Fannie Mae™

Whose Homeownership Rate Does Student Debt Hurt Most?

National Housing Survey®

Topic Analysis
Q3 2015

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Background

- Obtaining a college degree[1] can increase one's earning potential, but often comes with the burden of student loans

- Total U.S. student loan debt has more than tripled in the last 10 years, with a rate of serious delinquency (at least 90 days late) surpassing that of any other type of debt[2]

- While the burden of student loan debt tends to hinder homeownership[3,4], the benefit of a college degree tends to have the opposite effect[5]

- This survey research seeks to shed light on the net effect of student loans and obtaining a college degree on homeownership likelihood

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1. In this study, college degree includes bachelors degrees and graduate school degrees (Master's , PhD etc.)
2. Source: Federal Reserve Bank of New York Consumer Credit Panel/Equifax
3. Source: Mezza, Alvaro, Daniel R. Ringo, Shane M. Sherlund, and Kamila Sommer (2016). "On the Effect of Student Loans on Access to Homeownership," Finance and Economics Discussion Series 2016-010. Washington: Board of Governors of the Federal Reserve System, http://dx.doi.org/10.17016/FEDS.2016.010.
4. Source: Daniel Cooper and J. Christina Wang, "Student Loan Debt and Economic Outcomes", Current Policy Perspectives, No. 14-7, Federal Reserve Bank of Boston, Oct. 2014, https://www.bostonfed.org/economic/current-policy-perspectives/2014/cpp1407.pdf
5. Source: Alison Aughinbaugh, "Patterns of homeownership, delinquency, and foreclosure among youngest baby boomers," Beyond the Numbers: Special Studies & Research, vol. 2, no. 2 (U.S. Bureau of Labor Statistics, February 2013), http://www.bls.gov/opub/btn/volume-2/patterns-of-homeownership.htm

Executive Summary

Current Homeownership
Having a college degree increases the likelihood of owning a home, even for those who have student debt

Future Homeownership
Having student loans may delay homeownership, but does not seem to affect renters' long-term homeownership aspirations

- Renters aged 25-44 with student loans are less likely to say that they will buy on their next move than those without student loans
- Renters with student loans most often carry balances below $15,000 and face monthly payment burdens of 10 percent of their income or less
- Among those aged 25-44, renters are more likely than owners to be behind on student loan payments
- Insufficient credit is a much bigger concern for renters aged 25-44 with student loans than their home-owning counterparts

Research Sample

- Each month, beginning in June 2010, approximately 1,000 live (not automated) telephone interviews with Americans age 18 and older via landline and cell phone are conducted by Penn Schoen Berland (PSB), in coordination with Fannie Mae. For the sample to accurately represent the U.S. population 60% of calls are made to cell phones. The margin of error for the total sample is ±3.1 percent at the 95 percent confidence level and larger for sub-groups. Most of the data collection occurs during the first two weeks of each month.

2015 Q3 Sample	Sample Size	Margin of Error
General Population Individuals 18 years and older who are involved in household financial decisions	3008	± 1.79%
General Population 25-44 Individuals 25 to 44 years of age who are involved in household financial decisions	1053	± 3.02%
Age 25-44 with Student Loans Individuals 25 to 44 years of age who are involved in household financial decisions and have student loans	313	± 5.54%
Age 25-44 with Student Loans, Owners Owners 25 to 44 years of age who are involved in household financial decisions and have student loans	153	± 7.92%
Age 25-44 with Student Loans, Renters Renters 25 to 44 years of age who are involved in household financial decisions and have student loans	156	± 7.85%

- Note that on each question, respondents had the option to answer "don't know" (volunteered), which is why in some cases, the total % may not equal 100
- The data from the General Population portion of this study has been weighted to make it reflective of the U.S. Census American Community Survey demographic statistics in terms of gender, age, race/ethnicity, income, education, and housing tenure.

