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January 2014

FEDERAL STUDENT LOANS

Borrower Interest Rates Cannot Be Set in Advance to Precisely and Consistently Balance Federal Revenues and Costs

GAO-14-234

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GAO Highlights

Highlights of GAO-14-234, a report to congressional committees.

Why GAO Did This Study

Federal student loans issued under the Direct Loan program play a key role in ensuring access to higher education for millions of students. The costs of the program to the government include administrative costs like loan servicing. They also include subsidy costs, which are the estimated long-term costs to the government of providing loans, such as the government's cost of borrowing and defaults on loans. Some have questioned whether borrower interest rates can be more precisely set to cover these costs without generating excess federal income. The Bipartisan Student Loan Certainty Act of 2013 required GAO to provide information on issues related to the cost of federal student loans.

This report addresses (1) how the costs of administering the Direct Loan program have varied in recent years, (2) how estimated subsidy costs have varied in recent years, and (3) how changes in different variables influence the overall cost of the program and the borrower interest rate needed to cover those costs.

GAO reviewed Direct Loan administrative cost data and analyzed subsidy cost data from Education for fiscal years 2007 through 2012, which are presented in nominal dollars throughout the report. In addition, GAO worked with Education to illustrate how changes in variables such as government borrowing costs could affect Direct Loan subsidy costs. GAO also examined whether borrower rates could be set so the government could cover Direct Loan costs without generating excess revenue (known as a breakeven analysis). GAO reviewed relevant federal laws, guidance, and reports; and interviewed Education and other agency officials.

GAO does not make recommendations in this report. The Department of Education agreed with our findings.

View GAO-14-234. For more information, contact Melissa Emrey-Arras at (617) 788-0534 or emreyarrasm@gao.gov.

What GAO Found

Total Direct Loan administrative costs grew from $314 million to $864 million from fiscal years 2007 to 2012, but federal costs per borrower have generally remained steady or fallen. The increase in total administrative costs largely results from an increase of over 300 percent in the number of Direct Loans during that same time period. One key factor contributing to this loan volume increase was a law that ended student loan originations under a federally guaranteed loan program resulting in new originations being made under the Direct Loan program. Loan servicing—which includes activities like counseling borrowers on selecting repayment plans, processing payments, and collecting on loans in delinquent status—is the largest category of administrative costs, comprising 63 percent of total Direct Loan administrative costs in fiscal year 2012. While total administrative costs have increased, costs per borrower and other unit costs have remained steady or declined. For example, the servicing cost per borrower has remained roughly $25 over the six-year period we examined. However, a number of factors, including a new payment structure for loan servicing contracts to reward servicers for keeping more borrowers in repayment status, have created some uncertainty about the servicing cost per borrower in coming years.

Separate from administrative costs, estimated subsidy costs vary by loan cohort—a group of loans made in a single fiscal year—and change over time. Based on the Department of Education's (Education) recent estimates, the government would generate subsidy income for the 2007 to 2012 Direct Loan cohorts as a group. However, estimates will change, because current subsidy cost estimates for these cohorts are based predominantly on assumptions about future revenue and costs. Actual subsidy costs will not be known until all cash flows have been recorded, generally after loans have been repaid. This may be as many as 40 years from when the loans were originally disbursed, because many borrowers do not begin repayment until after leaving school, and some face economic hardships that extend their payment periods. Subsidy cost estimates fluctuate over time due to the incorporation of updated data on actual loan performance and the government's cost of borrowing, as well as revised assumptions about future revenue and costs, through the annual reestimate process. As a result, there can be wide variations in the estimated subsidy costs for a given cohort over time. For example, the 2008 loan cohort was estimated to generate $9.09 of subsidy income per $100 of loan disbursements in one year, but in the next year that same cohort had an estimated subsidy cost of 24 cents per $100 of loan disbursements, a swing of $9.33. Volatility in subsidy cost estimates for a given cohort is generally expected to decrease over time as more actual loan performance data become available.

Because Direct Loan costs fluctuate with changes in certain variables, borrower interest rates cannot be set in advance to balance government revenue with costs consistently over the life of the loans. In a simulation of how loan costs respond to changes in selected variables, the costs were highly sensitive to changes in the government's cost of borrowing. This, coupled with cost estimates regularly updated to reflect loan performance data, means the total costs associated with Direct Loans are in flux until updates are recorded through the end of the loans' life cycle, which takes several decades. Therefore, the

borrower interest rates that would generate revenue to exactly cover total loan costs—known as breaking even—would change over time. To determine whether or not a set of conditions that would break even for one cohort would also break even for another cohort under different circumstances, GAO used data forecasted for future years to experiment with certain aspects of the borrower interest rate for two separate cohort years.

- GAO selected cohort years 2014 and 2019 because economic conditions may be different several years apart.
- For these cohorts, the following three aspects of the borrower interest rate were altered: the index (the base market rate that student loan interest rates are pegged to), the mark-up rate (the percentage-point increase over the base rate that students are charged), and the differences in the mark-up rates among loan types, including undergraduate, graduate student, and parent loans.
- GAO looked at how these changes to the borrower rates would affect total government costs, taking into account both administrative and subsidy costs.
- Changing the index and mark-up rates helped achieve a breakeven point based on current cost estimates for the 2014 cohort; however, cost estimates for this cohort will change as updated data become available over the life of the loans.
- When GAO applied the same index and mark-up rates that temporarily resulted in a breakeven point for the 2014 cohort to the 2019 cohort, it resulted in a net cost to the government.
- The difference in outcome for these two cohorts is because Direct Loan costs are sensitive to variables, such as government borrowing costs, that are projected to look very different for 2019 than they did for 2014.
- As illustrated in the simulation, the borrower interest rates that are needed to cover costs at one point in time may not be effective at another point in time and cannot be precisely determined in advance to enable the government to break even consistently.

Available information on Direct Loan costs illustrates the difficulties of accurately predicting what these program costs will be, and how much borrowers should ultimately be charged to achieve a particular outcome. Specifically, fluctuations in the actual and expected costs of the student loan program over time make it challenging to target a particular borrower interest rate that would consistently break even. Making frequent changes to the borrower interest rate could help program costs more closely match revenues in the short term, but it could confuse potential borrowers and complicate efforts to make the program transparent to students.

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U.S. GOVERNMENT ACCOUNTABILITY OFFICE
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January 31, 2014

The Honorable Tom Harkin
Chairman
The Honorable Lamar Alexander
Ranking Member
Committee on Health, Education, Labor, and Pensions
United States Senate

The Honorable John Kline
Chairman
The Honorable George Miller
Ranking Member
Committee on Education and the Workforce
House of Representatives

Federal student loans play a key role in ensuring access to postsecondary education for millions of students each year. In the 2012-2013 award year, the U.S. Department of Education (Education) reported disbursing more than $94 billion in student loans to nearly 17 million student borrowers and their parents under the William D. Ford Federal Direct Loan (Direct Loan) Program.[1] In recent years, the interest rates that borrowers paid on these loans were set at levels fixed through statute. However, interest rates on certain Direct Loans were set to double in July of 2013, contributing to concerns about the burden of rising student loan debt on borrowers.[2] In response, Congress enacted the Bipartisan Student Loan Certainty Act of 2013, which tied borrower interest rates on Direct Loans issued on or after July 1 to the interest rate on the 10-year Treasury note. Borrower interest rates are now equal to the 10-year Treasury note rate plus a mark-up that depends on the borrower and loan type. There are also caps on borrower interest rates, which protect borrowers when interest rates are high. However, questions

[1] These loans are issued under Title IV of the Higher Education Act, as amended.

[2] Under the College Cost Reduction and Access Act, interest rates on certain Direct Loans to undergraduate students were lowered incrementally from 6.8 percent to 3.4 percent; however, these rate cuts were not made permanent. Pub. L. No. 110-84, § 201, 121 Stat. 784, 790 (2007). The Moving Ahead for Progress in the 21st Century Act subsequently extended these rate cuts, but the cuts expired as of June 30, 2013. Pub. L. No. 112-141, § 100301, 126 Stat. 405, 979 (2012).

remain about how much students and their parents should be charged to borrow money from the government to finance students' education. Some policy makers and higher education experts maintain that the interest rate charged to borrowers should cover—but not exceed—federal program costs, which comprise administrative and subsidy costs. Administrative costs include costs such as processing loan applications and servicing existing loans. Subsidy costs represent the estimated long-term cost of extending credit over the life of a loan, excluding administrative costs.[3] A clear understanding of both administrative costs and subsidy costs is necessary to understand the implications of setting borrower interest rates to achieve particular policy goals.

The Bipartisan Student Loan Certainty Act of 2013 required that GAO examine a variety of issues related to the cost of federal student loans to the federal government.[4] This report addresses (1) how the costs of administering the Direct Loan program have varied in recent years, (2) how estimated subsidy costs associated with the Direct Loan program have varied in recent years, and (3) how changes in different variables influence the overall cost of the Direct Loan program and the borrower interest rate needed to cover those costs.

In conducting this work, we reviewed Education data on Direct Loan administrative costs and analyzed Education data on subsidy costs from fiscal years 2007 through 2012, the most recent years available.[5] We assessed the reliability of Education's administrative cost data and data related to subsidy costs estimates by (1) reviewing existing information about the data and the systems that produced them, and (2) interviewing agency officials knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this report. To address our first research question, we reviewed Education data on Direct Loan administrative costs from fiscal years 2007 through 2012 to evaluate trends in costs for recent years. Education officials noted that they

[3] In this report, subsidy cost refers to lifetime subsidy costs, which would include initial estimates and any reestimates.

[4] Pub. L. No. 113-28, § 4, 127 Stat. 506, 507. We focus on Direct Loans in this report because they represent the large majority of federal student loans currently issued by Education.

[5] Interest rates were also set in a consistent way during this time period, facilitating subsidy cost comparisons.

calculate certain administrative costs for all loan programs, and do not track Direct Loan costs separately because doing so has not been necessary for management purposes. As Direct Loan administrative appropriations make up the large majority of funds appropriated to Education's administrative account, we determined that these data were sufficient to illustrate Direct Loan administrative cost trends. For our second research question, we analyzed data from Education subsidy cost estimates and reestimates for the 2007-2012 Direct Loan cohorts, in order to understand trends in cost estimates. For our third research question, we worked with Education officials to alter key variables in the agency's subsidy cost estimate to illustrate how changes in certain variables, such as risk of default, could affect the overall cost of the Direct Loan program. We used reported data from fiscal years 2007 through 2012 to illustrate a range of possible government costs. See appendix I for more detail on these analyses. Throughout the report, cost figures are reported in nominal dollars. In addition to our various analyses, we interviewed officials at Education and the Congressional Budget Office (CBO) regarding key issues related to Direct Loan administrative and subsidy costs.[6] We also reviewed relevant federal laws and guidance, as well as past GAO reports for the purposes of all of our research questions.

We conducted this performance audit from August 2013 to January 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Under the Direct Loan program, Education issues three main types of loans—Subsidized Stafford, Unsubsidized Stafford, and PLUS Loans.[7]

[6] We spoke with CBO because they estimate subsidy costs to identify financial impacts of legislation and inform budget projections, among other purposes. Their estimation methodology differs from Education's, and the resulting estimates are not comparable.

[7] Education also issues consolidation loans, which allow borrowers to combine multiple existing federal student loans into one loan with one resulting monthly payment. Consolidation loans may allow borrowers to extend their repayment period to up to 30 years, thereby lowering the borrower's monthly payments.

Subsidized Stafford Loans are available only to undergraduate student borrowers with demonstrated financial need.[8] The government subsidizes these loans by not charging borrowers for the interest that accrues while they are still in school and during a 6-month grace period after leaving school.[9] Unsubsidized Stafford Loans are available to both undergraduate and graduate student borrowers, irrespective of financial need. Borrowers are responsible for paying all interest from disbursement to final payoff of the loan. Finally, PLUS Loans are available to graduate students and parents of dependent undergraduates, who must pay all interest on these loans as well.[10]

Borrower interest rates on Direct Loans changed with the passage of the Bipartisan Student Loan Certainty Act of 2013, which tied rates to the 10-year Treasury note rate and placed a cap on borrower rates.[11] These

[8] The amount of student financial need determined for federal student aid purposes is generally the difference between a student's cost of attendance and an estimate of the student's (and his or her family's, in the case of a dependent student) ability to pay these costs—called the expected family contribution. To apply for federal student aid, students or families submit a Free Application for Federal Student Aid, which includes information on the student's and/or family's income, assets, and federal income tax expenses.

