

Student Loan Debt: Trends and Implications

By Craig Copeland, Ph.D., Employee Benefit Research Institute

AT A GLANCE

One of the most pressing issues for American families is the growing cost of higher education. Consequently, given this increasing cost, more American families are taking on student loan debt. The Employee Benefit Research Institute (EBRI) is exploring the far-reaching financial implications of student loan debt for families that have it.

This *Issue Brief* examines the incidence of student loan debt among American families including trends going back to 1992. Furthermore, the amount of outstanding student loan debt and required payments are presented across many demographic characteristics. Lastly, the amount of other assets held, particularly defined contribution plan assets, are compared between those with and without student loans.

- The percentage of American families with student loan debt increased from 10.5 percent in 1992 to 22.3 percent in 2016. However, the percentage with this debt was much higher for families with younger heads. For families with heads ages less than 35, 44.8 percent had student loan debt in 2016, compared with 12.9 percent for families with heads ages 55-64.
- The distribution of the families having student loan debt across key characteristics versus those that don't varied widely:
 - **Those with student loan debt were younger:** In 2016, 66.7 percent of the families having student loan debt had heads younger than age 45 and 40.7 percent were families with heads younger than age 35. In contrast, just 28.6 percent of those without debt had heads younger than age 45.
 - **Those with student loan debt had more education:** Of families with this debt, 79.2 percent had heads with at least some college education in 2016, compared with 56.3 percent of those without student loan debt.
 - **Those with student loan debt had higher incomes:** Just over fifty-five percent of families with student loan debt had incomes in the top 50 percent of all incomes in 2016, compared with 48.8 percent for those without student loans.
- The median outstanding student loan balance increased from \$5,363 in 1992 to \$19,000 in 2016 (254 percent increase). The average student loan balance had a similar increase from 1992 to 2016 (\$11,751 to \$34,293—192 percent growth).
- The median required monthly student loan debt payment for families was \$200 in 2016. This represented 3.1 percent at the median of these families' incomes. However, these loan payments varied significantly, with the 25th percentile of the loan payments being \$100 and the 75th percentile being \$350, while the 90th percentile

reaches \$630. The average payment was \$304.

- For families with the youngest heads (those less than age 35) who had a college degree or higher, the families without student loans were somewhat more likely to own a home than those with a loan (45.3 percent vs. 42.1 percent). Yet, there was virtually no difference between these family types having a positive defined contribution (DC) plan balance. Yet, families without student loans had much higher DC plan balances. The median balance was \$20,000 and the average balance was \$53,638 for the families without a student loan compared with \$13,000 and \$32,987, respectively, for the families with a student loan.

This growing level of student loan debt has implications for overall financial security and for retirement preparedness specifically. Overall, those with student loans are more likely to have DC plans, but they have lower balances in these plans. The higher likelihood of being in a DC plan is driven by the higher incomes that result from obtaining a college degree. But the presence of student loans leads to lower amounts being accumulated in these plans.

However, student loan debt can be considered an investment that helps individuals obtain a better job with higher earnings that cannot be reached without a college degree. Yet, the existence of the loan can hinder younger workers from starting their retirement accumulations, and for those who don't finish the degree it can place them in a worse situation—more debt without a better job. In addition, the choice of paying for a child's education can have long-term consequences if the family is forgoing retirement savings to pay for the education.

Craig Copeland is a senior research associate at the Employee Benefit Research Institute (EBRI). This *Issue Brief* was written with assistance from the Institute’s research and editorial staffs. Any views expressed in this report are those of the author and should not be ascribed to the officers, trustees, or other sponsors of EBRI, EBRI-ERF, or their staffs. Neither EBRI nor EBRI-ERF lobbies or takes positions on specific policy proposals. EBRI invites comment on this research.

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Student Loan Debt: Trends and Implications

By Craig Copeland, Ph.D., Employee Benefit Research Institute

Introduction

One of the most pressing issues for American families is the growing cost of higher education. The average tuition and fees for attending a public four-year college has grown, in inflation adjusted terms, 155 percent from 1992 to 2016.¹ Consequently, given this sharply increasing cost, more American families took on student loan debt. The existence of student loan debt can have far-reaching financial implications for families that have it. This debt has the potential to limit the ability of younger generations to start saving for retirement or for other goals. And, older families that are taking loans for their children, may be less able to save when they are nearing retirement.

This *Issue Brief* examines the incidence of student loan debt among American families including trends going back to 1992. Furthermore, the amount of outstanding student loan debt and required payments are presented across many demographic characteristics. Lastly, the amount of other assets held, in particular defined contribution plan assets, are compared between those with and without student loans.

The data for this study come from the Federal Reserve's Survey of Consumer Finances.² This dataset is the most complete data on the wealth of American families with comprehensive breakdowns of all assets and debts.

Incidence

The percentage of American families with student loan debt increased from 10.5 percent in 1992 to 22.3 percent in 2016 (Figure 1). However, the percentage with this debt was much higher for families with younger heads. For families with heads ages less than 35, 44.8 percent had student loan debt in 2016, compared with 12.9 percent for families with heads ages 55-64.

While the youngest families had the highest percentage with debt, families with older heads had larger increases in their percentage with student debt. The percentage of families with heads less than age 35 increased 84 percent since 1992 (24.4 percent in 1992 to 44.8 percent in 2016). For comparison, the percentage of families with heads ages 45-54 grew 316 percent and 345 percent for families with heads ages 55-64.

The families with the lowest incomes were the least likely to have student loans (17 percent). Otherwise, there was little variation in the likelihood of having student loan debt for higher income families (22.4 percent to 25.8 percent). In contrast, by families' net worth, there were significant differences in the probabilities of having student loan debt. The families in the lowest net worth category were six times as likely to have student loan debt as those in the highest net worth category.

Families with heads having at least some college education were more likely to have student loan debt than those without any college education. There was virtually no difference between families having heads with any level of college education, where 29.0 percent of families having heads with some college education only compared with 28.3 percent of families with heads having an advanced degree.

The distribution of the families having student loan debt across these characteristics versus those that don't varied widely (Figure 2):

- **Those with student loan debt were younger:** In 2016, 66.7 percent of the families having student loan debt had heads younger than age 45 and 40.7 percent were from families with heads younger than age 35. In contrast, just 28.6 percent of those without debt had heads younger than age 45.
- **Those with student loan debt had more education:** Of families with this debt, 79.2 percent had heads with at least some college, compared with 56.3 percent of those without student loan debt.

Figure 1
**Percentage of Families With Student Loan Debt, by
 Various Demographic Categories, 1992, 2001, 2010, 2013, and 2016**

	1992	2001	2010	2013	2016
Total	10.5%	11.6%	19.1%	19.9%	22.3%
Family Income Quartile					
Lowest	10.4	7.7	15.6	16.9	17.4
Second	9.1	12.6	15.0	16.9	22.4
Third	13.1	13.4	20.2	22.9	25.8
Highest	9.5	12.6	23.0	21.6	23.4
Age of Family Head					
<35	24.4	26.0	40.0	41.4	44.8
35-44	11.7	11.9	26.2	28.7	34.3
45-54	5.7	10.7	17.5	18.4	23.7
55-64	2.9	5.2	9.3	12.0	12.9
65 or Older	1.2	0.4	2.7	2.1	2.4
Education of Family Head					
Below HS Diploma	2.2	2.8	5.4	4.4	5.9
HS Diploma	7.4	8.2	12.8	12.5	15.0
Some College	12.3	14.5	25.9	24.7	29.0
College Degree	18.1	17.5	26.6	28.7	28.6
Advanced Degree	17.0	16.8	23.0	26.4	28.3
Race					
White Non-Hispanic	10.6	10.9	18.9	18.4	20.2
Nonwhite	10.3	13.5	19.4	23.1	26.0
Work Status of Family Head					
Someone Else	13.9	15.4	24.9	26.7	30.6
Self-employed	10.0	9.3	17.0	17.4	19.2
Retired	2.9	1.2	4.3	4.6	5.3
Other Nonwork	11.0	17.2	28.1	28.7	29.8
Net Worth Percentile					
Bottom 25%	19.8	16.6	27.8	29.4	39.5
25-49.9	10.5	11.1	17.7	17.2	22.0
50-74.9	6.7	9.4	12.1	13.3	18.4
75-89.9	5.6	6.2	8.4	9.8	10.9
Top 10%	3.9	2.4	4.1	4.0	6.5

Source: Employee Benefit Research Institute estimates of the 1992, 2001, 2010, 2013, and 2016 Survey of Consumer Finances.

Figure 2
**Distribution of Families With and Without Student
 Loan Debt, by Various Demographic Categories, 1992 and 2016**

	With Student Loan Debt		Without Student Loan Debt	
	1992	2016	1992	2016
Total	100.0%	100.0%	100.0%	100.0%
Family Income Quartile				
Lowest	23.2	19.3	23.5	26.3
Second	22.2	25.1	26.1	24.9
Third	31.7	29.3	24.6	24.2
Highest	23.0	26.3	25.8	24.6
Age of Family Head				
<35	59.7	40.7	21.8	14.4
35-44	25.3	26.0	22.4	14.2
45-54	8.9	19.5	17.2	18.0
55-64	3.7	11.1	14.5	21.5
65 or Older	2.4	2.7	24.2	31.8
Education of Family Head				
Below HS Diploma	4.3	3.3	22.2	15.4
HS Diploma	21.0	17.5	31.1	28.4
Some College	20.8	35.6	17.4	25.0
College Degree	36.7	26.9	19.5	19.2
Advanced Degree	17.1	16.7	9.8	12.1
Race				
White Non-Hispanic	75.7	58.8	75.2	66.4
Nonwhite	24.3	41.2	24.8	33.6
Work Status of Family Head				
Someone Else	72.7	77.3	52.7	50.2
Self-employed	10.5	9.2	11.0	11.1
Retired	6.9	6.6	26.9	34.1
Other Nonwork	9.9	6.9	9.4	4.7
Net Worth Percentile				
Bottom 25%	47.4	44.3	22.5	19.5
25-49.9	24.9	24.7	24.9	25.1
50-74.9	16.1	20.7	26.1	26.3
75-89.9	8.0	7.4	15.8	17.2
Top 10%	3.8	2.9	10.7	12.0

Source: Employee Benefit Research Institute estimates of the 1992 and 2016 Survey of Consumer Finances.

