United States Government Accountability Office

Report to Congressional Requesters

July 2022

STUDENT LOANS

Education Has Increased Federal Cost Estimates of Direct Loans by Billions due to Programmatic and Other Changes

GAO-22-105365

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GAO Highlights

Highlights of GAO-22-105365, a report to congressional requesters

Why GAO Did This Study

Over the last three decades, the Direct Loan program has grown in size and complexity, with almost $1.4 trillion in outstanding federal student loans. The Direct Loan program provides financial assistance to students and their parents to help pay for postsecondary education. GAO was asked to review changes in Education's cost estimates and factors contributing to them.

This report examines how and why Education's Direct Loan cost estimates have changed over time. GAO reviewed budget documents and data covering Direct Loans made from fiscal years 1997 through 2021. GAO also conducted a model-based analysis on a hypothetical group of borrowers beginning repayment to demonstrate how changing economic assumptions can affect both repayment plan selection and estimated loan payments. Additionally, GAO interviewed Education budget officials about their process for estimating student loan costs and how these estimates are calculated and documented.

A forthcoming report will examine government and private sector estimation methods and Education's approach to estimating Direct Loan costs.

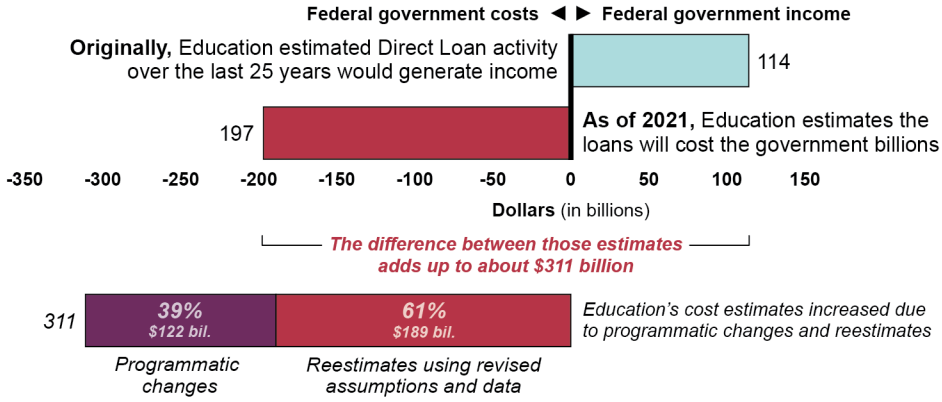
Education provided written comments with additional context about some factors that contribute to its revised estimates. GAO is not making recommendations.

View GAO-22-105365. For more information, contact Melissa Emrey-Arras at (617) 788-0534 or emreyarrasm@gao.gov, Cheryl E. Clark at (202) 512-9377 or clarkce@gao.gov, or Lawrance L. Evans, Jr. at (202) 512-4802 or evansl@gao.gov.

What GAO Found

Although the Department of Education originally estimated federal Direct Loans made in the last 25 years would generate billions in income for the federal government, its current estimates show these loans will cost the government billions. Education originally estimated these loans to generate $114 billion in income for the government. Although actual costs cannot be known until the end of the loan terms, as of fiscal year 2021 these loans are estimated to cost the federal government $197 billion. This swing of $311 billion was driven both by programmatic changes and by reestimates using revised assumptions (e.g., economic factors and loan performance) as additional data became available (see figure).

Original and Current (Fiscal Year 2021) Estimated Cost or Income for Direct Loans Made in Fiscal Years 1997–2021



Source: GAO analysis of U.S. Department of Education data. | GAO-22-105365

The largest estimated cost increases—$102 billion in total—stemmed from emergency relief provided to most federal student loan borrowers under the CARES Act and related administrative actions in response to the COVID-19 pandemic. This relief included suspending (1) all payments due, (2) interest accrual, and (3) involuntary collections for loans in default. The suspensions, which are programmatic changes dating back to March 13, 2020, are currently set to expire on August 31, 2022. Reestimates based on updated data and assumptions about borrowers in Income-Driven Repayment plans also substantially increased estimated costs.

Among the factors that make estimating the cost of Direct Loans difficult are the lack of historical data when new programmatic changes are introduced, and assumptions Education must make about borrower behavior over the life of the loan. For example, the monthly payment amount for borrowers in Income-Driven Repayment plans can change based on their economic situation. Using a hypothetical group of borrowers, GAO found that borrowers' income growth and inflation, which are difficult to predict, affect borrowers' payments. For example, GAO found that when income grows at a slower rate, borrowers' payments to the government decrease, which increase government costs.

Contents

Abbreviations

CSC	Credit Subsidy Calculator
Direct Loan	William D. Ford Federal Direct Loan
FCRA	Federal Credit Reform Act of 1990
IDR	Income-Driven Repayment
PSLF	Public Service Loan Forgiveness
TEPSLF	Temporary Expanded Public Service Loan Forgiveness

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July 28, 2022

The Honorable Richard Burr
Ranking Member
Committee on Health, Education, Labor and Pensions
United States Senate

The Honorable Virginia Foxx
Republican Leader
Committee on Education and Labor
House of Representatives

The Honorable Mike Braun
United States Senate

The Honorable Greg Murphy
House of Representatives

Over the last three decades, the William D. Ford Federal Direct Loan (Direct Loan) program has grown in size and complexity with almost $1.4 trillion in outstanding federal student loans as of December 2021. Every year the Department of Education estimates the lifetime costs of the program for the President's budget.[1] These estimates include costs for new loans made and updates, or reestimates, for outstanding loans due to changes in economic factors and actual loan performance, such as how many borrowers defaulted. These cost estimates are also revised to account for programmatic changes stemming from legislative or administrative actions.[2]

You asked us to examine these changes and the factors contributing to them. This report examines how and why Education's Direct Loan cost

[1]As required by the Federal Credit Reform Act of 1990 (FCRA), Direct Loan cost estimates are included annually in the President's budget. Cost estimates are calculated based on the net present value of lifetime estimated cash flows to and from the government associated with these loans. Direct Loan cash flows from the government include loan disbursements to borrowers, while cash flows to the government include repayments of loan principal, interest and fee payments, and recoveries on defaulted loans.

[2]Programmatic changes as a result of federal government actions are referred to as modifications.

estimates have changed over time. A forthcoming report will examine government and private sector estimation methods and Education's approach to estimating Direct Loan costs.

To answer how and why Education's cost estimates have changed over time, we examined Education's cost estimates for Direct Loans made during the most recent 25-year period (fiscal years 1997–2021) based on available data and budget documents.[3] This includes identifying major cost fluctuations and comparing those fluctuations to the timing of programmatic changes and Education's reestimates due to updated data and assumptions. We reviewed relevant federal laws and regulations and interviewed Education budget officials about their process for estimating student loan costs and how these estimates are calculated and documented.

We also conducted a model-based analysis on a hypothetical group of undergraduate and graduate borrowers beginning repayment to demonstrate how changing borrower characteristics and economic assumptions such as income growth can both affect repayment plan selection and estimated loan payments. The loan and income characteristics of the hypothetical group of borrowers were based on loans entering repayment in fiscal year 2017. We determined that the budget data and the data used in our model-based analysis were sufficiently reliable for our purposes. For more information see appendix I.

We conducted this performance audit from August 2021 through July 2022, 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.

[3]We reviewed Education's underlying data for its annual submissions to the President's budget for each of the loan cohorts included in our review for fiscal years 1997 through 2021. We excluded data for the fiscal year 2022 cohort from our review because the cohort is still disbursing and a cost reestimate will not be available until a later budget cycle. A loan cohort includes all loans made in a given fiscal year, even if disbursements occur in subsequent years.

Background

Direct Loan Program and Repayment Plans

The Direct Loan program provides financial assistance to students and their parents to help pay for higher education. Under the Direct Loan program, Education issues several types of student loans (see sidebar).

William D. Ford Federal Direct Loan Types

Subsidized Stafford Loans: Available to undergraduate students with financial need (generally the difference between their cost of attendance and a measure of their ability to pay, known as expected family contribution). Borrowers are not responsible for paying interest on these loans while in school and during certain periods of deferment, an option that allows eligible borrowers to temporarily postpone loan payments.

Unsubsidized Stafford Loans: Available to undergraduate and graduate school students irrespective of financial need. Borrowers must pay all interest on these loans.

PLUS Loans: Available to graduate student borrowers and parents of dependent undergraduates. Borrowers must pay all interest on these loans.