[9] The Consolidated Appropriations Act, 2012 temporarily eliminated the grace period interest subsidy for Subsidized Stafford Loans disbursed on or after July 1, 2012 and before July 1, 2014. Pub. L. No. 112-74, div. F, tit. III, § 309(d), 125 Stat. 786, 1101. The government also does not charge borrowers for interest costs on Subsidized Stafford Loans during periods of authorized deferment, during which borrowers can temporarily suspend repayment if, for example, they pursue additional higher education, provide military service, or experience economic hardships.

[10] Subsidy cost estimates take into account the effect of borrowers not paying interest on Subsidized Stafford Loans while they are in school, the 6-month grace period, or periods of authorized deferment. For Unsubsidized Stafford Loans and PLUS Loans, subsidy cost estimates take into account that borrowers pay all interest on these loans. Subsidy costs represent anticipated long-term costs to the government of extending credit over the life of a loan, and include a number of variables in addition to projected borrower interest payments.

[11] Pub. L. No. 113-28, § 2, 127 Stat. 506 (codified at 20 U.S.C. § 1087e(b)). Between July 1, 2006 and June 30, 2013, borrower interest rates were set at fixed levels not tied to the interest rate on Treasury securities. For the 4 award years from July 1, 2008 to June 30, 2012, the College Cost Reduction and Access Act incrementally lowered the fixed interest rates of Subsidized Stafford Loans made to undergraduate students from 6.8 percent to 3.4 percent. Pub. L. No. 110-84, § 201, 121 Stat. 784, 790 (2007). In addition, the Moving Ahead for Progress in the 21st Century Act, extended the 3.4 percent interest rate for these loans from July 1, 2012 to June 30, 2013. Pub. L. No. 112-141, § 100301, 126 Stat. 405, 979 (2012). For Direct Loans issued prior to July 1, 2006, interest rates are variable, and are adjusted annually according to the interest rate on the 91-day Treasury bill.

Borrower Rate: The interest rate charged to federal student loan recipients.

rates and caps vary by loan type and borrower characteristics, as seen in table 1 below. Undergraduate student borrowers pay the lowest interest rate, with graduate student and parent borrowers paying somewhat higher rates.

Table 1: Interest Rates on Direct Loans

Loan type (borrower)	Percent charged over the 10-year Treasury note rate	Award Year 2013-2014 borrower interest rate[a]	Interest rate cap
Subsidized Stafford (undergraduate)	2.05%	3.86%	8.25%
Unsubsidized Stafford (undergraduate)	2.05%	3.86%	8.25%
Unsubsidized Stafford (graduate)	3.6%	5.41%	9.5%
PLUS (graduate or parent)	4.6%	6.41%	10.5%

Source: 20 U.S.C. § 1087e(b) and GAO analysis of interest rate information.

[a]An award year is the school year for which federal financial aid is used to fund a borrower's education. The 10-year Treasury note rate for the 2013-2014 award year is 1.81%.

There are a variety of repayment plan options available to eligible student loan borrowers. Under the standard repayment plan, borrowers typically repay loans over a period of up to 10 years. Key features of other plans are extended repayment periods and repayment amounts that are linked to borrowers' income. For instance, under the income-contingent repayment plan, repayment amounts are calculated annually based on the borrower's adjusted gross income, family size, and total Direct Loan amount. Repayment periods under these plans may be up to 25 years. By extending their repayment periods, borrowers may lower their monthly payments, but may pay more in interest over time.

Types of Direct Loan Costs

The Direct Loan program has two main categories of costs: administrative costs and subsidy costs. See table 2 below for selected elements of these two types of costs. Some subsidy elements (like government borrowing

costs) raise subsidy costs, while others (like borrower principal repayments) lower them.[12]

Table 2: Selected Direct Loan Administrative Costs and Subsidy Elements

Administrative costs	Subsidy elements and impact on net costs	
Processing loan applications	Government borrowing costs	⇧
Originating and disbursing loans	Defaulted loans[a]	⇧
Servicing outstanding loans	Loan forgiveness	⇧
School oversight and monitoring	Borrower principal repayments	⇩
Collecting on defaulted loans	Borrower interest payments	⇩
	Borrower fees for new loans	⇩
	Recoveries on defaulted loans	⇩

Source: GAO analysis of administrative and subsidy cost categories.

[a]For defaulted loans, the government has strong collection powers and tools such as tax refund offsets and wage garnishments. Loans are only discharged under limited conditions, such as if a borrower dies, becomes totally and permanently disabled, or, in rare circumstances, declares bankruptcy. (For loans to be discharged through bankruptcy, a bankruptcy court must find that repaying the loans would impose undue hardship. This must be done at an adversary proceeding at which creditors may be present to challenge the request.)

The funding for Direct Loan administration is generally discretionary, meaning that Congress periodically appropriates the level of funding it deems appropriate. The funding for subsidy costs, on the other hand, is mandatory, meaning that funds are not appropriated annually. Instead, Congress has enacted permanent statutory authority to appropriate funding for loans to eligible borrowers.

[12] Education incurs borrowing costs on funds provided by Treasury to finance its lending through the Direct Loan program. These borrowing costs (which we refer to in this report as government borrowing costs) are reflected in subsidy cost estimates through the discount rate used to determine the present value of expected future cash flows for each loan cohort. It is based on a collection of interest rates that enable Education to separately "discount" each year's expected cash flows to present value. These interest rates reflect the rates on marketable zero-coupon Treasury securities that were issued at the same time as loans in the cohort and that mature in the same year as the expected cash flows. Because the discount rate is based on a collection of interest rates, it differs from the interest rate on the 10-year Treasury note (to which Direct Loan borrower rates are "indexed," or tied).

Direct Loan Administrative Costs

The majority of the Direct Loan program's administrative costs are funded by discretionary appropriations to Education's Student Aid Administration account.[13] The Student Aid Administration account provides funds to administer the Direct Loan program as well as other federal student aid programs including the Federal Family Education Loan Program.[14] Administrative costs support activities such as educating students and families about how to obtain loans; processing loan applications; disbursing loans; administering existing guaranteed loans; servicing loan accounts; and taking action to prevent fraud, waste, and abuse. Costs to manage and collect payments on defaulted loans are also included in administrative costs.[15]

Administrative Costs: Loan program expenses that are excluded from subsidy cost calculations, such as costs related to processing loan applications or servicing existing loans.

Education uses an activity-based costing model that tracks administrative cost by processes, such as application processing or loan servicing. In the model, Education calculates the full administrative cost of each process by first identifying its direct costs (or costs that can be tied to that specific process) and then allocating additional indirect costs, such as rent, equipment, and maintenance, to each process based on formulas intended to reflect how many indirect resources each process uses. Costs that include direct and indirect costs are called full costs. Education uses both full and direct costs to generate costs per unit, such as cost per application processed or borrower serviced.

Direct Loan Subsidy Costs

As required by the Federal Credit Reform Act of 1990 (FCRA), Education estimates loan subsidy costs annually for inclusion in the President's budget.[16] For Direct Loans, subsidy costs represent the estimated long-

[13] Administrative cost data reported by Education during the period of our review also included some mandatory funding, including mandatory budget authority to fund the administrative costs of eligible Not-For-Profit loan servicers, which was provided under the Student Aid and Fiscal Responsibility Act (SAFRA Act), enacted as part of the Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, § 2212(b), 124 Stat. 1029, 1080.

[14] Under the Federal Family Education Loan Program, Education guarantees loans that were issued by private lenders by committing to cover costs related to loan defaults and other write-offs. The SAFRA Act terminated the authority to make or insure new FFEL loans after June 30, 2010. *Id.*, § 2201, 124 Stat. 1029, 1074.

[15] Payments Education makes to private collection agencies to collect on defaulted loans are considered an element of subsidy costs.

[16] 2 U.S.C. § 661c.

term cost to the government of extending credit over the life of the loan, excluding administration costs. Subsidy cost estimates that are recorded in a given year are calculated based on the net present value of lifetime estimated cash flows to and from the government that result from providing these loans to borrowers.[17] For Direct Loans, cash flows from the government include loan disbursements and cash flows to the government include repayments of loan principal, interest and fee payments, and recoveries on defaulted loans.

The Federal Credit Reform Act of 1990 (FCRA) was intended to improve the measurement of the budgetary costs of federal credit programs. Prior to the implementation of FCRA, credit programs were reported in the budget on a cash basis. Thus, loan guarantees appeared to be free in the budget year of the guarantee, while direct loans appeared to be as costly as grants. As a result, costs were distorted and credit programs could not be compared meaningfully with other non-credit programs and with each other. FCRA recognized that the true cost of a loan or guarantee is not captured by its cash flows in any one year, but by the net value of its cash flows over the life of the loan. This value is known as the "subsidy cost"—that is, the estimated long-term cost to the government of a direct loan or loan guarantee, calculated in current dollars, excluding administrative costs. Administrative costs remain on a cash basis and are excluded from subsidy calculations.

Subsidy costs are influenced by a variety of variables, including government borrowing costs, the interest rate charged to student loan recipients, how quickly those recipients repay their loans, and how many ultimately default. A positive subsidy cost estimate indicates that the government anticipates a net cost, while a negative subsidy cost estimate indicates that the government anticipates generating net subsidy income, not counting administrative costs. To determine the overall cost of the Direct Loan program, both subsidy and administrative costs must be considered. For the government to break even on Direct Loans, net subsidy income should be equal to administrative costs.

Subsidy Cost: The estimated long-term cost to the government of providing a loan, expressed in current dollars, and excluding administrative costs.

Education calculates subsidy costs separately for each group of loans made in a particular fiscal year—referred to as a loan cohort. To estimate subsidy costs, Education has developed a Student Loan Model that contains a variety of assumptions. These assumptions are reflected through variables such as how quickly borrowers will repay their loans (and, thus, how much interest the government will collect), how many

[17] The discount rate is used in subsidy cost estimates to determine the present value of expected future cash flows for each loan cohort over the life of the loans. The discount rate is also generally the rate Education pays Treasury to finance its lending.

borrowers will default, and how successful default collection activities will be.

Education annually reestimates subsidy costs for each loan cohort until all loans in the cohort have been repaid, which may take decades. Reestimates take into account actual loan performance as well as changes in assumptions about future performance, such as how many borrowers will default, or how many will participate in extended repayment plans. Reestimates may result in increases or decreases in subsidy cost estimates.

Loan Cohort: A group of loans made in a particular fiscal year.

In addition to Education's subsidy cost estimates, CBO also estimates subsidy costs to identify the financial impact of legislation and inform budget projections, among other purposes. CBO and Education both estimate subsidy costs for the Direct Loan program following the requirements of FCRA; however, they use different estimation methodologies and assumptions.[18] Officials from both organizations pointed to a number of key areas where their assumptions differed. See table 3 for examples of key differences. Officials cited a number of reasons for differences in these particular assumptions, including differences in economic forecasts and professional judgment when developing forecasting methodologies. Because of such differences, CBO and Education's cost estimates for the program are not comparable.

[18] While CBO prepares estimates according to FCRA methodology, it will also occasionally prepare estimates according to an alternate methodology. Under this approach, which it refers to as the "fair value" method, cash flows are discounted using market-based discount rates rather than discount rates based on Treasury securities. While fair value estimates would initially vary from FCRA estimates, at the end of the life of the loan, actual costs would be the same under both methodologies. Additionally, both FCRA and fair value estimates fluctuate when variables used to estimate subsidy costs change.

Table 3: Examples of Key Differences in CBO and Education Subsidy Cost Calculations under the Federal Credit Reform Act

Methodological differences	Education approach	CBO approach
Treatment of consolidation loans	Consolidation loans are treated as a payoff of the existing loan and a creation of a new loan.	Consolidation loans are treated as a repayment option available to borrowers under the initial loan, not as a newly created loan.
Calculating net present value of future cash flows	The interest rate (discount rate) used to calculate the net present value of future cash flows for each cohort is updated when the loan cohort is 90% disbursed, and is locked thereafter.	The interest rates used to calculate the net present value of future cash flows for each cohort are based on a forecast of interest rates for each year of the projection period.
Timing of net present value calculations (i.e., discount timing)	The net present value of cash flows is calculated at the beginning of each fiscal year.	The net present value of cash flows is calculated as of the end of each fiscal year.
Treatment of certain contractor payments	Payments to private collection agencies for default collection activities and payments to loan servicers when paying off a loan for consolidation are included in the subsidy calculations.	These payments are excluded from the subsidy calculations.
Borrower interest rates	Education and CBO use different models to forecast student loan borrower interest rates.	