![Fannie Mae logo]

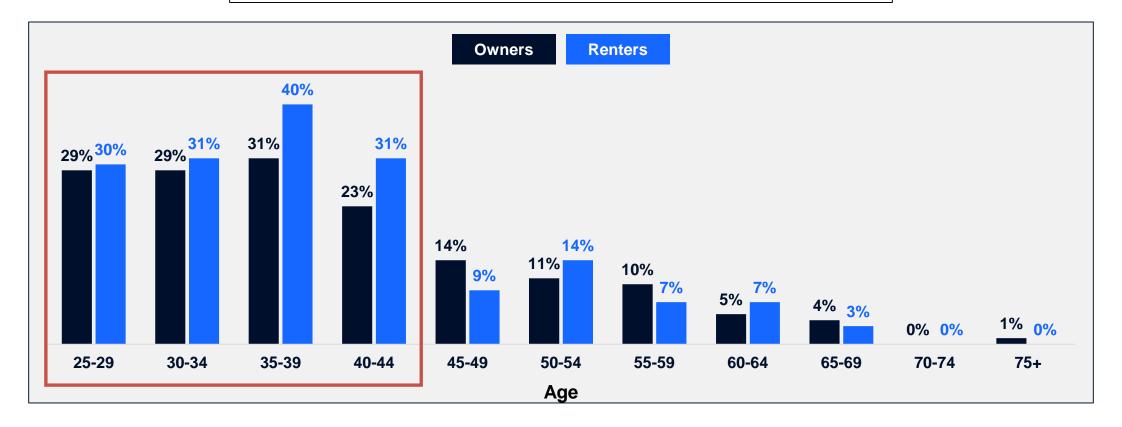## The Effect of Student Loans and a College Degree on Current Homeownership Likelihood

- Having a college degree increases the likelihood of owning a home, even for those who have student debt

- Those who have a college degree tend to express optimistic home purchase sentiment, regardless of whether or not they carry student loan debt

Student loans are most prevalent among those aged 25-44, the focus for this analysis

Which if any of the following do you currently have? Please tell me all that apply.*
Showing % with Student Loans – Q3 2015

Legend: **Owners** (dark) · **Renters** (blue)

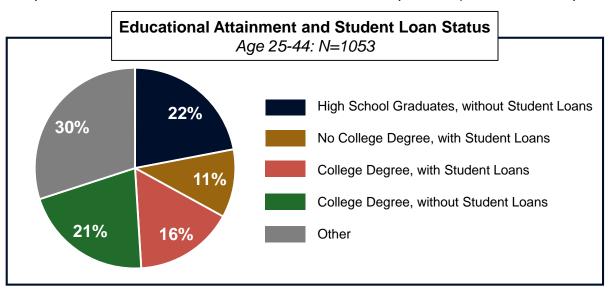| Age	Owners	Renters
25-29	29%	30%
30-34	29%	31%
35-39	31%	40%
40-44	23%	31%
45-49	14%	9%
50-54	11%	14%
55-59	10%	7%
60-64	5%	7%
65-69	4%	3%
70-74	0%	0%
75+	1%	0%

* Note that the data does not identify those who have had student loans in the past, but since paid them off

Comparing four populations identifies the combined effects of student loans and obtaining a college degree on homeownership likelihood

- Research suggests that student loans have a negative impact on homeownership likelihood, due to the debt repayment burden, but that obtaining a college degree has a positive impact, due to the greater income potential

- Analyzing the following groups helps explain how these effects interact to better understand whether or not college graduates who took out student loans are more or less likely to be homeowners

  a) **High School Graduates without Student Loans:** baseline group

  b) **No College Degree with Student Loans:** shoulders student debt burden without the benefit of college degree

  c) **College Degree with Student Loans:** shoulders student debt burden, but with the benefit of a college degree

  d) **College Degree without Student Loans:** no student debt burden, with the benefit of college degree

The "Other" group not included in analysis represents populations that are either not relevant to the research question or have insufficient sample sizes for analysis: (1) all non-high school graduates (not relevant, 8%) (2) those with some college education without student loans (not relevant, 15%) (3) graduates of technical school (insufficient sample size, 4%) (4) those who responded "don't know" to the educational attainment question (insufficient sample size, 2%).