Consolidation Loans: Available to eligible borrowers wanting to combine multiple federal student loans (including those listed above) into one loan. Repayment periods are extended up to a maximum of 30 years, thereby lowering monthly payments.

Note: Interest rates for all loan types are set by federal law and currently tied to the U.S. Treasury's 10-year note rate and can vary by loan type. In addition, there are limits on the annual and aggregate amounts that can be borrowed for certain loan types.

Source: GAO summary of Department of Education documents. | GAO-22-105365

Borrowers are responsible for repaying the loan, generally upon leaving school.[4] A variety of repayment plans are available to eligible Direct Loan borrowers, including Standard, Graduated, Extended, and several Income-Driven Repayment (IDR) plans; borrowers may switch among plans throughout the repayment term, depending on eligibility. Borrowers are automatically enrolled in the Standard plan if they do not choose another option and generally make fixed monthly payments over a period of up to 10 years (or 10 to 30 years for consolidation loans). IDR is an umbrella term that describes five repayment plans available to Direct Loan borrowers who meet specific eligibility requirements. Monthly payments for IDR plans are based on a borrower's income and family size and extend the repayment period up to 20 or 25 years, depending on the plan. IDR plans also offer forgiveness of the loan's balance at the end of the repayment period.

The Direct Loan program's terms and conditions have changed over time with the addition of new repayment plans and forgiveness options, such

[4]Borrowers are not required to make loan payments on Stafford loans and PLUS loans made to graduate student borrowers when they are enrolled in school at least half-time or during the grace period. The grace period usually ends 6 months after a borrower leaves school or drops below half-time enrollment. Different repayment terms apply to PLUS loans made to parent borrowers and consolidated loans.

as Public Service Loan Forgiveness (PSLF).[5] Additionally, legislative and administrative actions in response to the COVID-19 pandemic have temporarily suspended loan payments for borrowers with Direct Loans and other student loans owned by Education. For example, the CARES Act suspended payments due, accrual of interest, and involuntary collections on defaulted loans through September 30, 2020, for most federal student loans.[6] This COVID-19 emergency relief for student loans has been extended several times through administrative actions, most recently through August 31, 2022. Although borrowers are not required to make payments during this time, the months covered under the COVID-19 emergency relief period count towards loan forgiveness and loan rehabilitation.[7]

The size of the Direct Loan program has also grown substantially over the last decade, and about half of the loan volume is now being repaid through IDR plans (see fig. 1). According to a February 2020 report by the

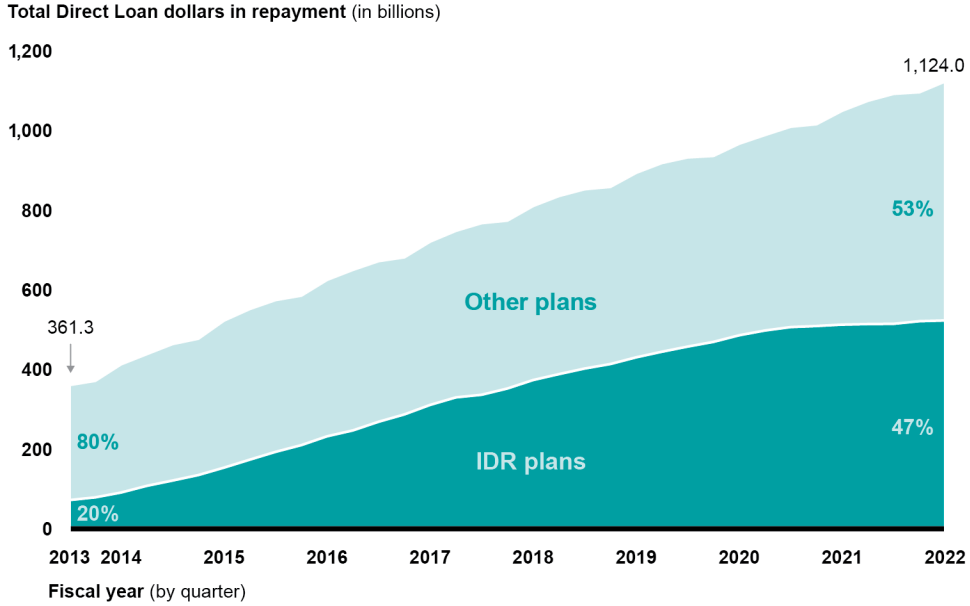
[5]The Public Service Loan Forgiveness (PSLF) program, established by statute in 2007, is intended to encourage individuals to enter and continue in public service by forgiving the remaining balances of Direct Loan borrowers who have made at least 10 years of loan payments while working in qualifying public service jobs and meeting other requirements. The Consolidated Appropriations Act, 2018 provided limited, additional conditions under which borrowers may become eligible for loan forgiveness if some or all of the payments made on Direct Loans were under a non-qualifying repayment plan, which is referred to as the Temporary Expanded Public Service Loan Forgiveness (TEPSLF) opportunity. In October 2021, Education announced a time-limited waiver so that borrowers can count payments from all federal loan programs or repayment plans toward forgiveness, known as the PSLF waiver.

[6]The CARES Act was enacted on March 27, 2020. See Pub. L. No. 116-136, § 3513, 134 Stat. 281, 404-05 (2020). Education implemented this COVID-19 emergency relief for federal student loans retroactive to March 13, 2020, the date COVID-19 was declared a national emergency. Involuntary collections may include wage garnishments and offsets of tax refunds or federal benefit payments.

[7]Under the CARES Act and related administrative actions, most federal student loans were placed in forbearance beginning March 13, 2020, with a current planned end date of August 31, 2022. Unlike other periods of forbearance, interest does not accrue on the loans during this period and the months without payments count as qualifying payments towards IDR and PSLF forgiveness. Loan rehabilitation is an option for resolving defaulted federal student loans, which allows borrowers who make nine on-time monthly payments within 10 months to have the default removed from their credit reports. Borrowers may rehabilitate a loan only once. During the COVID-19 emergency relief period, borrowers who have entered into a rehabilitation agreement can get credit toward rehabilitating their loans (for each month after the start of the rehabilitation agreement) even without making a payment.

Congressional Budget Office, borrowers who enroll in IDR plans tend to borrow more and earn less than borrowers in fixed-payment plans.[8]

Figure 1: Direct Loan Dollars in Income-Driven and Other Repayment Plans, Third Quarter Fiscal Year 2013 through First Quarter Fiscal Year 2022



Source: GAO analysis of Income-driven repayment (IDR) plan data. | GAO-22-105365

Note: Includes loan dollars in repayment, forbearance, and deferment. Does not include loans in school, the grace period, and default.

[8]Congressional Budget Office, *Income-Driven Repayment Plans for Student Loans: Budgetary Costs and Policy Options* (Washington, D.C.: February 2020).

Cost Estimates and Reestimates

Direct Loan Cost Estimation Key Terms

Assumptions: Estimates of the future operating and functional characteristics of a loan or group of loans, such as estimates of loan maturity, default rate, and the impact of changes in economic factors, that are used to forecast cash flows over time.

Cash flows: Payments to or from the government over the life of a loan or group of loans. For direct loans these may include: loan disbursements, repayments of principal, payments of interest, and any other payments such as prepayments, fees, penalties, and recoveries on defaulted loans.

Discount rate: An interest rate that is used in present value calculations to equate amounts that will be received or paid in the future to their value in today's dollars.

Loan cohort: All loans of a loan program made in a given fiscal year, even if disbursements occur in subsequent years.

Modification: A programmatic change due to federal government action, including new legislation or administrative actions, that directly or indirectly alters the estimated subsidy cost of outstanding loans.

Net present value: The value today of a future stream of cash flows, discounted using an appropriate discount rate (generally the average annual interest rate for marketable zero-coupon U.S. Treasury securities with the same maturity from the date of disbursements as the cash flow being discounted).

