

Tax Credits for Student Loan Repayment in Maine

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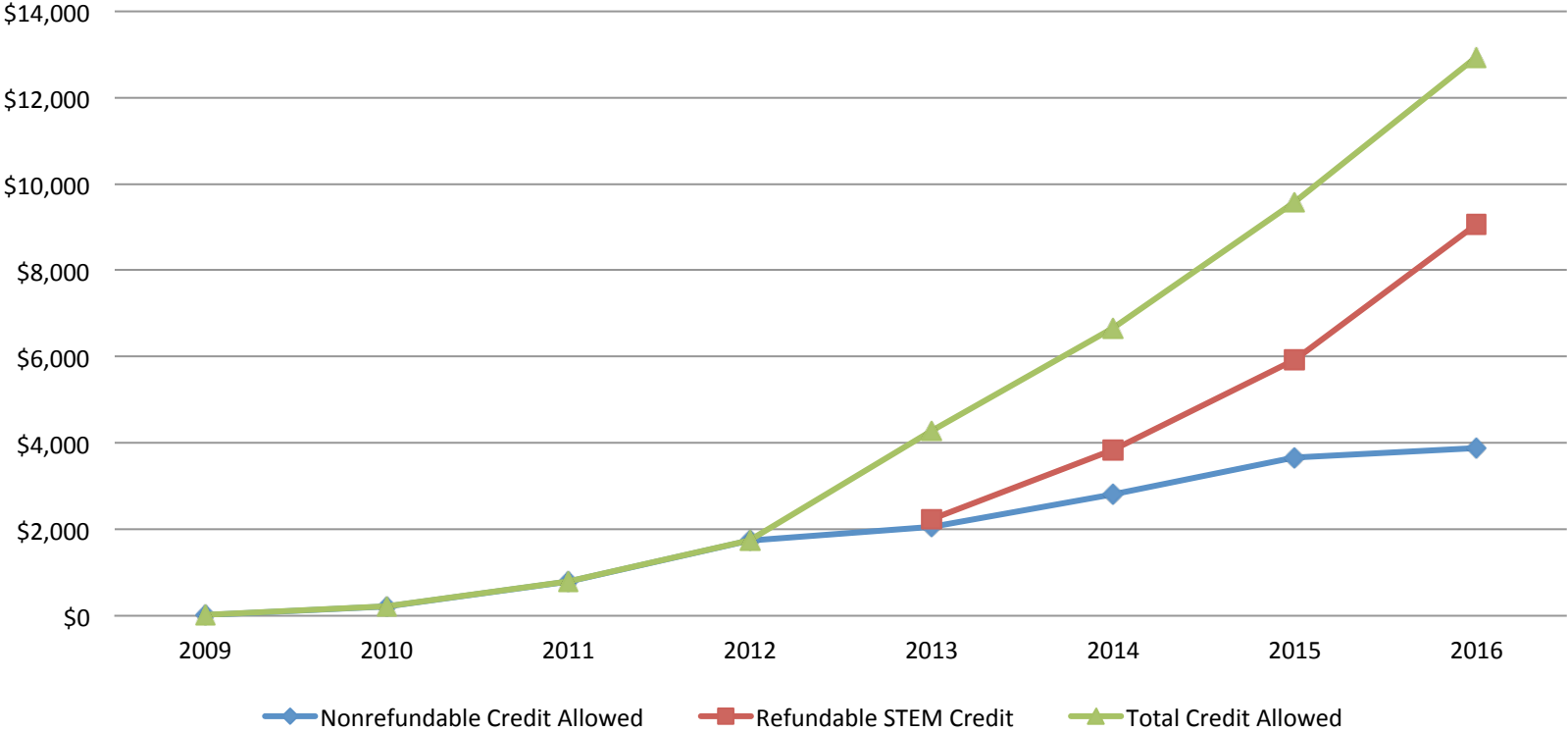
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Current Law: Credit for Educational Opportunity