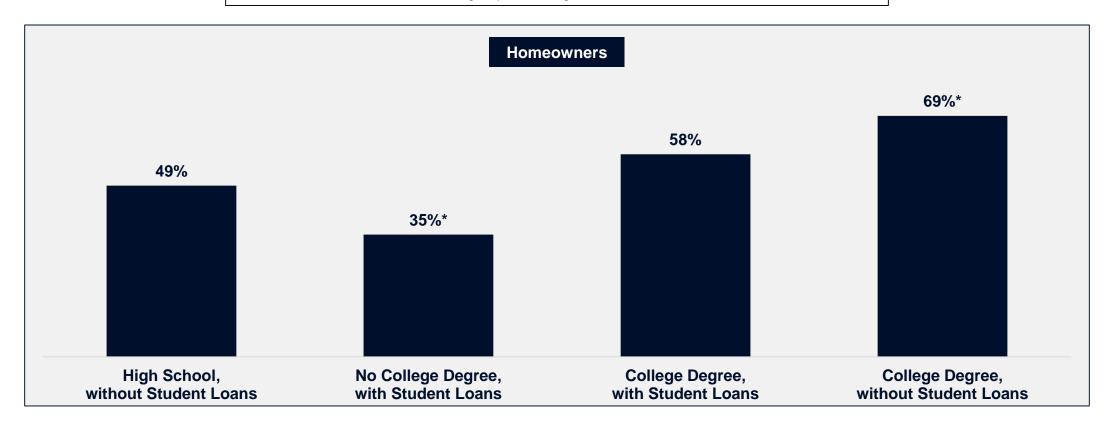**Educational Attainment and Student Loan Status**
Age 25-44: N=1053

- 22% High School Graduates, without Student Loans
- 11% No College Degree, with Student Loans
- 16% College Degree, with Student Loans
- 21% College Degree, without Student Loans
- 30% Other

Those who have a college degree are much more likely to be homeowners

HOMEOWNERSHIP STATUS
Among respondents age 25-44 – Q3 2015

Homeowners

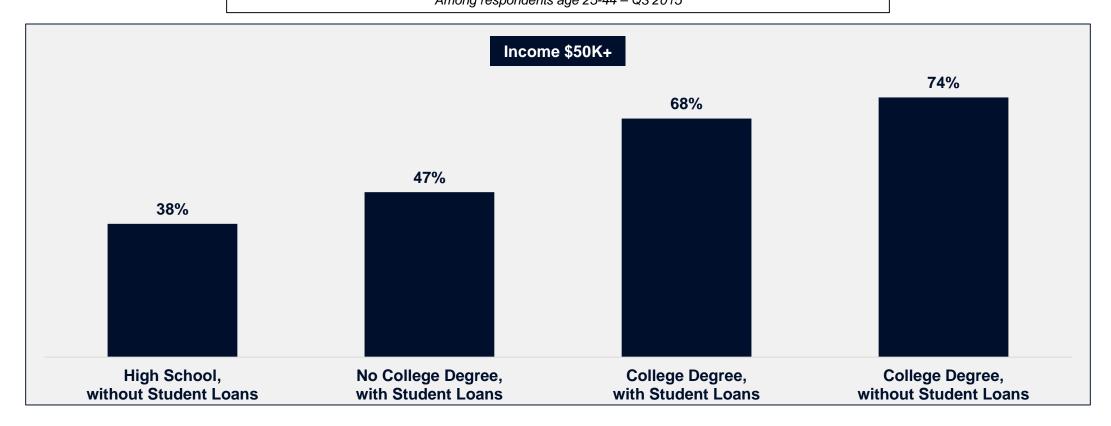|			
49%	35%*	58%	69%*
High School, without Student Loans	No College Degree, with Student Loans	College Degree, with Student Loans	College Degree, without Student Loans

* Indicates a significant difference from High School, without student loans group

Those who have a college degree are much more likely to earn higher incomes

For statistical purposes only, we need to know your total family income for 2014. Will you please tell me which of the following categories best represents your total family income?
Among respondents age 25-44 – Q3 2015

Income $50K+

38%	47%	68%	74%
High School, without Student Loans	No College Degree, with Student Loans	College Degree, with Student Loans	College Degree, without Student Loans