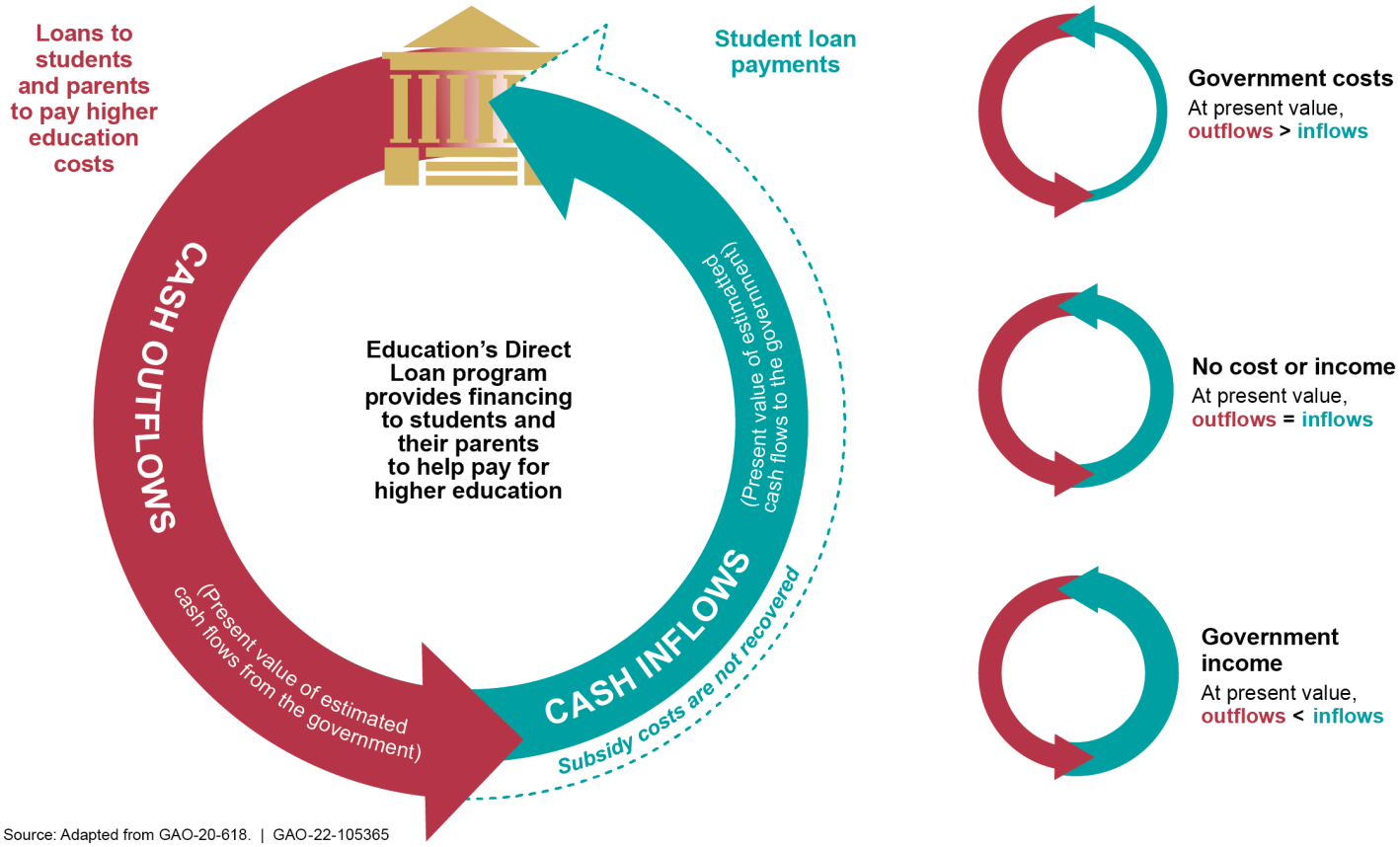
Reestimate: Revision of estimated lifetime costs for each loan cohort, incorporating updated information on actual loan performance and revised assumptions about economic factors and future loan performance. Reestimates are calculated each year for the President's budget and the agency's financial report. The sum of a cohort's original estimated subsidy cost and subsequent annual reestimates is the cohort's lifetime cost.

Subsidy cost: The estimated long-term cost to the government of extending credit, calculated on a net present value basis and excluding administrative costs.

Source: GAO summary of the 2023 Federal Credit Supplement and Federal Accounting Standards Advisory Board standards. | GAO-22-105365

As required by the Federal Credit Reform Act of 1990 (FCRA), each year Education estimates the lifetime costs of a new cohort of Direct Loans for inclusion in the President's budget. For the Direct Loan program, these costs—sometimes referred to as subsidy costs—represent the estimated cost to the government of extending credit over the life of the loan. These costs exclude administrative costs, such as expenses related to processing loan applications and servicing existing loans. Original subsidy costs are calculated based on the net present value of estimated cash inflows and outflows (see side bar). Credit programs can result in costs or income for the government, depending on whether the present value of estimated cash inflows (e.g., collections) exceeds the present value of estimated cash outflows (e.g., loan disbursements). Figure 2 illustrates the types of cash flows that affect the Direct Loan original subsidy cost.

Figure 2: Calculation of Direct Loan Original Subsidy Costs



Source: Adapted from GAO-20-618. | GAO-22-105365

Education also annually updates, or reestimates, the cost of loans made in prior years.[9] Reestimates take into account actual loan performance as well as revised assumptions about economic factors and future loan performance, such as how many borrowers are expected to default or how many are expected to participate in different repayment plans. Reestimates may result in increases or decreases in subsidy cost estimates. No Direct Loan cohort has finished repaying all of its loans

[9]Education performs reestimates twice per year: once to be recorded in Education's financial statements, and once for presentation in the President's budget. Unless otherwise specified, this report presents the results of analysis of data supporting reestimates for the President's budget.

since the start of the program in 1994.[10] Therefore, Education continues to update estimates for all cohorts each year for the President's budget and actual costs will not be known until the end of the loan terms. Education also updates its cost estimates to reflect any programmatic changes that alter the estimated costs of outstanding loans as they occur, referred to as modifications.[11]

Factors that Can Change Direct Loan Cost Estimates

To estimate Direct Loan costs, Education developed a student loan cash flow model (the student loan model) that incorporates a variety of assumptions about loan performance for the entire life of the loans, up to 40 years in the future. These assumptions relate both to the program's terms and to various aspects of loan performance, such as how many borrowers will prepay their loans and how many borrowers will default. Education uses a supplementary model to estimate repayment patterns for loans in IDR plans. Multiple factors make predicting actual loan performance difficult, leading to changes from the original estimates:

- **Programmatic changes**. Changing terms and conditions of the Direct Loan program due to legislative, regulatory, and policy changes make costs difficult to estimate given the lack of data and uncertainty on how these changes will affect loan performance. These programmatic changes are captured as modifications.
- **Data availability and limitations.** Education continually updates data to estimate future loan performance. However, limitations in available data can introduce uncertainty into Education's estimates. For example, borrower income is a key variable for estimating the cost of loans in IDR plans. For Education's original cost estimates, Education must estimate future borrower incomes for up to 40 years in the future to determine borrower eligibility for the plan and repayment amount based on limited historical income data.[12]
- **Loan characteristics and borrower behavior.** Education makes assumptions about borrowers' loan characteristics and future

[10]Borrowers may not begin repaying their loan for several years after the loans are made, and repayment periods can be up to 30 years, depending on the plan a borrower selects.

[11]While reestimates are funded with permanent indefinite budget authority, modifications based on programmatic changes require new appropriations.

[12]We previously reported on the challenges associated with estimating borrowers' future income and the costs of IDR plans. GAO, *Federal Student Loans: Education Needs to Improve Its Income-Driven Repayment Plan Budget Estimates*, GAO-17-22 (Washington, D.C.: November 15, 2016).

behavior, such as which repayment plan they will select and how many and to what extent borrowers will pay early or default on their loans and at what point in time.

- **Timing.** For the President's budget, Education calculates the original estimate before any loans are made. This requires Education to estimate the types of loans borrowers will obtain, how much they will borrow, and the riskiness of borrowers who will enter the program.[13] In addition, loans in a cohort may not enter repayment for several years.
- **Macroeconomic changes.** Changes in macroeconomic conditions, including interest rates, the unemployment rate, or wage growth, also affect cost estimates. For example, the interest rates that borrowers must pay on their loans are established in advance of the upcoming school year. However, the interest rate Education must pay the Treasury to fund those loans is not set until after the loans are 90 percent disbursed, which can be up to 18 months later. The difference between the estimated and actual rates paid to Treasury can result in additional subsidy costs or income depending on whether the actual interest rate paid to Treasury is higher or lower than the estimated rate.

Education is in the process of replacing its cohort-based student loan model with a borrower-based microsimulation model to incorporate some of the factors outlined above into its cost estimates.[14] According to Education, the microsimulation model will allow it to provide more detailed analysis of the factors affecting student loan costs, such as how long it will take borrowers to pay off their loans and how many loans will enter deferment and forbearance. Education said it expects to use this model for the estimates in the President's fiscal year 2026 budget.

[13]According to Education officials, the department has little to no influence over the volume of higher-risk borrowers who enter the portfolio during certain parts of each macroeconomic cycle.