- 100% credit for loan repayments
 - Accelerated payments are ineligible for credit, other restrictions
- Annual credit caps by degree: In 2016, \$840 if loan for Associates Degree, \$4,476 for Bachelor's degree, and \$3,900 for graduate degree
 - Limits stack: Total possible credit with BA and graduate debt is \$8,376
- Credit prorated by fraction of coursework completed after 2007
- Credit refundable for STEM degrees starting TY 2013 and all Associates degrees starting TY 2016.
- Extended carry-forward period for unused credits
- Eligibility
 - 2008-15 graduates: Undergraduate degree from Maine college
 - 2016 major expansion: Extended to all undergraduate degrees and Maine graduate degrees earned 2016 and later
 - Restrictions on out-of-state credit transfers were eased for students transferring after 2012 and eliminated in tax year 2016

Credit for Educational Opportunity History

Opportunity Maine Credits Claimed (Thousands of Dollars)

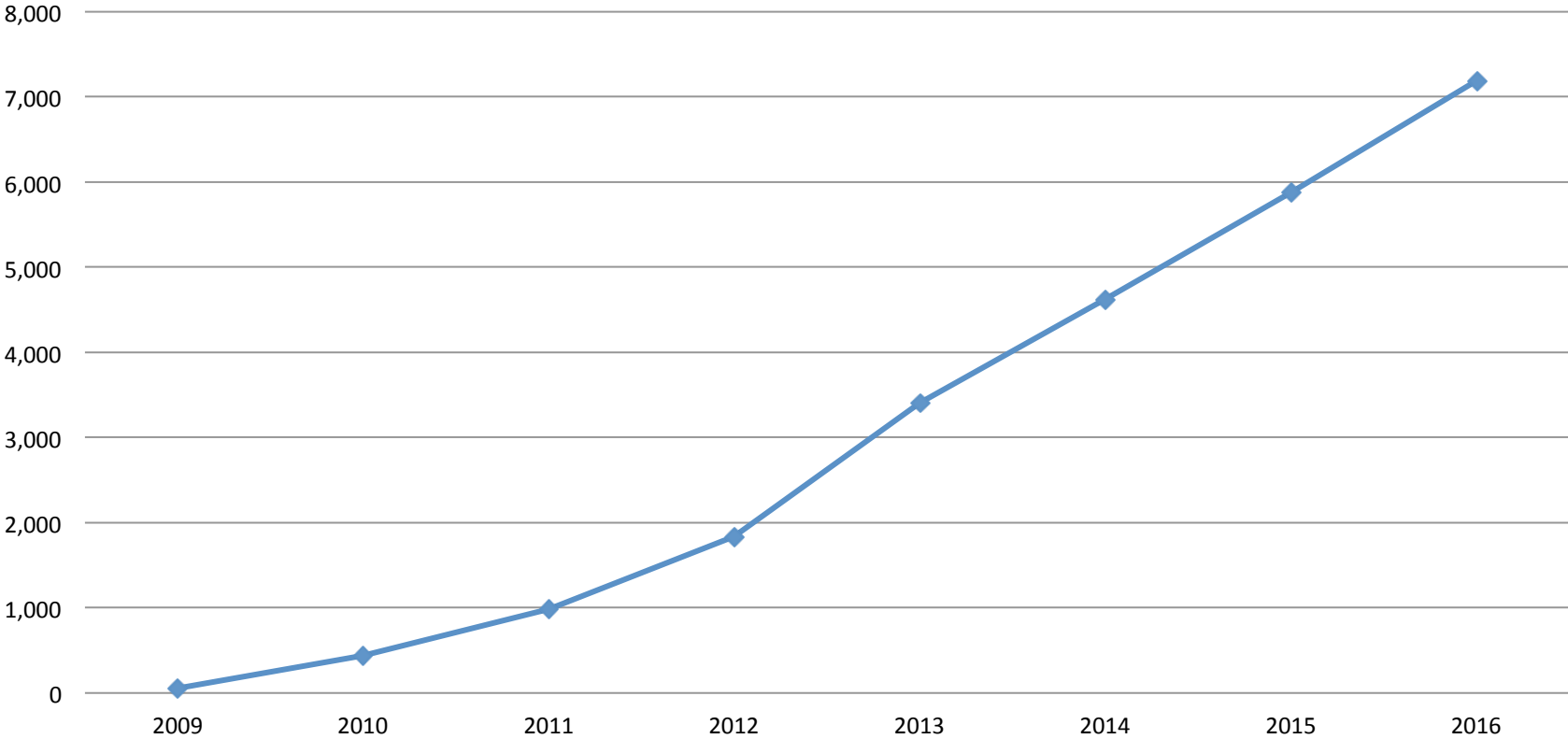


Credit Claimed = Amount the credit reduces tax liability in the current tax year

Note: 1) The tax year 2016 extension deadline has not yet arrived; 2) Amended returns and processing delays are common, so the tax year 2016 final credits will rise relative to earlier years.

Credit for Educational Opportunity History

Number of Opportunity Maine Credits



2017 Proposal