Source: GAO analysis of information on Education and CBO subsidy cost calculation methodologies.

Total Direct Loan Administrative Costs Grew from $314 Million to $864 Million in Recent Years, but Costs per Borrower Have Generally Remained Steady or Fallen

Total Direct Loan Administrative Costs Grew by $550 Million from Fiscal Years 2007 to 2012, Largely Driven by an Increase in the Number of Direct Loans

Direct Costs: Costs that can be tied to a specific output, such as loan application processing or loan servicing.

The Department of Education reported that full administrative costs (i.e. costs incorporating both direct and indirect administrative costs) for the Direct Loan program increased by $550 million from fiscal year 2007 to fiscal year 2012, to total $864 million in fiscal year 2012. These Direct Loan administrative costs represent 65 percent of the $1.3 billion[19] in new budget authority made available to the Student Aid Administration account in fiscal year 2012, while administrative costs for other loan, grant, and loan guarantee programs and activities made up the remainder.[20] Loan servicing, which includes activities related to processing loan payments and maintaining borrower information, is the largest category of reported administrative costs, comprising 63 percent of total administrative costs in fiscal year 2012. Figure 1 below shows

[19] According to Education, the department received a total of about $1.320 billion in new budget authority for student aid administration in fiscal year 2012. About $1.043 billion of this amount was made available by the Consolidated Appropriations Act, 2012, with the remainder coming from mandatory appropriations. Pub. L. No. 112-74, 125 Stat. 786, 1097 (2011); *id.*, § 527, 125 Stat. 786, 1115; 20 U.S.C. § 1087h.

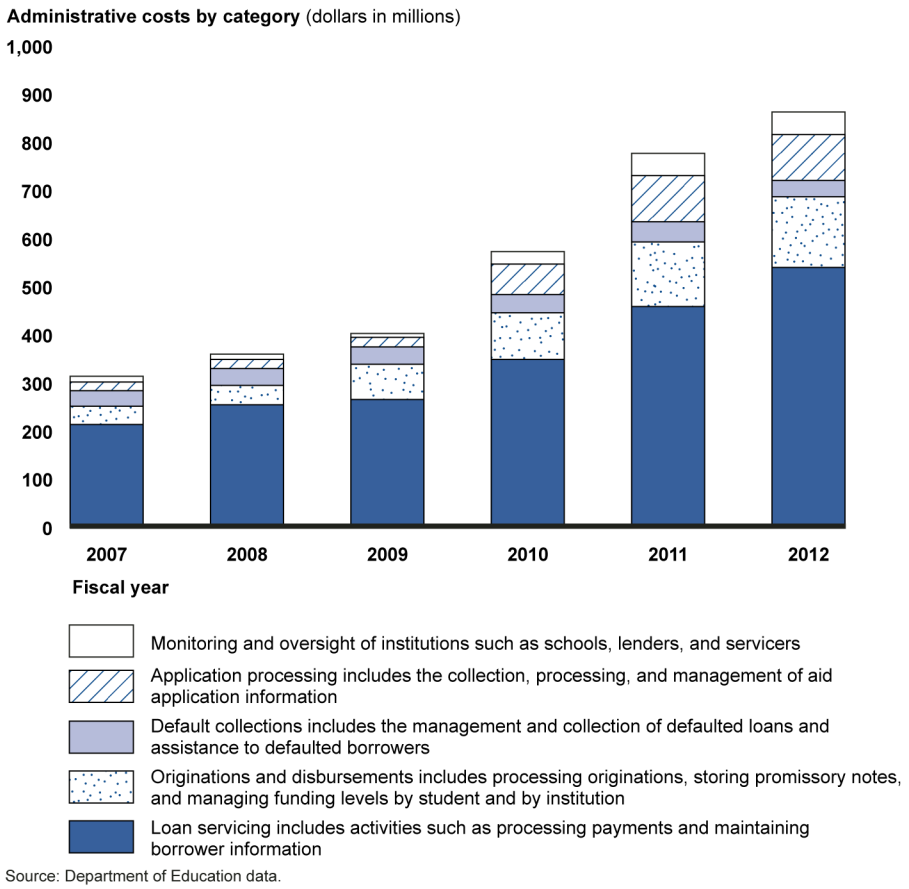
[20] Other programs with administrative costs funded through the Student Aid Administration account include the: (1) Federal Family Education Loan Program, (2) Pell Grant Program, (3) Teacher Education Assistance for College and Higher Education Grants Program (TEACH), (4) Campus-based programs (Perkins Loan Program, Supplemental Educational Opportunity Grants Program, and Work-Study Program), (5) Leveraging Educational Assistance Partnerships Program/Special Leveraging Educational Assistance Partnerships Program (LEAP/SLEAP), (6) National Science and Mathematics Access to Retain Talent Grant Program (SMART), and (7) Academic Competitiveness Grants Program (ACG).

Indirect Costs: Costs not tied to one specific output, including rent, equipment, and building maintenance.

Full Costs: Total resources used to produce an output, including both direct and indirect costs.

total Direct Loan Program costs by category from fiscal year 2007 to fiscal year 2012.

Figure 1: Total Direct Loan Program Administrative Costs by Category, Fiscal Year 2007 to Fiscal Year 2012



Source: Department of Education data.

Note: See appendix II for supporting data. All administrative costs are full costs generated by Education's Activity Based Costing model for the Direct Loan program.

Total Direct Loan administrative costs reported by the Department of Education rose from $314 million to $864 million—a 175 percent increase—from fiscal year 2007 to fiscal year 2012. Loan servicing costs showed the greatest dollar increase at over $300 million (152 percent) during that time period. Although other categories—application processing, school oversight and monitoring, and originations and disbursements—showed smaller dollar increases, the percentage growth of these categories ranged from about 270 percent to about 440 percent.

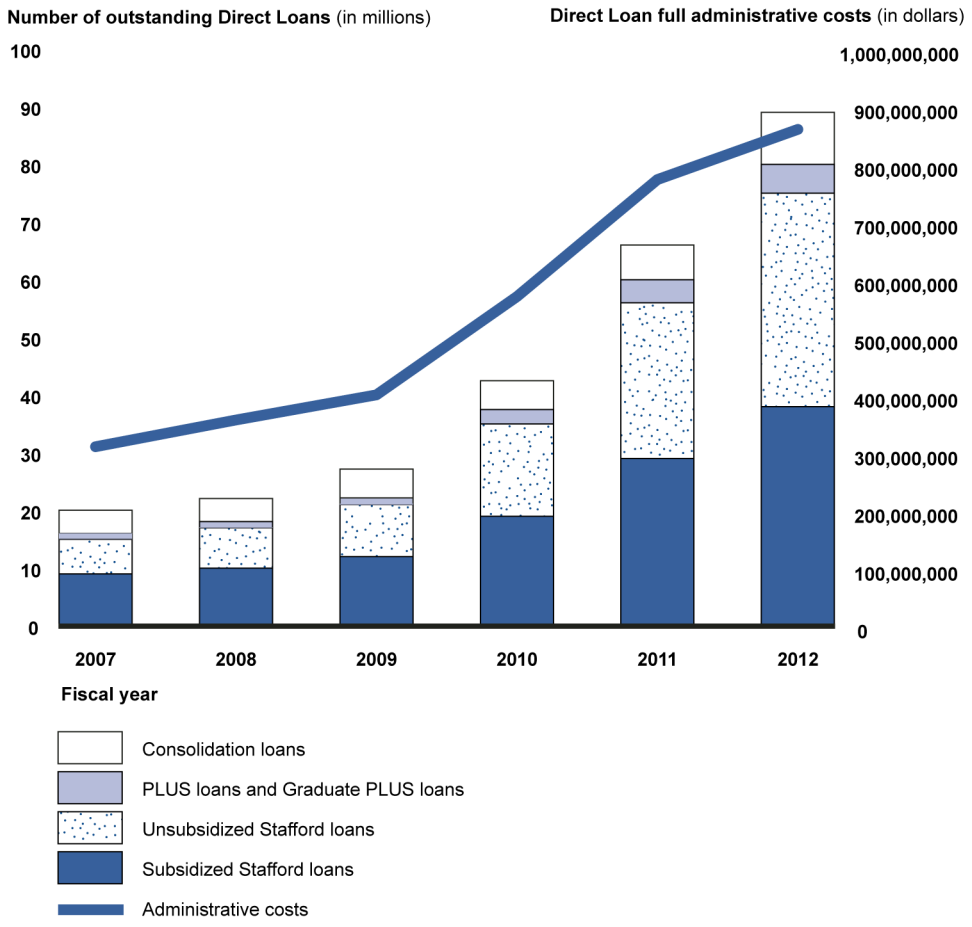
Only default collections, including the management and collection of defaulted loans and assistance to defaulted borrowers, stayed generally flat in total dollars.[21]

Education officials stated that total administrative costs are largely driven by loan volume and the number of borrowers and, therefore, costs have increased as the number of Direct Loans has increased.[22] The reported number of outstanding Direct Loans increased over 300 percent, from 19 million to over 88 million, from fiscal year 2007 through fiscal year 2012. As shown in figure 2 below, the largest loan volume increases were in Subsidized and Unsubsidized Stafford loans.

[21] The default collections category does not include payments Education makes to private collection agencies, which are included in the subsidy cost calculation.

[22] Borrowers may be eligible to take out multiple loans, resulting in differences between the number of borrowers and number of loans.

Figure 2: Number of Outstanding Direct Loans by Loan Type and Direct Loan Program Administrative Costs, Fiscal Year 2007 to Fiscal Year 2012



Source: Department of Education data.

Note: See appendix II for supporting data. All administrative costs are full costs, i.e. include direct and indirect costs. Cost data were generated by Education's Activity Based Costing model for the Direct Loan program.

Several factors contributed to the increase in the number of Direct Loans. For example, beginning in 2008, changes in the student loan market led numerous schools to transition from the Federal Family Education Loan

program to the Direct Loan program.[23] In addition, the Student Aid and Fiscal Responsibility Act terminated the authority to make or insure new loans under the Federal Family Education Loan program after June 30, 2010, with subsequent federal student loans originated under the Direct Loan program. Education officials also stated that the economic downturn in 2008 coincided with an increase in student loan volume as individuals returned to school.

Costs per Borrower and Other Unit Costs Have Generally Remained Stable or Fallen

While total reported administrative costs increased from fiscal year 2007 to fiscal year 2012, cost per borrower and other unit cost measures remained stable or fell. Unit costs are a measure Education uses to track costs such as cost per loan origination, cost per borrower serviced, and cost per application processed.[24] See table 4 for a description of these unit cost measures.[25] According to Education officials, increased loan volume resulted in a decrease in many unit costs. For example, total loan servicing costs for all programs supported by the Student Aid Administration account increased from fiscal year 2007 to fiscal year 2012; however, the number of borrowers serviced for these programs also increased from 9.7 million in fiscal year 2008 to 29.7 million in fiscal 2012. As a result, the annual servicing cost per borrower decreased slightly during that time, remaining at roughly $25 per borrower. While the overall flat or downward trend persisted over most of the years we studied, Education reported a slight increase in unit costs from fiscal year 2011 to 2012, attributable to such changes as lower volumes of applications and originations.

[23] The subprime mortgage crisis and the collapse of auction rate securities made it more difficult for lenders participating in the Federal Family Education Loan program to obtain capital to make loans. As a result, some lenders decided not to originate new federal student loans in the 2008 school year, and numerous schools transitioned to the Direct Loan program.

[24] We report full unit costs to include indirect costs and to provide a comparison to the full overall administrative costs.

[25] While some available unit cost data is specific to the Direct Loan program, other relevant unit cost measures reflect costs for all programs supported by the Student Aid Administration account, not solely Direct Loans. In these cases, separate unit cost data were not available for the Direct Loan program. Education officials reported that calculating unit costs specific to the Direct Loan program was unnecessary for management purposes.