- **Those with student loan debt had higher incomes:** Just over fifty-five percent of families with student loan debt had incomes in the top 50 percent of all incomes, compared with 48.8 percent for those without student loans. However, 69.0 percent of the families with student loans had a net worth in the lower half.

Therefore, the families with student loan debt were more likely to have higher incomes, heads having more educational attainment, and heads that are younger. The concentration of families with student loan debt in the lower net worth categories appeared to be a result of these families having younger heads.

The striking changes in the distribution of families with student loans across various characteristics is the movement of the share of families with this debt among those with older heads and with heads that have some college only. In 1992, 85.0 percent of those with student loans had a family head younger than age 45, including 59.7 percent having a head younger than age 35. In 2016, this decreased to 66.7 percent and 40.7 percent, respectively. Likewise, the percentage of families with student loans having a head with some college only increased from 20.8 percent in 1992 to 35.6 percent in 2016. Consequently, more families with this debt will have less time to pay it off before they reach retirement age. In addition, fewer are going to receive the benefits of a full college education from taking on this debt.

With a higher percentage of families with heads that were older having student loans, it was expected that families were taking on student loan debt for their children. In fact, in 2016, 14.4 percent of families with student loans were using them to finance the education of a child and another 2.3 percent were financing the education of a child and a parent, leaving 83.3 percent financing only the education of the family head and that person's spouse (Figure 3).

Figure 3
**Distribution of Whose Education the Student Loan Financed,
by Various Demographic Categories, 2016**

	Adult	Child	Both
Total	83.3%	14.4%	2.3%
Family Income Quartile			
Lowest	92.8	6.0	1.2
Second	88.0	10.2	1.8
Third	82.3	16.5	1.3
Highest	73.1	22.2	4.7
Age of Family Head			
<35	100.0	0.0	0.0
35-44	94.2	4.0	1.8
45-54	66.5	27.6	5.9
55-64	38.8	55.2	6.0
65 or Older	32.2	67.4	0.4
Education of Family Head			
Below HS Diploma	64.4	35.6	0.0
HS Diploma	75.0	21.1	3.9
Some College	88.4	10.4	1.2
College Degree	83.5	13.4	3.2
Advanced Degree	84.6	13.4	2.0
Net Worth Percentile			
Bottom 25%	91.7	5.9	2.4
25-49.9	88.8	9.2	2.0
50-74.9	70.7	27.2	2.2
75-89.9	62.4	35.7	1.9
Top 10%	51.5	43.3	5.3

Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

The likelihood of the family using the loan for the education of a child increased with the family's income and net worth and the age of the family head. Specifically, 100 percent of the families with a head younger than age 35 used their student loans to finance the education of the head and/or the spouse of the family. This number decreased to 38.8 percent of families with heads ages 55-64. Families with family heads with at least some college were more likely to have taken the loan for the education of the head and/or spouse of the family.³

Loan Balances

The median outstanding student loan balance increased from \$5,363 in 1992 to \$19,000 in 2016 (254 percent increase) (Figure 4).⁴ However, the median was substantially different and increased unevenly across various demographic characteristics. In particular, the higher the educational attainment of the family head, the higher the median student loan balance was. For families whose head had a high school diploma only, the median student loan balance was \$12,000 in 2016. For comparison, among families whose head had an advanced degree, the median balance was \$45,000. Other families with higher median balances included those with the lowest and highest net worth (\$25,000 and \$26,000, respectively). In contrast, families with the lowest incomes, heads ages 65 or older, or heads who were retired had lower median loan balances.

Not only were there differences in the median balances by the educational level of the family head but also in the growth of the median balances from 1992-2016. Specifically, families with a family head with an advanced degree not only had the highest median balance in 2016, but also had the highest growth in the median balance from 1992 at 539 percent (\$7,039 compared with \$45,000). Furthermore, the lower the educational attainment of the family head, the slower the growth of the median balance between 1992 and 2016.

Other categories with higher growth rates in the median balance since 1992 included families with the lowest net worth, with heads ages 35-44, and with incomes in the highest quartile. Those families with the smallest growth rates were families with heads ages 55 or older.

Looking at the average student loan balance, there was a similar percentage increase to that of the median from 1992 to 2016 (\$11,751 to \$34,293—192 percent growth). The relative growth across the various demographic categories was also similar (Figure 5). However, the percentage increases from 1992 in the averages do not follow the same patterns as the medians, due to the growth of the student loan balances of the families with the largest balances. The 90th percentile of student loan balances increased 241 percent from 1992 to 2016 (\$23,463 to \$80,000).

The groups with the highest percentage increases in their average balances from 1992 to 2016 were groups that have not typically been associated with having student loans. In particular, families with heads that did not have a high school diploma or were ages 45-54. The average balance for families with heads without a high school diploma increased from \$4,207 in 1992 to \$18,875 in 2016, as the 90th percentile of student loan balances for these families increased 575 percent increase (\$6,368 to \$43,000). The increase in the 90th percentile of student loan balances from 1992 to 2016 for families with heads ages 45-54 was 518 percent (\$13,910 to \$86,000), resulting in the largest increase in the average balances at 364 percent (\$7,975 to \$37,003).⁵

While other groups did not have increases as high as these families, the average student loan balances across almost all groups more than doubled from 1992 to 2016. Only those families with incomes in the second quartile didn't double their average balances over the period.

Loan Payments

The median required monthly student loan debt payment for families was \$200 in 2016. This represented 3.1 percent at the median of these families' incomes (Figure 6). However, these loan payments varied significantly, with the 25th percentile of the loan payments being \$100 and the 75th percentile being \$350, while the 90th percentile reached \$630. The average payment was \$304. The percentage of income these loan payments represented also had a large range—

Figure 4

Distribution of Student Loan Balances for Families Having Student Loans, by Various Demographic Categories, 1992, 2001, 2010, 2013, and 2016

	1992			2001			2010			2013			2016		
	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile
Total	\$2,514	\$5,363	\$11,731	\$4,063	\$10,835	\$23,024	\$6,632	\$14,369	\$32,054	\$6,187	\$17,529	\$37,120	\$8,300	\$19,000	\$41,500
Family Income Quartile															
Lowest	2,514	4,693	8,379	2,709	7,855	16,252	5,858	10,058	22,106	5,259	12,683	28,871	6,000	14,000	30,000
Second	3,017	5,866	13,407	3,521	10,835	23,024	4,642	9,948	22,106	6,187	15,467	28,871	7,000	20,000	40,000
Third	2,514	5,530	12,066	4,334	10,428	18,961	6,632	15,474	32,054	6,187	18,560	36,604	10,000	19,000	41,500
Highest	2,681	6,201	14,078	6,094	13,543	27,764	8,179	19,895	38,686	7,939	19,591	47,431	10,000	25,000	59,000
Age of Head															
<35	2,849	5,363	11,731	4,334	11,105	23,024	6,411	14,369	32,054	7,218	17,838	37,120	8,000	18,500	40,000
35-44	2,514	4,860	10,893	4,063	12,189	27,086	6,411	15,474	33,159	7,218	17,529	43,306	10,000	20,100	45,000
45-54	2,514	6,201	8,379	2,844	8,126	20,315	6,632	13,264	30,948	5,671	14,435	30,933	9,000	20,000	44,500
55-64	4,190	12,234	23,295	4,740	10,835	33,858	6,742	17,353	28,185	5,259	19,591	35,057	8,000	18,000	46,000
65 or Older	3,519	10,223	16,759	1,354	2,302	2,573	6,632	13,264	19,895	3,609	15,982	39,182	3,900	12,000	35,000
Education of Head															
Below HS Diploma	1,676	4,190	5,028	677	3,657	9,480	4,200	7,516	13,264	5,723	9,280	15,467	5,000	10,000	25,000
HS Diploma	2,514	4,357	8,547	2,709	7,855	14,220	3,316	8,842	17,685	4,640	10,311	26,809	5,500	12,000	25,500
Some College	2,179	4,525	10,726	3,386	7,313	15,710	6,632	13,264	27,500	5,156	13,404	26,809	7,000	15,300	31,000
College Degree	3,352	6,201	13,910	4,740	12,189	24,378	7,737	17,685	36,475	8,249	18,560	38,151	10,000	22,000	47,000
Advanced Degree	3,184	7,039	25,976	10,835	29,118	56,204	14,369	30,948	86,213	15,467	30,933	70,115	18,000	45,000	88,000
Race															
White Non-Hispanic	2,514	5,866	12,569	4,672	11,376	24,378	6,632	14,590	33,159	7,218	18,560	37,120	8,400	19,100	42,600
Nonwhite	2,514	4,860	10,055	2,844	7,042	18,961	6,632	13,264	29,843	5,877	15,467	34,026	8,000	19,000	41,000
Work Status															
Someone Else	2,681	5,530	12,066	4,063	10,428	21,669	6,632	16,358	33,159	7,218	18,560	37,120	8,600	20,000	43,000
Retired	2,531	6,201	13,910	2,709	10,835	32,504	4,863	9,948	19,895	5,156	15,467	39,182	5,000	14,000	30,000
Net Worth Percentile															
Bottom 25%	3,771	5,866	12,234	4,009	9,480	23,024	6,632	15,474	34,264	7,218	18,560	41,244	10,000	25,000	55,000
25-49.9	1,843	4,693	10,055	4,063	10,835	20,315	6,190	12,158	24,427	5,156	13,404	27,840	7,000	16,000	30,000
50-74.9	1,843	4,357	13,072	3,386	10,699	18,961	6,853	14,369	32,054	6,187	18,560	41,244	7,500	15,000	31,000
75-89.9	2,514	4,190	10,223	3,657	10,835	46,047	5,748	15,253	25,422	5,156	10,311	24,746	6,000	15,000	40,000
Top 10%	5,195	9,569	18,770	8,939	18,961	243,778	11,053	18,790	42,001	12,373	20,622	36,089	10,000	26,000	45,000