- Nonrefundable credit of 100% of loan repayments up to a cap that depends on highest degree (dropout/AA/BA/Graduate)
- Eligibility
 - Degree earned or separation occurs after 2007, but credit is not prorated for post-2007 coursework like current credit
 - Loan for taxpayer's own education; parent loans excluded
- Requests for a wide range of credit caps, including high limits (\$7,000+)
- Compared to current program
 - Expands eligibility to non-Maine undergraduate degrees and Maine graduate degrees earned 2008-15 and non-Maine graduate degrees earned 2008 to present
 - Reduces credit for many currently eligible, largely due to making all credits nonrefundable and ending carryforwards, also through lower annual credit cap for most

Important Considerations for Fiscal Note

- Credit not refundable
 - In tax year 2016, the refundable STEM credit cost would have been 34% lower if nonrefundable.
- Credit caps—When do these caps bind?
 - Upper tail of repayment distribution is important
- Degree-date eligibility restriction: In 2017, what fraction of borrowers in repayment earned their degree after 2007?
- Parent Loans

Relevant Stylized Facts About Loan Repayment

Stylized Fact #1: Income and loan balance positively correlated

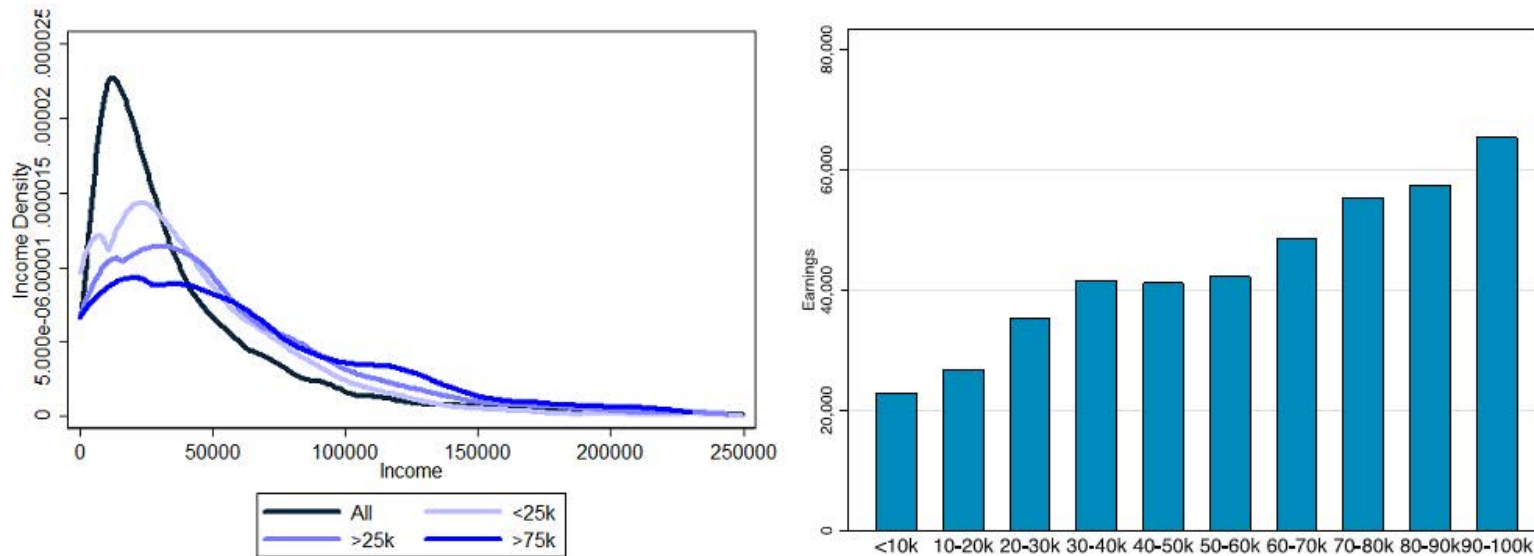
Stylized Fact #2: Repayment and balance distribution high variance and skewed