* Indicates a significant difference between High School, without student loans and No College Degree, with student loans
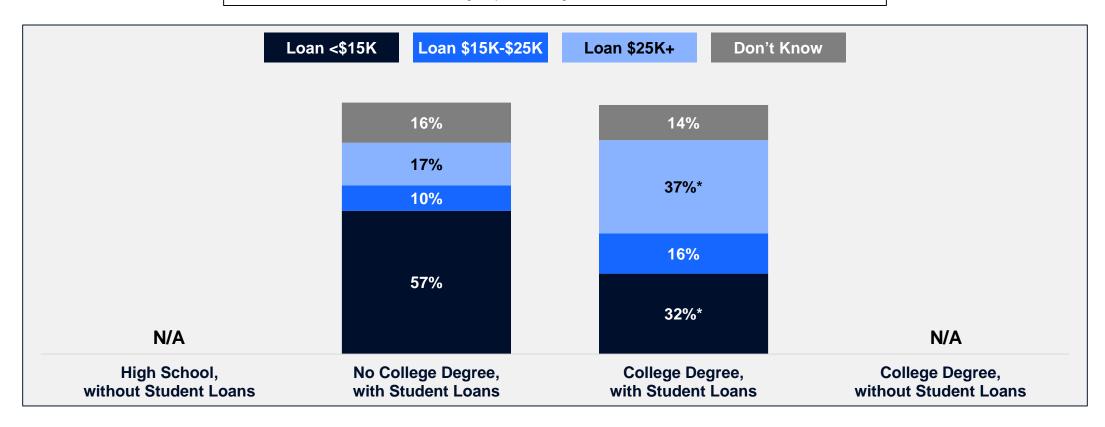*^ Indicates a significant difference between College Degree, with student loans and College Degree, without student loans*

Those who took out loans and earned a college degree are much more likely to have higher loan balances than those who took out loans but did not earn a college degree

[IF HAS STUDENT LOANS] What is your current student loan balance?
Among respondents age 25-44 – Q3 2015

| Loan <$15K | Loan $15K-$25K | Loan $25K+ | Don't Know |

High School, without Student Loans: N/A

No College Degree, with Student Loans:
- Don't Know: 16%
- Loan $25K+: 17%
- Loan $15K-$25K: 10%
- Loan <$15K: 57%

College Degree, with Student Loans:
- Don't Know: 14%
- Loan $25K+: 37%*
- Loan $15K-$25K: 16%
- Loan <$15K: 32%*

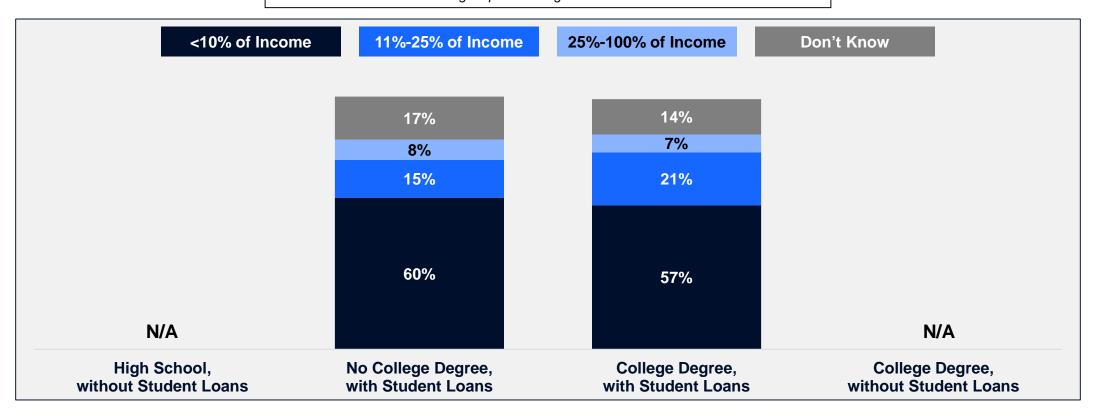**College Degree, without Student Loans:** N/A

* Indicates a significant difference between No College Degree, with student loans and College Degree, with student loans

Levels of monthly debt payment burden are similar, regardless of whether the borrower earned their college degree