[14]While Education's current student loan model groups loan dollars into different categories for which different assumptions are prepared, the microsimulation model will make estimates based on assumptions about individual borrowers. According to Education, this will allow for more flexibility to better address the complexity of the program.

Programmatic Changes and Updated Assumptions Contributed to Substantial Increases in Cost Estimates

Education's Direct Loan budget cost estimates for loans made in the last 25 years are now $311 billion more than originally estimated due to programmatic changes and reestimates based on updated assumptions as additional loan performance data became available. Of this increase, $122 billion (39 percent) is based on programmatic changes including the suspension of loan payments and interest due to the COVID-19 pandemic. The remaining $189 billion (61 percent) increase is due to reestimates based on actual data on how loans have performed, including updated income data for borrowers in IDR plans.

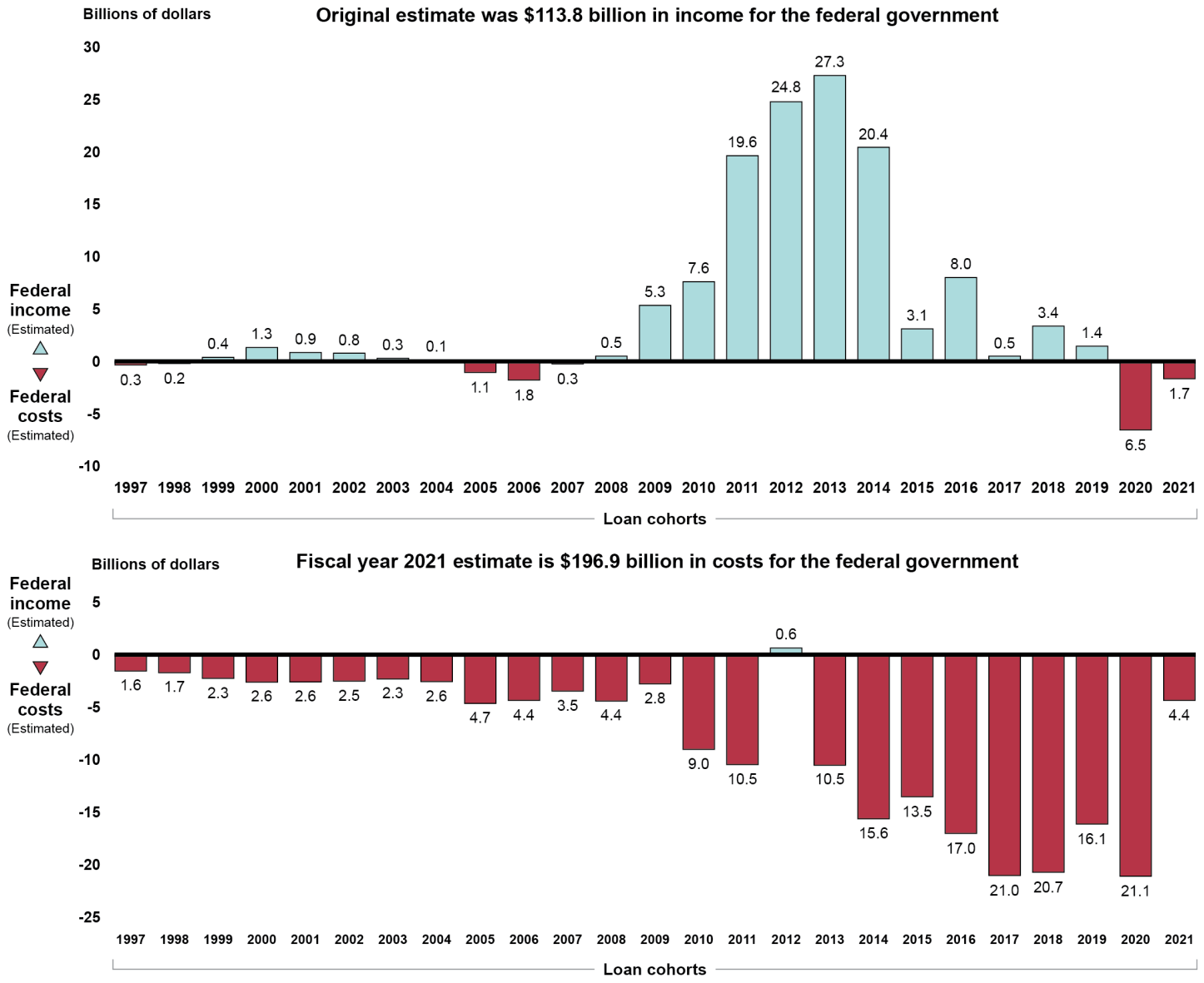
Education Currently Estimates That Direct Loans Made in the Last 25 Years Will Have Higher Costs to the Government than Originally Estimated

Although Education originally estimated federal Direct Loans made in the last 25 years would generate income for the federal government, as of fiscal year 2021, Education estimates these loans will cost the government $197 billion. This estimate is the aggregated cost to the government of providing the approximately $1.8 trillion in loans disbursed from fiscal year 1997 to 2021. Education originally estimated that these loans would generate $114 billion in income for the government, making Education's current cost estimates $311 billion higher than originally estimated (see fig. 3).[15] According to Education officials, Direct Loan cohorts from fiscal years 2009 through 2019 were originally expected to generate income primarily because borrowers were charged higher interest rates than Education's cost of borrowing during that period.[16]

[15]Estimated costs are in nominal dollars.

[16]In 2014, we found the borrower interest rate was greater than the government's cost of borrowing between fiscal years 2007 and 2012. In instances where the borrower rate is greater than the government borrowing costs, 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. See GAO, *Federal Student Loans: Borrower Interest Rates Cannot Be Set in Advance to Precisely and Consistently Balance Federal Revenues and Costs,* GAO-14-234 (Washington, D.C.: January 31, 2014).

Figure 3: Original and Current (Fiscal Year 2021) Estimated Cost or Income by Direct Student Loan Cohort, Fiscal Years 1997–2021



Source: GAO analysis of the Department of Education's fiscal year 1997-2021 budget estimates. | GAO-22-105365

Note: A loan cohort represents all Direct Loans made in a given fiscal year. Estimated costs are in nominal dollars.

The estimated cost for each cohort is comprised of two elements that can increase or decrease total cost estimates: (1) the cost (or income)

expected for every $100 lent based on the terms of the loan and predicted loan performance (which allows for comparison irrespective of the amount lent); and (2) the volume of loans made for each cohort. Changes to both of these elements have contributed to increases in the overall estimated cost. Specifically, in total, loans made from the fiscal year 1997 through 2021 cohorts were originally estimated to generate $6 in income per every $100 disbursed. As of fiscal year 2021, those cohorts are expected to cost the government almost $9 for every $100 disbursed (see appendix II for additional details on the cost per $100 for each of the last 25 loan cohorts).[17] The amount disbursed to each Direct Loan cohort increased after the expansion of the Direct Loan program in 2010, amplifying the effect of the cost increase for each $100 of loans.[18]

Estimated Costs Have Increased Primarily due to COVID-19 Emergency Relief and Revised Assumptions Related to Income-Driven Repayment Plans

Cost increases since Education's original estimates are driven by programmatic changes, including the suspension of loan payments and interest due to the COVID-19 pandemic (which are reflected in modifications), and reestimates based on revised assumptions about borrowers in IDR plans. The specific programmatic changes and reestimates are described in more detail below.