Stylized Fact #3: Delays entering repayment and repayment pauses are common; repayment rates have slowed over time

Must account for these facts in fiscal note.

Stylized Fact #1: Income and loan balance positively correlated

Figure 11: The Relationship between Student Debt and Student Earnings



The right panel shows mean earnings two years after entering repayment by repayment balance. From: Adam Looney and Constantine Yannelis, “A Crisis in Student Loans?” (Fall 2015), Brookings Institution, Washington, D.C.

Stylized Fact #2: Repayment Distribution

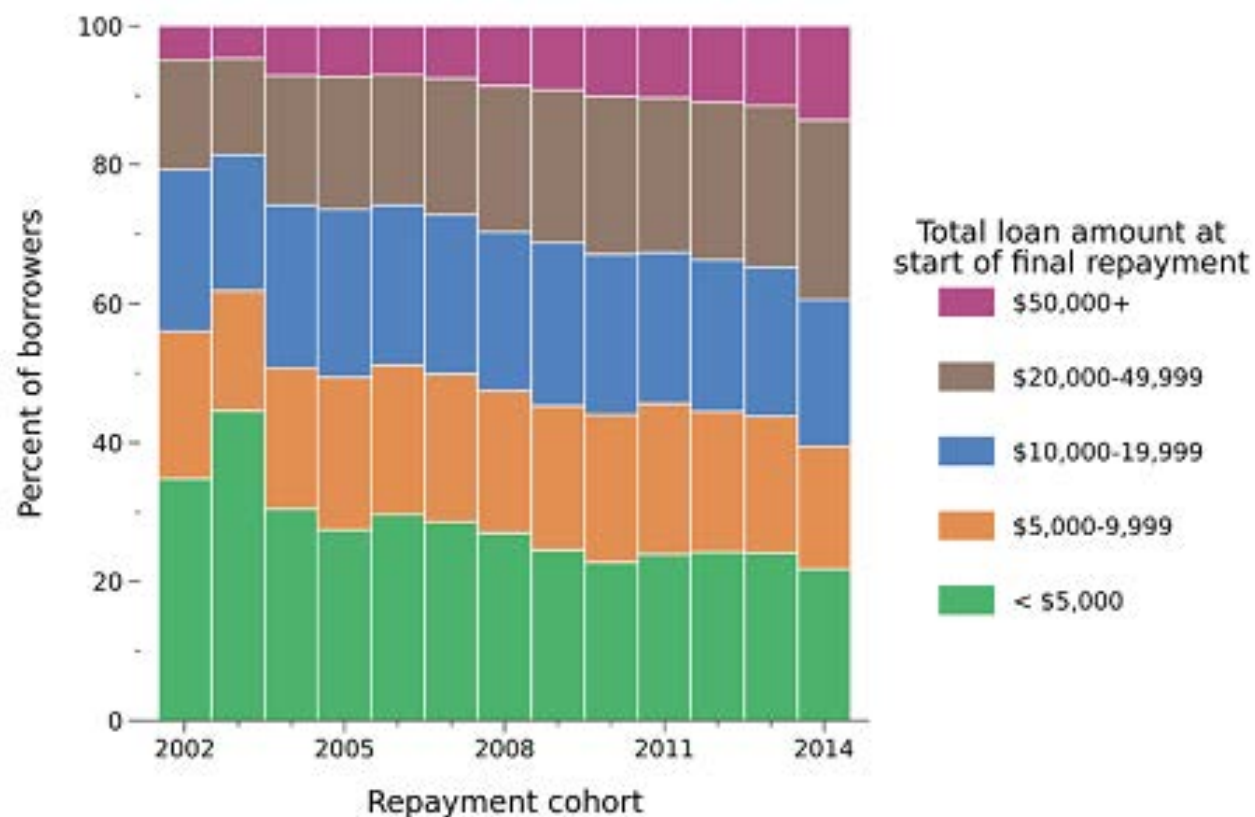
- In 2015 Q2, borrowers 20-30 years old in repayment:
 - Average payment = \$351
 - Median payment = \$203
 - 75th percentile payment = \$400