Table 4: Selected Student Aid Administration Unit Costs, Fiscal Years 2007 to 2012

Unit cost category	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Free Application for Federal Student Aid processing[a]						
Cost of application processing per application	$7.14	$6.94	$5.14	$6.03	$6.11	$6.19
Direct Loan originations						
Cost of loan origination per loan	[b]	[b]	$9.20	$6.33	$4.99	$6.11
Direct Loan consolidation originations						
Cost of loan origination per loan	$130.51	$123.81	$69.94	$69.51	$51.91	$60.67
Direct Loan PLUS originations						
Cost of loan origination per loan	[b]	[b]	$9.62	$6.29	$4.51	$5.48
Loan servicing[a]						
Cost of loan servicing activities per borrower	$25.64	$26.37	$27.10	$26.43	$24.20	$25.09
Default collections[a]						
Cost of default collections per default dollar collected	$0.18	$0.17	$0.17	$0.12	$0.12	$0.13
Oversight and monitoring of schools[a]						
Cost of oversight activities per school monitored	[b]	$10,052	$6,369	$9,671	$10,313	$10,694

Source: Department of Education data.

Notes: All administrative costs are full costs. FY refers to fiscal year.

[a]This measure includes cost data from the Direct Loan program, along with other programs supported by the Student Aid Administration account.

[b]Data not available for this year.

Recent changes in loan servicing contracts, combined with other factors, have increased uncertainty about what servicing costs per borrower will be in coming years. Prior to 2009, all loans were serviced under a single contract, referred to as the Common Services for Borrowers (CSB) contract. Under the CSB contract, Education paid servicers based on loan volume, paying a smaller fee per borrower as the number of borrowers serviced increased. In order to accommodate increasing loan volume, Education began to contract with additional loan servicers in 2009.[26] The new contracts use a different pricing structure to encourage servicers to

[26] In its Fiscal Year 2014 Budget Request, Education reported that it contracts with 16 servicers to perform a range of functions, including processing payments. These servicers are contracted through the Common Services for Borrowers contract, the Title IV Additional Servicers contracts, and the Not-For-Profit Servicer contracts. Education entered into the Title IV Additional Servicers contracts in 2009, and Direct Loans were first assigned to these servicers in 2010. In 2011, Education also began contracting with the Not-For-Profit servicers.

keep more borrowers in a repayment status.[27] For example, under one such contract, the servicers receive the highest rate for borrowers who are in-grace, in current repayment, or delinquent for 30 days or less, and the lowest rate for borrowers who have been delinquent for 270 days or more. Education officials stated that under the new contracts, they may pay more per borrower but may also keep more borrowers in repayment.[28] Education also recently reported that the large portfolio of Direct Loans originated after the move away from the Federal Family Education Loan Program is in the process of maturing from the cheaper "in-school" servicing cost status to the more expensive "in-repayment" servicing cost status. As a result of these changing circumstances—a new servicing payment structure, new servicers collectively managing an increasing volume of loans, and the maturing of the Direct Loan portfolio—whether future servicing costs per borrower will increase or decrease is uncertain, according to Education officials.

[27] According to Education officials, the Title IV Additional Servicers contract also meets Education's aim to increase competition among servicers by increasing the number of contractors. Education reports the relevant borrower status groupings as follows: in-school, in-grace/current repayment, deferment/forbearance, and delinquency. In-school status indicates the borrower is enrolled at least half-time and loan payments are postponed. In-grace refers to a grace period, usually 6 months for Direct Loans, after a borrower leaves school or drops below half-time enrollment when no loan payments are due. Deferment and forbearance statuses both entail a postponement of loan payments under certain circumstances. Delinquency status indicates that borrowers' accounts have become past due on payment. In general, default occurs when a borrower reaches 270 days of delinquency.

[28] While loans in repayment have a higher administrative cost, loans that remain in repayment status and avoid delinquency or default also reduce the subsidy cost of the program to the government.

Estimated Subsidy Costs Differ across Loan Cohorts and Fluctuate over Time

Subsidy Costs Vary by Loan Cohort, and Current Estimates Show the Government is Expected to Generate Subsidy Income from Recent Cohorts

Reestimate: Annual recalculation of estimated lifetime loan subsidy costs for each cohort, incorporating updated information on actual loan performance and revised assumptions about future cash flows.

The subsidy costs or income generated from Direct Loans varied between the 2007 to 2012 loan cohort years (a cohort being a group of loans made in a particular fiscal year). For example, based on Education's most recent subsidy cost estimates, the 2008 loan cohort is currently estimated to result in the highest subsidy cost to the government, with a subsidy cost of about $44.4 million. In contrast, the 2012 loan cohort is estimated to generate the most subsidy income—about $23.6 billion—for the government.[29] (See table 5 for subsidy cost components and examples of what they include.)

As of the end of fiscal year 2013, it is estimated that the government will generate about $66 billion in subsidy income from the 2007 to 2012 loan cohorts as a group.[30] However, current estimates for this group of loan cohorts are based predominantly on forecasted cash flow data derived from assumptions about future loan performance.[31] As more information on actual cash flows for these loans becomes available, subsidy cost estimates will change. As a result, it is unclear whether these loan cohorts will ultimately generate subsidy income, as currently estimated, or whether they will result in subsidy costs to the government. This will not be known with certainty until all cash flows have been recorded after

[29] Estimates of the subsidy cost in dollars were derived using Education cash flow data from the Office of Management and Budget (OMB) credit subsidy calculator. These data include information through the end of fiscal year 2013. The credit subsidy calculator is the discounting tool issued by OMB for agencies to calculate credit subsidy costs for direct loans. Subsidy rates and reestimates must be calculated with the credit subsidy calculator.

[30] A total of $454 billion in loans was disbursed for the 2007-2012 cohorts.

[31] Cost estimates will change because only a few years of actual data are currently available for the 2007 to 2012 cohorts. Subsidy costs are estimated based on forecasted cash flows for each loan cohort. Forecasted data are based on assumptions about future economic conditions and loan performance, such as the likelihood of borrowers defaulting on their loan. These assumptions about future conditions are based in part on historic data. Cash flows are estimated over the full life of the loan cohort, and Education re-estimates subsidy costs every fiscal year based on actual loan performance and changes to assumptions about future performance.

loans have been repaid or discharged—which may be as many as 40 years from when the loans were originally disbursed.[32]

Table 5: Direct Loan Subsidy Cost Components

Subsidy cost component	Example(s) of what is included:
Financing	• Government borrowing costs • Borrower scheduled interest payments
Fees	• Cash flows from fees paid by borrowers for new loans
Defaults (net of recoveries)	• Missed payments due to defaults or delinquency. Recoveries on defaults or delinquencies net of payments made to private collection agencies for recovering on defaulted payments
All other costs	• Prepayments and loan consolidations— when borrowers consolidate their loans and have a different payment schedule from their previous loan agreement[a] • Loan forgiveness • Death, disability, and bankruptcy discharges[b]

Source: GAO analysis of U.S. Department of Education data.

Note: The subsidy cost estimates are calculated and presented in the federal credit supplement, broken out into four components: financing costs, fees, defaults (net of recoveries), and "all other" costs. The federal credit supplement is part of the President's Budget and provides summary information on Federal direct loan programs subject to FCRA, including information on subsidy cost estimates.

[a]At the time of consolidation, Education treats the existing loans as paid off early and the newly-consolidated loan takes on the characteristics of its new cohort.

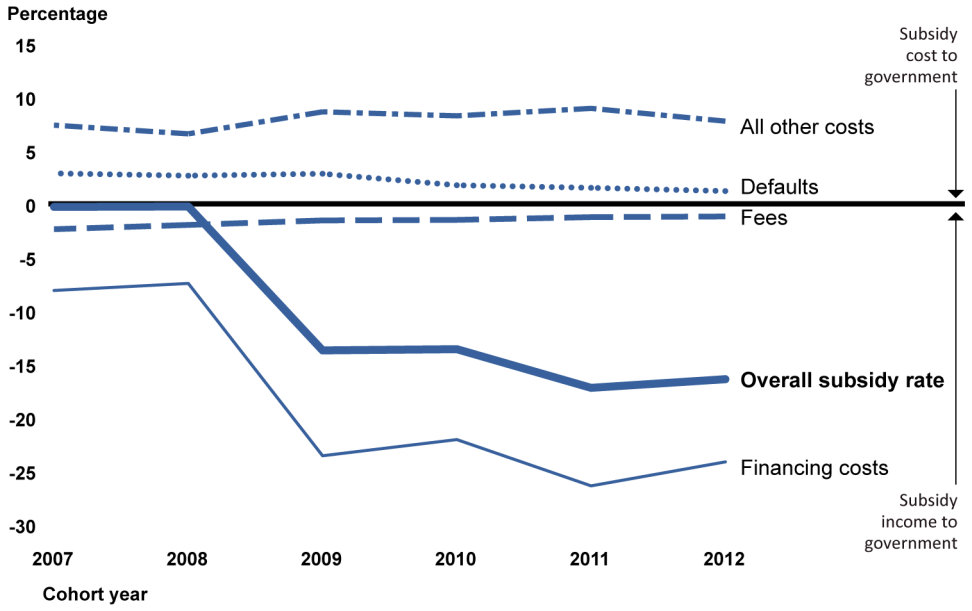
[b]Loans are only discharged under limited conditions, such as if a borrower dies, becomes totally and permanently disabled, or, in rare circumstances, declares bankruptcy. (For loans to be discharged through bankruptcy, a bankruptcy court must find that repaying the loans would impose undue hardship. This must be done at an adversary proceeding at which creditors may be present to challenge the request.)

As seen in figure 3 below, overall subsidy rates—subsidy costs as a percentage of loan disbursements—are generally estimated to decrease across the 2007 to 2012 loan cohorts. Moreover, later loan cohorts in this range are estimated to generate more subsidy income than the earlier

[32] According to Education, most borrowers do not enter repayment until several years after a loan is originated. Periods of deferment, delinquency, and default can further extend the loan repayment period. Because the Direct Loan program began originating loans in 1994 and a loan cohort's life cycle can last up to 40 years, there are currently no Direct Loan cohorts for which actual lifetime costs are available.

loan cohorts, as indicated by the increasingly negative subsidy rates.[33] Our analysis of how the various components of subsidy costs differ across cohorts shows that, relative to the financing costs, the defaults, fees, and all other costs of the subsidy rate were relatively stable across the 2007 to 2012 loan cohorts. For example, these costs were estimated to vary between 1 to 2.4 percentage points across cohorts, while the financing costs were estimated to vary almost 19 percentage points across cohorts.

Figure 3: Current Subsidy Rates Broken out by Cost Component, Direct Loans, 2007-2012



Source: Department of Education Credit Subsidy Calculator Output 2 data.

Note: This figure shows the most recent reestimated subsidy rates for the 2007 to 2012 cohorts broken out by the four cost components used by Education for budget estimates (financing costs, fees, defaults (net of recoveries), and all other costs). See appendix II for underlying data.

As seen in figure 3, the financing component of the subsidy cost is estimated to generally decrease across cohorts. Financing costs are related to the interest payments borrowers make on Direct Loans and the

[33] Positive subsidy cost estimates indicate that the government anticipates a cost, while negative subsidy estimates indicate that the government anticipates generating subsidy income.