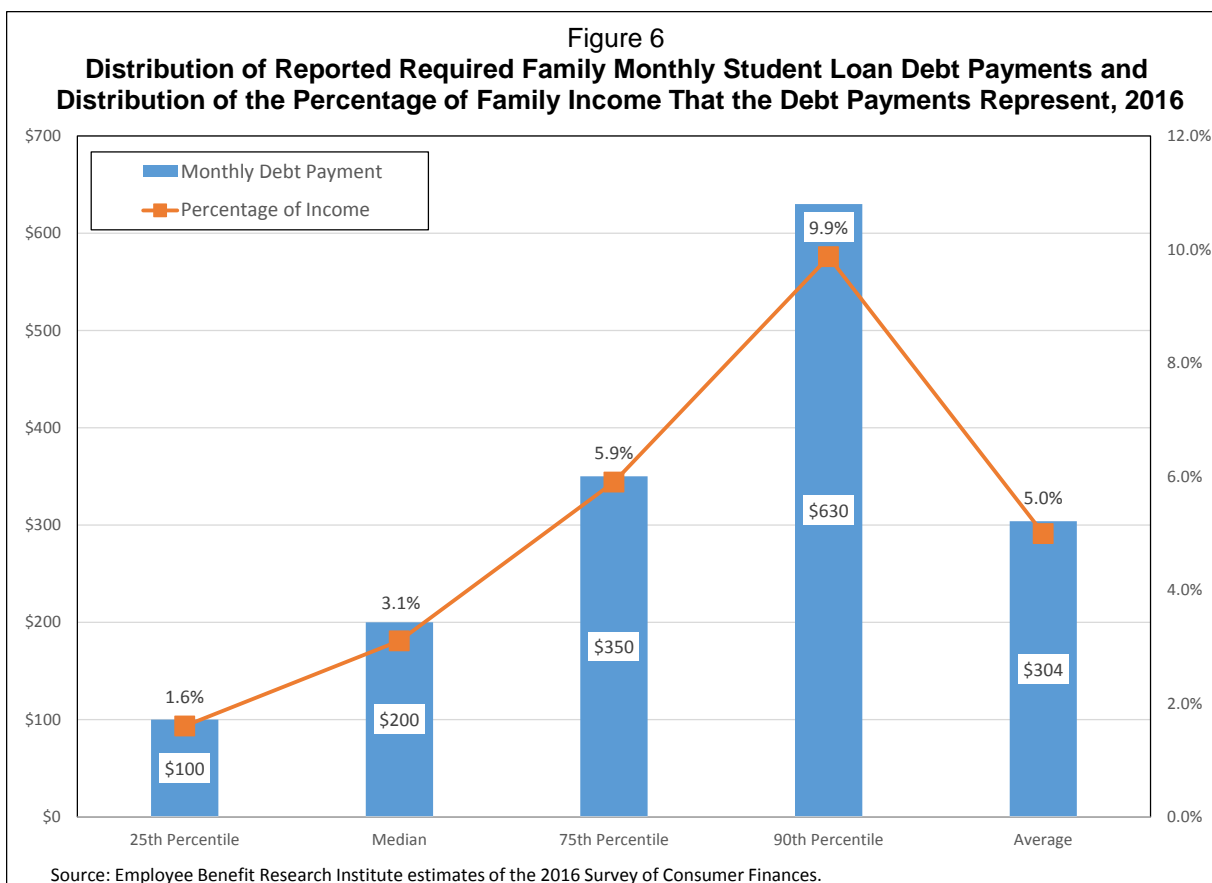
Source: Employee Benefit Research Institute estimates of the 1992, 2001, 2010, 2013, and 2016 Survey of Consumer Finances.

Note: All income and asset values are in 2016 dollars.

Figure 5
Average and 90th Percentile of Student Loan Balances for Families Having Student Loans,
by Various Demographic Categories, 1992, 2001, 2010, 2013, and 2016

	1992		2001		2010		2013		2016	
	Average	90th Percentile	Average	90th Percentile	Average	90th Percentile	Average	90th Percentile	Average	90th Percentile
Total	\$11,751	\$23,463	\$18,706	\$41,984	\$28,589	\$66,318	\$30,016	\$72,177	\$34,293	\$80,000
Family Income Quartile										
Lowest	7,373	15,603	15,484	39,953	23,540	59,686	25,670	49,493	24,560	57,000
Second	18,442	26,144	17,025	40,223	19,029	42,001	24,211	61,866	32,796	79,000
Third	10,238	20,781	15,143	40,630	30,563	68,529	27,767	67,022	34,424	80,000
Highest	11,791	30,166	26,117	60,945	33,489	78,476	38,348	97,955	42,723	100,000
Age of Head										
<35	11,015	23,463	16,500	40,630	28,760	66,318	31,105	74,239	32,894	73,000
35-44	14,344	21,787	27,899	101,574	29,609	80,687	32,383	78,364	34,742	82,000
45-54	7,975	13,910	13,557	36,567	26,950	60,792	24,938	59,804	37,003	86,000
55-64	15,089	41,897	20,530	54,173	31,987	55,265	29,628	61,866	33,678	83,000
65 or Older	11,581	23,463	2,749	7,313	18,834	34,154	26,354	54,236	34,052	100,000
Education of Head										
Below HS Diploma	4,207	6,368	5,941	16,658	10,154	21,001	13,117	22,684	18,875	43,000
HS Diploma	6,693	13,407	11,454	32,504	14,173	33,159	20,454	52,895	22,623	62,000
Some College	7,187	15,251	11,466	24,378	21,975	47,528	20,212	46,400	25,137	54,000
College Degree	10,465	23,295	17,597	40,630	28,450	68,529	30,681	74,239	36,653	82,000
Advanced Degree	28,152	45,249	44,823	113,763	66,817	169,111	55,733	113,421	65,374	146,000
Race										
White Non-Hispanic	13,045	24,301	19,670	44,557	27,636	66,318	32,737	77,333	33,921	80,000
Nonwhite	7,724	20,111	16,195	39,275	30,509	69,634	25,573	63,928	34,823	84,000
Work Status										
Someone Else	12,339	23,463	17,844	40,630	28,352	66,318	30,616	74,239	35,185	82,000
Retired	8,402	23,463	17,169	39,275	22,127	37,580	24,541	54,236	28,107	75,000
Net Worth Percentile										
Bottom 25%	14,759	25,138	17,810	40,630	32,349	80,687	32,252	77,229	42,931	104,000
25-49.9	8,067	17,765	15,655	39,275	20,689	47,528	22,324	54,648	24,860	62,000
50-74.9	9,188	23,295	15,544	39,275	26,560	55,265	34,532	87,644	27,351	70,400
75-89.9	8,385	20,446	27,879	62,028	20,082	37,580	21,176	48,462	31,834	70,000
Top 10%	16,307	41,897	78,156	243,778	29,361	44,212	35,443	74,239	38,398	76,000

Source: Employee Benefit Research Institute estimates of the 1992, 2001, 2010, 2013, and 2016 Survey of Consumer Finances.
 Note: All income and asset values are in 2016 dollars.



from 1.6 percent at the 25th percentile to 5.9 percent at the 75th percentile and 9.9 percent at the 90th percentile. The average share of income these payments represented was 5.0 percent.

Many families had similar median required payments, but the percentage of income these payments represented varied more across the families (Figure 7). For example, every family head age group, except for families with heads ages 65 or older, had a median payment of \$200. However, the median percentage of family income was higher for the families with the youngest heads at 4.0 percent compared to right around 3.0 percent for families with heads ages 35-64.

One of demographic characteristics that showed significant differences in the required payment was education level. For families with heads not having a college degree, the median payment was \$150. The median payment increased to \$210 for families with a head having a college degree only and to \$320 for families with heads that had an advanced degree. The percentage of income these payments represented ranged from 2.7 percent to 3.5 percent for families with heads not having an advanced degree, but jumped to 4.6 percent for families with a head having an advanced degree.

Family income was also a strong factor in the amount of the required loan payment. Families with higher incomes had higher median student loan payments. However, the percentage of income these payments represented decreased with family income. Families with lowest incomes had a median percentage of income required to pay student loan balances of 7.3 percent compared with 2.2 percent for families with the highest incomes. The median percentage of income that the loan payment represented followed the same pattern with increasing family net worth.

One group of families with a particularly high incidence of having student loans were those with heads younger than age 35 and having at least a college degree. This group also had higher required monthly loan payments with a median at \$290 and a median percentage of family income of 4.9 percent (Figure 8). The required monthly loan payment reached \$500 at the 75th percentile of loan payments and \$1,000 at the 90th percentile. The average loan payment was

Figure 7 Reported Required Median Monthly Student Loan Debt Payments and Median Percentage of Family Income the Payments Represent, by Various Categories, 2016		
	Median Monthly Payment	Percentage of Family Income
Total	\$200	3.1%
Family Income Quartile		
Lowest	90	7.3
Second	130	4.0
Third	200	3.2
Highest	300	2.2
Age of Head		
<35	200	4.0
35-44	200	2.8
45-54	200	2.9
55-64	200	3.1
65 or Older	100	1.6
Education of Head		
Below HS Diploma	150	3.5
HS Diploma	150	2.7
Some College	150	3.0
College Degree	210	3.1
Advanced Degree	320	4.6
Race		
White Non-Hispanic	200	3.0
Nonwhite	173	3.4
Work Status		
Someone Else	200	3.2
Retired	100	1.5
Net Worth Percentile		
Bottom 25%	200	4.7
25-49.9	190	3.0
50-74.9	190	2.7
75-89.9	230	1.9
Top 10%	300	1.5
Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.		