Statistics from:

Joel A. Elvery, "Is There a Student Loan Crisis? Not in Payments," *Forefront*, Federal Reserve Bank of Cleveland, May 16, 2016.

Stylized Fact #2: Significant variation in loan balances

FIGURE 3: TOTAL STUDENT LOAN AMOUNT SHARE OF BORROWERS BY REPAYMENT COHORT



Stylized Fact #2: Significant variation in loan balances

- Cumulative debt accumulated at the University of Maine at separation, July 2013 – June 2015 separations
 - 25th Percentile: \$6,800
 - Median: \$17,236
 - 75th Percentile: \$27,000
 - Median for graduate: \$26,150
 - Median for non-completer: \$9,500

Stylized Fact #3: Repayment Delays and Pauses Common

- Baccalaureate and Beyond Longitudinal Study
 - 2008 Baccalaureate Recipients with Debt
 - 60% in repayment in 2009
 - 69% with no subsequent enrollment in repayment in 2012
 - 64% overall in repayment in 2012

Source:

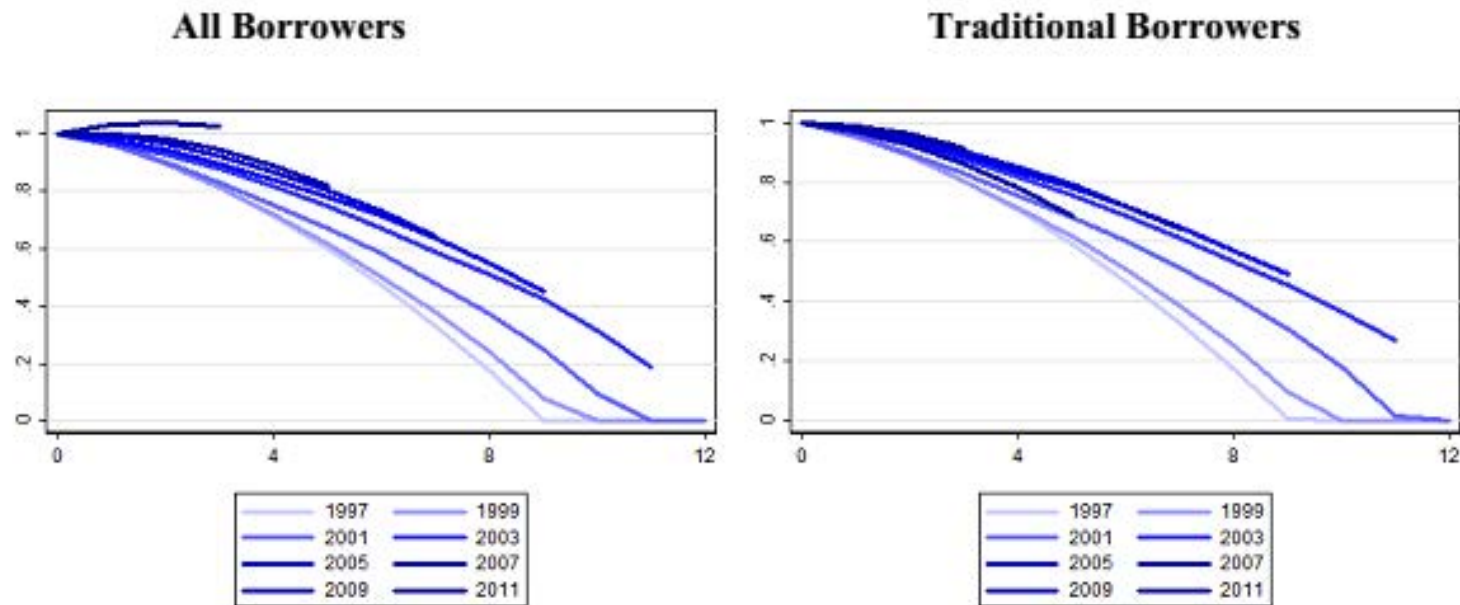
2009: U.S. Department of Education Web Tables, "Employment and Enrollment Status of Baccalaureate Degree Recipients 1 Year After Graduation: 1994, 2001, and 2009," November 2016.

