JOINT ECONOMIC COMMITTEE
VICE CHAIR AMY KLOBUCHAR
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THE CAUSES AND CONSEQUENCES OF INCREASING STUDENT DEBT

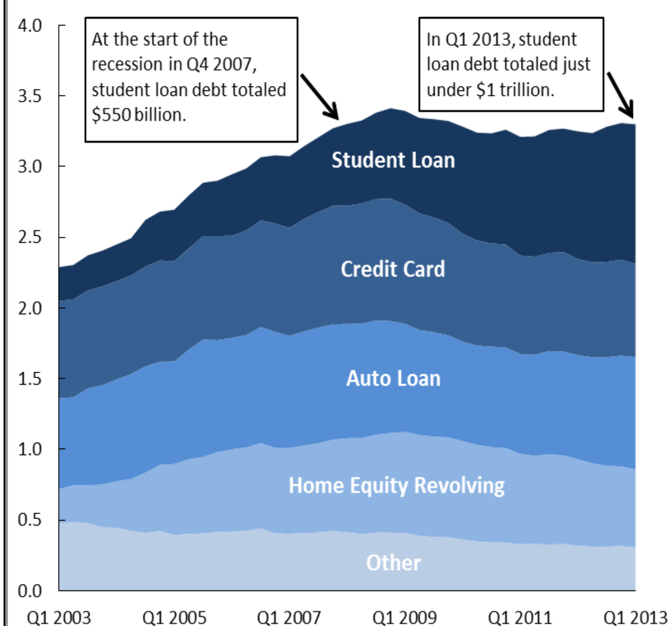
For decades, workers with higher levels of education have seen their wages rise relative to other workers.[1] Employment opportunities have expanded for these individuals and their unemployment rate has been well below the national average.[2] Projections of employers' future demands show that the fastest job growth will be in occupations requiring postsecondary education and advanced training.[3] The potential for higher earnings and broader job prospects has spurred more Americans to pursue postsecondary education.

At the same time that enrollment in postsecondary institutions has increased, college tuition has also risen, forcing more students to rely on student loans to pay for their educations. Student loan debt is the only type of consumer debt that continued to rise throughout the recent recession and subsequent recovery, increasing from $550 billion at the recession's start to nearly $1 trillion at the beginning of this year.[4] (**Figure 1**) Student loan debt, from both federal and private loans, now represents the biggest aggregate balance among non-mortgage debt categories.[5]

The steady increase in student loan debt over the last decade has been driven by an increase in both the number of student borrowers and the average debt of those borrowers.[6] Two-thirds of recent graduates have student loan debt.[7] Those borrowers had an average balance of $27,200, which is 60% of the annualized average weekly earnings of young college graduates.[8]

Unless Congress acts, the interest rate on subsidized federal Stafford loans is set to double from 3.4% to 6.8% on July 1st. These loans accounted for over one-third of all student borrowing for the 2011-2012 academic year. The rate increase would raise the cost of interest by $4,500 for students who borrow the maximum amount of subsidized Stafford loans and by $2,600 for the average borrower of those loans.[9]

Figure 1. Non-Mortgage Household Debt
Composition of debt (trillions), Q1 2003-Q1 2013



Source: JEC Democratic staff based on data from the Federal Reserve Bank of New York.

The rising cost of higher education and increasing debt burdens for students pose a potential risk to graduates and the broader economy.

This report focuses on the causes and consequences of rising student debt and discusses actions policymakers can take to ensure that graduates do not leave college with overwhelming debt burdens, including addressing the impending rate increase on subsidized Stafford loans.

Recent Trends in College Attendance

Even as the cost of attending college has increased, Americans have continued to respond to the incentives of the changing labor market: wages of workers with higher education have been increasing relative to the wages of less-educated workers for decades.[10] The recent recession accelerated the loss of many higher-paying jobs that did not require a college degree, while the number of jobs demanding more technical training and expertise has increased.[11] Consequently, enrollment in postsecondary institutions has risen as more Americans seek advanced training to meet the needs of jobs in growing segments of the economy.

As **Figure 2** shows, from 2000 to 2011, per-capita enrollment in degree-granting institutions increased by 21%, with enrollment accelerating between 2007 and 2011.[12] Full-time students accounted for most of the growth in per-capita enrollment since 2000, and enrollment of these students accelerated since the start of the recent recession, growing by 13% per capita from 2007 to 2011. Part-time enrollment also rose, with a per-capita increase of 7% between 2007 and 2011.[13]