Figure 8
Distribution of Reported Required Family Monthly Student Loan Debt Payments and Distribution of the Percentage of Family Income That the Debt Payments Represent for Families With Heads Ages Younger Than 35 and Having a College Degree or Higher, 2016

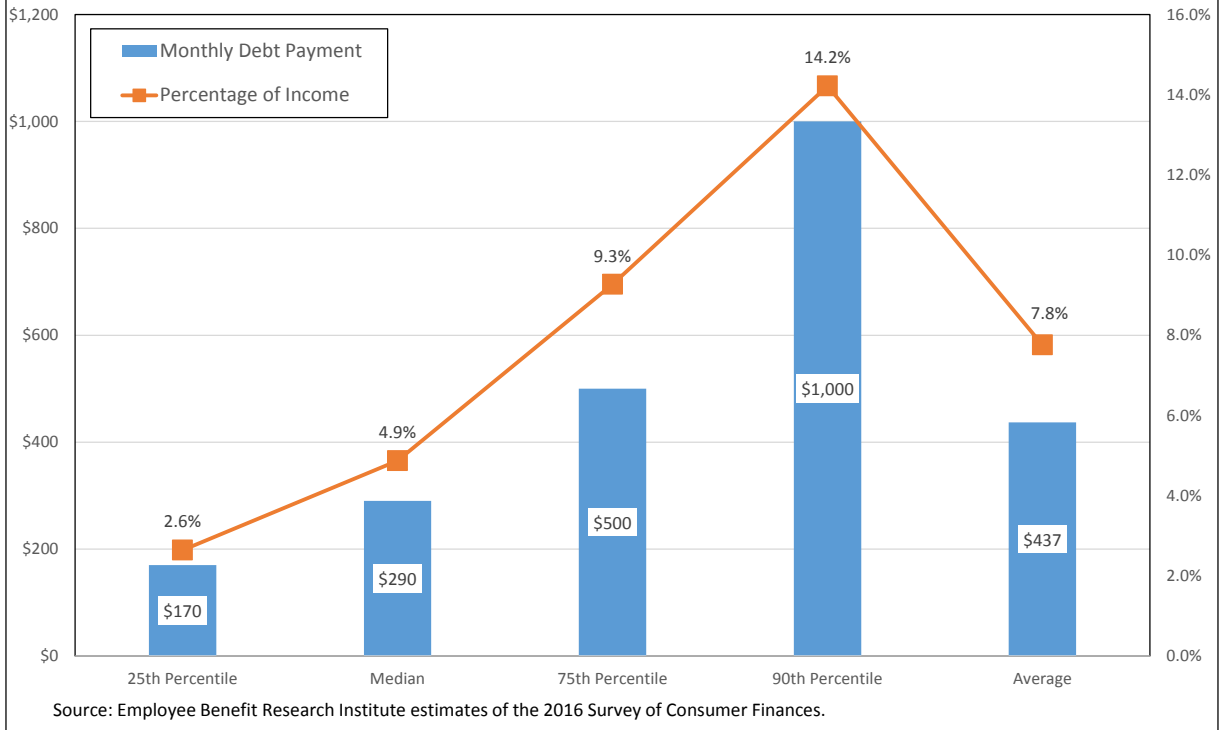
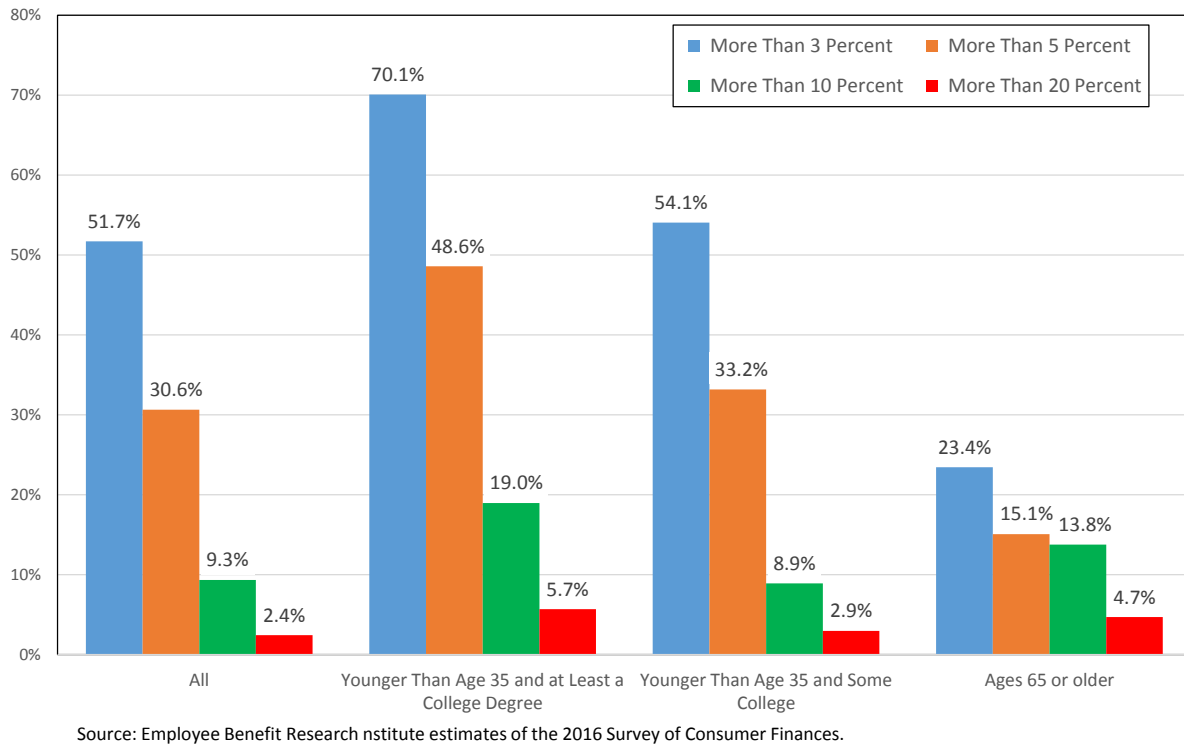


Figure 9
Percentage of Families With Student Loan Debt Payments Above Various Percentage of Family Income Thresholds, by Various Family Head Ages and Education Levels, 2016



\$437. The average percentage of family income these loan payments represented was 7.8 percent with the 75th percentile at 9.3 percent and the 90th percentile at 14.2 percent.

Another evaluation of these families showed the relative impact of their student loan payments by comparing the percentage of families that had required loan payments that represented more than specific thresholds of family income (Figure 9). Slightly more than 70 percent of the families with heads younger than age 35 and having at least a college degree who had a required loan payment had payments that represented more than 3 percent of their family income. This compared with 51.7 percent of *all* families with a required loan payment at that rate. The share of families requiring more than 10 percent of their family income going to student loan debt payments was more than twice as much for young families with at least a college degree compared to the full population studied.

The one group that stood out as having relatively high required payments relative to income was families with heads ages 65 or older (Figure 9). While these families had a significantly lower incidence of having these loans and were much more likely to have required payments below 3 percent of family income, they represented a much higher relative percentage of those with payments more than 10 percent of family income at 13.8 percent, compared with 9.3 percent for all families requiring payments.

Comparison of Assets and Debt

Not surprisingly, families with student loans had lower median assets and higher median debt than families without student loans (Figure 10). Families with student loans had median assets of \$128,300 compared with \$209,700 for those without a student loan. The median debt was \$73,000 versus \$12,000. However, the pattern of lower assets did not hold across all demographic groups, while it did for debt.

For families with heads younger than age 45 or having heads with a high school diploma only, the median assets of those with student loans was higher than it was for those without a student loan.⁶ However, the median debt for these families with student loans, in some cases, was as much as 10 times higher than those without student loans. Yet, for those families with a head who obtained a college degree, the assets accumulated are higher than for the families who had a head not obtaining a college degree. Therefore, obtaining a student loan and getting the college degree can pay off over the family's entire lifetime.

Regardless of the assets, those with student loans had higher median debt than those without student loans. In all cases, the median debt of those with student loans ranged from almost twice of those without student loans, to 10 or even 20 times of those without student loans.

Ownership of Specific Assets

Two of the potentially most important assets for demonstrating financial stability and preparation for retirement are owning a home and having a defined contribution (DC) plan through employment. Consequently, an examination of families who had student loan debt to determine if they had these assets helps demonstrate their current overall financial condition. For all families with student loan debt in 2016, 51.8 percent owned their home compared with 67.1 percent of families without student loans (Figure 11). However, while 45.9 percent of families with student loan debt had a positive balance in a DC plan, just 28.1 percent of families without student loans had a positive balance.

There are certain factors that at least partially explain these differences. Because home ownership is lower among families with younger heads and these families are more likely to have student loan debt, the families with student loan debt overall are less likely to own a home. At the same time, families with student loan debt have higher incomes, have heads with higher educational attainment, and are less likely to be retired, so they are more likely to have access to a DC plan. Therefore, they are more likely to have a positive DC balance.

These factors make it crucial to look at the ownership of these assets by the characteristics of the families or by a combination of the characteristics. First, across each income group, families without student loans were more likely to

Figure 10
Median Family Assets and Debt, by Student Loan Incidence
and Various Categories, 2016

	Median Assets		Median Debt	
	With Student Loan	No Student Loan	With Student Loan	No Student Loan
Total	\$128,300	\$209,700	\$73,000	\$12,000
Family Income Quartile				
Lowest	8,080	17,750	22,900	0
Second	29,900	124,320	40,120	8,000
Third	169,600	297,500	103,000	35,000
Highest	435,000	1,036,100	211,900	127,000
Age of Head				
<35	32,000	30,330	48,000	3,700
35-44	167,400	142,200	111,200	32,600
45-54	235,900	240,100	121,600	49,600
55-64	221,230	296,500	77,000	22,090
65 or Older	240,800	296,430	80,400	2,600
Education of Head				
Below HS Diploma	25,180	39,900	23,280	1,000
HS Diploma	128,300	121,700	59,000	5,320
Some College	39,970	184,700	41,060	14,700
College Degree	188,850	469,350	102,000	54,000
Advanced Degree	228,100	914,500	170,000	67,000
Race				
White Non-Hispanic	172,801	299,500	97,000	18,600
Nonwhite	60,940	64,750	52,700	6,100
Work Status				
Someone Else	132,350	191,600	86,000	29,000
Retired	67,601	219,700	34,530	1,100
Net Worth Percentile				
Bottom 25%	15,100	4,840	36,920	120
25-49.9	143,700	66,600	79,430	11,500
50-74.9	332,480	271,500	134,000	41,990
75-89.9	894,000	727,900	225,480	30,680
Top 10%	2,462,800	2,617,700	372,000	90,000

Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

Figure 11
Percentage of Families Who Own a Home, Have a Positive Defined Contribution (DC) Balance,
and the Median DC Balance, by Student Loan Incidence of the Family and Various Categories, 2016

