate the challenges of estimating the lifetime costs of loans. As we have shown, subsidy cost estimates and reestimates are sensitive to the assumptions used in estimating these costs. The historically low interest rates that persisted over the last several years were below levels previously forecasted. Because cost estimates for FFELP and especially for FDLP loans are sensitive to changes between projected and actual interest rates, subsidy cost reestimates varied from original estimates. To the extent that current assumptions correctly predict future loan performance and interest rates, subsidy costs per \$100 of FFELP loans made from fiscal years 1994 to 2004 will be, in many cases, less costly than originally anticipated. On the other hand, over the same time period, subsidy costs per \$100 of FDLP loans will in many cases be higher than originally anticipated.

FDLP subsidy costs per \$100 of loans disbursed have, in general, remained lower than those of FFELP. Nonetheless, if current assumptions correctly predict future loan performance and economic conditions, the originally estimated gain to the government from FDLP loans made in fiscal years 1994 to 2004 will not materialize, and instead these loans will result in a net cost to the government. In reality, however, subsidy cost estimates of FFELP and FDLP loans made in fiscal years 1994 to 2004 will continue to change as future reestimates incorporate actual experience and new interest rate forecasts. Similarly, initial subsidy cost estimates for loans made in the future will also change over the life of these loans and at times be lower or higher than initially estimated, depending on the extent to

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which loan performance and interest rates differ from assumptions used to develop initial estimates. Actual subsidy costs for a cohort of student loans will remain unknown until all payments that will be made on such loans have been collected.

Despite the fact that subsidy cost estimates will change from year to year, estimates developed in accordance with FCRA more fully and accurately present the expected long-term costs of federal student loans than did the prior method of calculating costs based on single-year cash flows to and from the government. As a result of FCRA, the budget is a more useful tool for allocating resources among the myriad of competing demands for federal dollars than it once was. Subsidy cost estimates, for example, provide policymakers the means to more accurately evaluate the long-term budgetary implications of potential legislative, regulatory, and administrative reforms. At the same time, it is important for policymakers to understand how credit reform subsidy cost estimates are developed and to recognize that such estimates will change in the future. Decisions made in the short-term on the basis of these estimates can have long-term repercussions for the fiscal condition of the nation.

While subsidy cost estimates include many of the federal costs associated with FFELP and FDLP loans, they do not capture all federal costs and revenues associated with the loan programs. Consideration of all federal costs and revenues of the loan programs would be an important component of a broader assessment of the costs and benefits of the two programs. Because federal administrative expenses—in accordance with FCRA—are excluded from subsidy cost estimates, for example, these estimates can underestimate the total lifetime costs of FFELP and FDLP loans. Other costs and revenues are also not considered in subsidy costs estimates, including interest rate risk inherent to lending programs, and federal tax revenues generated by private-sector activity in both FFELP and FDLP. Calculations of total federal costs would be enhanced were these additional costs and revenues considered, though doing so may require complex methodologies and/or data that are not currently readily available.

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## Agency Comments

We provided Education with a copy of our draft report for review and comment. Education reviewed the report and had no comments. Education noted that because the report did not include recommendations for the Department, it was not providing a formal response to be included in the report.

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As agreed with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its date. At that time we will send copies of this report to the Secretary of Education, appropriate congressional committees, and other interested parties. We will also make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-7215 or [ashbyc@gao.gov](mailto:ashbyc@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to the report are listed in appendix II.



Cornelia M. Ashby  
Director, Education, Workforce,  
and Income Security Issues

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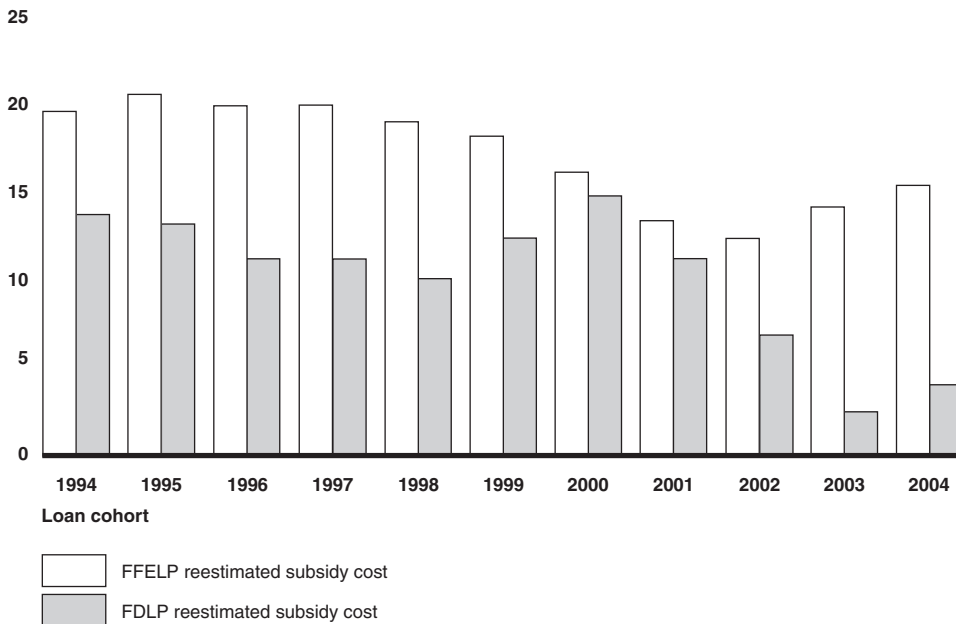
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# Appendix I: Comparison of Fiscal Year 2006 FDLP and FFELP Reestimated Subsidy Costs per \$100 Disbursed, by Loan Type and Cohort