[IF IN ACTIVE REPAYMENT ON STUDENT LOANS] What percent of your current monthly income do you use to pay off your student loans?
Among respondents age 25-44 – Q3 2015

| <10% of Income | 11%-25% of Income | 25%-100% of Income | Don't Know |

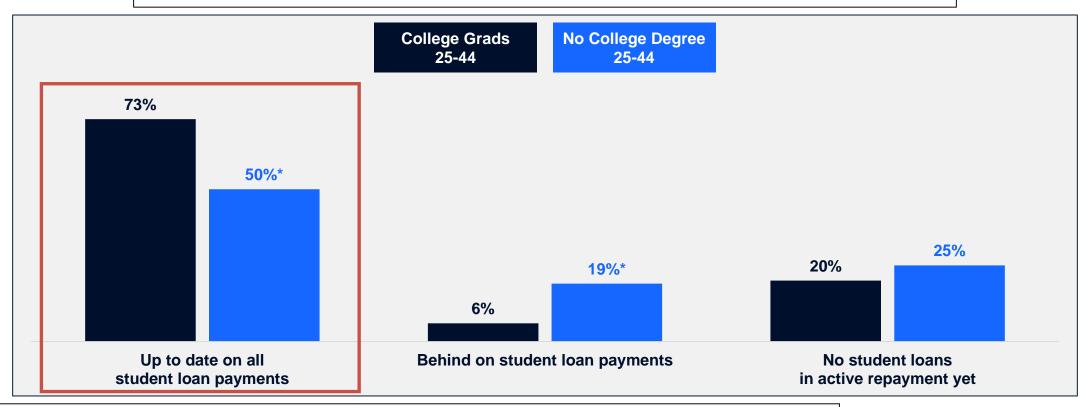| High School, without Student Loans	No College Degree, with Student Loans	College Degree, with Student Loans	College Degree, without Student Loans
N/A	60% 15% 8% 17%	57% 21% 7% 14%	N/A

* Indicates a significant difference between No College Degree, with student loans and College Degree, with student loans

Among those aged 25-44, those without a college degree are more likely than college grads to be behind on student loan payments

[IF HAS STUDENT LOANS] Which of the following describes your payment status on your student loan? If you have multiple student loans in active repayment, please tell me about the one that is furthest behind in terms of on-time payments.

Q3 2015

College Grads 25-44 **No College Degree 25-44**

73%
50%*
6%
19%*
20%
25%

Up to date on all student loan payments

Behind on student loan payments

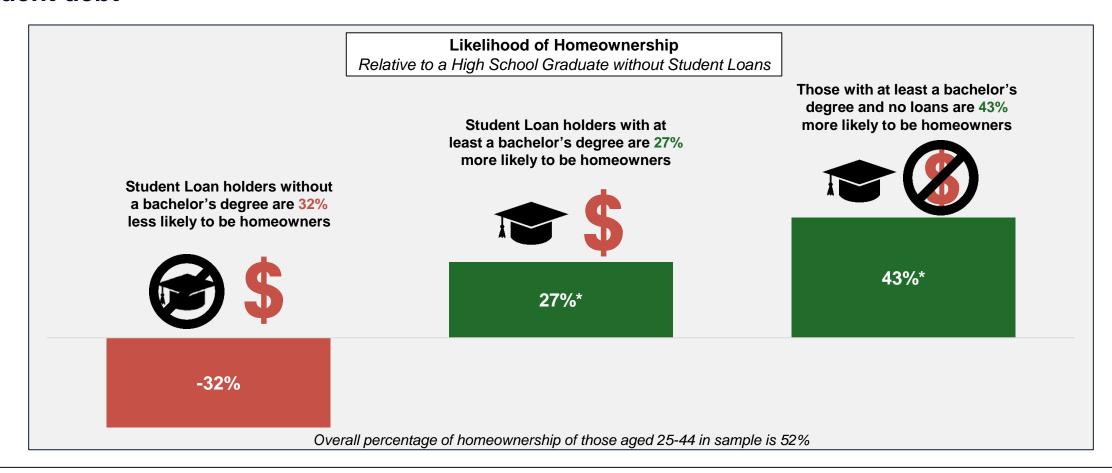**No student loans in active repayment yet**