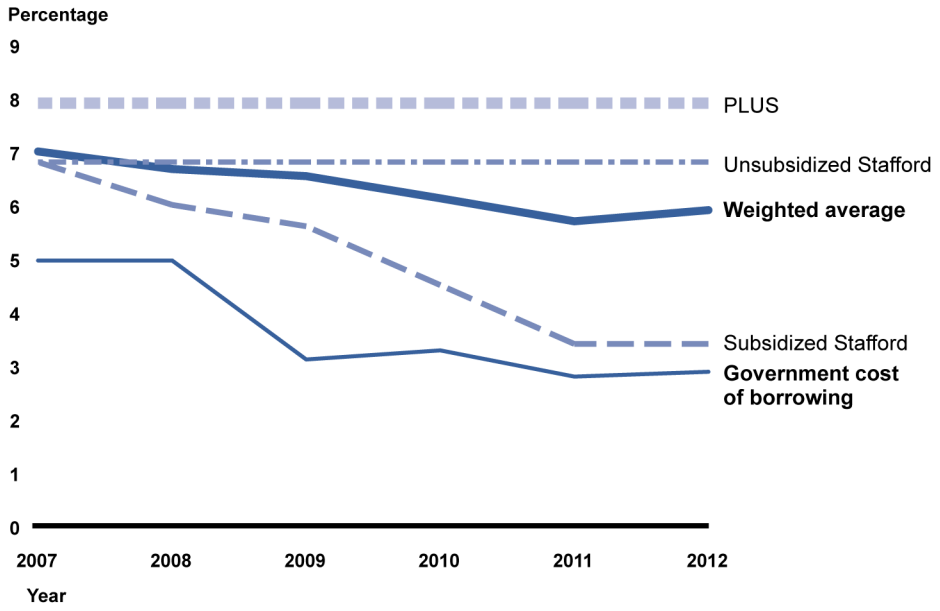
government's cost of borrowing to finance its lending. Past GAO work has found that the difference, or "spread," between the borrower interest rate and government's cost of borrowing was a key factor in determining whether there is a positive or negative subsidy for Direct Loans.[34] As the spread increases, so does the difference between the interest payments Education receives from borrowers and the interest payments Education makes to Treasury.

The spread between the borrower interest rate and the government's cost of borrowing varies by loan type, because different borrower rates are established by law for subsidized Stafford, unsubsidized Stafford, and PLUS loans. Figure 4 compares borrowers' rates for the various Direct Loan types, including the average borrower rate weighted by loan type (or "weighted average"), with the government cost of borrowing. Specifically, as seen in figure 4, Direct Loan borrower rates decreased for subsidized Stafford loans as a result of statutory changes made during this time period.[35]

[34] GAO-01-197.

[35] For the four award years from July 1, 2008 to June 30, 2012, the College Cost Reduction and Access Act incrementally lowered the fixed interest rates of subsidized Stafford loans made to undergraduate students from 6.8 percent to 3.4 percent. Pub. L. No. 110-84, § 201, 121 Stat. 784, 790 (2007). In addition, the Moving Ahead for Progress in the 21st Century Act, extended the 3.4 percent interest rate for subsidized Stafford loans made to undergraduate students from July 1, 2012 to June 30, 2013. Pub. L. No. 112-141, § 100301, 126 Stat. 405, 979 (2012).

Figure 4: Comparison of Borrower Interest Rates and Government Cost of Borrowing, 2007-2012



Source: GAO analysis of U.S. Department of Education data and the Budget of the United States Government, fiscal years 2009-2014.

Note: The weighted average represents the average borrower interest rate, weighted by volume for each loan type. Data are provided by loan cohort year. See appendix II for underlying data.

The spread between the government's cost of borrowing and the weighted average borrower rate (across all Direct Loan types) increased between 2007 and 2009, when it peaked. During this time, the government's cost of borrowing fell more sharply than borrower interest rates. In instances where the borrower rate is greater than the government borrowing costs, as is the case between 2007 and 2012, Education would be expected to receive more in interest payments from borrowers than what it pays in interest to Treasury, increasing the likelihood that revenues will exceed costs for the loan.

Subsidy Cost Estimates Fluctuate over Time Due to Regularly-Updated Data

Education's estimates of lifetime loan subsidy costs have varied over time based on updated information recognized during the reestimate process. Through the reestimate process, subsidy cost estimates are updated for each loan cohort to account for information on actual loan performance

and the government's cost of borrowing.[36] Most cohorts from 2007 to 2012 have experienced both downward and upward adjustments to the estimated subsidy costs over time due to these reestimates. Each year, the estimated lifetime subsidy cost for a cohort will change to reflect the most recent reestimate information. See textbox for more information on the reestimate process.

Reestimate Process

Reestimates reflect changes related to both interest rate assumptions and non-interest rate assumptions as actual cash flows are recorded after loans are disbursed. For example, reestimates show the difference between the estimated government borrowing costs (discount rate) when the original subsidy rate is calculated, and the final government borrowing costs that are determined when a loan cohort is substantially disbursed.

- OMB guidance states that government borrowing costs are updated through reestimates when a cohort is at least 90 percent disbursed. Because of the timing of disbursement for Direct Loans, two different fiscal years of interest rate data feed into the final government borrowing costs used for the reestimates. For example, actual data on the final government borrowing costs for the 2007 loan cohort would be available in fiscal year 2009.
- Once the government borrowing costs have been determined, the rate is set for the life of the cohort.

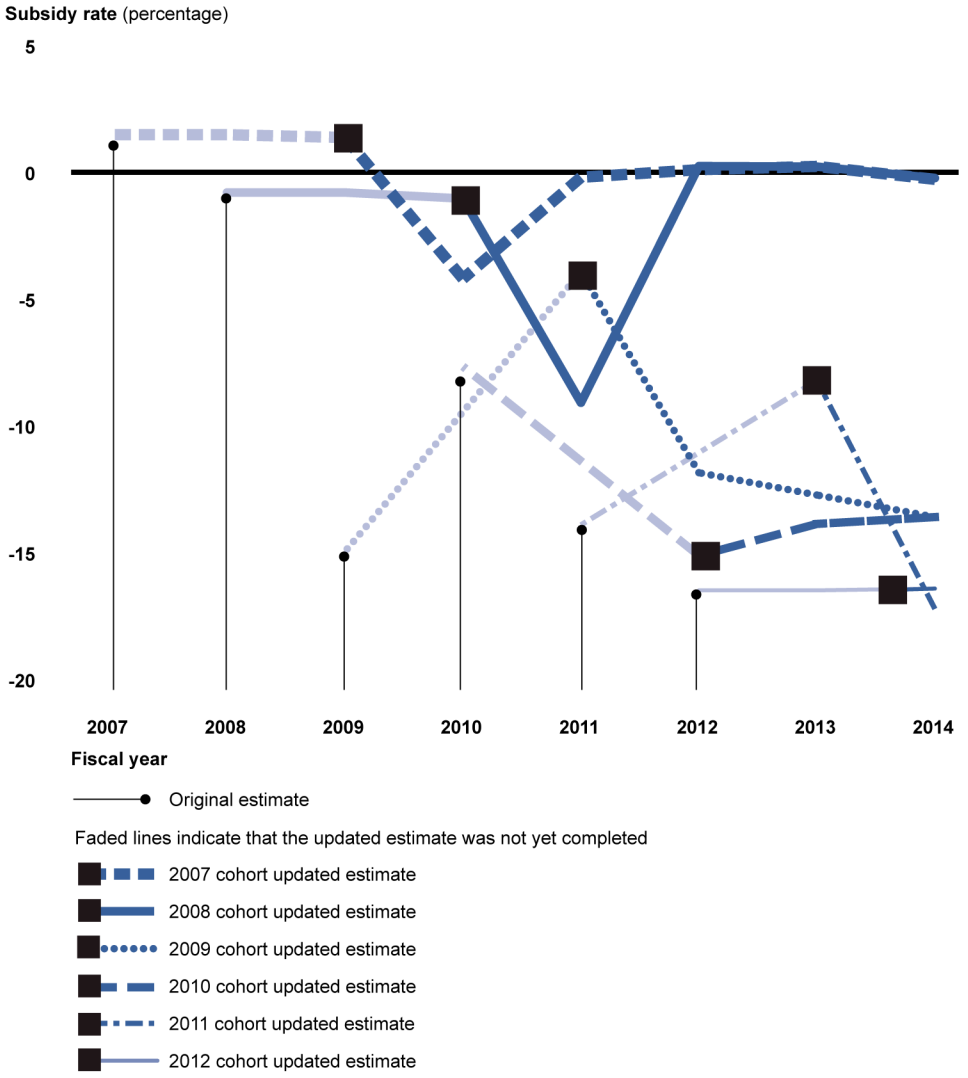
Reestimates also reflect differences in actual versus estimated loan performance. For example, when data get updated on the number of loans that were cancelled due to death, the information is included in technical reestimates. The effects of changes in this variable on the overall cost estimate vary depending on how the mortality rate changes from year to year. Changes in other variables such as default rates and borrower participation in loan repayment plans also affect assumptions used for cost estimates.

As shown in figure 5, there can be wide variations in the reestimated subsidy rates and, consequently, the estimated subsidy costs, for the same cohort over time. For example, the 2008 loan cohort was estimated to generate as much as $9.09 in subsidy income per $100 of loan disbursements based on the reestimate information published in the fiscal year 2011 President's budget. However, in the estimates published in the fiscal year 2012 President's budget, the same loan cohort was expected to generate a small cost of 24 cents per $100 dollars of loan disbursements, based on updated information. This represents a swing of $9.33 per $100 of loan disbursements. Similarly, the original subsidy rate estimate for the 2009 loan cohort indicated that the government would generate a subsidy income of almost $15 per $100 of loan disbursements. However, the revised estimate published in the fiscal year

[36] Loan performance refers to certain assumptions Education uses when estimating loan subsidy costs. These assumptions include information on default rates, borrower participation in different types of repayment plans, and volume by loan type, among others.

2011 President's budget indicated that the subsidy income the government was expected to generate dropped by about 74 percent, to $4 per $100 of loan disbursements. Figure 5 shows the original subsidy rate and subsequent reestimated subsidy rates for the 2007 to 2012 loan cohorts over time.

Figure 5: Original and Reestimated Subsidy Rates, Direct Loans, 2007-2012 Cohorts



Source: Budget of the United States Government, fiscal years 2009-2014.

Note: The original subsidy rate is represented by the first data point in each series and is recorded in the fiscal year that loans were obligated for each cohort. Subsequent data points represent the reestimated subsidy rate published in the President's budget in the corresponding fiscal year. Faded lines indicate fiscal years for which the updated estimate was not yet completed because the loan

cohort is not yet substantially disbursed at the time the budget for that fiscal year was prepared. Negative subsidy rates represent instances where the government is estimated to generate subsidy income. See appendix II for underlying data.

Volatility in subsidy cost estimates for a given cohort is generally expected to decrease over time. An Education official explained that estimates for loan cohorts experience more volatility in early reestimates because less actual data, as opposed to forecasted data, are available to inform the estimates. As more actual data become available for a cohort, Education expects to see smaller changes in the reestimates over time. For example:

- *Earlier cohorts with more actual data to inform the reestimate have become less volatile:* The estimates for the 2007 and 2008 cohorts initially showed large downward adjustments in the reestimated subsidy rates. In general, these cohorts currently are estimated to have a subsidy rate close to zero, and the reestimated subsidy rates have not varied much in the most recent reestimate years.
- *Later cohorts with less actual data to inform the reestimate are currently more volatile:* The 2009 through 2011 cohorts exhibit the most volatility over the years for which reestimates are available, in that recent reestimated subsidy rates for these cohorts have exhibited larger changes than the 2007 and 2008 cohorts.

Because Direct Loan Costs Are Sensitive to Certain Variables, Borrower Interest Rates Cannot Be Set in Advance to Consistently Balance Government Revenue with Costs

Direct Loan Costs Are More Sensitive to Changes in Government Borrowing Costs than to Other Selected Variables

Direct Loan costs fluctuate according to changes in certain variables, with varying levels of sensitivity.[37] In particular, Direct Loan costs are sensitive to changes in the government's cost of borrowing, which changes for each cohort of loans depending on economic conditions and the characteristics of the cohort.[38] This, coupled with regularly-updated information on loan performance that results in fluctuations in the cost estimates themselves, means that total Direct Loan costs cannot be known with certainty until actual data are available at the end of the loans' life cycle—a process which takes decades. To illustrate this, we conducted analyses that provide practical examples of how costs change in response to certain variables.

We simulated how changes in different variables could affect the overall costs of the Direct Loan program by altering four key variables: government borrowing costs,[39] percentage of subsidized Stafford loans, percentage of income-contingent repayment plans, and percentage of

[37]Throughout this section, Direct Loan costs refer to both administrative and subsidy costs, though it is the subsidy cost portion of those costs that fluctuates according to the variables we tested. We used a flat administrative cost rate for each set of variables we tested. See appendix I for more details on the analyses presented in this section.

[38] Sensitivity refers to how estimated costs respond to adjustments in variables that may affect those costs.

