

## Impact of Federal Student Loan Interest Rate Proposals on Cost of Borrowing

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### Overview of Analysis:

- Scenario: Student taking out annual maximum in subsidized and unsubsidized Stafford loans, graduating in four years. The student takes out a total of \$27,000 in Stafford loans: \$19,000 subsidized and \$8,000 unsubsidized. For all [Pay As You Earn](#) (PAYE) calculations, we assume that the borrower enters PAYE as soon as her loans enter repayment, starts with an Adjusted Gross Income (AGI) of \$50,000 (increasing 4% a year), and has a child in the eighth year of repayment.
- Our analysis looks at this student entering college at both the beginning and midpoint of the upcoming 10-year period to show how interest rate proposals would affect students differently based on timing, given that interest rates are projected to be higher in later years.
- Our analysis compares the following interest rate options:
  - **2012-13 rate extension:** extension of the 2012-13 interest rates to all years; fixed rates.
  - **Scheduled rates:** scheduled interest rates for 2013-14 and later years; fixed rates.
  - **Kline-Fox bill (H.R. 1911):** interest rates set at 10-year T-Note plus 2.50% for both subsidized and unsubsidized Stafford loans, up to 8.5%; variable rates.
  - **Senate-White House deal (S. 1334):**<sup>1</sup> interest rates set at 10-year T-Note plus 2.05% for both subsidized and unsubsidized Stafford loans, up to 8.25%; fixed rates.
- See the following pages for a comparison of total payments under a 10-year standard repayment plan and the Pay As You Earn plan, as well as detailed tables that break out the borrower's subsidized loans only and interest accrual during different periods.
- See additional notes and assumptions on page 4.

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<sup>1</sup> This proposal was signed into law on August 9, 2013 as the Bipartisan Student Loan Certainty Act of 2013 (Public Law 113-28).

**Analysis: If This Borrower Enters College in 2013-14**

**Cost of borrowing under 10-year standard repayment:**

- Allowing the subsidized Stafford interest rate to double to 6.8% costs this borrower almost \$4,000 more over 10 years than if the 3.4% interest rate were extended.
- Total 10-year payments would be lowest under a 2012-13 rate extension and highest under the Kline-Foxx bill, which has variable interest rates. Because interest rates are currently low and projected to rise, this finding is unsurprising because the fixed rate proposals allow borrowers in the next few years to lock-in those low rates while the variable rate plan allows the student's interest rates to rise each year.
- Total 10-year payments under the Senate-White House deal are slightly higher than under a 2012-13 rate extension but substantially lower than under scheduled rates. During this student's four years of borrowing, the interest rate on all of her Stafford loans are below 6.8%, but rates are projected to rise above 6.8% for students attending college later (see next scenario for more details).
- See Table 5 for a breakout of this borrower's subsidized Stafford loans only, which drive much of the difference in cost between the Kline-Foxx bill and a 2012-13 rate extension, as well as scheduled rates.

**Example cost of borrowing under Pay As You Earn (assuming \$50k AGI, increasing 4% per year w/child in year 8)**

- The relative size of her total payments under PAYE for each interest rate option, compared to the 2012-13 rate extension, is about the same as the relative size of total payments under the 10-year repayment plan.
- Total payments under PAYE are highest under the Kline-Foxx bill, while the Senate-White House deal and scheduled rates would also increase costs for the borrower, compared to a 2012-13 rate extension.