Programmatic Changes Resulted in Cost Increases

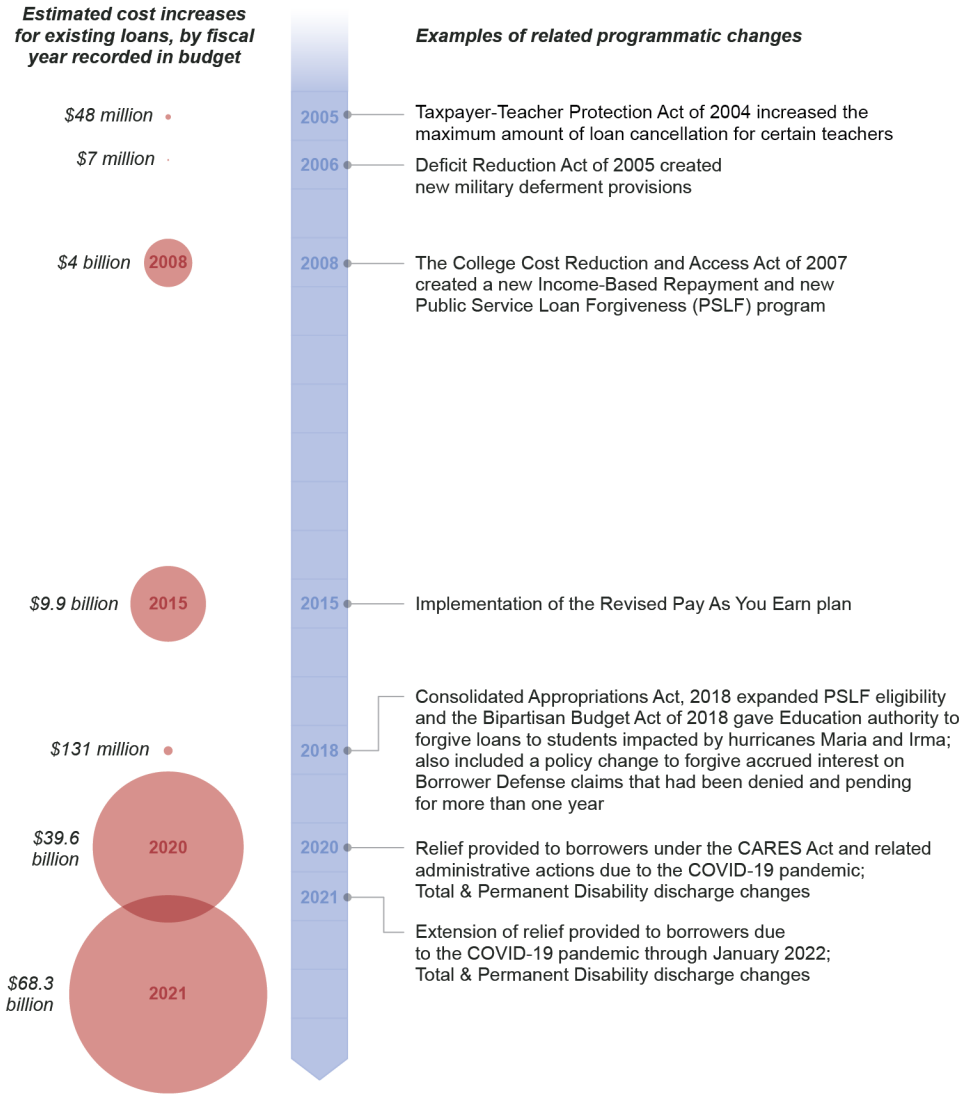
Programmatic changes leading to Direct Loan cost estimate increases, including legislative and administrative actions, have occurred in 7 of the last 25 fiscal years. Education reported that these changes contributed $122 billion of the estimated $311 billion in total cost increases, ranging from approximately $7 million to over $68 billion per change, at the time they were implemented. Changes in cost estimates as a result of programmatic changes are referred to as modifications. Modifications resulting from COVID-19 emergency relief provided to borrowers under the CARES Act and related administrative actions made up the largest share of Direct Loan modifications. Modifications resulting from new IDR plans, such as the Income-Based Repayment plan created in 2007 and

[17]The cost per $100 for all loans made from fiscal years 1997 through 2021 is weighted based on each loan cohort's total disbursements.

[18]The volume of loans issued under the Direct Loan program expanded dramatically after the SAFRA Act terminated the authority to make or insure new Federal Family Education Loans on June 30, 2010. Pub. L. No. 111-152, tit. II, § 2201, 124 Stat. 1029, 1074 (2010). For example, the volume of loans more than doubled from the fiscal year 2009 to the fiscal year 2010 cohort, from about $41 billion to almost $98 billion.

the Revised Pay As You Earn plan in 2015, also resulted in increases to program cost estimates (see fig. 4).

Figure 4: Increases in Budget Cost Estimates due to Direct Student Loan Programmatic Changes (modifications), Fiscal Years 2005–2021



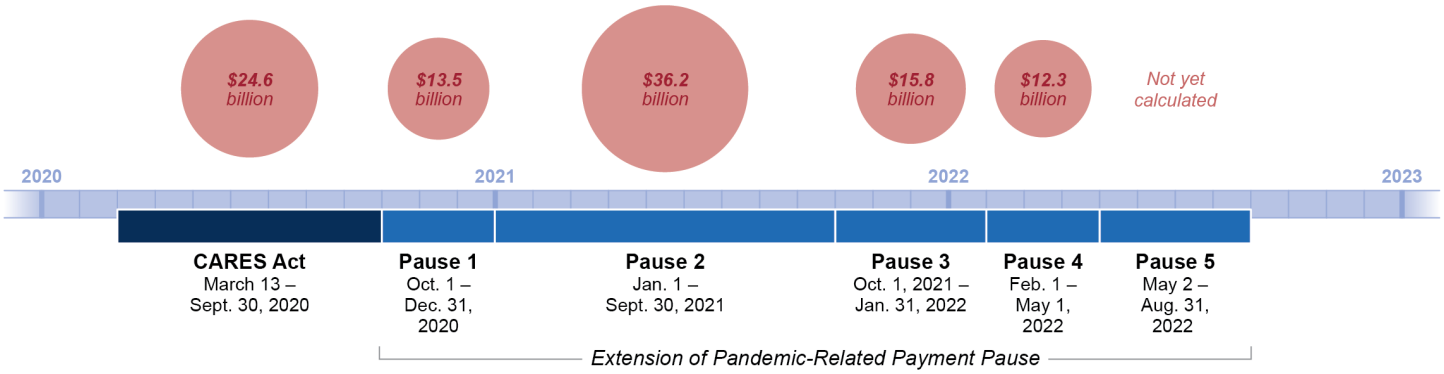
Source: GAO analysis of data underlying the Department of Education's submissions to the President's budget and Agency Financial Reports from 2005 through 2021. | GAO-22-105365

Note: Modifications are one-time federal government actions, including new legislation or administrative actions that directly or indirectly alter the estimated subsidy cost of outstanding loans. The amounts in this figure represent Education's cost estimates associated with each programmatic change for existing loan cohorts starting with the fiscal year 1997 cohort at the time each change was implemented. Accordingly, they do not represent the full cost of the action and actual costs for a given

cohort will not be known until the end of that cohort's loan terms. For example, the $4 billion programmatic change in 2008, which included creating the PSLF program, represents the estimated cost for the fiscal year 1997–2008 cohorts at the time this change was implemented. The years in this figure reflect the fiscal year in which each modification was recorded in the budget, and may not reflect the year of the programmatic change. This figure includes modifications associated with COVID-19 emergency relief for federal student loans as of the fiscal year 2021 Agency Financial Report, which covered relief provided from March 13, 2020 to January 31, 2022.

As previously discussed, COVID-19 emergency relief for federal student loans has been extended several times through administrative actions, most recently through August 31, 2022. The cost of these extensions has spanned multiple budget years, and the modification included in the budget for fiscal year 2022 covered additional relief through May 1, 2022, when the relief was previously set to expire. According to our review of Education data, COVID-19 emergency relief provided from March 13, 2020 through April 30, 2022 was estimated to increase Direct Loan costs to the federal government by about $102 billion (see fig. 5).[19]

Figure 5: Timeline and Estimated Direct Student Loan Costs of COVID-19 Emergency Relief, Fiscal Years 2020–2022



Source: GAO analysis of Department of Education documents. | GAO-22-105365

Note: In response to the COVID-19 pandemic, on March 27, 2020, the CARES Act was enacted, which suspended federal student loan payments due, interest accrual, and involuntary collection for most federal student loans through September 30, 2020. The Department of Education implemented this COVID-19 emergency relief for student loans retroactively to March 13, 2020, the date COVID-19 was declared a national emergency. The relief has been extended several times through administrative actions, and most recently has been extended until August 31, 2022. These amounts represent estimated cost increases for all existing loan cohorts (since fiscal year 1994). Education makes predictions about the estimated costs associated with programmatic changes affecting these

[19]As of May 2022, Education had not developed cost estimates related to the most recent extension of COVID-19 emergency relief set to expire on August 31, 2022. Education provided data on COVID-19 modifications for the entire Direct Loan portfolio. As a result, the COVID-19 modification amounts include updated costs for the earlier loan cohorts (fiscal years 1994–1996). These earlier cohorts represent $15 billion in loan volume, less than one percent of the $1.8 trillion total Direct Loans disbursed.

loans as these actions occur. Accordingly, they do not represent the full cost of the action and actual costs for a given cohort will not be known until the end of that cohort's loan terms.