	Home Ownership		Positive DC Balance		Median DC Balance	
	With Student Loan	No Student Loan	With Student Loan	No Student Loan	With Student Loan	No Student Loan
Total	51.8%	67.1%	45.9%	28.1%	\$18,700	\$51,000
Family Income Quartile						
Low est	18.2	41.5	11.7	3.9	2,000	3,000
Second	33.5	61.4	32.4	19.3	4,900	11,000
Third	60.4	78.0	56.7	38.5	15,000	32,000
Highest	84.3	89.6	71.8	52.6	50,000	148,000
Age of Head						
<35	35.2	31.5	40.4	28.6	8,000	11,000
35-44	58.2	57.6	52.0	41.5	20,000	40,000
45-54	65.8	69.7	52.7	44.8	46,000	80,000
55-64	65.3	75.0	46.8	34.6	46,000	90,000
65 or Older	83.1	80.7	17.1	8.0	20,000	83,000
Education of Head						
Below HS Diploma	30.9	51.6	23.6	12.0	14,000	40,000
HS Diploma	58.6	62.3	43.9	22.5	26,000	23,000
Some College	41.6	65.2	38.8	28.8	10,000	30,000
College Degree	56.3	78.8	54.7	41.8	23,300	87,000
Advanced Degree	63.2	83.4	53.2	38.5	29,600	125,000
Race						
White Non-Hispanic	58.6	76.0	49.5	31.7	20,000	60,000
Nonw hite	42.0	49.5	40.8	21.0	16,000	34,000
Work Status						
Someone Else	53.1	63.9	53.5	52.2	17,200	50,000
Retired	45.5	73.8	16.4	4.7	20,000	130,000
Net Worth Percentile						
Bottom 25%	18.2	8.1	28.1	5.8	4,600	2,600
25-49.9	64.4	56.3	54.6	24.7	16,000	10,000
50-74.9	86.5	90.8	60.5	35.4	48,000	50,000
75-89.9	95.9	94.5	73.9	37.7	172,000	150,000
Top 10%	98.6	94.3	67.1	41.7	550,000	389,000

Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

own a home, but they were less likely to have a positive DC plan balance. Furthermore, families with student loans in each net worth percentile category were more likely to have a positive DC balance, but only those families in the highest percentile categories (75 percentile or higher) and the lowest quartile were more likely to own a home.

In addition, across each age and educational attainment category, families with student loans were more likely to have a positive DC balance than those families without a student loan. However, homeownership was more likely among families without a student loan across each education level and for families with heads ages 45-64.

While families with student loans were more likely to have a DC balance across each income, age, and education level category, these families had lower median DC balances relative to those families without a student loan, except for families with heads having a high school diploma only. In contrast, families with student loans in each net worth category, except for the third quartile, had higher median DC balances.

With some of these results potentially conflicting, examining families with more of the same characteristics can provide additional important information on the impact of having student loans on home ownership and DC balances. In order to compare more similar families based on the characteristics of the family head, the remainder of this section looks at families by the educational level and age of the family head.

Starting with families with the youngest heads (less than age 35) who had a college degree or higher, the families without student loans were somewhat more likely to own a home (45.3 percent vs. 42.1 percent). Yet, there was virtually no difference between these family types when it came to having a positive DC balance (Figure 12). Yet, families without student loans had much higher DC plan balances. The median balance was \$20,000 and the average balance was \$53,638 for the families without a student loan compared with \$13,000 and \$32,987, respectively, for the families with a student loan (Figure 13). In other words, at the median and the average, those without student loans had in excess of 50 percent more in their DC plan than those with student loans.

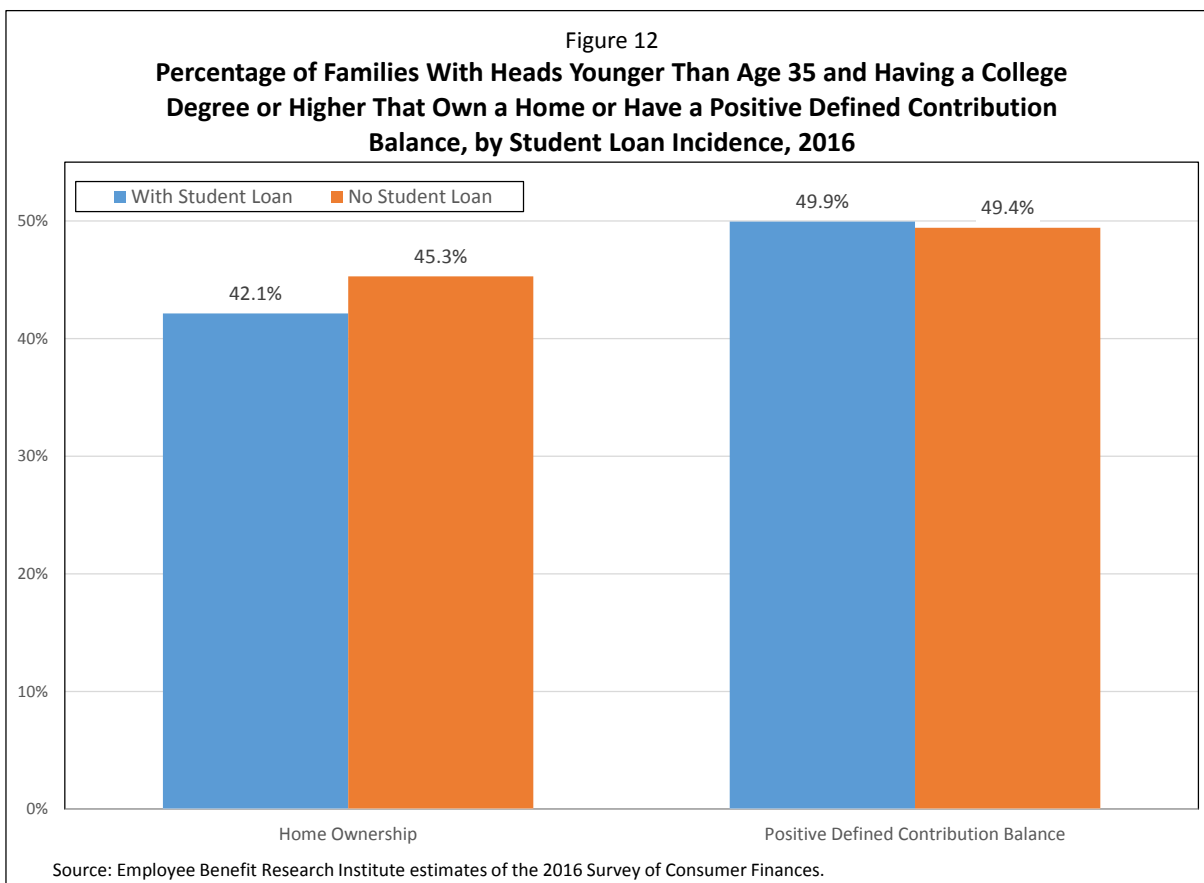
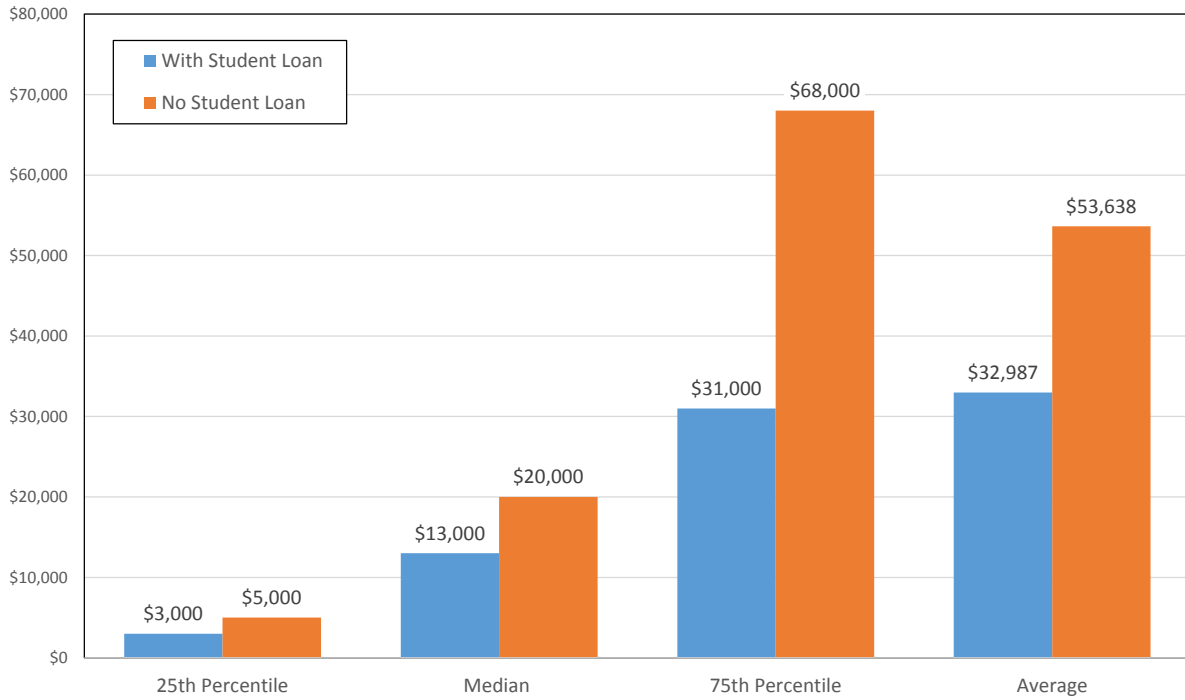
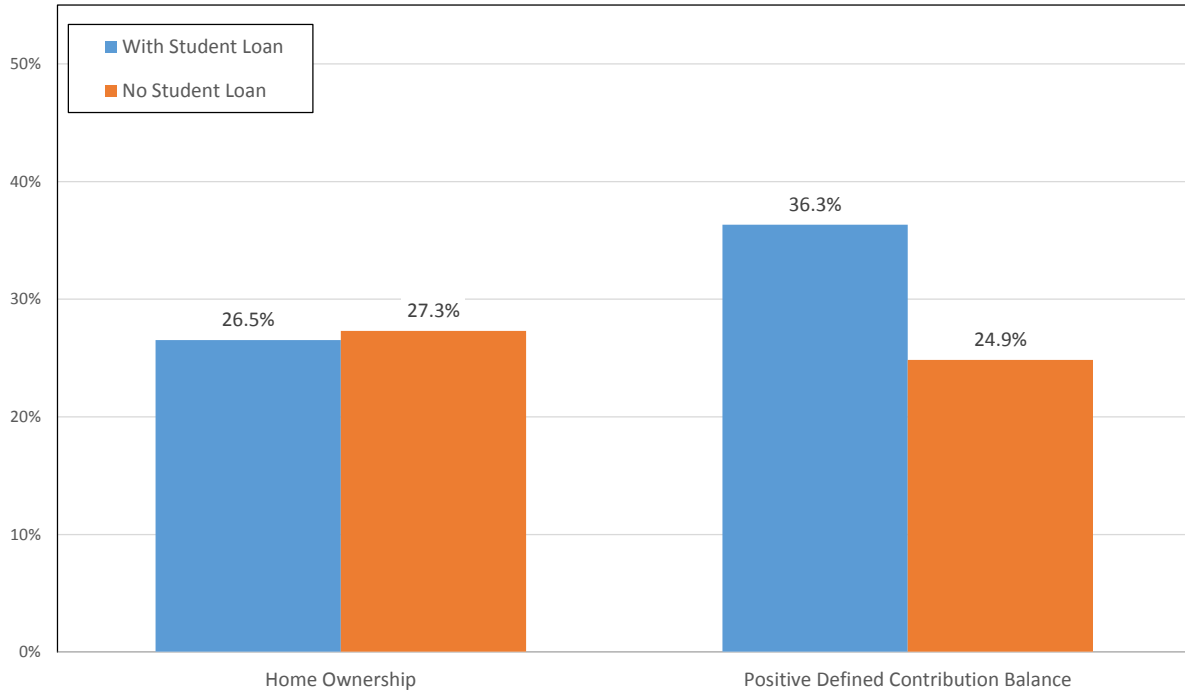