**Table 1: Total Payments for This Borrower Entering College in 2013-14, Graduating in 4 Years.**

<b>Proposal</b>	<b>Amount entering repayment</b>	<b>Total payments over 10 years</b>	<b>Total payments under PAYE</b>	<b>Effective interest rate under PAYE</b>
2012-13 rate extension	\$28,450	\$35,500	\$35,600	4.51%
Scheduled rates	\$28,500	\$39,400	\$40,750	6.80%
<i>Difference from 2012-13 rate extension (\$)</i>	<i>\$50</i>	<i>\$3,900</i>	<i>\$5,150</i>	<i>2.29%</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>0%</i>	<i>11%</i>	<i>14%</i>	<i>51%</i>
Kline-Foxx Bill	\$28,400	\$40,700	\$42,850	7.36% to 7.70%
<i>Difference from 2012-13 rate extension (\$)</i>	<i>-\$50</i>	<i>\$5,200</i>	<i>\$7,250</i>	<i>n/a</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>0%</i>	<i>15%</i>	<i>20%</i>	<i>n/a</i>
<i>Difference from scheduled rates (\$)</i>	<i>-\$100</i>	<i>\$1,300</i>	<i>\$2,100</i>	<i>n/a</i>
<i>Difference from scheduled rates (%)</i>	<i>0%</i>	<i>3%</i>	<i>5%</i>	<i>n/a</i>
Senate-White House deal	\$28,050	\$35,800	\$36,050	5.08%
<i>Difference from 2012-13 rate extension (\$)</i>	<i>-\$400</i>	<i>\$300</i>	<i>\$450</i>	<i>0.57%</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>-1%</i>	<i>1%</i>	<i>1%</i>	<i>13%</i>
<i>Difference from scheduled rates (\$)</i>	<i>-\$450</i>	<i>-\$3,600</i>	<i>-\$4,700</i>	<i>-1.72%</i>
<i>Difference from scheduled rates (%)</i>	<i>-2%</i>	<i>-9%</i>	<i>-12%</i>	<i>-25%</i>

**Analysis: If This Borrower Enters College in 2018-19 (5 years later)<sup>2</sup>**

**Cost of borrowing under 10-year standard repayment:**

- Total payments over 10 years are by far the lowest under the 2012-13 rate extension.
- Total 10-year payments under the Kline-Foxx bill and the Senate-White House deal would be higher than the total 10-year payments under the scheduled rates.
- Because interest rates are projected to increase, under the Senate-White House deal this borrower would pay over \$4,300 more over 10 years if she enters college in 2018 than if she enters college in 2013.
- See Table 6 for a breakout of this borrower’s subsidized Stafford loans only.

**Example cost of borrowing under Pay As You Earn (assuming \$50k AGI, increasing 4% per year w/child in year 8)**

- The relative size of her total payments under PAYE for each interest rate option, compared to the 2012-13 rate extension, is about the same as the relative size of total payments under the 10-year repayment plan.
- An extension of 2012-13 rates would lead to lower total payments under PAYE than any of the market-based proposals, fixed or variable, as well as lower total payments than scheduled rates.
- Scheduled rates would lead to lower total payments than any of the market-based proposals.

**Table 2: Total 10-Year Payments for This Borrower Entering College in 2018-19, Graduating in 4 Years.**

<b>Proposal</b>	<b>Amount entering repayment</b>	<b>Total payments over 10 years</b>	<b>Total payments under PAYE</b>	<b>Effective interest rate under PAYE</b>
2012-13 rate extension	\$28,400	\$35,450	\$35,500	4.51%
Scheduled rates	\$28,400	\$39,250	\$40,500	6.80%
<i>Difference from 2012-13 rate extension (\$)</i>	<i>-\$50</i>	<i>\$3,750</i>	<i>\$4,900</i>	<i>2.29%</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>0%</i>	<i>11%</i>	<i>14%</i>	<i>51%</i>
Kline-Foxx Bill	\$28,600	\$41,100	\$43,500	7.70%
<i>Difference from 2012-13 rate extension (\$)</i>	<i>\$200</i>	<i>\$5,650</i>	<i>\$8,000</i>	<i>3.19%</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>1%</i>	<i>16%</i>	<i>23%</i>	<i>71%</i>
<i>Difference from scheduled rates (\$)</i>	<i>\$200</i>	<i>\$1,850</i>	<i>\$3,000</i>	<i>0.90%</i>
<i>Difference from scheduled rates (%)</i>	<i>1%</i>	<i>5%</i>	<i>7%</i>	<i>13%</i>
Senate-White House deal	\$28,500	\$40,150	\$41,950	7.25%
<i>Difference from 2012-13 rate extension (\$)</i>	<i>\$100</i>	<i>\$4,700</i>	<i>\$6,450</i>	<i>2.74%</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>0%</i>	<i>13%</i>	<i>18%</i>	<i>61%</i>
<i>Difference from scheduled rates (\$)</i>	<i>\$100</i>	<i>\$900</i>	<i>\$1,450</i>	<i>0.45%</i>
<i>Difference from scheduled rates (%)</i>	<i>0%</i>	<i>2%</i>	<i>4%</i>	<i>7%</i>

<sup>2</sup> Note that in this scenario, there is no effect of variable vs. fixed interest rates because CBO projects the same 10-year T-Note yield from 2018-19 through 2023-24, and that yield was applied to future rates through the end of the repayment period.