Education estimates the impact of programmatic changes on Direct Loan cash flows and costs at the time these changes are implemented. As previously discussed, these costs are inherently difficult to estimate because there is often no existing data on which Education can base its estimates. Therefore, as Education updates its assumptions based on actual loan performance in subsequent years, continuing effects of these programmatic changes are reflected in reestimates. For example, Education originally estimated in 2008 that programmatic changes, which included creating the PSLF program, would increase Direct Loan subsidy costs by $4 billion for cohorts that existed at that time.[20] In subsequent years, actual data on how many borrowers have had their loans forgiven through PSLF has been incorporated into more recent cost estimates. Although the total cost of PSLF will not be known until all eligible borrowers receive forgiveness, $9.5 billion in loan debt was forgiven through PSLF, Temporary Expanded PSLF (TEPSLF), and the recent PSLF waiver as of May 2022.[21]

Reestimates due to Updated Data and Assumptions Contributed to Cost Increases

Education is required to reestimate its costs annually for the budget. As previously discussed, multiple factors make estimating actual loan performance difficult, such as data limitations and the need to estimate future borrower behavior. Reestimates based on updates to the assumptions underlying Education's student loan model that account for actual loan performance, changes in expected future performance, and

[20]This amount includes the estimated cost increase associated with creating the PSLF program and does not include costs associated with Temporary Expanded PSLF (TEPSLF) or the PSLF waiver, which did not exist at the time. In addition, this amount represents the estimated cost increase for loan cohorts starting in fiscal year 1997 and does not include estimated increases for the fiscal year 1994–1996 cohorts.

[21]This amount represents the total amount forgiven as of May 2022 across all loan cohorts since fiscal year 1994.

economic changes—have increased Direct Loan costs by about $189 billion for loans made since fiscal year 1997.[22]

According to data provided by Education, the three categories that accounted for the largest increases in cost estimates since fiscal year 2013 were (1) updated assumptions about borrowers' repayment plan selection, (2) changes related to the underlying data and estimated income growth for borrowers in IDR plans, and (3) updated assumptions about the probability that borrowers will default on their loans.[23] For example, IDR-specific changes have been the largest component of Education's reestimates in the last two years, largely driven by Education's efforts to incorporate updated income data into its estimates. These updates decreased borrowers' projected future income in Education's model to better match actual data, and lowered projected payments borrowers would make in IDR plans. In contrast, assumption changes related to discount rates and loan maturity have decreased cost estimates over that time.[24]

Student loan costs are difficult to predict in part because the monthly payment amount for borrowers enrolled in an IDR plan can change based on their economic situation. Borrowers' expectations about the future may also affect participation in IDR plans.[25] Specifically, our analysis shows expected income growth may affect borrowers' repayment plan selection

[22]Of the $189 billion, $34.4 billion represents interest related to the reestimates. Interest related to the reestimates is the amount of interest that would have been earned or paid on the subsidy reestimate, if the information had been included as part of the original subsidy estimate. Education also noted changes in the portfolio mix, such as the types of institutions and borrowers, can affect costs. For example, according to Education officials, the department could not have predicted the Great Recession of 2007-2009, which temporarily drew many more high-risk borrowers into the loan program.

[23]We examined available budget information going back to fiscal year 2013 that outlined the specific assumption updates that contributed to budget reestimates since fiscal year 2013. Prior to fiscal year 2013, Education recorded these data in different formats that are not comparable. The three categories accounted for the following estimated cost increases since fiscal year 2013: predictions about repayment plan selection (about $70 billion); changes related to the underlying data for borrowers in IDR plans (about $68 billion); and assumptions about the probability of borrowers defaulting on their loans (about $23 billion).

[24]Since fiscal year 2013 assumptions about discount rates decreased estimated costs by about $63 billion and assumptions about maturity rates, or the average time it takes borrowers to pay off loans, decreased costs by about $36 billion.

[25]Education officials also noted that borrowers who expect to qualify for PSLF, which provides forgiveness of remaining balances after 10 years of qualifying payments, may be more likely to choose an IDR plan.

and income growth and inflation affect borrowers' payments (see text box).

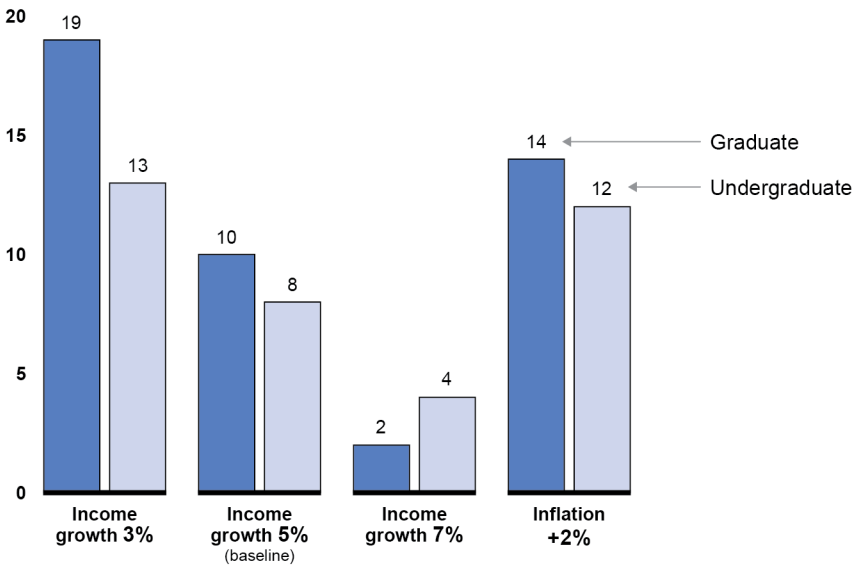
How might income growth affect Income Driven Repayment (IDR) enrollment and program costs?

Under IDR plans, because a borrower's payments are directly tied to their income, income growth over time determines a borrower's total payments over the term of the loan. Therefore, borrowers' expectations about how their incomes might grow in the future and whether they prioritize lower total payments over lower monthly payments might also affect their plan choice.

Using a hypothetical group of undergraduate and graduate IDR participants, we found that if borrowers expected higher incomes in the future and prioritized lower total payments, borrowers might be more likely to choose the standard repayment plan. Specifically, among undergraduate borrowers, increasing the expected rate of income growth from 3 percent to 7 percent would change the percentage of borrowers for whom the standard plan is the lowest cost option from 15 percent to 24 percent. Among graduate borrowers, the percentage would change from 20 percent to 37 percent. This may indicate that changes in expectations of income could affect a borrower's choice of repayment plan. Importantly, though, the actual extent to which borrowers would choose different repayment plans would be determined by how individual borrowers make decisions (as well as borrowers' individual circumstances), which were not incorporated into this analysis.

In addition, IDR costs are sensitive to macroeconomic changes, such as borrowers' income growth and inflation, which are difficult to predict. Using a hypothetical group of borrowers beginning repayment in Standard and IDR plans, we found that decreases in the rate of income growth tended to decrease these borrowers' payments to the government, and increase the cost to the government. For example, for graduate borrowers, decreasing the rate of income growth from 5 percent to 3 percent increased the government's costs from $10 to $19 per $100 of the borrowers' loan balance. Similarly, increasing the rate of inflation but holding the income growth constant at 5 percent increased costs from $10 to $14 per $100 for graduate loans (see below).

Sensitivity of Estimated Costs to Changes in Assumptions about Borrowers' Income Growth and Inflation



Source: GAO analysis of Department of Education data. | GAO-22-105365

Agency Comments

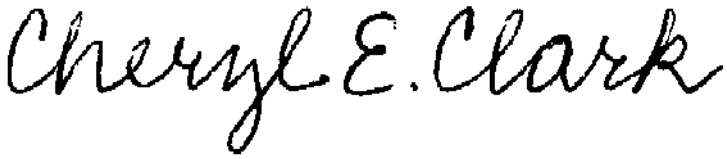
We provided a draft of the report to Education for review and comment. In its comments, reproduced in appendix III, Education stated that consistent with federal requirements, the department regularly estimates, modifies, and reestimates the costs of the Direct Loan program. Education provided context about some factors that contribute to revised estimates discussed in the report, including programmatic changes and changes to available data and the department's methodology for estimating costs. For example, Education said that it has made improvements to its income modeling for IDR plans based in part on income data that borrowers in these plans provide. Education also stated there is some inherent uncertainty in its student loan cost estimates due to factors, such as changing interest rates and economic conditions.