Figure 13
Distribution of Defined Contribution Balances for Families With Heads Ages Younger Than 35 and Having a College Degree or Higher, by Student Loan Incidence, 2016



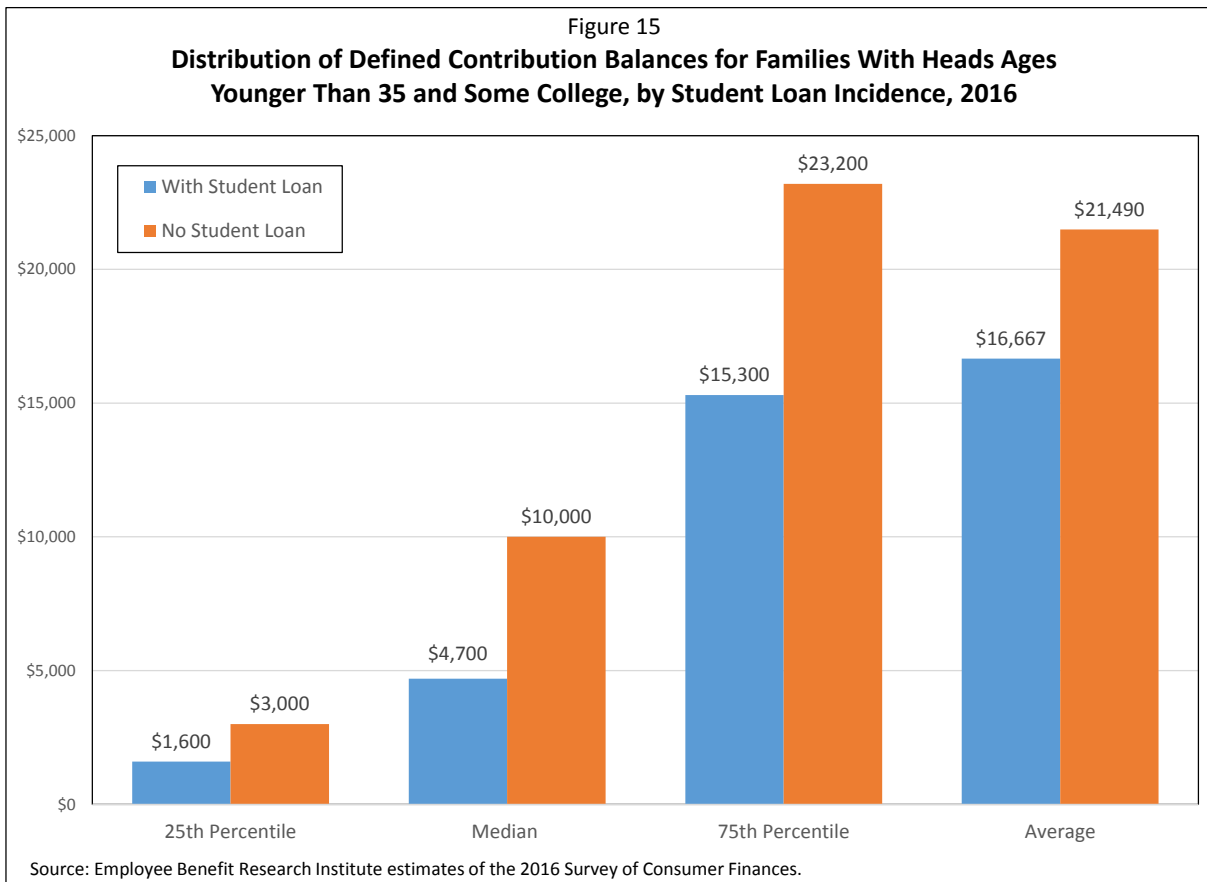
Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

Figure 14
Percentage of Families With Heads Younger Than Age 35 and Having Some College That Own a Home or Have a Positive Defined Contribution Balance, by Student Loan Incidence, 2016



Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

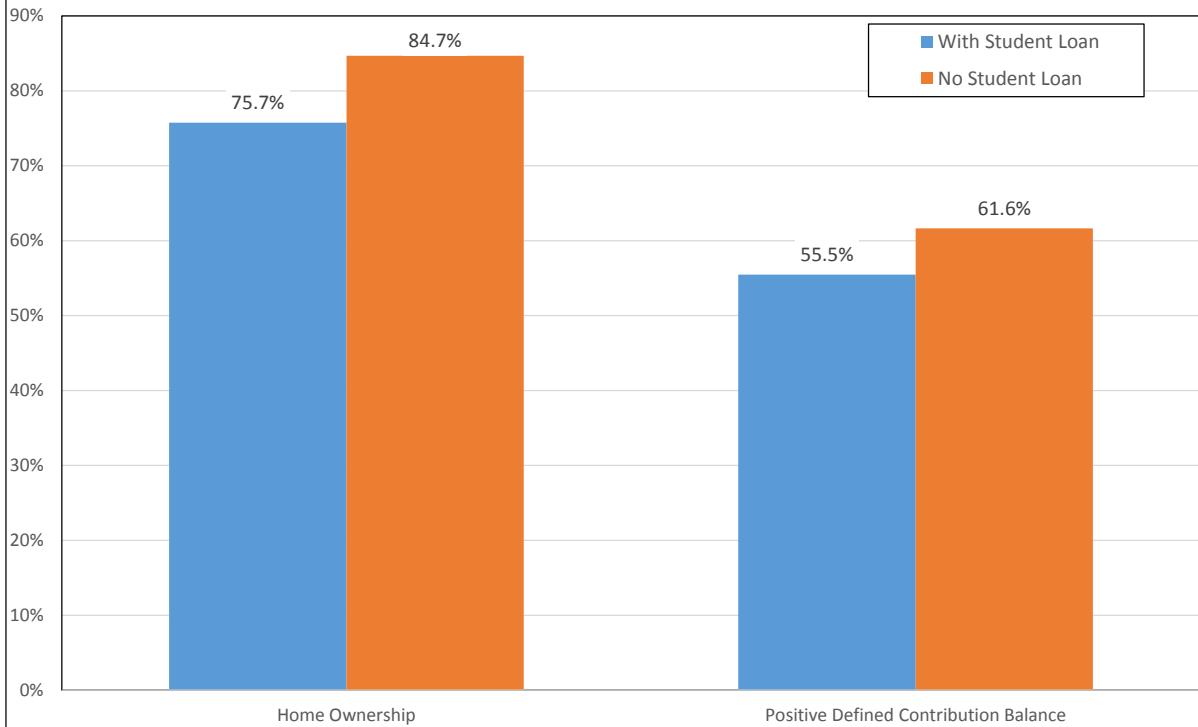
Looking at families with heads in this same age cohort, but who had gone to college and not obtained a degree, the results appear to be counterintuitive in one respect but not in another. Home ownership for those with and without student loans was essentially equal, but the families with a student loan were much more likely to have a DC plan than those without a student loan—36.3 percent vs. 24.9 percent, which would not be expected (Figure 14). However, the DC balances for families without a student loan were higher, where the median balance was \$10,000 compared with \$4,700 for families with a student loan (Figure 15). The average balances were \$21,490 and \$16,667.^{7, 8}



Now moving up in age where some of the student loans were starting to finance the education of children instead of just for the adult(s) in the family, the results changed for DC plan ownership. Among families with heads ages 45-54 who had a college degree or higher, the probability of owning a home or having a positive DC balance was higher for the families without a student loan (Figure 16). Specifically, 61.6 percent of those without a student loan had a DC plan, as opposed to 55.5 percent for those with a student loan. In addition to having a lower likelihood of having a DC plan, these families with a student loan also had significantly lower DC plan balances (Figure 17). The medians were \$46,000 for those with a student loan and \$126,000 for those without a student loan (2.7 times larger), while the averages were \$150,833 and \$302,728 (2.0 times larger), respectively.