**Notes and Assumptions:**

- Figures are rounded to the nearest \$50 and 1%.
- Total payment amounts have not been adjusted for inflation.
- “2012-13 rate extension” is defined as an extension of the 2012-13 interest rates. For subsidized Stafford loans: 0% interest while in school, 3.4% interest during the grace period for loans taken out in 2013-14 and 0% interest during the grace period for loans taken out in later years, 3.4% interest during repayment. For unsubsidized Stafford loans: 6.8% interest during all periods.
- “Scheduled rates” are defined as the interest rates for 2013-14 and later years. For subsidized Stafford loans: 0% interest while in school, 6.8% interest during the grace period for loans taken out in 2013-14 and 0% interest during the grace period for loans taken out in later years, 6.8% interest during repayment. For unsubsidized Stafford loans: 6.8% interest during all periods.
- All proposals retain the in-school interest subsidy on subsidized Stafford loans and assume that the grace period interest subsidy on subsidized Stafford loans returns in 2014-15, as scheduled.
- For variable interest rates, calculations of in-school interest accrual assume that loan interest rates reset in September of each year, calculations of interest accrual during the grace period assume the loan interest rates reset at graduation (May), and calculations of monthly payments during the repayment period assume the loan interest rates reset in November of each year.
- The “effective interest rate under PAYE” is the rate used to determine the size of the “permanent standard” amount and the amount of interest accruing on loan balances. For fixed interest rate proposals, the interest rate under PAYE is the weighted interest rate of all loans. For variable interest rate proposals, the interest rate under PAYE is the interest rate each year.
- 10-Year Treasury Note yields are February 2013 CBO fiscal year projections from “The Budget and Economic Outlook: Fiscal Years 2013-2023,” [http://www.cbo.gov/sites/default/files/cbofiles/attachments/43902\\_EconomicBaselineProjections.xls](http://www.cbo.gov/sites/default/files/cbofiles/attachments/43902_EconomicBaselineProjections.xls). For example, T-Note projections for FY2013 are used to set interest rates for the 2013-14 academic year.
- Projected rates for 2023-24 are used for future years.

## DETAILED TABLES

*Table 3: Total 10-Year Payments for Borrower Entering in 2013-14, Taking Out Annual Maximum in Subsidized and Unsubsidized Stafford Loans, Graduating in 4 Years*