2012: U.S. Department of Education Stats in Brief: "The Debt Burden of Bachelor's Degree Recipients," April 2017.

2012: NCES PowerStats, Baccalaureate and Beyond Longitudinal Study

Stylized Fact #3: Repayment Rate Has Slowed

Figure 15: Slowing Rates of Repayment: Median Balance Remaining by Cohort and Year



From: Adam Looney and Constantine Yannelis, “A Crisis in Student Loans?” (Fall 2015), Brookings Institution, Washington, D.C.

These figures show the fraction of the initial federal loan balance remaining (y-axis) by number of years since entered repayment (x-axis) by repayment cohort that is defined by year entering repayment.

2017 Reform Fiscal Note Estimate

- For each Maine income tax return, would like to know:
 - Is the taxpayer making student loan repayments?
 - How much is the annual loan repayment?
 - Is the loan repayment for the taxpayer's own education?
 - What is the taxpayer's highest degree?
 - When did the taxpayer earn their highest degree?
- Only have data on first question: Is the taxpayer making student loan repayments?

Determining Whether the Taxpayer is Repaying a Student Loan

- Match Maine 1040 to Federal Form 1098-E and Federal Form 1040s with student loan interest deduction
- About 90,000 full-year resident returns with 1098-E and/or above-the-line interest deduction
 - NY Fed Consumer Credit Panel: 191,000 with student loan balance on credit report and Maine mailing address in 2012 Q4
- A few complications/puzzles
 - 1098-E interest but no student loan deduction when income < phaseout threshold for deduction
 - About 27,000 returns with a 1098-E only, no student loan interest deduction
 - Over 60% appear eligible for deduction
 - Most common at low incomes
 - Assume low credit take-up rate for these returns
 - Student loan interest deduction on 1040 but no 1098-E
 - About 20% of returns with a student loan interest deduction are not matched to 1098-E
 - Interest could be below reporting requirement threshold but there's more going on
 - Raises concern about missing taxpayers in repayment with AGI above cutoff for claiming student loan interest deduction

Impute Remaining Data Based on 2013 Survey of Consumer Finances

- 6,026 families interviewed in 2013 SCF
- Microdata includes
 - Age of respondent and spouse
 - Highest education of respondent and spouse
 - Presence of respondent's children both at home and away from home
 - Information on up to 6 student loans, including:
 - » Whether in repayment and amount of repayment
 - » Origination date
- Does not include
 - Whose education the loan is for
 - Date of highest degree
 - » If loans consolidated or refinanced, loan origination date could be an especially misleading indicator of degree year

Imputations

- Based on SCF data, estimate:
 - 1) Probability eligible | repayment, income category
 - 2) Probability Highest Degree=X | eligible, income category
 - 3) 25, 50, 75, 90, and 95th percentiles of annual repayment for each highest degree and income category
 - 1) Use to construct discrete repayment distribution (P_1, P_2, \dots, P_N) with associated probabilities ($\Pi_1, \Pi_2, \dots, \Pi_N$)
- Imputations on tax data based on above probabilities and repayment distribution
 - Also compute an expected credit for each taxpayer based on above
- Given data limitations, some questionable assumptions required to assign eligibility in the SCF data

Issues with this approach

- National data used for state imputations
- Small sample size divided into smaller subpopulations
 - When possible look for external validation, at least for whether the parameters are in a reasonable ballpark:
 - » Are median and mean repayment amounts reasonable compared to other published data?
 - » Is the fraction in repayment with degree earned within 9 years reasonable given other information on time to reentering repayment and fraction in repayment by time since entering repayment?
 - » Is the share of taxpayers in repayment who are parents reasonable given PLUS borrower share?
 - Smoothed/adjusted some amounts in the repayment distribution by degree*income
- Forecasting
 - Analysis based on 2014 tax data; policy changes begin TY 2017 (bill carried over, effective date will change)