[39] Specifically, we tested the discount rate, which represents the cost of Education borrowing funds from Treasury to finance the Direct Loan program.

loans that Education considers to be at high risk of default.[40] We tested these variables under favorable and less-favorable conditions, from the perspective of government costs.[41] Specifically, favorable conditions would likely reduce government costs, while less favorable conditions would increase costs to the government. By comparing the percent change in costs to the percent change in the variable, we determined how sensitive the costs were to each variable.[42] We refer to this ratio as the sensitivity factor (see table 6). In the table, the sensitivity factor shows the percent change in costs that would be associated with a one-percent change in the indicated variable.

Of the variables we selected, Direct Loan costs were most sensitive to changes in the government's cost of borrowing in both the favorable and less favorable scenarios, as shown by the sensitivity factors in table 6. For example, in the favorable scenario, a 1 percent increase in the government's cost of borrowing was associated with a 19.7 percent increase in subsidy costs. In contrast, costs were less sensitive to the loan risk category, percentage of subsidized Stafford loans, and percentage of income-contingent repayment plans in both the favorable and less-favorable cases. For example, in the favorable scenario, a 1 percent decrease in income-contingent loans was associated with a 2.9 percent decrease in costs. We found that, in both the favorable and less favorable scenarios, subsidy costs were not very sensitive to changes in income-contingent repayment plans.

[40] We selected these factors because Education officials identified the discount rate, percentage of subsidized Stafford loans, and percentage of risk category as major factors that affect subsidy costs, while participation in income-contingent repayment plans is likely to shift over time (which has the potential to affect costs). For more information on our methodology for this sensitivity analysis, please see appendix I.

[41] We used historical data points from 2007-2012 for each factor to ensure the scenarios were realistic.

[42] The change in Direct Loan costs is a comparison to the baseline for a 2014 cohort breakeven scenario. See appendix I for more detail.

Table 6. Sensitivity Factors of Variables under Favorable and Less-Favorable Scenarios

Variable	Sensitivity factor in favorable scenario	Sensitivity factor in less-favorable scenario
Percentage of Subsidized Stafford Loans	N/A	3.0
Percentage of Income Contingent Repayment Plans	2.9	1.3
Government borrowing costs (discount rate)	19.7	17.2
Proportion of loan risk group	-13.0 (Increased percentage of lowest risk category)	0.4 (Increased percentage of highest risk category)

Source: GAO analysis of U.S. Department of Education data.

Note: There is no cost change associated with the percentage of subsidized Stafford loans in the favorable scenario because the 2014 baseline values represented the lowest percentage of these loans. The percentage of Income Contingent Repayment Plans is weighted on the volume for subsidized and unsubsidized Stafford loans, which includes graduate PLUS loans. Parent PLUS loans are not eligible for income-contingent repayment plans. In instances where the sensitivity factor is negative, an increase in the variable is associated with a decrease in costs.

Because Direct Loan costs are particularly sensitive to the government's cost of borrowing, total costs associated with the program will vary accordingly. Further, since government borrowing costs change, the eventual spread between those costs and the borrower interest rate will not be known until the cohort is almost fully disbursed. As a result, the interest income from borrowers may or may not offset the government's cost of borrowing at any given point in time.

Borrower Interest Rates Cannot Be Set in Advance to Consistently Balance Government Revenue with Direct Loan Costs

Since the total costs associated with Direct Loans, including administrative and subsidy costs, are in flux until actual data are recorded through the end of the loans' life cycle, the point at which the government covers loan costs without generating additional revenue—known as the breakeven point—may also change throughout the life cycle of the loans until actual information is available. As a result, borrower interest rates that are needed to cover Direct Loan costs at one time may not cover costs at another time. If the borrower rates are set to offset the expected government costs according to initial estimates, because costs fluctuate, it is likely that the cohort will not ultimately break even over the life of the loans. For example, if costs are overestimated, borrower rates will be set too high and the Direct Loans will generate net income to the government. Likewise, if costs are underestimated, borrower rates will be

set too low and the Direct Loans will generate net costs to the government.

To determine whether or not the conditions that would break even for one cohort would also break even for another cohort under different circumstances, we experimented with certain aspects of the borrower interest rate for two separate cohort years. [43] Specifically, we altered the index (the base market rate that student loan interest rates are pegged to), the mark-up rate (the percentage-point increase over the base rate that students are charged), and the differences in the mark-up rates among loan types. We looked at how these changes to the borrower rates would affect total Direct Loan costs, taking into account both administrative and subsidy costs.

Index: The base market rate to which student loan interest rates are pegged.

Mark-up rate: The percentage-point increase over the base rate that students are charged.

We identified two potential pathways to temporarily break even for the 2014 cohort over the life of the loans, though these are only effective using currently available cost estimates, which will change over time.

- Using the 10-year Treasury Note as the index for all Direct Loan borrowers without any additional mark-up—which means there would be no differences in the interest rate borrowers pay for different loan types—the government could approximately break even for the 2014 cohort. See Figure 6 below. In this case, setting a flat interest rate for borrowers of all Direct Loan types is a notable divergence from current law, which provides lower interest rates to eligible undergraduates than to graduate students and parents. While there is no mark-up above the 10-year Treasury Note in this scenario, the government is still able to cover its estimated administrative and subsidy costs because borrower interest rates (in this case, the index) are higher than the government's cost of borrowing.
- Using the 5-year Treasury Note as the index instead of the 10-year Treasury Note,[44] there can be slight differences in the interest rates borrowers pay for different loan types (unlike in the previous scenario where rates were the same for all loan types), but in order to approximately break even, the differences in the mark-up for each loan type would need to be reduced by one half of the current rates

[43] See appendix I for an explanation of our methodology for the breakeven scenarios.

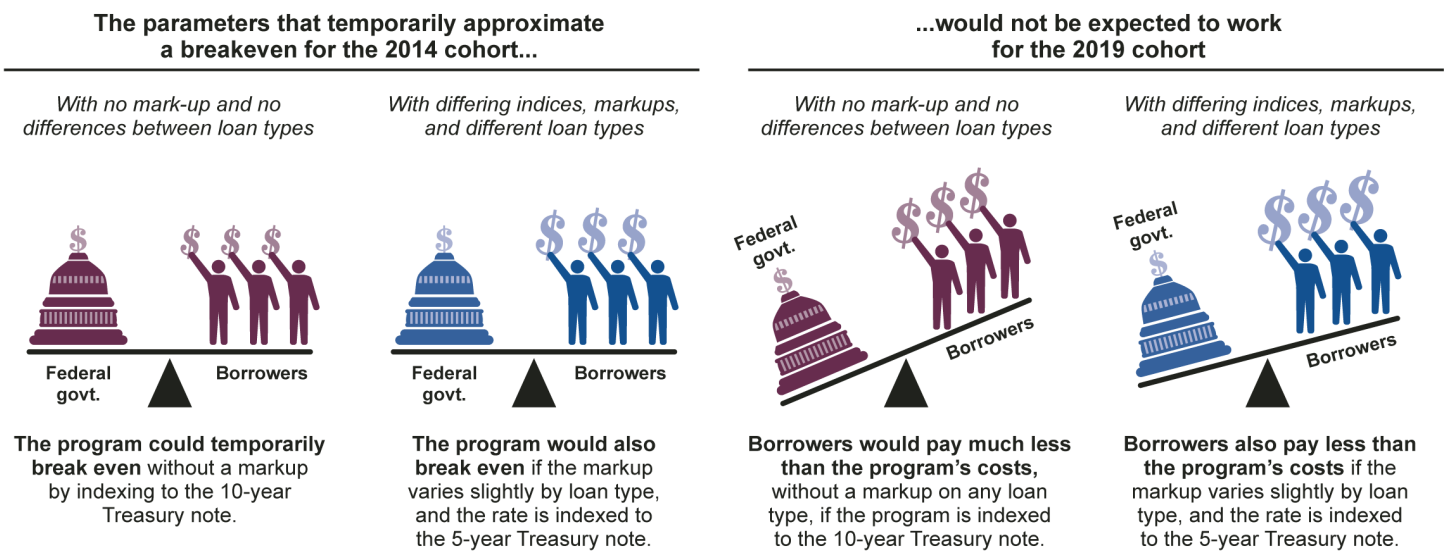
[44] The 5-year Treasury Note rate is generally estimated to be lower than the 10-year Treasury Note rate.

set for the 2014 cohort. Additionally, undergraduate Stafford loans, which typically have the lowest interest rates, would need to be set at the same level as the 5-year Treasury Note, with no mark-up.

Importantly, while changing the index and mark-up rates helped achieve a temporary breakeven point for the 2014 cohort, the same borrower rate scenarios did not yield the same results when applied to the 2019 cohort. In other words, the breakeven methodologies used for the 2014 cohort were not effective for the 2019 cohort. A difference in outcome for these two cohorts emerges because Direct Loan costs are sensitive to variables that are projected to look very different for 2019 than they did for 2014. Specifically, while interest rates for the government's cost of borrowing were unusually low for 2014, they are projected to more than double by 2019, beginning to approximate pre-recession rates.[45] This decreases the spread between the borrower interest rate and the government's cost of borrowing, and therefore decreases the likelihood that the government will generate income on the loans. Indeed, when we changed the index and mark-up rates for the 2019 cohort in the same manner that approximated a breakeven point for the 2014 cohort, the resulting estimates show the government incurring costs that would not be covered by revenues from Direct Loans. See figure 6.

[45] While the discount rate for 2014 is 2.11% across loans, Education projects it to be 4.5% in 2019. Similarly, current OMB estimates for the five and ten-year Treasury Notes show that the indices to which student loan rates are pegged will increase substantially by 2019. Specifically, the 5-year Treasury Note is projected to increase from 1.66% in 2014 to 4.41% in 2019, and the 10-year Treasury Note rate is projected to increase from 2.52% in 2014 to 4.59% in 2019.

Figure 6. Loan Parameters to Break Even in 2014 Could Have Different Effects in 2019



Source: GAO analysis of U. S. Department of Education data.

Note: This figure is based on current cost estimates for the 2014 and 2019 loan cohorts, which will change. The actual values will ultimately affect whether the government breaks even or whether students end up paying more or less than program costs.

While it would appear that borrower interest rates could be reset frequently to adjust to the continually-changing spread between the government's cost of borrowing and the borrower interest rate that drives costs, the fundamental issue of not having full cost information until the end of the loan repayment period means that the breakeven point itself cannot be accurately predicted beforehand. Accordingly, in part because Direct Loan costs are sensitive to variables that change over time, borrower rates cannot be set to reliably enable the program to break even over the life of a loan cohort before those variables and cost estimates stabilize.

Concluding Observations

Given the role federal student loans play in furthering access to postsecondary education, the federal government has a stake in preventing loan costs from posing an unnecessary burden to borrowers. Understanding how Direct Loan costs are estimated and change over time—and what factors drive those changes—is instructive for setting borrower interest rates. However, available information illustrates the difficulties of accurately predicting what these program costs will be, and how much borrowers should ultimately be charged to achieve a particular

outcome. Specifically, fluctuations in the actual and expected costs of the student loan program over time make it impractical to establish a particular borrower interest rate that would consistently break even. In addition, the policy changes needed to influence the costs of the program could conflict with other policy goals. For example, setting a flat interest rate for borrowers of all Direct Loan types may help temporarily approximate a breakeven point, but it would be a considerable shift from current law, which provides a lower interest rate to eligible undergraduates. Similarly, making frequent changes to the borrower interest rate could help program costs more closely match revenue in the short term, but it may confuse potential borrowers and complicate efforts to make the program transparent to students. Moreover, it may be difficult to anticipate how any future policy changes might affect program costs, as shifting economic conditions and cost reestimates continually move the breakeven target. Understanding the uncertainties and substantial challenges associated with estimating student loan costs may help inform Congress as it considers how best to promote access to postsecondary education.

Agency Comments and Our Evaluation

We provided a draft of the report to Education for review and comment. In its comments, reproduced in appendix III, Education agreed with our findings. Education also described recent changes to federal student aid programs and noted the importance of the Direct Loan program, as well as the agency's focus on promoting greater college affordability and access. In addition to these general comments, Education provided us with technical comments that we incorporated, as appropriate.

We are sending copies of this report to the Secretary of Education, relevant congressional committees, and other interested parties. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (617) 788-0534 or emreyarrasm@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.