<b>Proposal</b>	<b>Amount entering repayment</b>	<b>Total payments over 10 years</b>	<b>Interest accrued while enrolled</b>	<b>Interest accrued during grace period</b>	<b>Interest accrued and paid during repayment period</b>	<b>Total interest paid</b>
2012-13 rate extension	\$28,450	\$35,500	\$1,150	\$350	\$7,050	\$8,500
Scheduled rates	\$28,500	\$39,400	\$1,150	\$400	\$10,850	\$12,400
<i>Difference from 2012-13 rate extension (\$)</i>	<i>\$50</i>	<i>\$3,900</i>	<i>\$0</i>	<i>\$50</i>	<i>\$3,800</i>	<i>\$3,900</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>0%</i>	<i>11%</i>	<i>0%</i>	<i>14%</i>	<i>54%</i>	<i>46%</i>
Kline-Foxx Bill	\$28,400	\$40,700	\$950	\$400	\$12,300	\$13,700
<i>Difference from 2012-13 rate extension (\$)</i>	<i>-\$50</i>	<i>\$5,200</i>	<i>-\$200</i>	<i>\$50</i>	<i>\$5,250</i>	<i>\$5,200</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>0%</i>	<i>15%</i>	<i>-17%</i>	<i>14%</i>	<i>74%</i>	<i>61%</i>
<i>Difference from scheduled rates (#)</i>	<i>-\$100</i>	<i>\$1,300</i>	<i>-\$200</i>	<i>\$0</i>	<i>\$1,450</i>	<i>\$1,300</i>
<i>Difference from scheduled rates (%)</i>	<i>0%</i>	<i>3%</i>	<i>-17%</i>	<i>0%</i>	<i>13%</i>	<i>10%</i>
Senate-White House deal	\$28,050	\$35,800	\$750	\$250	\$7,800	\$8,800
<i>Difference from 2012-13 rate extension (\$)</i>	<i>-\$400</i>	<i>\$300</i>	<i>-\$400</i>	<i>-\$100</i>	<i>\$750</i>	<i>\$300</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>-1%</i>	<i>1%</i>	<i>-35%</i>	<i>-29%</i>	<i>11%</i>	<i>4%</i>
<i>Difference from scheduled rates (\$)</i>	<i>-\$450</i>	<i>-\$3,600</i>	<i>-\$400</i>	<i>-\$150</i>	<i>-\$3,050</i>	<i>-\$3,600</i>
<i>Difference from scheduled rates (%)</i>	<i>-2%</i>	<i>-9%</i>	<i>-35%</i>	<i>-38%</i>	<i>-28%</i>	<i>-29%</i>

**Table 4: Total 10-Year Payments for Borrower Entering in 2018-19, Taking Out Annual Maximum in Subsidized and Unsubsidized Stafford Loans, Graduating in 4 Years**

<b>Proposal</b>	<b>Amount entering repayment</b>	<b>Total payments over 10 years</b>	<b>Interest accrued while enrolled</b>	<b>Interest accrued during grace period</b>	<b>Interest accrued and paid during repayment period</b>	<b>Total interest paid</b>
2012-13 rate extension	\$28,400	\$35,450	\$1,150	\$250	\$7,000	\$8,450
Scheduled rates	\$28,400	\$39,250	\$1,150	\$250	\$10,800	\$12,250
<i>Difference from 2012-13 rate extension (\$)</i>	\$0	\$3,800	\$0	\$0	\$3,800	\$3,800
<i>Difference from 2012-13 rate extension (%)</i>	0%	11%	0%	0%	54%	45%
Kline-Foxx Bill	\$28,600	\$41,100	\$1,300	\$300	\$12,500	\$14,100
<i>Difference from 2012-13 rate extension (\$)</i>	\$200	\$5,650	\$150	\$50	\$5,500	\$5,650
<i>Difference from 2012-13 rate extension (%)</i>	1%	16%	13%	20%	79%	67%
<i>Difference from scheduled rates (#)</i>	\$200	\$1,850	\$150	\$50	\$1,700	\$1,850
<i>Difference from scheduled rates (%)</i>	1%	5%	13%	20%	16%	15%
Senate-White House deal	\$28,500	\$40,150	\$1,200	\$300	\$11,650	\$13,150
<i>Difference from 2012-13 rate extension (\$)</i>	\$100	\$4,700	\$50	\$50	\$4,650	\$4,700
<i>Difference from 2012-13 rate extension (%)</i>	0%	13%	4%	20%	66%	56%
<i>Difference from scheduled rates (\$)</i>	\$100	\$900	\$50	\$50	\$850	\$900
<i>Difference from scheduled rates (%)</i>	0%	2%	4%	20%	8%	7%

**Table 5: Total 10-Year Payments for Borrower Entering in 2013-14 Taking Out Annual Maximum in Subsidized Stafford Loans Only, Graduating in 4 Years**