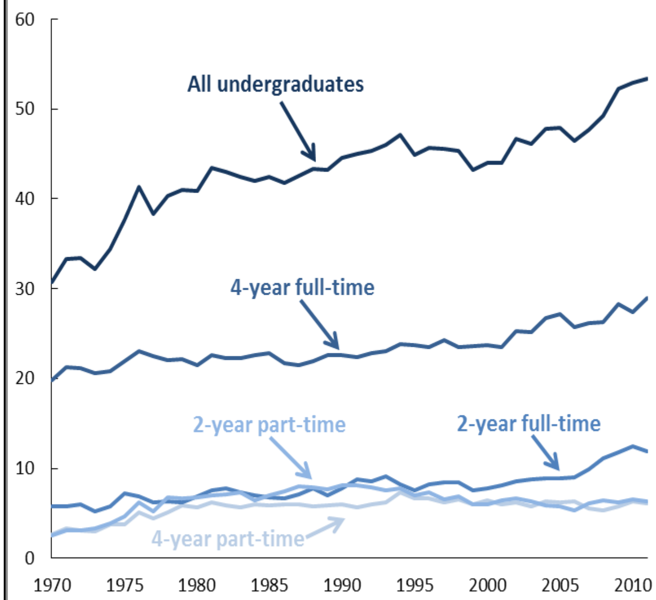
This trend in increased college attendance has not been limited to the traditional "college-age" population (ages 24 and younger). Experienced workers are returning to school to upgrade their skills or retrain for different jobs. While college attendance among women ages 25 years and older has been increasing for decades, there was an increase in the attendance rates of both men and women in that age group around the time of the recent recession.[14]

The Increasing Cost of Postsecondary Education

Government has always played a fundamental role in postsecondary education in the United States, from the first land grant universities and state-subsidized colleges, to public grants and subsidized loan programs. However, that role has shifted over the past several decades. On a per-student basis, state subsidies and grants, which were significant in the past, have declined, leaving students and their families to bear more of the financial burden of attending college and increasing their reliance on federal financial aid, including grants and loans.[15]

Figure 2. Undergraduate Enrollment Per Capita

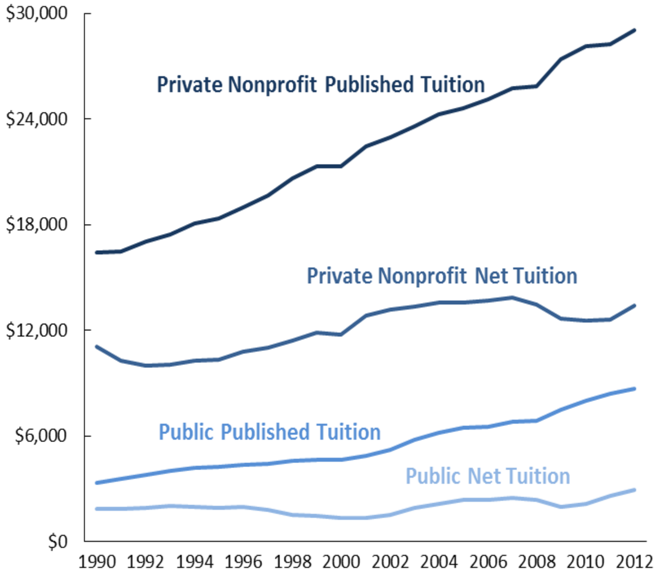
Number of enrolled undergraduates per 1,000 persons, 1970-2011



Note: Data for 1970-1975 and 1977 do not include people ages 35 and over.
Source: JEC Democratic staff calculations based on data from the U.S. Census Bureau, Current Population Survey.

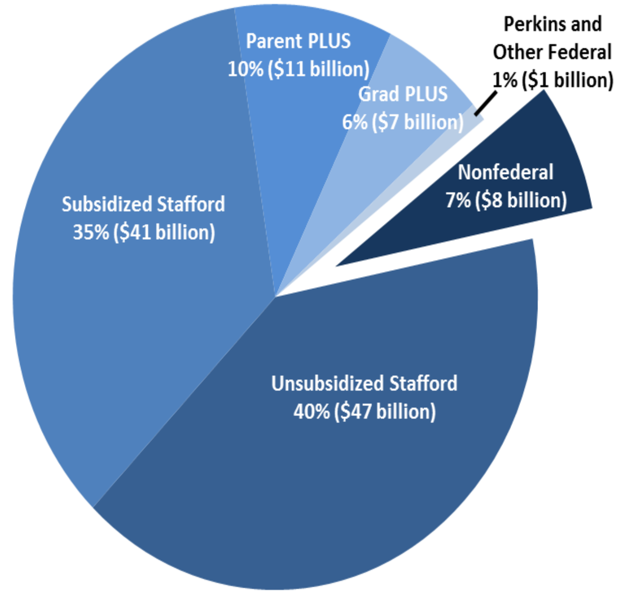
As **Figure 3** illustrates, the average annual published in-state tuition at public 4-year universities increased by 86% between 2000 and 2012, from $4,650 to $8,660, while average net tuition at those universities, which excludes grants and scholarships, jumped 114% during the same period. Across private nonprofit 4-year institutions, average annual published tuition and fees grew more modestly, increasing 36% between 2000 and 2012 (from $21,310 to $29,060), while net tuition increased 14%. Regardless of the type of institution, the costs borne by students and their families have grown steadily and many students incur substantial amounts of debt in order to pursue higher education.