Melissa Emrey-Arras
Director, Education, Workforce,
and Income Security Issues

Appendix I: Objectives, Scope, and Methodology

This report addresses (1) how the costs of administering the Direct Loan program have varied in recent years, (2) how estimated subsidy costs associated with the Direct Loan program have varied in recent years, and (3) how changes in different variables influence the overall cost of the Direct Loan program and the borrower interest rate needed to cover those costs. To address these objectives, we reviewed relevant federal laws and guidance, as well as past GAO reports related to the Direct Loan program, administrative costs, and subsidy costs. We interviewed officials at Education and the Congressional Budget Office (CBO) regarding key issues related to Direct Loan costs. In addition, we reviewed data from Education on its Direct Loan administrative costs and analyzed data on subsidy costs for fiscal years 2007 to 2012, including data generated from Education's Activity Based Costing (ABC) model and Education's student loan cash flow model. We assessed the reliability of data on Direct Loan administrative costs to evaluate trends in costs by interviewing agency officials knowledgeable about the data and reviewing documentation on the ABC model.[1] In addition to aggregate cost data, Education calculates both direct and full unit costs using the ABC model. In order to report costs that include indirect costs, we used full unit cost data. Education officials noted that, in some cases, these data cannot isolate costs specific to the Direct Loan program, from costs related to other Education loan programs, because such data have not been necessary for management purposes. We determined that the data were sufficiently reliable for the limited purposes of this report. We have noted the limitations in the report where they were relevant. For subsidy costs, we analyzed data on Education subsidy cost estimates and reestimates for the 2007 to 2012 Direct Loan cohorts that were reported in the Federal Credit Supplement (part of the annual President's Budget) to understand trends in cost estimates and discern key cost drivers. Additionally, we analyzed data generated by Education's student loan cash flow model used to estimate subsidy costs (referred to in this report as the Student Loan Model) to understand trends in subsidy cost components and cost

[1] Administrative cost data reported by Education include both discretionary and mandatory funding, including mandatory budget authority to fund the administrative costs of eligible Not-For-Profit loan servicers, as provided under the Student Aid and Fiscal Responsibility Act. The servicers are allocated a minimum of 100,000 borrower accounts each, although future allocations may vary based on performance. As of February 2013, 11 servicers (Missouri Higher Education Loan Authority, ESA/EDFinancial, Cornerstone, Aspire, Granite State, Oklahoma Student Loan Authority, EdManage, Vermont Student Assistance Corporation, KSA Servicing, EDGEucation Loans, and Council for South Texas Economic Progress (COSTEP)) service loans under the new NFP Servicers contracts.

drivers. We assessed the data's reliability by reviewing relevant documentation, comparing information to published data sources, and interviewing agency officials knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this report. Our work did not include an assessment of the feasibility of actions that could be taken to reduce the impact of fluctuations in Direct Loan cost estimates, such as using variable borrower interest rates that change over the life of the loans, or the use of borrower rebates to offset any subsidy income generated from the loans.

We conducted this performance audit from August 2013 to January 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Student Loan Model

Education uses the Student Loan Model to estimate future cost and revenue cash flows by loan cohort. Data from the Student Loan Model are input into OMB's Credit Subsidy Model which, in accordance with FCRA, calculates the net present value of the annual cash flows of a given loan cohort, thereby obtaining a measure (subsidy rate) of the costs for each loan cohort. According to an Education official, the model uses a set of over 20 assumptions, including loan volume, defaults, and discount rates. For each assumption, the model contains a table with multiple possible values. The National Student Loan Data System (NSLDS), which processes and maintains data pertaining to Title IV programs, is a major source of the data for the assumptions used in the Student Loan Model. Data are pulled from a 4-percent random sample of loans from the NSLDS, and the data are calibrated by Education to generate assumptions about future behavior. We assessed the reliability of NSLDS data by reviewing existing information about the data and the system that produced them. We assessed the reliability of the Student Loan Model by reviewing model documentation and interviewing knowledgeable agency officials about the system. We determined that the data were sufficiently reliable for the purposes of this report. Education used the Student Loan Model to run various scenarios and generate data for GAO for the sensitivity and breakeven analyses described below.

Sensitivity Analysis

We worked with internal experts and Education to develop sensitivity scenarios which altered key assumptions in the Student Loan Model to illustrate how changes in certain variables could affect the overall cost of the Direct Loan program. The four key variables we altered were: (1) discount rates, (2) percentage of subsidized Stafford loans, (3) percentage of risk category, and (4) percentage of income contingent repayment plans. We selected the first three factors because Education officials identified them as being among the major factors that affect subsidy costs. We selected the percentage of income contingent repayment plans because Education identified it as the type of repayment plan most likely to face shifts in participation over time, particularly as more people become eligible for various income contingent repayment plans.

1. **Discount rate:** This is the collection of interest rates used to calculate the present value of cash flows that are estimated over a period of years. This rate also represents Education's cost of borrowing from Treasury.
2. **Percentage of subsidized Stafford loans:** Subsidized Stafford Loans are available only to undergraduate student borrowers with demonstrated financial need. The government subsidizes these loans by not charging student borrowers for the interest that accrues while they are still in school and during a 6-month grace period after leaving school.
3. **Percentage of risk category:** These categories were created using school type and academic level to determine the potential risk of default, which can lead to higher subsidy costs for the loans.
4. **Percentage of income contingent repayment plans:** This is the percentage of loans that are structured to prorate the repayment plan based upon the borrower's income. In the student loan model, there is one variable that encompasses all repayment plans based on income. These plans may result in increased subsidy costs.

We tested the sensitivity of costs under two types of scenarios:

1. **Favorable scenario:** This scenario used past variable rates that represented more favorable conditions in terms of reducing costs to the government. For example, because income contingent repayment plans have a higher subsidy rate than other types of repayment plans, we used the lowest percentage of income contingent repayment plans that existed from 2007-2012 in this scenario.

2. **Less-favorable scenario:** This scenario used past variable rates that represented less favorable conditions in terms of increasing cost to the government. For example, because a higher discount rate increases Education's cost of borrowing from Treasury, we used the highest discount rate that existed from 2007-2012 in this scenario. See table 7 for the variable rates used in each scenario.

Table 7: Variable Rates Used in Sensitivity Scenarios

Variable	Rate used in favorable scenario	Rate used in less-favorable scenario
Percentage of Subsidized Stafford Loans	25.5%	44.3%
Percentage of Income Contingent Repayment Plans[a]	7.6%	10.9%
Discount rate	2.8%	5.0%
Proportion of loan risk group[b]	Increased percentage of loan volume included in the lowest loan risk category from 44.5% to 51.2%	Increased percentage of loan volume included in the highest loan risk category from 6.7% to 51.2%

Source: U.S. Department of Education data.

[a]The percentage of Income Contingent Repayment plans is weighted on the volume for subsidized and unsubsidized Stafford loans, which includes graduate PLUS loans. Parent PLUS loans are not eligible for income-contingent repayment plans.

[b]To test the sensitivity of loan risk group, Education officials transferred the loan volume of the highest risk group category to the lowest risk category in the favorable scenario. In the less favorable scenario, Education transferred the loan volume of the lowest risk group to the highest risk group. This maintained the overall loan volume but changed the weighting between more and less risky loans.

The scenarios forecast the overall cost of the Direct Loan program for each variable alteration using the baseline of the fiscal year 2014 cohort breakeven scenario (see below for a description of the breakeven scenarios). The baseline scenario forecasted costs for the Direct Loan program over the full life of the 2014 cohort, and include cash flow projections 40 years into the future. Using this baseline, we altered the variable rates to reflect historical values between 2007 and 2014, except for the loan risk category, to see how the cost for the loan cohort was affected.

Breakeven Analysis

We also worked with Education to change specific loan parameters in the Student Loan model with the purpose of determining whether the government could cover Direct Loan costs without generating additional

income under certain conditions. This is referred to as a breakeven analysis. The following steps were taken to conduct this analysis:

- First, the baseline subsidy rates for the 2014 cohort of Direct Loans were calculated, excluding loan consolidations, using the index and mark-up rates and caps as outlined by current law (see Table 8). We selected 2014 because it was the next cohort to be disbursed at the time of the simulation (September 2013) and allowed us to use forecasted data for the hypothetical simulations. The agency provided a breakout by loan type (Subsidized Stafford, Unsubsidized Stafford, PLUS). An administrative cost rate is included in this analysis.[2]
- Scenario A: The interest rate mark-up was calculated that would be necessary to get the federal subsidy income for the 2014 cohort to cover estimated administrative costs (i.e. break even), still excluding consolidations.
    - This scenario used the interest rate caps for each loan type and the 10-year Treasury note for the index, as designated under current law.
- Separately, two breakeven analyses were conducted for the 2014 cohort with altered inputs. In both cases, caps were kept the same as provided under current law.
    - Scenario B: 5-year Treasury Note with differentials in mark-up rates between loan type as designated by the law.
    - Scenario C: 5-year Treasury Note with differentials reduced by one half from the values designated in the law.
- Scenario D: After finding the breakeven rates for 2014, the same treatment of mark-up rates and differentials were applied to the 2019 cohort using the 10-year Treasury Note, still accounting for administrative costs. We selected 2019 to show what the resulting costs would be in a future year with different economic conditions (i.e., different discount rates).

[2] Education's Budget Service allocates administrative costs by cohort, and estimates administrative costs over the life of a loan, when needed. These data are not used by Budget Service for any program management purposes. The allocation methodology was originally developed in 2004. According to Education officials, the methodology for this estimation has not changed since 2005, with updates to only the loan servicing data in 2009. In addition, the description of the estimation methodology acknowledges a number of data limitations and other methodological challenges that could affect the estimates' accuracy. Officials at Budget Service stated that the estimation process was labor-intensive and there was limited interest in and need for further refinement of the allocation process.

- Scenario E: The parameters for the 2019 cohort were then changed to use the 5-year Treasury Note and reduced the differentials from current law by one half (because those differentials helped approximate a break even under the 2014 cohort estimate) to illustrate how this affects costs.

Below is a summary of the loan parameters used for each breakeven scenario.

Table 8: Scenarios for Breakeven Analysis

Index	2014 Baseline 10-year Treasury note rate of 2.52%	2014 Scenario A 10-year Treasury Note Rate of 2.52%	2014 Scenario B 5-year Treasury Note Rate of 1.66%	2014 Scenario C 5-year Treasury Note Rate of 1.66%	2019 Scenario D 10-year Treasury Note Rate of 4.59 %	2019 Scenario E 5-year Treasury Note Rate of 4.41%
Mark-up rate by loan type[a]						
Subsidized & Undergraduate Stafford	2.05%	0	0	0	0	0
Graduate Stafford	3.60%	0	1.5%	0.78%	0	0.78%
PLUS	4.60%	0	2.5%	1.28%	0	1.28%
Interest rate caps by loan type						
Subsidized & Undergraduate Stafford	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%
Graduate Stafford	9.50%	9.50%	9.50%	9.50%	9.50%	9.50%
PLUS	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%

Source: GAO analysis of U.S. Department of Education data.

[a]Zero values for the mark-up rate indicate that borrowers of those loan types would have interest rates no higher than the index.

Appendix II: Technical Appendix

Table 9: Data for Figure 1, Direct Loan Full Administrative Costs by Category, Fiscal Year 2007- Fiscal Year 2012 (dollars in millions)

Cost category	FY07	FY08	FY09	FY10	FY11	FY12	Change from FY07 to FY12
Loan servicing	214.00	255.02	266.24	349.23	458.56	540.23	326.23
Percent change		19.17%	4.40%	31.17%	31.31%	17.81%	152.45%
Originations and disbursements	37.57	40.06	73.16	97.39	134.35	146.63	109.06
Percent change		6.61%	82.66%	33.11%	37.95%	9.14%	290.27%
Default collections	31.80	35.42	35.64	38.11	42.03	34.50	2.69
Percent change		11.36%	0.62%	6.93%	10.31%	-17.93%	8.47%
Application processing	17.67	18.61	20.27	63.47	95.63	94.95	77.28
Percent change		5.31%	8.93%	213.11%	50.68%	-0.71%	437.36%
School oversight and monitoring	12.48	10.77	8.12	25.53	46.00	47.26	34.78
Percent change		-13.68%	-24.66%	214.55%	80.15%	2.76%	278.70%
Total	**313.52**	**359.88**	**403.43**	**573.72**	**776.57**	**863.57**	**550.05**

Source: Department of Education data.