**Figure 10: Comparison of Reestimated Subsidy Costs for Subsidized Stafford Loans in FFELP and FDLP, by Loan Cohort**

Subsidy cost per \$100 disbursed (nominal dollars)

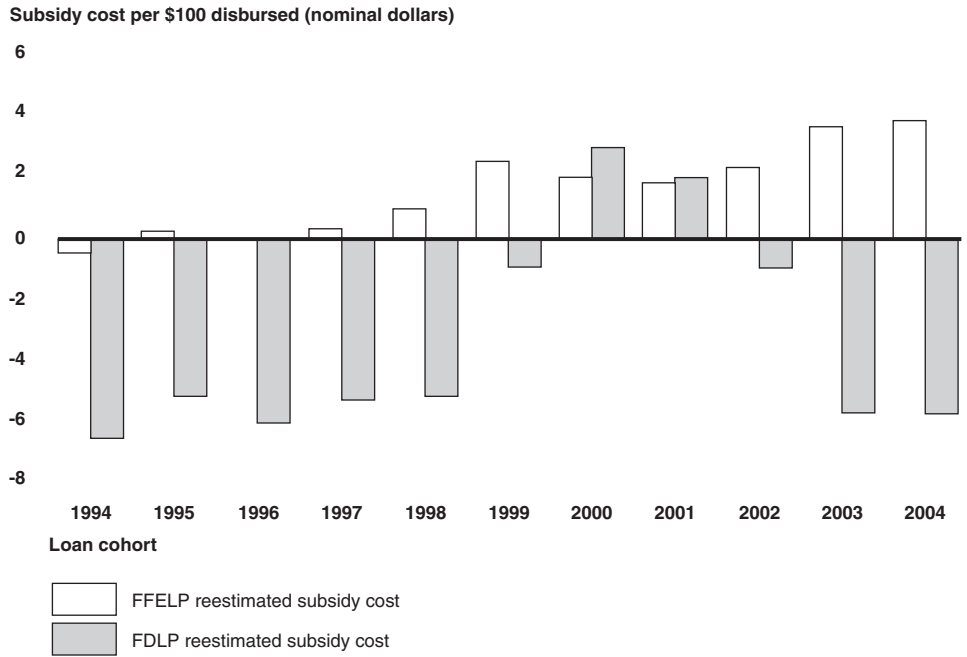


Source: GAO analysis of the fiscal year 2006 Budget of the United States Government credit supplement tables 7 and 8.



**Appendix I: Comparison of Fiscal Year 2006  
FDLP and FFELP Reestimated Subsidy Costs  
per \$100 Disbursed, by Loan Type and Cohort**

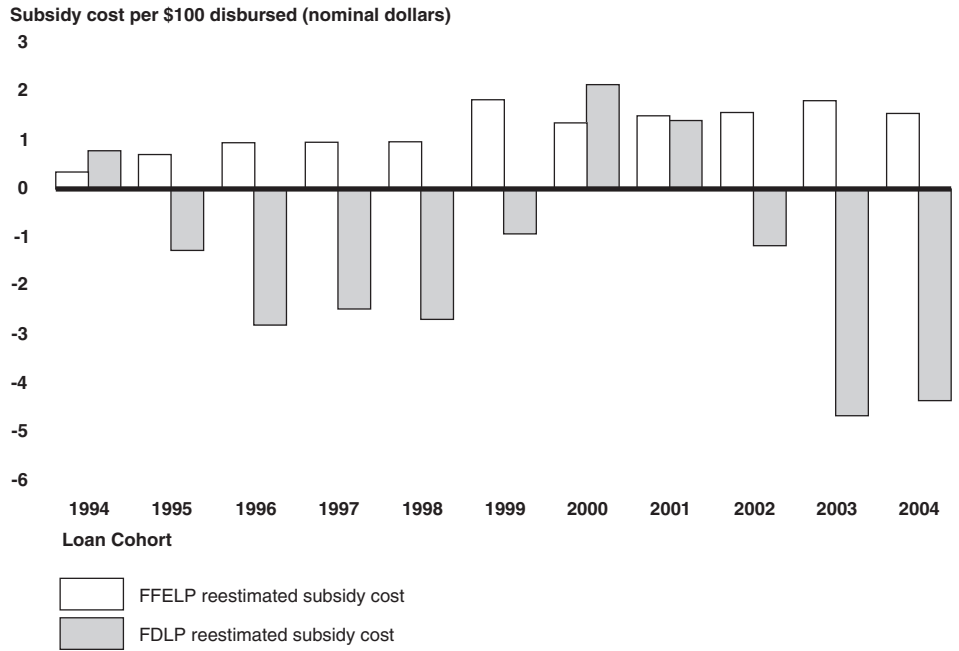
**Figure 11: Comparison of Reestimated Subsidy Costs for Unsubsidized Stafford Loans in FFELP and FDLP, by Loan Cohort**