Figure 3. Average Annual Published and Net Tuition and Fees
Private nonprofit and public 4-year colleges, 1990-2012 (in 2012 dollars)



Note: Data include tuition and fees for full-time undergraduate students. Public tuition is for in-state students. Net prices from 2012 are preliminary estimates.
Source: JEC Democratic staff based on data from the College Board, Annual Survey of Colleges; Trends in College Pricing 2012.

Figure 4. Federal and Nonfederal Education Loans
Academic year 2011-2012 (in 2012 dollars)



Note: Dollar amounts are adjusted for inflation using the CPI-U. Starting July 1, 2012, graduate students became ineligible to take out subsidized Stafford loans.
Source: JEC Democratic staff based on data from the College Board, Trends in Student Aid 2012, and the U.S. Department of Labor, Bureau of Labor Statistics.

The federal government makes loans to students and their families to help finance the cost of postsecondary education. (**Box 1**) Other sources of lending include loans from states, loans from private lenders (banks, credit unions and Sallie Mae) and loans from colleges and universities made directly to students. New loans from these nonfederal sources totaled only $8.3 billion for the 2011-2012 academic year, while new federal loans totaled over $107 billion.[16] As **Figure 4** shows, unsubsidized Stafford loans comprised the largest share of new loans (40%), followed by subsidized Stafford loans (35%). Parent PLUS, Grad PLUS, Perkins and other federal loans made up smaller shares of lending. The share of new loans that are subsidized Stafford loans will likely decline in future years because those loans are now available only to undergraduate students.[17]

Table 1. Undergraduate Borrowing by Students Who Earned Degrees or Certificates (in 2012 dollars)

Degree or Certificate Earned		Year Students Began Postsecondary Education		
		1988	1995	2003
Bachelor's degree	Amount borrowed	$16,382	$22,875	$26,369
	Percent with loans	50.6%	58.9%	63.7%
Associate degree	Amount borrowed	$10,800	$13,955	$18,075
	Percent with loans	40.0%	55.0%	58.5%
Certificate	Amount borrowed	$7,285	$11,533	$9,155
	Percent with loans	46.4%	29.8%	60.5%

Note: Data include students who earned a degree or certificate within six years of starting postsecondary education. Amount borrowed is the average dollar amount of student debt for only those students who took out loans, in 2012 dollars (adjusted for inflation using the CPI-U).
Source: JEC Democratic staff tabulations based on data from the U.S. Department of Education, National Center for Education Statistics, Beginning Postsecondary Students Longitudinal Studies (1994, 2001 and 2009), and the U.S. Department of Labor, Bureau of Labor Statistics.

Recent Trends in Student Borrowing

With the increasing cost of postsecondary education, the average student has had to borrow a larger amount over time. **Table 1** shows that, over the last two and a half decades, both the percent of students taking out loans and the average amount borrowed by students to pay for their postsecondary education have increased substantially.

Box 1. Federal Student Loan Programs

Since July 1, 2010, the federal government has offered loans to undergraduate and graduate students and the parents of dependent undergraduate students under the William D. Ford Federal Direct Loan program in the form of Stafford loans, PLUS loans and Consolidation loans. Some of these loans are subsidized, meaning that the federal government pays the interest that accrues on loans while the borrowers are enrolled in school on at least a half-time basis, during the six-month grace period beginning when they leave school and during periods of authorized deferment.

Undergraduate students may borrow up to $23,000 in subsidized Stafford loans if eligible, regardless of dependency status. The annual loan limits are $3,500 and $4,500 in years one and two respectively, and $5,500 for years three and above. Dependent undergraduate students may borrow up to $31,000 in total subsidized and unsubsidized Stafford loans, while the limit for independent students is $57,500.

Prior to July 1, 2010, the federal government also guaranteed some loans through private lenders under the Federal Family Education Loan (FFEL) program. Although borrowers can no longer take out new FFEL loans, an estimated $294 billion in outstanding FFEL debt remains to be repaid.

Through the Perkins Loan program, the federal government partners with colleges and universities to provide need-based subsidized loans to undergraduate, graduate and professional students.

Source: U.S. Department of Education and the Congressional Research Service.

Among individuals who earned a bachelor's degree, students who started their college education in 1988 accumulated $16,400, on average, in loan debt. Seven years later, that figure was $22,900, an increase of nearly 40%. For those who began in 2003, debt at graduation was over $26,300. A similar rise in indebtedness followed for those obtaining an associate degree, whose average debt increased from about $10,800 for students who started in 1988 to almost $18,100 for students who entered their degree programs in 2003.[18]

More recent data on student loan balances show that both student loan indebtedness and also the share of students graduating with debt have continued to increase. The average student loan balance for students who graduated in 2011 was $27,152 and two-thirds of students graduated with student debt. (**Table 2**)

The Impact of Student Debt

College-educated individuals on average earn substantially more than those without a degree. As of the first quarter of 2013, workers with a bachelor's degree earned 68% more than workers with only a high school diploma ($1,095 per week compared to $651 per week).[19] However, the higher levels of debt held by college graduates will still impact individuals, their families and the broader economy.

