## college

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

Updated 06/21/13

## 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 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 10year 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:
o Current rate extension: extension of the 2012-13 interest rates to all years; fixed rates.
o Scheduled rates: scheduled interest rates for 2013-14 and later years; fixed rates.
o Coburn-Burr-Alexander bill (S. 682): interest rates set at 10-year T-Note plus $3.00 \%$ for both subsidized and unsubsidized Stafford loans; fixed rates.
o Kline-Foxx 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.
- 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.


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

- Allowing the subsidized Stafford interest rate to double to $6.8 \%$ would cost 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 current rate extension. Because interest rates are currently low and projected to rise, this finding is unsurprising as 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 are highest under the Kline-Foxx proposal, which proposes variable interest rates.
- See Table 5 for a breakout of this borrower's subsidized Stafford loans only, which drive much of the difference in cost between proposals (e.g., \$4,900 of the \$5,200 difference between Kline-Foxx and a current rate extension).

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 current 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 Coburn-Burr-Alexander bill and scheduled rates would also increase costs for the borrower, compared to a current rate extension.

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

| Proposal | Amount entering repayment | Total payments over 10 years | Total payments under PAYE | Effective interest rate under PAYE |
| :---: | :---: | :---: | :---: | :---: |
| Current rate extension ${ }^{1}$ | \$28,450 | \$35,500 | \$35,600 | 4.51\% |
| Scheduled rates | \$28,500 | \$39,400 | \$40,750 | 6.80\% |
| Difference from current rate extension (\$) | \$50 | \$3,900 | \$5,150 | 2.29\% |
| Difference from current rate extension (\%) | 0\% | 11\% | 14\% | 51\% |
| Coburn-Burr-Alexander bill | \$28,250 | \$37,700 | \$38,350 | 6.03\% |
| Difference from current rate extension (\$) | -\$200 | \$2,200 | \$2,750 | 1.52\% |
| Difference from current rate extension (\%) | -1\% | 6\% | 8\% | 34\% |
| Kline-Foxx Bill | \$28,400 | \$40,700 | \$42,850 | $\begin{array}{r} 7.36 \% \text { to } \\ 7.70 \% \\ \hline \end{array}$ |
| Difference from current rate extension (\$) | -\$50 | \$5,200 | \$7,250 | n/a |
| Difference from current rate extension (\%) | 0\% | 15\% | 20\% | n/a |

[^0]
## Cost of borrowing under 10-year standard repayment:

- Total payments over 10 years are by far the lowest under the current rate extension.
- Total 10-year payments are highest under the Coburn-Burr-Alexander proposal, which has a larger add-on for subsidized and unsubsidized Stafford loans compared to the Kline-Foxx bill.
- Because interest rates are projected to increase, this borrower would pay almost \$4,500 more over 10 years under the Coburn-Burr-Alexander bill (market-based fixed rate) 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 current rate extension, is about the same as the relative size of total payments under the 10-year repayment plan.
- An extension of current rates would lead to lower total payments under PAYE than any of the marketbased 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.

| Proposal | Amount <br> entering <br> repayment | Total <br> payments over <br> 10 years | Total <br> payments <br> under PAYE | Effective <br> interest rate <br> under PAYE |
| :--- | ---: | :--- | :--- | ---: |
| Current rate extension ${ }^{3}$ | $\$ 28,400$ | $\$ 35,450$ | $\$ 35,500$ | $4.51 \%$ |
|  |  |  |  |  |
| Scheduled rates | $\$ 28,400$ | $\$ 39,250$ | $\$ 40,500$ | $6.80 \%$ |
| Difference from current rate extension (\$) | $\$ 0$ | $\$ 3,800$ | $\$ 4,900$ | $2.29 \%$ |
| Difference from current rate extension (\%) | $0 \%$ | $11 \%$ | $14 \%$ | $51 \%$ |
|  |  |  |  |  |
| Coburn-Burr-Alexander bill | $\$ 28,700$ | $\$ 42,150$ | $\$ 45,450$ | $8.20 \%$ |
| Difference from current rate extension (\$) | $\$ 300$ | $\$ 6,700$ | $\$ 9,950$ | $3.69 \%$ |
| Difference from current rate extension (\%) | $1 \%$ | $19 \%$ | $28 \%$ | $82 \%$ |
|  |  |  |  |  |
| Kline-Foxx Bill | $\$ 28,600$ | $\$ 41,100$ | $\$ 43,500$ | $7.70 \%$ |
| Difference from current rate extension (\$) | $\$ 200$ | $\$ 5,650$ | $\$ 8,000$ | $3.19 \%$ |
| Difference from current rate extension (\%) | $1 \%$ | $16 \%$ | $23 \%$ | $71 \%$ |

[^1]
## Notes and Assumptions:

- Figures are rounded to the nearest $\$ 50$ and $1 \%$.
- Total payment amounts have not been adjusted for inflation.
- "Current rate extension" is defined as an extension of the 2012-13 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. 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

| Proposal | Amount entering repayment | Total payments over 10 years | Interest accrued while enrolled | Interest accrued during grace period | Interest accrued and paid during repayment period | Total interest paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current 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 |
| Difference from current rate extension (\$) | \$50 | \$3,900 | \$0 | \$50 | \$3,800 | \$3,900 |
| Difference from current rate extension (\%) | 0\% | 11\% | 0\% | 14\% | 54\% | 46\% |
| Coburn-Burr-Alexander bill | \$28,250 | \$37,700 | \$900 | \$300 | \$9,450 | \$10,700 |
| Difference from current rate extension (\$) | -\$200 | \$2,200 | -\$250 | -\$50 | \$2,400 | \$2,200 |
| Difference from current rate extension (\%) | -1\% | 6\% | -22\% | -14\% | 34\% | 26\% |
| Kline-Foxx Bill | \$28,400 | \$40,700 | \$950 | \$400 | \$12,300 | \$13,700 |
| Difference from current rate extension (\$) | -\$50 | \$5,200 | -\$200 | \$50 | \$5,250 | \$5,200 |
| Difference from current rate extension (\%) | 0\% | 15\% | -17\% | 14\% | 74\% | 61\% |

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

## Updated 06/21/13

| Proposal | Amount entering repayment | Total payments over 10 years | Interest accrued while enrolled | Interest accrued during grace period | Interest accrued and paid during repayment period | Total interest paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current 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 |
| Difference from current rate extension (\$) | \$0 | \$3,800 | \$0 | \$0 | \$3,800 | \$3,800 |
| Difference from current rate extension (\%) | 0\% | 11\% | 0\% | 0\% | 54\% | 45\% |
| Coburn-Burr-Alexander bill | \$28,700 | \$42,150 | \$1,350 | \$350 | \$13,450 | \$15,150 |
| Difference from current rate extension (\$) | \$300 | \$6,700 | \$200 | \$100 | \$6,450 | \$6,700 |
| Difference from current rate extension (\%) | 1\% | 19\% | 17\% | 40\% | 92\% | 79\% |
| Kline-Foxx Bill | \$28,600 | \$41,100 | \$1,300 | \$300 | \$12,500 | \$14,100 |
| Difference from current rate extension (\$) | \$200 | \$5,650 | \$150 | \$50 | \$5,500 | \$5,650 |
| Difference from current rate extension (\%) | 1\% | 16\% | 13\% | 20\% | 79\% | 67\% |

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 Updated 06/21/13

| Proposal | Amount entering repayment | Total payments over 10 years | Interest accrued while enrolled | Interest accrued during grace period | Interest accrued and paid during repayment period | Total interest paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current rate extension | \$19,050 | \$22,500 | \$0 | \$50 | \$3,450 | \$3,500 |
| Scheduled rates | \$19,100 | \$26,400 | \$0 | \$100 | \$7,300 | \$7,400 |
| Difference from current rate extension (\$) | \$50 | \$3,900 | \$0 | \$50 | \$3,850 | \$3,900 |
| Difference from current rate extension (\%) | 0\% | 17\% | 0\% | 100\% | 112\% | 111\% |
| Coburn-Burr-Alexander bill | \$19,100 | \$25,550 | \$0 | \$100 | \$6,450 | \$6,550 |
| Difference from current rate extension (\$) | \$50 | \$3,050 | \$0 | \$50 | \$3,000 | \$3,050 |
| Difference from current rate extension (\%) | 0\% | 14\% | 0\% | 100\% | 87\% | 87\% |
| Kline-Foxx Bill | \$19,150 | \$27,400 | \$0 | \$150 | \$8,300 | \$8,400 |
| Difference from current rate extension (\$) | \$100 | \$4,900 | \$0 | \$100 | \$4,850 | \$4,900 |
| Difference from current rate extension (\%) | 1\% | 22\% | 0\% | 200\% | 141\% | 140\% |

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
Updated 06/21/13

| Proposal | Amount entering repayment | Total payments over 10 years | Interest accrued while enrolled | Interest accrued during grace period | Interest accrued and paid during repayment period | Total interest paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current rate extension | \$19,000 | \$22,450 | \$0 | \$0 | \$3,450 | \$3,450 |
| Scheduled rates | \$19,000 | \$26,250 | \$0 | \$0 | \$7,250 | \$7,250 |
| Difference from current rate extension (\$) | \$0 | \$3,800 | \$0 | \$0 | \$3,800 | \$3,800 |
| Difference from current rate extension (\%) | 0\% | 17\% | 0\% | 0\% | 110\% | 110\% |
| Coburn-Burr-Alexander bill | \$19,000 | \$27,900 | \$0 | \$0 | \$8,900 | \$8,900 |
| Difference from current rate extension (\$) | \$0 | \$5,450 | \$0 | \$0 | \$5,450 | \$5,450 |
| Difference from current rate extension (\%) | 0\% | 24\% | 0\% | 0\% | 158\% | 158\% |
| Kline-Foxx Bill | \$19,000 | \$27,300 | \$0 | \$0 | \$8,300 | \$8,300 |
| Difference from current rate extension (\$) | \$0 | \$4,850 | \$0 | \$0 | \$4,850 | \$4,850 |
| Difference from current rate extension (\%) | 0\% | 22\% | 0\% | 0\% | 141\% | 141\% |


[^0]:    ${ }^{1}$ Calculations for the current rate extension were revised on 05-16-13 to reinstate the grace period interest subsidy on subsidized Stafford loans in 2014-15.

[^1]:    ${ }^{2}$ 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.
    ${ }^{3}$ Calculations for the current rate extension were revised on 05-16-13 to reinstate the grace period interest subsidy on subsidized Stafford loans in 2014-15.