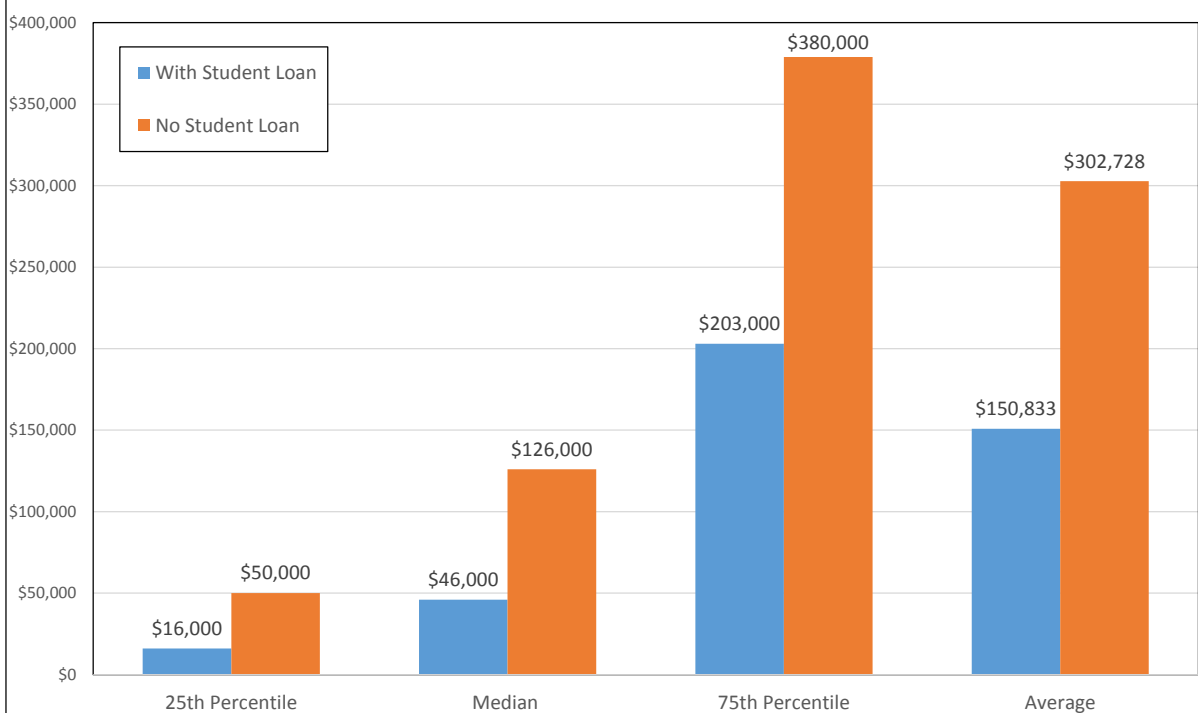
For families with heads ages 45-54 with some college only (no degree), the differences in DC plan participation were more muted. While home ownership was still higher for the families without a student loan, the likelihood of having a positive DC balance was virtually equal—45.4 percent vs. 45.7 percent (Figure 18). And while the families without student loans still had higher DC balances, they were not as relatively high as for families with younger heads having the same education (Figure 19). The median DC balance for those without a student loan was \$50,000, whereas the median for those with student loan was \$45,000 (1.1 times higher).

Figure 16
Percentage of Families With Heads Ages 45-54 and Having a College Degree or Higher That Own a Home or Have a Positive Defined Contribution Balance, by Student Loan Incidence, 2016



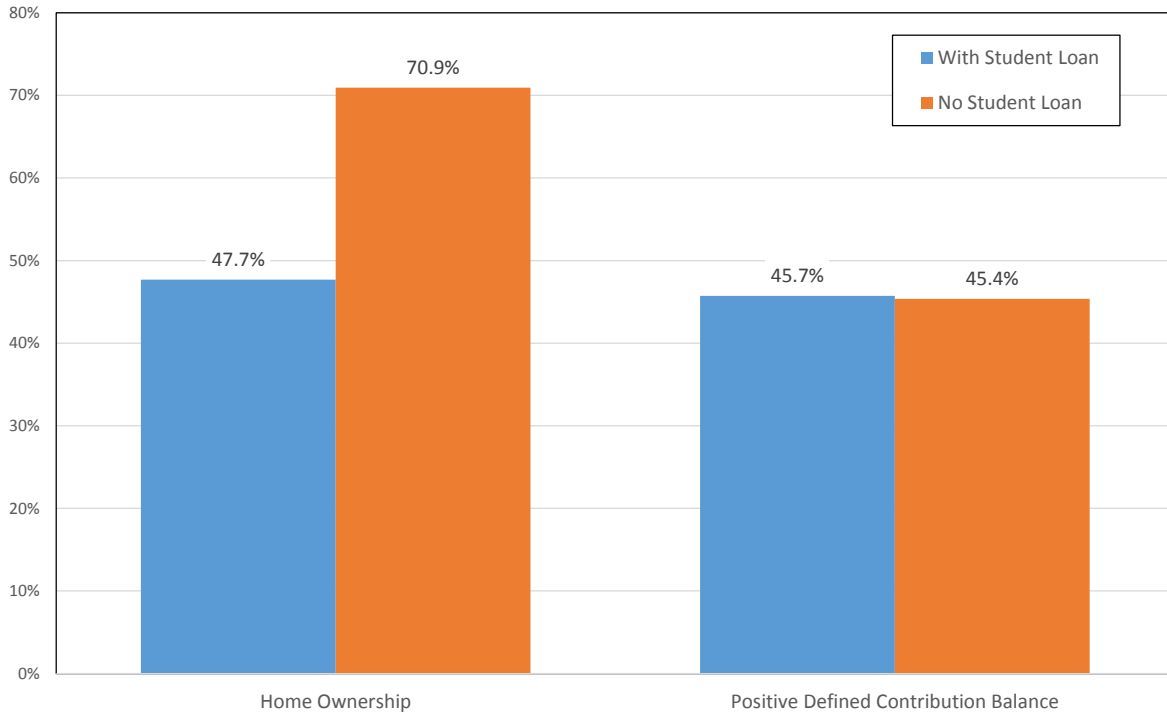
Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

Figure 17
Distribution of Defined Contribution Balances for Families With Heads Ages 45-54 and Having a College Degree or Higher, by Student Loan Incidence, 2016



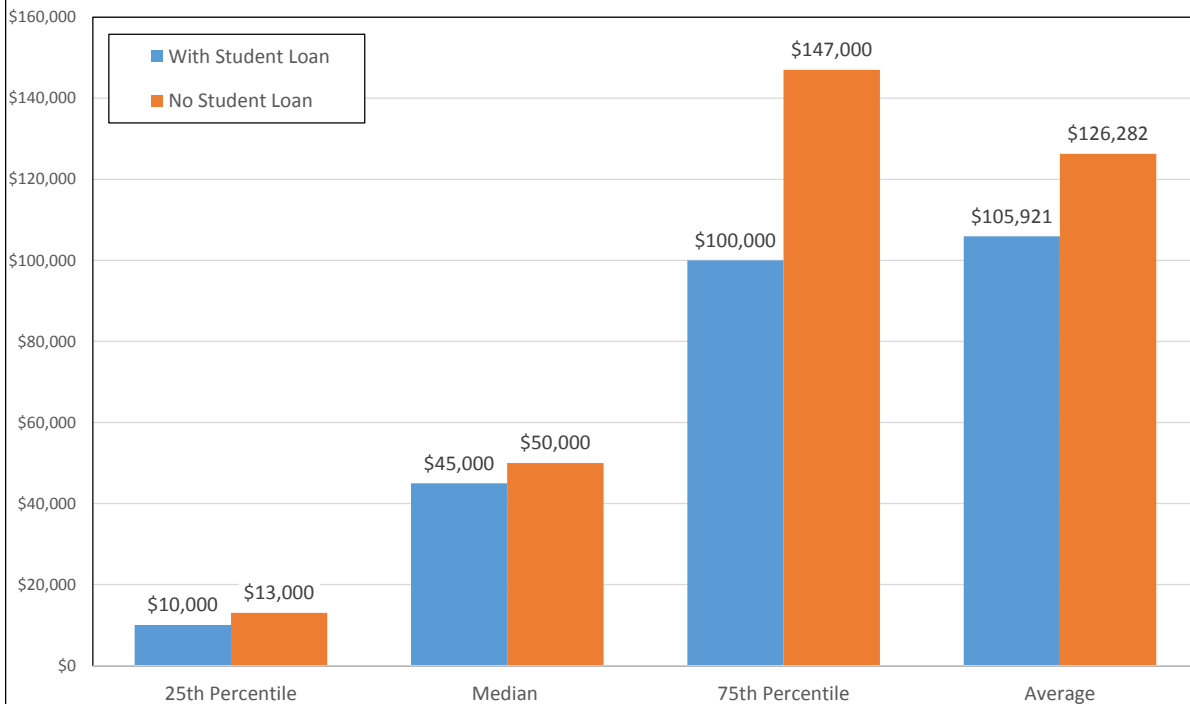
Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

Figure 18
Percentage of Families With Heads Ages 45-54 and Having Some College That Own a Home or Have a Positive Defined Contribution Balance, by Student Loan Incidence, 2016



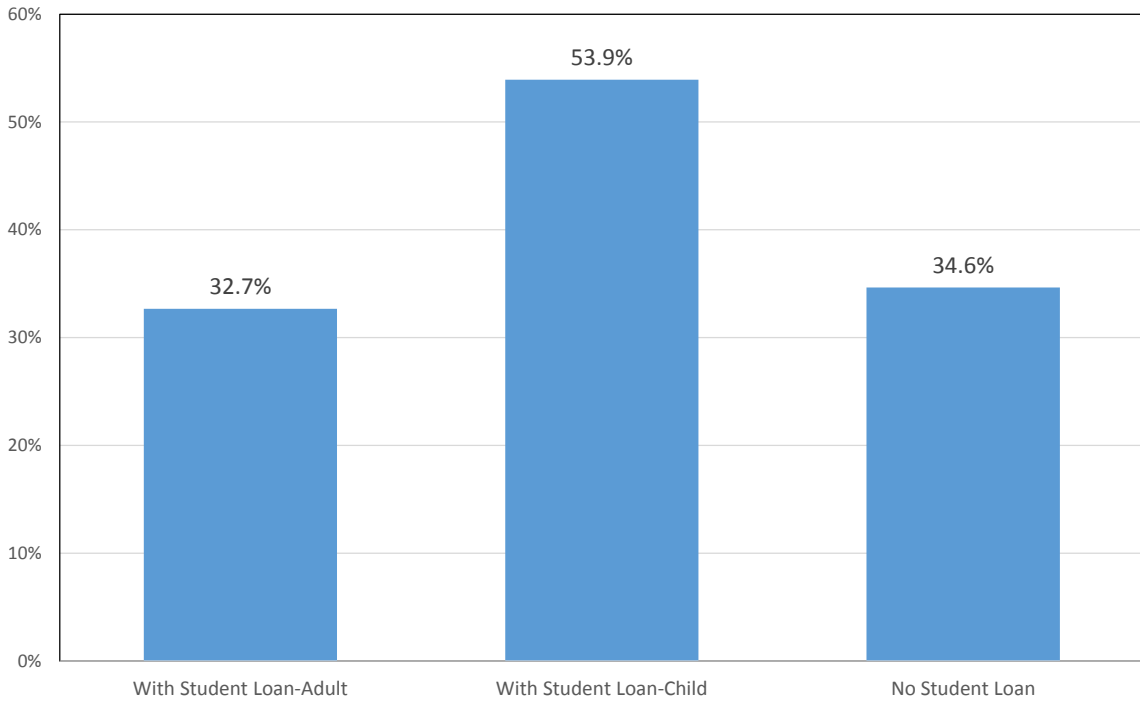
Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