<b>Proposal</b>	<b>Amount entering repayment</b>	<b>Total payments over 10 years</b>	<b>Interest accrued while enrolled</b>	<b>Interest accrued during grace period</b>	<b>Interest accrued and paid during repayment period</b>	<b>Total interest paid</b>
2012-13 rate extension	\$19,050	\$22,500	\$0	\$50	\$3,450	\$3,500
Scheduled rates	\$19,100	\$26,400	\$0	\$100	\$7,300	\$7,400
<i>Difference from 2012-13 rate extension (\$)</i>	\$50	\$3,900	\$0	\$50	\$3,850	\$3,900
<i>Difference from 2012-13 rate extension (%)</i>	0%	17%	0%	100%	112%	111%
Kline-Foxx Bill	\$19,150	\$27,400	\$0	\$150	\$8,300	\$8,400
<i>Difference from 2012-13 rate extension (\$)</i>	\$100	\$4,900	\$0	\$100	\$4,850	\$4,900
<i>Difference from 2012-13 rate extension (%)</i>	1%	22%	0%	200%	141%	140%
<i>Difference from scheduled rates (#)</i>	\$50	\$1,000	\$0	\$50	\$1,000	\$1,000
<i>Difference from scheduled rates (%)</i>	0%	4%	0%	50%	14%	14%
Senate-White House deal	\$19,050	\$24,450	\$0	\$50	\$5,350	\$5,450
<i>Difference from 2012-13 rate extension (\$)</i>	\$0	\$1,950	\$0	\$0	\$1,900	\$1,950
<i>Difference from 2012-13 rate extension (%)</i>	0%	9%	0%	0%	55%	56%
<i>Difference from scheduled rates (#)</i>	-\$50	-\$1,950	\$0	-\$50	-\$1,950	-\$1,950
<i>Difference from scheduled rates (%)</i>	0%	-7%	0%	-50%	-27%	-26%

**Table 6: Total 10-Year Payments for Borrower Entering in 2018-19 Taking Out Annual Maximum in Subsidized Stafford Loans Only, Graduating in 4 Years**

<b>Proposal</b>	<b>Amount entering repayment</b>	<b>Total payments over 10 years</b>	<b>Interest accrued while enrolled</b>	<b>Interest accrued during grace period</b>	<b>Interest accrued and paid during repayment period</b>	<b>Total interest paid</b>
2012-13 rate extension	\$19,000	\$22,450	\$0	\$0	\$3,450	\$3,450
Scheduled rates	\$19,000	\$26,250	\$0	\$0	\$7,250	\$7,250
<i>Difference from 2012-13 rate extension (\$)</i>	<i>\$0</i>	<i>\$3,800</i>	<i>\$0</i>	<i>\$0</i>	<i>\$3,800</i>	<i>\$3,800</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>0%</i>	<i>17%</i>	<i>0%</i>	<i>0%</i>	<i>110%</i>	<i>110%</i>
Kline-Foxx Bill	\$19,000	\$27,300	\$0	\$0	\$8,300	\$8,300
<i>Difference from 2012-13 rate extension (\$)</i>	<i>\$0</i>	<i>\$4,850</i>	<i>\$0</i>	<i>\$0</i>	<i>\$4,850</i>	<i>\$4,850</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>0%</i>	<i>22%</i>	<i>0%</i>	<i>0%</i>	<i>141%</i>	<i>141%</i>
<i>Difference from scheduled rates (#)</i>	<i>\$0</i>	<i>\$1,050</i>	<i>\$0</i>	<i>\$0</i>	<i>\$1,050</i>	<i>\$1,050</i>
<i>Difference from scheduled rates (%)</i>	<i>0%</i>	<i>4%</i>	<i>0%</i>	<i>0%</i>	<i>14%</i>	<i>14%</i>
Senate-White House deal	\$19,000	\$26,750	\$0	\$0	\$7,750	\$7,750
<i>Difference from 2012-13 rate extension (\$)</i>	<i>\$0</i>	<i>\$4,300</i>	<i>\$0</i>	<i>\$0</i>	<i>\$4,300</i>	<i>\$4,300</i>
<i>Difference from 2012-13 rate extension (%)</i>	<i>0%</i>	<i>19%</i>	<i>0%</i>	<i>0%</i>	<i>125%</i>	<i>125%</i>
<i>Difference from scheduled rates (#)</i>	<i>\$0</i>	<i>\$500</i>	<i>\$0</i>	<i>\$0</i>	<i>\$500</i>	<i>\$500</i>
<i>Difference from scheduled rates (%)</i>	<i>0%</i>	<i>2%</i>	<i>0%</i>	<i>0%</i>	<i>7%</i>	<i>7%</i>