A high student debt burden may influence the educational, career and life choices of students. Graduates saddled with student loans may feel constrained about the types of jobs they can accept, avoiding lower-paying jobs in teaching, the arts or public service, and instead opting for higher-paying jobs.[20]

For some students, debt may also affect their decision to attend college or their choice of college, leading them to select a school or program less suited to their abilities and interests. Their concerns might be heightened by a fear of not finding employment within their field of study or of only finding work that pays less than expected, making it harder to manage their student loan obligations. An increase in students' educational debt can place a significant burden on college graduates. The extra debt may cause them to delay borrowing for a home or a car, saving for retirement, starting a family or making other life and investment choices. About two-thirds of students who graduated from college in 2011 had student loan debt, with the average balance on those loans equaling 60% of their annualized average weekly earnings.[21] (**Table 2**)

Higher education provides benefits to individuals who make the investment, including increasing their lifetime earnings potential. But higher education also provides benefits to the economy as a whole by leading to a more flexible, productive and mobile labor force.[22] However, many individuals do not have the access to lending markets they would need to finance their education.

Because of those positive effects, government assistance for education is aimed at increasing the demand for education and reducing capital market imperfections that would otherwise lead to underinvestment in education.

State-Level Variations in Student Debt and Delinquencies

The average student loan indebtedness of those who graduated in 2011 varied from a low of $17,585 in Utah to a high of $33,113 in New Hampshire. North Dakota had the highest percent of 2011 graduates with student loans (83%), while only 38% of Hawaii's graduates had student loans. Student borrowers in California had the lowest debt level compared to their income, with average student loans equaling 36% of the annualized average weekly earnings of a bachelor's degree holder under the age of 30. Graduates in Vermont had the highest debt burden relative to annualized earnings, with the average student debt equaling 82% of what a recent college graduate working full time makes in a year in that state.

Table 2 also shows state-level delinquency rates on student loans. Across the United States, 15.9% of student loan borrowers under the age of 30 were 90 or more days delinquent, with Mississippi having the highest delinquency rate of 22.4% and Utah having the lowest delinquency rate of 9.0%. The reported delinquency rates likely understate the percent of loans that are in arrears because those rates are calculated as shares of all student loans for individuals under the age of 30, including those that are in a grace period or in deferment. Because nearly half of all student loans for borrowers under the age of 30 are in payment deferral or forbearance, the delinquency rate for borrowers under the age of 30 who are required to make payments is over 30%.[23]

The impact of delinquencies on the government's balance sheet is muted because most student loan debt cannot be written off in bankruptcy, unlike other consumer debt.[24] However, the high levels of debt (and debt payments) borne by students may still be constraining consumer spending, which could curtail economic growth.[25]

Addressing the Rising Interest Rate on Subsidized Loans

The interest rate on subsidized Stafford loans is set to double from 3.4% to 6.8% for new loans issued on or after July 1st.[26] The rate increase would raise the cost of interest by $4,500 for students who borrow the maximum amount of subsidized Stafford loans and by $2,600 for the average borrower of those loans.[27]

Congress is debating whether to temporarily extend the current rate on subsidized Stafford loans before the increase takes effect. For example, the Senate is considering S. 953, which would extend the 3.4% interest rate on subsidized Stafford loans for an additional two years.

At an interest rate of 6.8%, both unsubsidized and subsidized Stafford loans would generate revenue for the federal budget. That is because the government's borrowing rate is currently just over 2% and is projected to remain low in the coming years.[28] For example, in fiscal year 2014, the "subsidy rates" for these loans would be -33.3% and -12.5%, meaning that every dollar lent under each Stafford loan program would generate either $1.33 or $1.12 for the government, for unsubsidized and subsidized loans, respectively.[29] As the government's cost of borrowing rises, the subsidy rates on these loans will decline.

Allowing the interest rate on subsidized Stafford loans to double at a time when the government's cost of borrowing is so low undermines the public policy objective of providing affordable loans to students.

Congress is also considering implementing a permanent solution that would tie the rates on all Federal Direct student loans to some measure of the government's cost of borrowing. Currently, the President's proposal (in the Administration's FY 2014 budget) and Senate legislation (S. 1003) recommend indexing the interest rates for all new Federal Direct loans to the 10-year Treasury bill rate and fixing the interest rate for the term of the loan. These plans propose different base percentages that would be added to the 10-year Treasury bill rate, with the President's proposal adding a smaller percent to the indexed rate.[30]

The House recently passed H.R. 1911, which would use a similar index, but would allow the interest rate to be reset each year, based on the 10-year Treasury bill rate plus 2.5 percentage points, up to a maximum interest rate of 8.5%. Alternatively, S. 909 and H.R. 1946 would set a base interest rate based on the 3-month Treasury bill, and then add a number of percentage points determined by the Secretary of Education, up to a cap of 6.8% for subsidized loans and 8.25% for unsubsidized loans.