Source: GAO analysis of the fiscal year 2006 Budget of the United States Government credit supplement tables 7 and 8.

**Appendix I: Comparison of Fiscal Year 2006  
FDLP and FFELP Reestimated Subsidy Costs  
per \$100 Disbursed, by Loan Type and Cohort**

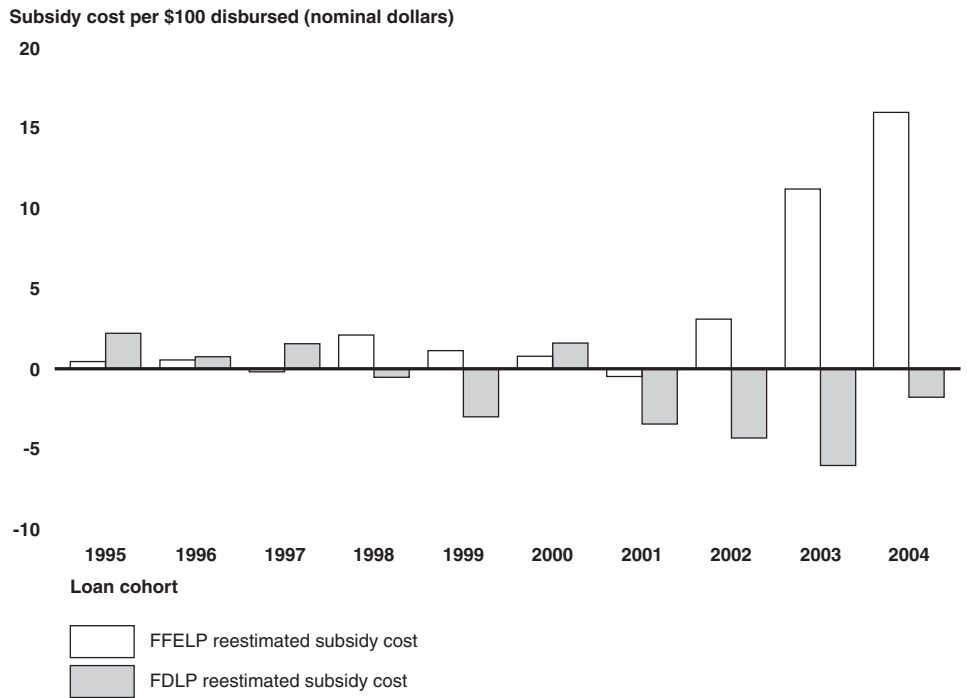
**Figure 12: Comparison of Reestimated Subsidy Costs for PLUS Loans in FFELP and FDLP, by Loan Cohort**



Source: GAO analysis of the fiscal year 2006 Budget of the United States Government credit supplement tables 7 and 8.

**Appendix I: Comparison of Fiscal Year 2006  
FDLP and FFELP Reestimated Subsidy Costs  
per \$100 Disbursed, by Loan Type and Cohort**

**Figure 13: Comparison of Reestimated Subsidy Costs for Consolidation Loans in  
FFELP and FDLP, by Loan Cohort**



Source: GAO analysis of the fiscal year 2006 Budget of the United States Government credit supplement tables 7 and 8.

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# Appendix II: GAO Contacts and Staff Acknowledgments

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## GAO Contact

Cornelia M. Ashby (202) 512-7215

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## Staff Acknowledgments

The following individuals made important contributions to the report: Jeff Appel, Assistant Director; Andrea Sykes, Analyst-in-Charge, Nagla'a El-Hodiri, Jeffrey W. Weinstein, Christine Bonham, Marcia Carlsen, Austin Kelly, Mitch Rachlis and Lauren Kennedy.

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