Figure 19
Distribution of Defined Contribution Balances for Families With Heads Ages 45-54 and Some College, by Student Loan Incidence, 2016



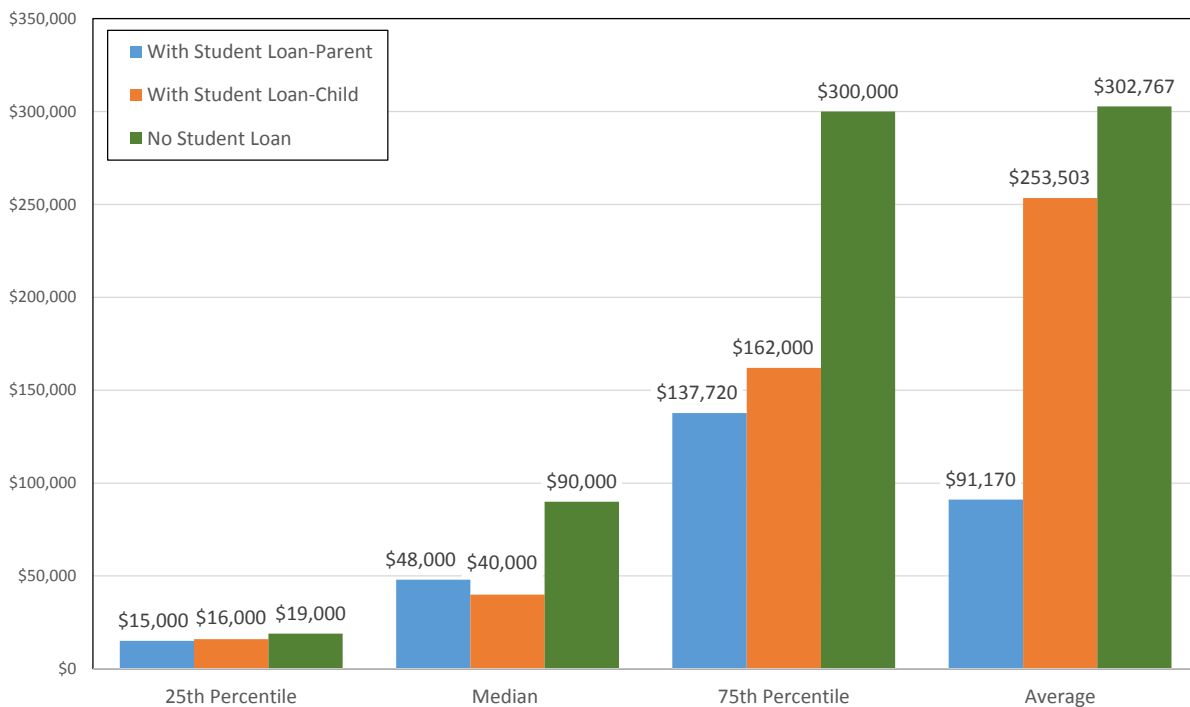
Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

Figure 20
Percentage of Families With Heads Ages 55-64 That Have a Positive Defined Contribution Balance, by Student Loan Incidence and Whose Education is Financed, 2016



Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

Figure 21
Distribution of Defined Contribution Balances for Families With Heads Ages 55-64, by Student Loan Incidence and Whose Education is Financed, 2016



Source: Employee Benefit Research Institute estimates of the 2016 Survey of Consumer Finances.

Older families, those with heads ages 55-64, are more likely to be faced with the decision to help finance their children's college educations. This could involve a student loan, which means a choice between paying the student loan and saving for retirement. Yet, when looking at families with heads of this age, those with a student loan for a child were more likely to have a positive DC balance at 53.9 percent. This compared with 32.7 percent for family heads of this age with a student loan for an adult and 34.6 percent of the families without a student loan (Figure 20). However, the families with a student loan, regardless of the source, had lower DC balances than the families without a student loan (Figure 21). Specifically, the median balance for the families without a student loan balance was \$90,000, while it was \$40,000 for a family with student loan for their children and \$48,000 for a family with a student loan for an adult.

Conclusion

For workers just starting out as well as for workers nearing retirement as they help fund their child's college education, student loans are a growing financial issue that is expected to continue to grow. Among the youngest families, it is likely that the percentage that will have a student loan will surpass one-half, and for families with older heads, the quarter to a third that have them now is likely to progress even higher. Along with the higher incidence of student loans, the amount of the loans are rising and expected to increase even more, reaching six figures in some cases, particularly for those with an advanced degree.

This growing level of debt has implications for overall financial security and for retirement preparedness specifically. Overall, those with student loans are more likely to have DC plans, but they have lower balances in these plans. The higher likelihood of participating in a DC plan is driven by the higher incomes that result from obtaining a college degree. But the presence of student loans leads to lower amounts being accumulated in these plans.

Furthermore, a particularly troubling finding is that those who obtain student loans but do not finish their college degree have a lower a likelihood of DC plan ownership, and when they do have a DC plan balance, it is smaller than for those who do finish college with a student loan. In short, these families end up with the costs but not the benefits of obtaining a college degree.

However, for these older cohorts, another issue arises in that having student loans leads to lower likelihoods of having a DC plan as well as to lower balances. Consequently, just as these families should be shoring up their finances for their retirement that is right around the corner, they find themselves poorly positioned to do so.

Student loan debt can be considered an investment that helps individuals obtain a better job with higher earnings that could not be reached without the college degree. However, the existence of the loan can hinder younger workers from starting their retirement accumulations, and for those who don't finish the degree it can place them in a worse situation—more debt without a better job. In addition, the choice of paying for a child's education can have long-term consequences if the family is forgoing retirement savings to pay for the education.

One major caveat from this research is that only student loan incidence and DC balances in the year of the survey are known. It is possible that the families who pay off their student loans could catch up later through additional contributions, particularly if much better employment is obtained as a result of the investment. However, it is also likely that these families with student loans will never catch up, especially if the college degree is not obtained or the student loan is taken when the family is nearing retirement, not starting out. Further research on the longitudinal nature of the impact of student loans is needed.

¹ See The College Board, "Trends in Higher Education" for the costs of attending college <https://trends.collegeboard.org/college-pricing/figures-tables/published-prices->

[national#Published%20Charges%20over%20Time](#) Figure 3. Values are in 2017 dollars, but the trend from 1992 to 2016 was chosen to match the years of the data used in this study.

² See Jesse Bricker, et al. "Changes in U.S. Family Finances from 2013 to 2016: Evidence from the Survey of Consumer Finances." *Federal Reserve Bulletin*. vol. 103, no. 3 (September 2017): 1–40, www.federalreserve.gov/publications/files/scf17.pdf (last reviewed June 2018) for more information on the Survey of Consumer Finances.

³ Families are categorized by the educational attainment of the family head, which is not necessarily the highest attainment of education in the family. There are many cases where the head has a high school diploma only, but the spouse has some college or a college degree.

⁴ All dollar figures are in 2016 dollars. Therefore, this is a real increase in this amount of 254 percent.

⁵ This is likely driven by parents helping their children finance their education among those having the highest educational expenses.

⁶ Each of the net worth categories has higher median assets for those with student loans than those without student loans except for those in the top 10 percent. However, families in each net worth category with student loans have higher median debt. The net worth results imply that those with student loans are able to accumulate more assets due to having higher incomes, but there is a cost to accumulating this assets in higher debt.

⁷ The median *family* income for families with heads ages younger than 35 and having some college only was \$35,441 for those with student loans and \$37,466 for those without student loans. For families with heads the same age but having a college degree, the median family income was \$54,680 for those with student loans and \$58,371 for those without student loans. However, for the families with heads ages younger than 35 and having some college only who also had a positive DC balance, the median family income was significantly higher. The median family income was \$64,806 for those with student loans and \$51,643 for those without student loans.

⁸ These results are mostly consistent with work done by Rutledge, Sanzenbacher, and Vitagliano (RSV), who used a different data source. However, there are significant differences in these datasets, which can explain any differences. They used an individual level dataset, compared with the family level dataset used in this study. They also only looked at people age 30 based on their student loan incidence at age 25. Whereas this study, all families were examined including those retired with their assets and debt at the same year as the family head's age. Since the RSV study used an individual data set, the education level is that of the person, but the family head's educational level may not be the highest education level attained within the family.

Therefore, the only potentially direct comparisons that can be made between the studies are for those families with heads younger than age 35 in this study. The results for college graduates of this age appear to match the RSV study, where there are no differences in DC plan participation between those with and without student loans and that these graduates with student loans have lower DC balances than those without student loans. For a comparison group, this study focused on families with heads that attended college but did not graduate, so this is somewhat different than the nongraduate group used in the RSV study, because in the EBRI study the head's education may not match up to the person who has the loan. Regardless, the participation in DC plans for this group was found to be higher in this study, whereas the RSV found it to be higher but statistically insignificant. One exception between the studies is that RSV found no effect of student loan incidence on asset accumulation for noncollege graduates, as opposed to this study finding that families with a head that attended college but did not graduate and had a student loan had have lower DC asset accumulation than those without a student loan. This could be due to the age differences of the family heads relative to the individuals in the RSV dataset, the timing of debt holding compared with the age of the individual in the RSV study, and the potentially nonmatching of the educational status of the family head to that of the individual who assumed the student loan debt in the EBRI study. One additional item, if all families with heads that did not graduate from college including those that never attended are analyzed, the difference between the average DC balances of families with heads having college degrees and not having college degrees is very minimal (\$20,230 for those with degrees vs. \$19,930 for those without degrees). Therefore, showing the potential effect of the head's education level not matching that of who received the loan. For further details, see Matthew S. Rutledge, Geoffrey T. Sanzenbacher, and Francis M. Vitagliano. 2018. "Do Young Adults with Student Debt Save Less for Retirement?" *Issue in Brief* 18-3. Chestnut Hill, MA: Center for Retirement Research at Boston College: crr.bc.edu/wp-content/uploads/2018/06/IB_18-13.pdf.