A rate structure tied to the cost of government borrowing would peg student loan rates to market conditions at the time a loan is disbursed, similar to the private loan market. For example, in December 2007, at the beginning of the recent recession, the prime rate (the rate at which banks will lend money to their most-favored customers) was at 7.33% compared to the 6.8% Stafford loan rate. However, the prime rate is now at 3.25%, lower than the current rate of 3.4% on subsidized Stafford loans and well below what the rate will be if it rises to 6.8% on July 1st.[31]

Solutions to Mitigate the Impact of Increasing Student Loan Debt

There are a number of actions that Congress can take to mitigate the impact of increased student loan balances on individuals and the economy. These options include:

- Keeping the interest rate on subsidized Stafford loans at the current level;
- Forgiving loan payments for certain graduates taking public interest jobs with lower pay;
- Restructuring loans based on financial hardship; and
- Converting private loans to federal loans to take advantage of programs already in place.

<u>Keeping the interest rate on subsidized Stafford loans at the current level.</u>
Without Congressional action, the interest rate on new subsidized Stafford loans will double on July 1st. As discussed earlier, increasing the cost of student loans during a time of low inflation and low interest rates runs counter to the goal of promoting affordable college education for Americans.

In addition, Congress could consider a permanent fix to the interest rate on all federal direct loans, indexing them to the government's actual cost of borrowing at the time of the disbursement.

<u>Forgiving loan payments for certain graduates.</u>
Having large amounts of student debt has the potential to influence graduates' career choices, steering students away from lower-paying, public-service jobs towards higher-paying work that would allow them to meet their loan obligations.

Congress could expand programs like Public Service Loan Forgiveness (PSLF), which forgives all Federal Direct student loan debt after 10 years if the borrower works full time in qualified public service. Allowing borrowers with loans issued through the Federal Family Education Loan (FFEL) program and from private lenders to participate in the PSLF program could encourage more individuals with large student loan balances to pursue careers in public service, such as working for AmeriCorps or the Peace Corps or other non-profit organizations, particularly if they can also participate in an income-based repayment program.[32]

The Teacher Loan Forgiveness program, which discharges up to $17,500 worth of Federal Direct or FFEL loans for graduates who teach full time in a low-income elementary or secondary school, could be similarly expanded to private loans to further encourage public service as a viable career path.[33]

<u>Restructuring loans based on financial hardship.</u>
Having a high student debt burden for roughly half of a person's working years could certainly have a negative impact on the ability to start a family or build a business. The federal government has made an effort to accommodate graduates experiencing financial hardship.

The Income-Based Repayment (IBR) program caps monthly loan payments on Federal Direct and FFEL loans to 15% of the borrower's discretionary income, making day-to-day living easier.[34] The program also forgives the loan balance after 25 years.[35] Provisions of the Health Care and Education Reconciliation Act of 2010 will expand the IBR program by lowering the payment cap on loans taken out on or after July 1, 2014, to 10% of discretionary income and reducing to 20 the number of years it takes to cancel the loan balance.[36]

The Income-Contingent Repayment (ICR) plan is similar except that it also takes into account the borrower's family situation and the total loan amount to calculate monthly payments that are manageable. It also forgives the remaining loan balance after 25 years.[37] Congress could modify the IBR and ICR programs to further reduce the number of years it takes to reach debt forgiveness.

<u>Converting private loans to federal loans to take advantage of programs already in place.</u>
Allowing distressed borrowers to convert their private or FFEL loans to Federal Direct loans would permit them to participate in the IBR and ICR programs, which would reduce their monthly payments to a more manageable level, minimizing their risk of default. In order for such a program to work and to avoid creating the moral hazard of private lenders transferring their risky loans onto the federal balance sheet, Congress could create safeguards that require private lenders to share in the risks and costs of converting the loans.[38]

Conclusion

Education has long served as a pathway to economic opportunity. Workers with higher levels of education have experienced faster wage growth and lower unemployment rates than other workers. The increasing level of student debt in recent years presents challenges for graduates just beginning their careers. By taking actions to ensure that graduates do not leave college with overwhelming debt burdens, Congress can help recent graduates as they begin their careers and help the economy grow.