Note: FY = fiscal year.

Table 10: Data for Figure 2, Number of Outstanding Direct Loans by Loan Type (in millions) and Direct Loan Full Administrative Costs, Fiscal Year 2007 - Fiscal Year 2012

Loan Type	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2007-FY 2012 Change
Subsidized Stafford Loans	8.96	10.14	12.34	19.16	29.14	38.30	29.34
Percent change		13%	22%	55%	52%	31%	328%
Unsubsidized Stafford Loans	5.71	6.98	9.46	16.43	26.64	36.76	31.06
Percent change		22%	36%	74%	62%	38%	544%
Graduate PLUS loans	0.03	0.08	0.17	0.48	0.97	1.38	1.35
Percent change		124%	121%	187%	101%	43%	3995%
PLUS loans	0.88	1.02	1.26	1.88	2.79	3.54	2.66
Percent change		16%	24%	49%	48%	27%	303%
Consolidation loans	3.88	4.07	4.57	5.24	6.05	8.70	4.82
Percent change		5%	12%	15%	15%	44%	124%
Total	**19.46**	**22.29**	**27.81**	**43.19**	**65.58**	**88.69**	**69.23**
Administrative costs	$313,523,250	$359,875,979	$403,428,430	$573,717,359	$776,572,657	$863,572,668	$550,049,418
Percent change		15%	12%	42%	35%	11%	175%

Source: Department of Education data.

Note: FY = fiscal year.

Table 11: Data for Figure 3, Current Subsidy Rates Broken out by Cost Component, Direct Loans 2007-2012

Loan cohort	Overall subsidy rate	Financing costs	Defaults	Fees	All other costs
2007 cohort	-0.288	-8.115	2.847	-2.378	7.359
2008 cohort	-0.253	-7.453	2.632	-1.980	6.549
2009 cohort	-13.722	-23.586	2.813	-1.557	8.608
2010 cohort	-13.610	-22.072	1.736	-1.507	8.232
2011 cohort	-17.227	-26.404	1.495	-1.249	8.931
2012 cohort	-16.420	-24.159	1.191	-1.187	7.7352

Source: U.S. Department of Education credit subsidy calculator output data.

Note: This table shows the most recent reestimated subsidy rates for the 2007 to 2012 cohorts broken out by the four cost components used by Education for budget estimates (financing costs, fees, defaults (net of recoveries), and all other costs).

Table 12: Data for Figure 4, Comparison of Borrower and Discount Rates, 2007-2012

	Borrower rates				
	Subsidized Stafford	Unsubsidized	PLUS	Weighted average	Discount rate
2007	6.8	6.8	7.9	7.00	4.96
2008	6.0	6.8	7.9	6.67	4.96
2009	5.6	6.8	7.9	6.54	3.11
2010	4.5	6.8	7.9	6.12	3.28
2011	3.4	6.8	7.9	5.69	2.79
2012	3.4	6.8	7.9	5.90	2.88

Source: Budget of the United States Government, fiscal years 2009-2014 and U.S. Department of Education data

Note: The weighted average represents the average borrower interest rate, weighted by volume for each loan type. Data are provided by loan cohort year.

Table 13: Data for Figure 5, Original and Reestimated Subsidy Rates, Direct Loans, 2007-2012 Cohorts

		Reestimated subsidy rates (percentage) published in given Fiscal Year President's Budget					
Direct Loan cohort	Original Subsidy rate (percentage)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
2007 cohort	1.48	1.37	-4.2	-0.2	0.1	0.23	-0.28
2008 cohort	-0.8		-1.04	-9.09	0.24	0.22	-0.23
2009 cohort	-14.96			-3.94	-11.85	-12.73	-13.72
2010 cohort	-7.66				-15.12	-13.87	-13.6
2011 cohort	-13.91					-8.21	-17.22
2012 cohort	-16.49						-16.42

Source: Budget of the United States Government, fiscal years 2009-2014.

Notes: This table lists the original subsidy rate for each loan cohort and the reestimated subsidy rates that are published in the President's budget in the corresponding fiscal year. Blank cells indicate fiscal years for which the updated estimate was not yet completed because the loan cohort is not yet substantially disbursed at the time the budget for that fiscal year was prepared. Negative subsidy rates represent instances where the government is estimated to generate subsidy income. FY = fiscal year.

Sensitivity Analysis Results

Table 14: Cost Effects of Variables in "Less Favorable" Scenario

Variable being altered	Percent change in variable rate	Percent change in total cost	Sensitivity factor
Percentage of Subsidized Stafford Loans	73.8%	221.6%	3.0
Percentage of Income Contingent Repayment plans[a]	38.3%	51.3%	1.3
Discount rate	135.1%	2325.2%	17.2
Percentage in the highest risk category	661.1%	247.7%	0.4
Cumulative effect of all variable changes	N/A	2690.5%[b]	N/A

Source: GAO analysis of U.S. Department of Education Student Loan Model data.

Note: The baseline against which this scenario was compared against was the 2014 breakeven scenario with no mark-ups or differentials.

[a]The percentage of Income Contingent Repayment Plans is weighted on the volume for subsidized and unsubsidized Stafford loans, which includes graduate PLUS loans. Parent PLUS loans are not eligible for income-contingent repayment plans.

[b]The cumulative effect of all variable changes is calculated by comparing the difference in cost between the scenario and the baseline, and dividing that by the baseline costs.

Table 15: Cost Effects of Variables in the "Favorable" Scenario

Variable being altered	Percent change in variable Rate	Percent change in Total cost	Sensitivity factor
Percentage of Subsidized Stafford Loans[a]	N/A	N/A	N/A
Percentage of Income Contingent Repayment Plans[b]	(3.7%)	(10.6%)	2.9
Discount rate[c]	30.3%	596.5%	19.7
Increasing the percentage in the lowest risk category	15.1%	(196.8%)	(13.0)
Cumulative effect of all variables	N/A	399.7%[d]	N/A

Source: GAO analysis of U.S. Department of Education Student Loan Model data.

Note: The baseline against which this scenario was compared against was the 2014 breakeven scenario A, which had no mark-ups or differentials.

[a]There is no cost or variable rate change associated with the percentage of subsidized Stafford loans in the favorable scenario because the 2014 baseline values represented the lowest percentage of these loans.

[b]The percentage of Income Contingent Repayment Plans is weighted on the volume for subsidized and unsubsidized Stafford loans, which includes graduate PLUS loans. Parent PLUS loans are not eligible for income-contingent repayment plans.

[c]Discount rates used in this scenario are lower, and thus more favorable to the government, than the rates used in the "less favorable" scenario. However, because the discount rate used was higher than the 2014 discount rate used in the baseline scenario, this change in the discount rate shows increased costs.

[d]The cumulative effect of all variable changes is calculated by comparing the difference in cost between the scenario and the baseline, and dividing that by the baseline costs.

Results of 2014 and 2019 Breakeven Analyses

Table 16: Loan Parameters to Break Even for 2014 Have Different Effects for 2019

Index	2014 Scenario A 10-year Treasury Note Rate of 2.52%	2014 Scenario C 5-year Treasury Note Rate of 1.66%	2019 Scenario D 10-year Treasury Note Rate of 4.59%	2019 Scenario E 5-year Treasury Note Rate of 4.41%
Mark-up rate by loan type				
Subsidized & Undergraduate Stafford	0	0	0	0
Graduate Stafford	0	0.78%	0	0.78%
PLUS	0	1.28%	0	1.28%
Resulting borrower interest rates				
Subsidized & Undergraduate Stafford	2.52%	1.66%	4.34%	4.21%
Graduate Stafford	2.52%	2.44%	4.43%	5.01%
PLUS	2.52%	2.94%	4.48%	5.54%
Resulting cost rate[a]	-0.81%	0.51%	7.26%	5.36%

Source: U.S. Department of Education data.

Note: In the 2019 scenarios, borrower rates vary and are sometimes lower than the index because of the probabilities associated with the caps.

[a]GAO considers Direct Loan cost rates under 1% to approximate a breakeven point for the purposes of this study.

Appendix III: Comments from the Department of Education

UNITED STATES DEPARTMENT OF EDUCATION
OFFICE OF THE UNDER SECRETARY

January 10, 2014

Ms. Melissa Emrey-Arras
Director, EWIS
Government Accountability Office
Washington, DC 20548

Dear Ms. Emrey-Arras:

The U.S. Department of Education (Department) appreciates the Government Accountability Office's (GAO's) thorough and objective report on the costs associated with the federal student loan program entitled, "Federal Student Loans: Borrower Interest Rates Cannot Be Set in Advance to Precisely and Consistently Balance Federal Revenues and Costs" (GAO-14-234). The report is a useful and valuable explanation for Congress and the public of how program costs are estimated for budgetary purposes and will help inform ongoing discussions on the future of the federal student loan program.

As noted in the report, program costs are estimated in accordance with the Federal Credit Reform Act of 1990 (FCRA) and represent the estimated lifetime costs of loans. Prior to FCRA, program costs were presented on a cash basis, which did not entirely reflect how student loan borrowers pay back their loans over the course of many years. While estimates prepared in accordance with FCRA are useful for overall budgetary purposes, the GAO report confirms that these estimates will vary from the actual costs of federal student loans because the estimates are based on forecasts of future economic conditions and borrower behavior. As a result, as the report explains, whether student loans made in any one year will ultimately generate income or costs for taxpayers will not be known "…until all cash flows have been recorded after loans have been repaid or discharged—which may be as many as 40 years from when the loans were originally disbursed."

FCRA cost estimates are useful for policy makers in making decisions in the context of longer-term budget constraints. Even in light of current budget constraints, keeping student loan interest rates from doubling over the past two years has been a priority for the Administration. Most recently, to better align the interest rates paid by borrowers with the expected costs of the program, the President proposed, and the Congress enacted, legislation that ties borrower rates to financial market conditions at the time borrowers are making decisions on financing their postsecondary education. As a result, fixed borrower interest rates will be set each year for loans made during the year and be based on then-current government borrowing costs.

The Department firmly believes that the Federal Direct Loan program is critical to expanding postsecondary education opportunities to American students and families and provides a far better deal than they can get anywhere else. The program has enabled millions of Americans to pursue a college education and obtain the skills they need to

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Our mission is to ensure equal access to education and to promote educational excellence throughout the Nation.

succeed—and it continues to do so successfully. It also returns value to the taxpayers who fund our student aid system and, indeed, to all Americans by enabling our fellow citizens to pursue educational opportunities that result in stronger communities and a more prosperous and globally competitive nation.

The rising cost of higher education and growing levels of student debt hit home for millions of Americans, and the Department is working hard to continue to provide more tools and resources for students and families to understand and compare their postsecondary options, choose the institution that provides them with the best value, and make smart decisions about financing their postsecondary education. In addition to more than doubling funding for the Pell Grant Program and increasing investments in students and colleges by ending $60 billion in bank subsidies, the Department has expanded income-based repayment to help borrowers manage their student loan debt and has reached out to struggling borrowers to make them aware of the available flexible repayment options.

The Administration remains focused on making college more affordable and accessible for American families by developing a college ratings system as well as by promoting innovation and competition.

GAO's report provides valuable insight into the complexity of precisely predicting the future costs associated with the federal student loan program, and the Department looks forward to continuing to work with students, Congress, higher education stakeholders, and policy leaders to help make college more affordable, expand college access and success, and ensure that students, families, and taxpayers get as much value as possible from their significant investment of effort, time, and money in higher education.

Thank you for the opportunity to review the draft report and to provide comments on it.

Sincerely,

Jamienne S. Studley
Acting Under Secretary

Appendix IV: GAO Contacts and Staff Acknowledgments

GAO Contact

Melissa Emrey-Arras, Director, (617) 788-0534 or emreyarrasm@gao.gov

Staff Acknowledgments

In addition to the contact named above, Kris Nguyen, Assistant Director; Marcia Carlsen; Carol Henn; Elizabeth Gregory-Hosler; Amy Moran Lowe; Ellen Phelps Ranen; Amrita Sen; Srinidhi Vijaykumar; and Rebecca Woiwode made significant contributions to this report.

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