According to Federal Reserve Bank of New York's Household Debt and Credit Report (https://www.newyorkfed.org/microeconomics/hhdc.html) 17% of student loans were delinquent or in default in 2014 (see appendix). NHS data for "Behind on student loan payments" likely includes loans that are both delinquent and in default.
* Indicates a statistically significant difference between college grads 25-44 and those without a college degree 25-44 at the 95% confidence level
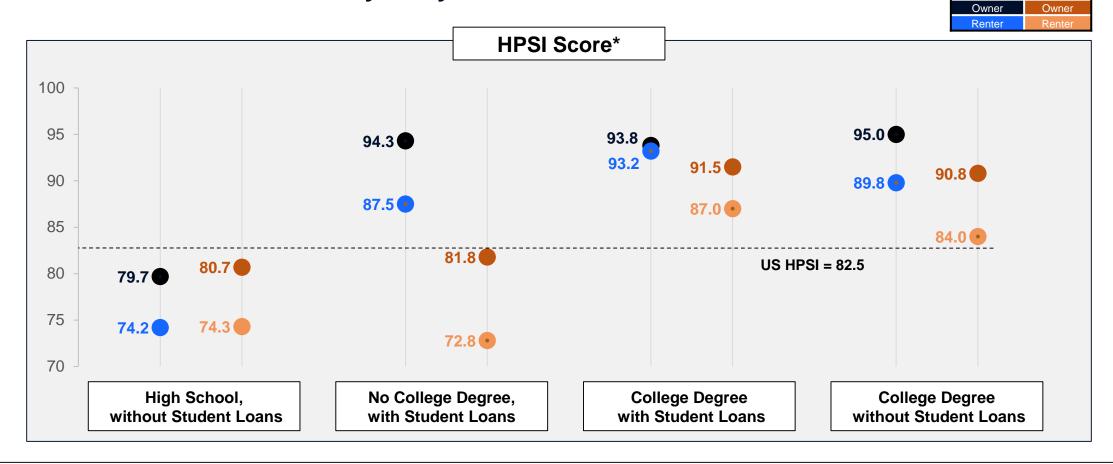
Having a college degree increases the likelihood of owning a home, even for those who have student debt

Likelihood of Homeownership
Relative to a High School Graduate without Student Loans

Student Loan holders without a bachelor's degree are **32%** less likely to be homeowners

Student Loan holders with at least a bachelor's degree are **27%** more likely to be homeowners

Those with at least a bachelor's degree and no loans are **43%** more likely to be homeowners

-32%

27%*

43%*

Overall percentage of homeownership of those aged 25-44 in sample is 52%

* Indicates a statistically significant difference from High School Graduates without Student Loans at the 95% confidence level; confidence level for Student Loan holder without College Degree is 94.5%, just below the 95% cut point
Regression analysis based on 2015 Q3 sample (N = 724) and controls for age to create a fair comparison among the groups. This analysis focuses on average outcomes among the four educational attainment/student loan status groups.
Individual outcomes can vary due to a range of factors like personal ability, external financial resources, type of degree, etc.

Those who have a college degree tend to express optimistic home purchase sentiment, regardless of whether or not they carry student loan debt

	Age 25-34	Age 35-44
Owner	●	●
Renter	●	●

HPSI Score*

US HPSI = 82.5

High School, without Student Loans	No College Degree, with Student Loans	College Degree with Student Loans	College Degree without Student Loans
79.7 (black) 74.2 (blue) 80.7 (dark orange) 74.3 (light orange)	94.3 (black) 87.5 (blue) 81.8 (dark orange) 72.8 (light orange)	93.8 (black) 93.2 (blue) 91.5 (dark orange) 87.0 (light orange)	95.0 (black) 89.8 (blue) 90.8 (dark orange) 84.0 (light orange)