Table 2. Student Debt and Salaries for Recent College Graduates by State (in 2012 dollars)

	Class of 2011		2012		2012 Q4
	Average Debt	Percent with Debt	Annualized Average Weekly Earnings (graduates under age 30)	Ratio of Debt to Annualized Earnings	Percent of Student Loan Borrowers with Accounts 90+ Days Delinquent (borrowers under age 30)
United States Total	$27,152	66%	$45,276	60%	15.9%
Alabama	$25,715	54%	$38,938	66%	18.0%
Alaska	-	-	$52,070	-	12.8%
Arizona	$20,364	49%	$45,224	45%	19.9%
Arkansas	$23,526	56%	$42,506	55%	18.5%
California	$19,271	51%	$53,766	36%	16.0%
Colorado	$22,746	54%	$45,255	50%	15.1%
Connecticut	$29,380	64%	$49,026	60%	12.4%
Delaware	-	-	$44,080	-	16.7%
District of Columbia	$28,827	52%	$50,127	58%	15.0%
Florida	$23,533	51%	$43,847	54%	19.1%
Georgia	$22,909	58%	$44,810	51%	18.3%
Hawaii	$17,809	38%	$44,476	40%	14.9%
Idaho	$24,635	66%	$36,822	67%	16.1%
Illinois	$27,019	64%	$45,328	60%	13.8%
Indiana	$28,071	63%	$38,867	72%	17.1%
Iowa	$29,350	72%	$38,828	76%	14.3%
Kansas	$23,805	64%	$40,786	58%	14.2%
Kentucky	$22,750	60%	$37,047	61%	16.8%
Louisiana	$22,921	46%	$43,246	53%	21.2%
Maine	$26,587	71%	$35,736	74%	14.5%
Maryland	$24,500	55%	$48,182	51%	16.7%
Massachusetts	$27,745	65%	$44,725	62%	12.9%
Michigan	$28,021	62%	$39,737	71%	17.2%
Minnesota	$30,411	71%	$44,306	69%	9.8%
Mississippi	$24,026	54%	$40,195	60%	22.4%
Missouri	$23,711	65%	$41,933	57%	16.5%
Montana	$24,614	65%	$33,258	74%	10.1%
Nebraska	$24,791	63%	$38,970	64%	12.6%
Nevada	$20,368	44%	$45,248	45%	20.8%
New Hampshire	$33,113	75%	$43,753	76%	12.5%
New Jersey	$28,183	64%	$46,519	61%	13.6%
New Mexico	-	-	$39,350	-	19.0%
New York	$26,388	60%	$48,045	55%	13.2%
North Carolina	$21,232	54%	$43,115	49%	16.2%
North Dakota	$27,994	83%	$42,880	65%	10.4%
Ohio	$29,278	68%	$39,031	75%	17.1%
Oklahoma	$21,331	53%	$38,557	55%	20.1%
Oregon	$26,026	63%	$38,622	67%	13.7%
Pennsylvania	$30,581	70%	$43,869	70%	14.5%
Rhode Island	$29,701	69%	$41,761	71%	16.9%
South Carolina	$26,195	54%	$39,674	66%	17.2%
South Dakota	$24,735	76%	$37,305	66%	9.8%
Tennessee	$21,133	53%	$36,331	58%	18.5%
Texas	$22,600	56%	$49,112	46%	19.7%
Utah	$17,585	45%	$43,631	40%	9.0%
Vermont	$28,860	63%	$35,074	82%	9.8%
Virginia	$25,230	59%	$48,087	52%	13.9%
Washington	$22,706	56%	$50,994	45%	13.6%
West Virginia	$26,771	64%	$42,528	63%	21.1%
Wisconsin	$26,783	67%	$40,331	66%	9.4%
Wyoming	$23,825	47%	$43,418	55%	12.2%

Note: "-" indicates no state average available either because the state's student debt data covers less than thirty percent of bachelor's degree recipients in the Class of 2011 or the average debt data show a change of thirty percent or more from the previous year. Average debt is in 2012 dollars (adjusted for inflation using the CPI-U) and is for students who earned bachelor's degrees and had student loan debt from a school in the state. Annualized average weekly earnings data for 2012 are for workers in the state who are under age 30 and hold only a bachelor's degree. Delinquency rates are for all student loan borrowers under age 30 regardless of the educational attainment of the borrower.
Source: JEC Democratic staff based on data from the Project on Student Debt; the U.S. Department of Labor, Bureau of Labor Statistics; the U.S. Department of Education, Office of Federal Student Aid; and the Federal Reserve Bank of New York Consumer Credit Panel/Equifax.

Sources:

[1] Autor, David, "The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings," *Community Investments*, Volume 23, Issue 2, Fall 2011.

[2] U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey. In 2012, the unemployment rate for individuals 25 and older with at least a bachelor's degree averaged 4.0%, compared with an average unemployment rate of 6.8% for all individuals 25 and older.

[3] Lockard, C. Brett, and Michael Wolf, "Occupational Employment Projections to 2020," Bureau of Labor Statistics, *Monthly Labor Review*, Table 6, January 2012. http://www.bls.gov/opub/mlr/2012/01/art5full.pdf.

[4] Federal Reserve Bank of New York, *Quarterly Report on Household Debt and Credit*, May 2013. http://www.newyorkfed.org/research/national_economy/householdcredit/DistrictReport_Q12013.pdf. Amounts are in nominal dollars.

[5] Ibid.