Education also provided additional context about the Direct Loan program, stating that the program has provided millions of students the opportunity to enroll in education beyond high school and earn a credential, including many low-income students. In addition, Education stated its commitment to ensuring borrowers have access to fair and affordable repayment plans, and highlighted the role of IDR plans and the pandemic payment pause in helping borrowers avoid default and delinquency. Education also provided technical comments, which we incorporated as appropriate.

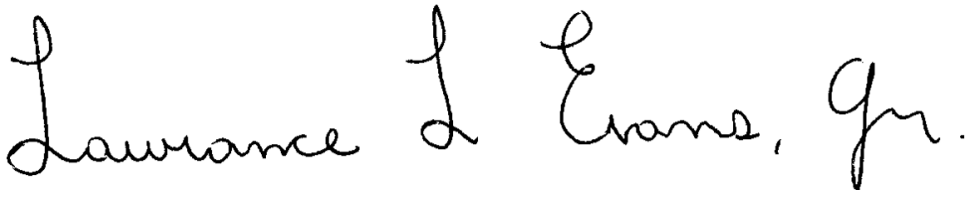
As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the appropriate congressional committees, the Secretary of Education, and other interested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

If you or your staff have any questions about this report, please contact Melissa Emrey-Arras at (617) 788-0534 or emreyarrasm@gao.gov, Cheryl E. Clark at (202) 512-9377 or clarkce@gao.gov, or Lawrance L. Evans, Jr. at (202) 512-4802 or evansl@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



Cheryl E. Clark
Director, Financial Management and Assurance



Lawrance L. Evans, Jr.
Managing Director, Applied Research and Methods

Appendix I: Objectives, Scope, and Methodology

This appendix discusses in detail our methodology for addressing how and why the Department of Education's William D. Ford Federal Direct Loan (Direct Loan) cost estimates have changed over time.

Cost Trends

To analyze how Education's cost estimates for Direct Loans made during the most recent 25-year period (fiscal years 1997–2021) have changed over time (original and current estimates), we reviewed Education's output files from the Credit Subsidy Calculator (CSC) submitted for the President's 2023 budget.[1] We also reviewed Education's annual Budget Justifications from fiscal years 1997 through 2023 for qualitative information on the assumption changes that made up its upward and downward reestimates during this period. Additionally, we reviewed Education's Agency Financial Reports from fiscal years 1997 through 2021 for information about the total estimated cost and the specific programmatic changes that made up its Direct Loan cost modifications during that period.

We also reviewed supplemental unpublished data from Education on the total reestimated subsidy rates for each Direct Loan cohort from fiscal years 1997 through 2021 from CSC output files for the President's budget reestimates, and on the individual components that made up its reestimates (both upwards and downwards) for all Direct Loan cohorts from fiscal years 2013 through 2021. We compared the supplemental unpublished data to published data from the President's budget credit supplement for fiscal years 2022 and 2023 that included loans made through fiscal year 2021 and interviewed Education officials to clarify reasons for minor discrepancies. We determined the data was reliable for our purposes. We also interviewed Education budget officials to discuss their process for estimating student loan costs and how these estimates are calculated and documented.

Model-Based Analysis

We also conducted a model-based analysis on a hypothetical group of 1,000 undergraduate borrowers and 1,000 graduate borrowers to demonstrate how changing borrower characteristics and economic assumptions such as income growth can both affect repayment plan

[1]The CSC is an Office of Management and Budget tool agencies use to calculate the net present value of estimated cash flows in order to produce the official credit subsidy rate for the President's budget. According to Office of Management and Budget Circular A-11, all federal agencies must use the CSC and associated discount rates to ensure government-wide comparability and uniformity of discounting.

selection and estimated loan payments.[2] For each borrower, we simulated loan payments under borrower related assumptions, such as different expectations of income growth. We determined how the mix of repayment plans would change if borrowers chose plans to minimize loan payments. In addition, given the current mix of repayment plans, we determined how loan payments would change based on economic factors like changes in income growth or inflation. The loan and income characteristics of the borrowers were based on loans entering repayment in fiscal year 2017.

Development of the Model

In order to test the sensitivity of program costs to assumptions about income growth and other factors, we developed a hypothetical group of student loans for the borrowers in our model. Then, we altered assumptions about borrower characteristics, such as growth in income and inflation. From this, we estimated changes in resulting loan repayments based on the terms of the repayment plans. In order to present the results in terms similar to a subsidy cost, we expressed them as the difference between the original balance and the expected present value of future payments, divided by the original balance. We referred to this as the "subsidy cost per $100 dollars in loans."

We developed repayment estimates by simulating total payments for borrowers under the terms of the Income-Based Repayment, Pay As You Earn, Revised Pay As You Earn, and 10-year Standard plans. In addition, we made the following assumptions in the model-based analysis:

- Consistent with prior GAO reports, each borrower is single with no dependents. As a result, our analysis did not take into account the effect of family formation on income or the relevant poverty threshold for that borrower.
- The poverty threshold will increase annually at the rate of inflation. The economic assumptions underlying the fiscal year 2023 President's budget were used to obtain expectations of future inflation.
- A discount rate of 2 percent, based on the interest rate associated with 10-year Treasury Notes in calendar year 2022, rounded to the nearest digit.

[2]We performed separate analyses on the hypothetical graduate and undergraduate borrowers. While we performed these analyses on an equal number of graduate and undergraduate borrowers, they do not reflect the actual proportion of these groups in the Direct Loan portfolio.

- In our baseline model, income growth is assumed to be 5 percent.
- All Direct Loans are unsubsidized. This assumption means we might understate total loan costs for Income-Based Repayment and Pay As You Earn borrowers with subsidized loans whose payments do not fully cover interest. In prior reports, Education officials have told us this assumption would have only a slight effect on total loan costs.[3]
- The terms of Income-Based Repayment plan would be based on the terms set for income-eligible borrowers who received Direct Loans on or after July 1, 2014.[4] We assumed that for borrowers in the Standard repayment plan, loans would have 10-year terms.
- Besides the potential for forgiveness on Income-Driven Repayment (IDR) plans, borrowers could not benefit from other forms of forgiveness, like Public Service Loan Forgiveness.
- We did not incorporate default or whether borrowers might prepay a loan into the analysis.

Changing the assumptions described above would change the total loan costs for borrowers. These assumptions incorporate experiences that could affect individual borrowers' eligibility for IDR plans or their payment amounts. For example, individual borrowers could experience periodic unemployment or job promotions, get married, or form families. These and other experiences could change income levels or household size, which would affect loan payments and Direct Loan costs. In addition, we did not consider the likelihood of changes in income or inflation, as they were hypothetical scenarios. Moreover, changes in inflation would likely affect income growth, as workers demand higher wages in response to higher prices. This was not incorporated into our estimate of the sensitivity of costs to changes in inflation.

[3]For example, see *Federal Student Loans*: *Education Could Do More to Help Ensure Borrowers are Aware of Repayment and Forgiveness Options*, GAO-15-663 (Washington, D.C.: August 25, 2015).

[4]There are two versions of the Income-Based Repayment plan. Because the data we obtained from Education did not differentiate which version of the plan borrowers were in, we assumed borrowers were in the updated version of the plan for borrowers who received Direct Loans on or after July 1, 2014. The updated version of the plan limits payments to 10 percent of discretionary income and offers loan forgiveness after 20 years of repayment. In contrast, the original version of the Income-Based Repayment plan limits payments to 15 percent of discretionary income and offers loan forgiveness after 25 years.

Development of the Hypothetical Group of Borrowers

To ensure our analysis would be informative, we attempted to calibrate our hypothetical group of borrowers to distributions of loan size, income, and interest rates of an actual recent cohort of borrowers entering repayment. Specifically, we developed a group of 1,000 graduate and 1,000 undergraduate borrowers with loan size, initial income, and interest rates of loans. To develop the hypothetical group, we obtained data on borrowers' loan size, income, and interest rates from Education.

Education provided information on a recent cohort of borrowers entering repayment based on the 2020 four percent sample from the National Student Loan Data System, Education's central database for federal student aid information. Specifically, Education provided information on the joint distribution of loan size and income that represented approximately 170,000 undergraduate and 40,000 graduate borrowers entering repayment in 2017.[5] According to Education, 2017 is the latest year that these data could be provided. Moreover, income information in the National Student Loan Data System is only available for individuals participating in IDR plans. To maximize the coverage of the income variable, Education included income reported in 2017 through 2018.