Issues with this approach: Participation

- Incomplete take-up of current Opportunity Maine credit is likely important
 - About 10,000 in in the median debt completers cohort for degrees awarded July 2013 – June 2015 from Maine colleges, excluding highly selective liberal arts colleges (College Scorecard)
 - Compare to about 7,200 credits in tax year 2016, the 9th year of the program
 - Even if you disregard the first few graduate cohorts (complicated story) and 2016 graduates and allow for high shares who are not in repayment or moved out-of-state, it's hard to arrive at a credit number this low
 - Do not have a reliable take-up rate estimate
- Proposed credit is simpler, could have higher take-up rate?

Results

- Start with about 90,000 full-year resident tax returns with student loan repayments
- Original Bill: Must have degree, limits \$1,000/\$2,000/\$3,000 for highest degree AA/BA/Graduate
 - Full participation: About \$47 million and 30,000 credits
 - Reduced to \$40 million and 25,000 credits for take up
- Alternative #1: No degree requirement, limits \$2,500/\$5,000/\$7,500 for AA or less/BA/Graduate
 - Full participation: About \$71 million; 41,000 credits
 - Reduced to \$60 million and 34,000 credits for take up

Bibliography and Useful Data Sources

Source	Description	Availability
Adam Looney and Constantine Yannelis, "A crisis in student loans? How changes in the characteristics of borrowers and in the institutions they attended contributed to rising loan defaults," <i>Brookings Papers On Economic Activity</i> , Fall 2015.	Descriptive data on loan balances, including by borrower income; evolution of loan balances after repayment; online data appendix available	https://www.brookings.edu/bpea-articles/a-crisis-in-student-loans-how-changes-in-the-characteristics-of-borrowers-and-in-the-institutions-they-attended-contributed-to-rising-loan-defaults/
The CFPB Office of Research, "CFPB Data Point: Student Loan Repayment," August 2017	Descriptive data on loan balances and their evolution by repayment cohort	https://s3.amazonaws.com/files.consumerfinance.gov/f/documents/201708_cfpb_data-point_student-loan-repayment.pdf
Joel A. Elvery, "Is There a Student Loan Crisis? Not in Payments," <i>Forefront</i> , Federal Reserve Bank of Cleveland, May 16, 2016.	Includes statements about repayment distribution	https://clevelandfed.org/~media/content/newsroom%20and%20events/publications/forefront/ff%20v7n02/ff%20v7n0204%20is%20there%20a%20student%20loan%20crisis%20pdf.pdf?la=en
<i>Trends in Student Aid</i> , College Board	Statistics on borrowing and debt, including for graduate programs, largely based on NPSAS	https://trends.collegeboard.org/student-aid
FRBNY Consumer Credit Panel	A few state-level tables with per capita student debt and number with debt (the latter table ends in 2012)	https://www.newyorkfed.org/microeconomics/databank.html
Department of Education:		
Baccalaureate and Beyond Longitudinal Study (B&B:08/12)	Longitudinal survey following baccalaureate recipients one year, four years, and ten years after degree. Has information about undergraduate borrowing, subsequent borrowing, and repayment status.	NCES Datalab for custom tables. The microdata is confidential. Also several brief papers that can be found from the survey homepage: https://nces.ed.gov/surveys/b&b/
National Postsecondary Students Aid Study(NPSAS)	Survey with detailed financial aid information and student characteristics; covers both graduate students and undergraduate students.	https://nces.ed.gov/surveys/npsas/
NCES Datalab	Tool for creating custom tables from NCES survey data, including NPSAS and B&B. The microdata is confidential. Products include QuickStats, PowerStats, and TrendStats.	https://nces.ed.gov/datalab/
College Scorecard	Institutional data on distribution of cumulative debt at separation, median debt for completers and noncompleters, repayment rates, number who separate with debt (total and completer only)	https://collegescorecard.ed.gov/data/