[6] Lee, Donghoon, *Household Debt and Credit: Student Debt*, February 28, 2013. http://www.newyorkfed.org/newsevents/mediaadvisory/2013/Lee022813.pdf.

[7] Project on Student Debt, *Student Debt and the Class of 2011*, October 2012. http://projectonstudentdebt.org/files/pub/classof2011.pdf. Among college seniors who graduated in 2011, 66% left school with student loan debt.

[8] JEC Democratic staff calculations based on data from the Project on Student Debt, *Student Debt and the Class of 2011*, October 2012, and the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index. Average debt adjusted to 2012 dollars using the CPI-U. Annualized average weekly earnings are based on individuals under age 30 whose highest level of educational attainment is a bachelor's degree.

[9] JEC Democratic staff calculations based on data from the U.S. Department of Education, Student Loans Overview, Fiscal Year 2013 Budget Request, R-7 and R-21. Calculations represent the difference in the interest payments over 10 years based on the current rate (3.4%) and the doubled rate (6.8%). For example, a student who borrows the maximum aggregate subsidized Stafford loan amount of $23,000 with a 6.8% annual interest rate would pay roughly $8,600 in interest over the scheduled lifetime of the loan, compared to roughly $4,100 at a 3.4% annual rate. The average subsidized Stafford loan amount is $3,385 for FY2013, which yields $13,540 borrowed over four years. The interest on the average total loan would be about $5,000 at a 6.8% annual interest rate, compared to $2,400 at a 3.4% rate.

[10] Autor, David, "The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings," *Community Investments*, Volume 23, Issue 2, Fall 2011.

[11] Ibid.

[12] JEC Democratic staff calculations based on data from the U.S. Census Bureau, Current Population Survey.

[13] JEC Democratic staff calculations based on data from the U.S. Census Bureau, Current Population Survey.

[14] U.S. Department of Commerce, Census Bureau, Table A-6, Age Distribution of College Students 14 Years Old and Over, by Sex.

[15] U.S. Departments of Education and the Treasury, *The Economics of Higher Education*, December 2012. http://www.treasury.gov/connect/blog/Documents/20121212_Economics%20of%20Higher%20Ed_vFINAL.pdf.

[16] JEC Democratic staff calculations based on College Board, *Trends in Student Aid 2012*, Table 1. http://trends.collegeboard.org/student-aid/figures-tables/growth-federal-and-nonfederal-loans-over-time, and the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index. Amounts adjusted to 2012 dollars using the CPI-U.

[17] JEC Democratic staff calculations based on College Board, *Trends in Student Aid 2012*, Figure 6. http://trends.collegeboard.org/student-aid/figures-tables/growth-federal-and-nonfederal-loans-over-time, and the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index. Amounts adjusted to 2012 dollars using the CPI-U. As of July 1, 2012, subsidized Stafford loans have been restricted to undergraduate students. In the 2011-2012 academic year, 28% of subsidized loans were taken out by graduate students.

[18] JEC Democratic staff calculations based on data from the U.S. Department of Education, National Center for Education Statistics, Beginning Postsecondary Students Longitudinal Studies (1994, 2001 and 2009), and the U.S. Department of Labor, Bureau of Labor Statistics. Amounts adjusted to 2012 dollars using the CPI-U.

[19] U.S. Department of Labor, Bureau of Labor Statistics, Table 5. http://www.bls.gov/news.release/wkyeng.t05.htm. Median weekly earnings of full-time wage and salary workers for high school graduates, no college versus Bachelor's degree only.

[20] Rothstein, Jesse, and Cecilia Elena Rouse. "Constrained after college: Student loans and early-career occupational choices," *Journal of Public Economics*, Volume 95(1-2), p. 149-163, February 2011.

[21] Project on Student Debt, Percentage of Graduates with Debt and Average Debt of those with Loans, by State, and JEC calculations based on micro data from the U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey. For each state, average debt is in 2012 dollars (adjusted for inflation using the CPI-U) and is for students who graduated with student loan debt from a school in the state. Annualized average weekly earnings data for 2012 include state residents who are under the age of 30 and hold only a bachelor's degree.

[22] See, for example, OECD, "What are the social benefits of education?" Education Indicators in Focus, January 2013. http://www.oecd.org/edu/skills-beyond-school/EDIF%202013--N°10%20(eng)--v9%20FINAL%20bis.pdf.

[23] Financial Stability Oversight Council, *2013 Annual Report*, p. 29. http://www.treasury.gov/initiatives/fsoc/Documents/FSOC%202013%20Annual%20Report.pdf, and Lee, Donghoon, *Household Debt and Credit: Student Debt*, Federal Reserve Bank of New York, February 28, 2013.

[24] Financial Stability Oversight Council, *2013 Annual Report*, p. 29. http://www.treasury.gov/initiatives/fsoc/Documents/FSOC%202013%20Annual%20Report.pdf.