To assess the reliability and representativeness of the information provided by Education, we estimated the extent to which the income data was missing for specific IDR plans (Income-Based Repayment, Revised Pay As You Earn, and Pay As You Earn). In addition, we tested the degree to which missing income data were associated with the size of the loans.[6] We found that income data was missing in 5 percent of cases for both undergraduate borrowers and graduate borrowers.

We determined that the data were sufficiently reliable for our purposes of developing a hypothetical group of income and loan size for borrowers in IDR plans. First, the data was drawn from the National Student Loan Data System, Education's primary source for information on student loans. Second, although there were some missing values, there was only a weak correlation between loan size and income. Therefore, the missing incomes would not cause our loan size estimates to be biased.

We conducted this performance audit from August 2021 through July 2022, in accordance with generally accepted government auditing

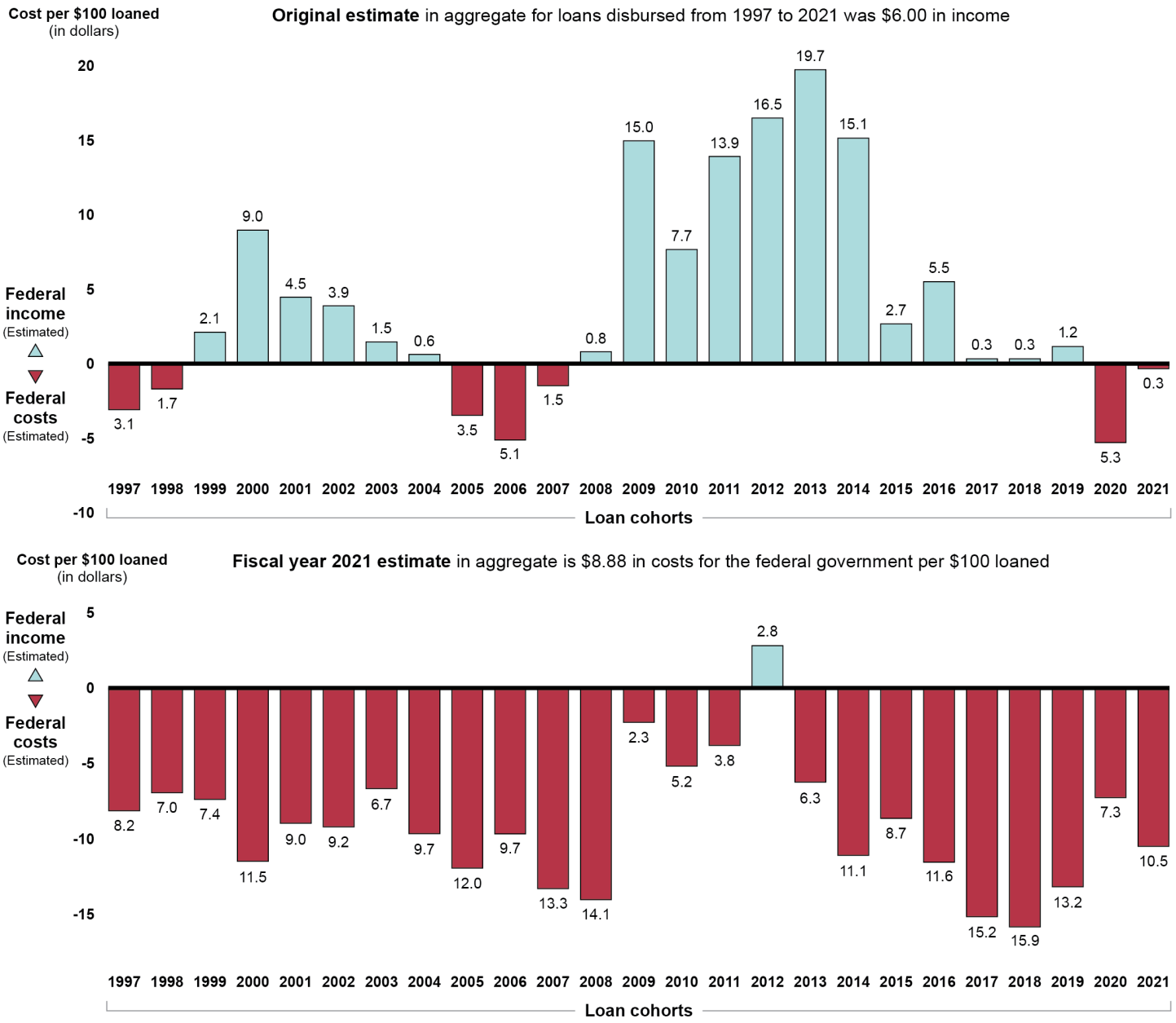
[5]Income was based on the "total income" variable in the National Student Loan Data System.

[6]Loan size was not missing in the data.

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.

Appendix II: Additional Data on Direct Loan Estimated Costs

Figure 6: Original and Current (fiscal year 2021) Estimated Direct Student Loan Cost or Income per $100 by Loan Cohort, Fiscal Years 1997–2021



Source: GAO analysis of the Department of Education's fiscal year 1997-2021 budget estimates. | GAO-22-105365

Note: Estimated costs are in nominal dollars.

Appendix III: Comments from the Department of Education

UNITED STATES DEPARTMENT OF EDUCATION

THE UNDER SECRETARY

July 6, 2022

Ms. Melissa Emrey-Arras
Director
Education, Workforce,
and Income Security Issues
Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Emrey-Arras:

On behalf of the U.S. Department of Education (Department), I write in response to the draft report the Government Accountability Office (GAO) recently shared with the Department titled *Education Has Increased Federal Cost Estimates of Direct Loans by Billions Due to Programmatic and Other Changes, GAO-22-105365*. We appreciate the opportunity to provide additional context in response to GAO's draft report and hope that this additional information will prove useful to GAO.

The Direct Loan (DL) program has provided millions of students the opportunity to enroll in education beyond high school and earn a credential that will help them to succeed. The program has helped many low-income students to enroll in, persist through, and complete their education.

Consistent with Federal requirements, the Department regularly estimates, modifies, and reestimates the costs of the DL program. In some cases, estimates are revised because of changes in both the data available to the Department and the Department's methodology for estimating costs. For instance, as income-driven repayment (IDR) plans have become more heavily used by borrowers, we have made significant improvements in our income modeling and assessment of borrower characteristics based in part on the income data borrowers in IDR provide to the Department to ensure our estimates are more reflective of the true costs of the program. Programmatic changes and changes to technical assumptions are often linked. Revisions are made for statutory, regulatory, or other actions, such as the 2007 enactment of statutory changes that created the Income Based Repayment plan and Public Service Loan Forgiveness or the Department's promulgation of borrower defense regulations in 2016 and 2019. Technical assumptions are continuously updated to account for updated data that reflects long-term effects of those changes for years into the future.

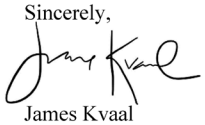
While the Department always strives for the best possible estimates, there is some inherent uncertainty in the Department's cost estimates, which the Department publicly discloses in its Agency Financial Report and the President's Budget. For example, interest rates may change at levels not previously predicted. Additionally, as broader economic conditions change wages, the effects on borrowers may appear in unanticipated changes to payment amounts calculated through IDR plans.

The Department is committed to ensuring that borrowers have access to fair and affordable repayment plans, including IDR plans. Research has indicated that borrowers who enroll in IDR plans see reduced rates of delinquency, and those plans have helped many borrowers to avoid default and increase repayments. We also recognize the unique circumstances of the pandemic,

which have left families across the country facing unprecedented financial and health concerns. The payment pause has helped 42 million borrowers avoid default and delinquency during the national emergency and ensured that they could focus on their health. For the borrowers who were in repayment prior to the pause, the Department estimates that the average borrower will have saved $4,400 between January 2021 and August 2022.

Thank you for the opportunity to respond to GAO's draft report. We would be happy to respond to any questions you might have about these comments or to provide further information if helpful.

Sincerely,



James Kvaal

Appendix IV: GAO Contacts and Staff Acknowledgments

GAO Contacts

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Staff Acknowledgments

In addition to the contacts named above, Benjamin Bolitzer, Marcia Carlsen, Debra Prescott (Assistant Directors), Rachel Beers (Analyst in Charge), Robert Dacey, Benjamin Netto DeYoung, Daniel Flavin, Marissa Jones Friedman, Gina Hoover, Christopher Klemmer, and Briana Shen made key contributions to this report. Additional assistance was provided by James Bennett, Elizabeth Calderon, Holly Dye, Susan J. Irving, Brittni Milam, Frank Todisco, and Adam Wendel.

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