[25] Federal Open Market Committee (FOMC), Minutes from March 19-20, 2013. According to the FOMC, "Both fiscal restraint and the high level of student debt were mentioned as risks to aggregate household spending over the forecast period." The Financial Stability Oversight Council expressed similar concern in its *2013 Annual Report*, cautioning that "High student debt burdens may impact demand for housing, as young borrowers may be less able to access mortgage credit. Student debt levels may also lead to dampened consumption." See also Edmiston, Kelly, Lara Brooks and Steven Shelpelwich, Student Loans: Overview and Issues (Update), Federal Reserve Bank of Kansas City Research Working Papers, August 2012 (revised April 2013).

[26] The interest rates on Stafford loans are established by statute. For unsubsidized Stafford loans, the rate has been fixed at 6.8% since July 1, 2006. For subsidized Stafford Loans, a fixed rate of 6.8% also applied to loans made after July 1, 2006 until Congress temporarily reduced those rates with the College Cost Reduction and Access Act of 2007 (CCRAA; P.L. 110-84); that act incrementally lowered the fixed interest rates charged to undergraduate borrowers of subsidized Stafford loans made from July 1, 2008 to June 30, 2012. Subsequently, the Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141) extended the 3.4% interest rate to subsidized Stafford loans made from July 1, 2012 to June 30, 2013. See Smole, David P. *Federal Student Loans Made Under the Federal Family Education Loan Program and the William D. Ford Federal Direct Loan Program: Terms and Conditions for Borrowers*. Congressional Research Service. June 7, 2013. http://www.crs.gov/pdfloader/R40122.

[27] JEC Democratic staff calculations based on data from the U.S. Department of Education, Student Loans Overview, Fiscal Year 2013 Budget Request, R-7 and R-21. See endnote 5.

[28] Congressional Budget Office, *Baseline Economic Forecast—February 2013 Baseline Projections*, February 5, 2013. http://www.cbo.gov/publication/43902.

[29] Congressional Budget Office, *CBO May 2013 Baseline Projections for the Student Loan Program*. http://cbo.gov/sites/default/files/cbofiles/attachments/44198_StudentLoanPrograms.pdf. The budgetary costs of the student loan programs are calculated under rules established by the Federal Credit Reform Act of 1990 (FCRA) which does not include any premium for the risks that the government takes on. That risk-premium would be the price that the private market would charge to accept the risk that losses may exceed those already reflected in the estimates of loan repayments. For overall fair-value estimates of the subsidy rates for FY2014 through FY2023, see Congressional Budget Office, *Options to Change Interest Rates and Other Terms on Student Loans*, June 2013. https://www.cbo.gov/sites/default/files/cbofiles/attachments/44318-StudentLoans.pdf.

[30] S. 1003 adds 3.0 percentage points to the 10-year Treasury bill rate for both subsidized and unsubsidized Stafford loans, while the Administration recommends adding 0.93 percentage point and 2.93 percentage points to the 10-year Treasury bill rate for subsidized and unsubsidized Stafford loans, respectively.

[31] Board of Governors of the Federal Reserve System, Selected Interest Rates (Daily), Table H.15. http://www.federalreserve.gov/releases/h15/data.htm.

[32] U.S. Department of Education, Federal Student Aid, "Public Service Loan Forgiveness." http://www.studentaid.ed.gov/repay-loans/forgiveness-cancellation/charts/public-service. Until July 1, 2010, borrowers could also take out Stafford (subsidized and unsubsidized), PLUS and consolidation loans through the Federal Family Education Loan (FFEL) program. Those loans are serviced by state-based and private sector lenders. See Smole, David P. *Federal Student Loans Made Under the Federal Family*

Education Loan Program and the William D. Ford Federal Direct Loan Program: Terms and Conditions for Borrowers. Congressional Research Service. June 7, 2013.

[33] U.S. Department of Education, Federal Student Aid, "Teacher Loan Forgiveness." http://studentaid.ed.gov/repay-loans/forgiveness-cancellation/charts/teacher.

[34] U.S. Department of Education, Federal Student Aid, "Partial Financial Hardship." Discretionary income in this case refers to the difference between adjusted gross income (AGI) and 150% of the federal poverty line corresponding to a borrower's family size and state of residence. http://studentaid.ed.gov/glossary.

[35] U.S. Department of Education, Federal Student Aid, "Income Based Repayment." http://studentaid.ed.gov/repay-loans/understand/plans/income-based.

[36] The White House, "The Health Care and Education Reconciliation Act." http://www.whitehouse.gov/issues/education/higher-education/making-college-affordable.

[37] U.S. Department of Education, Federal Student Aid, "Income-Contingent Plan." http://studentaid.ed.gov/repay-loans/understand/plans/income-contingent.

[38] Consumer Financial Protection Bureau, *Student Loan Affordability: Analysis of Public Input on Impact and Solutions*, May 8, 2013. p. 17. http://files.consumerfinance.gov/f/201305_cfpb_rfi-report_student-loans.pdf.