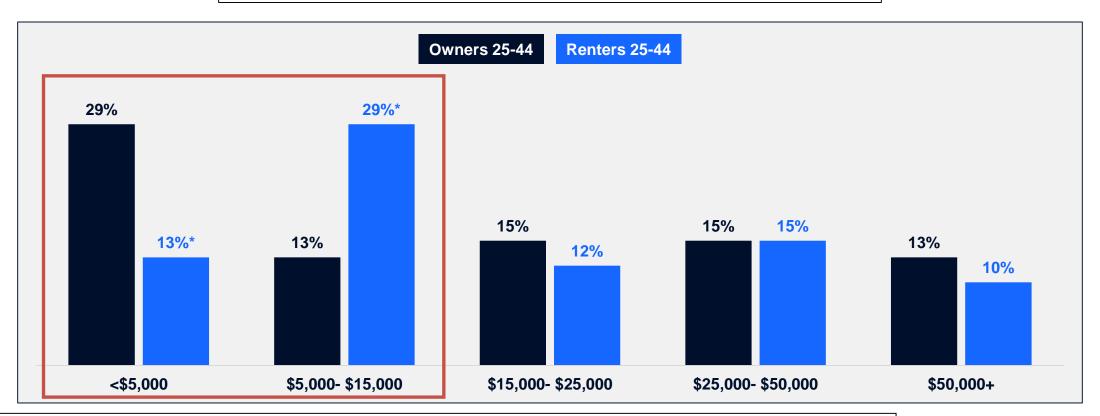# A Profile of Renters with Student Loans and their Future Homeownership Plans

- Renters with student loans most often carry balances below $15,000 and face monthly payment burdens of 10 percent of their income or less

- Among those aged 25-44, renters are more likely than owners to be behind on student loan payments

- Insufficient credit is a much bigger concern for renters aged 25-44 with student loans than their home-owning counterparts

- Having student loans may delay homeownership, but doesn't seem to affect renters' long-term homeownership aspirations

A significant portion of student loan balances for those aged 25-44 are less than $15,000

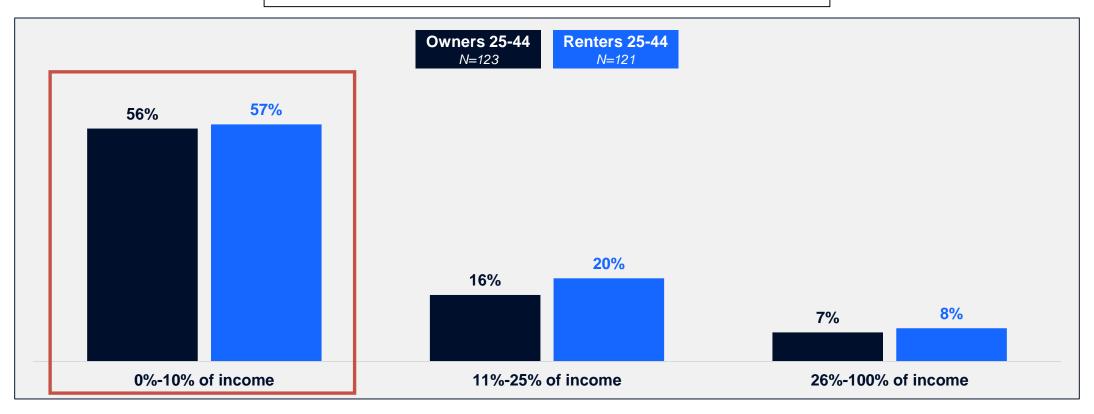[IF HAS STUDENT LOANS] What is your current student loan balance?
Q3 2015

Owners 25-44   Renters 25-44

	<$5,000	$5,000- $15,000	$15,000- $25,000	$25,000- $50,000	$50,000+
Owners 25-44	29%	13%	15%	15%	13%
Renters 25-44	13%*	29%*	12%	15%	10%

** Indicates a statistically significant difference between owners 25-44 and renters 25-44 at the 95% confidence level
For comparison between the NHS and the Federal Reserve Bank of New York's Household Debt and Credit Report* (https://www.newyorkfed.org/microeconomics/hhdc.html)
on distribution of student debt balances, please see appendix.

Owners and renters aged 25-44 report similar levels of monthly student debt payment burden relative to their income

[IF IN ACTIVE REPAYMENT ON STUDENT LOANS] What percent of your current monthly income do you use to pay off your student loans?
Q3 2015

	Owners 25-44 N=123	Renters 25-44 N=121

56% 57%
16% 20%
7% 8%

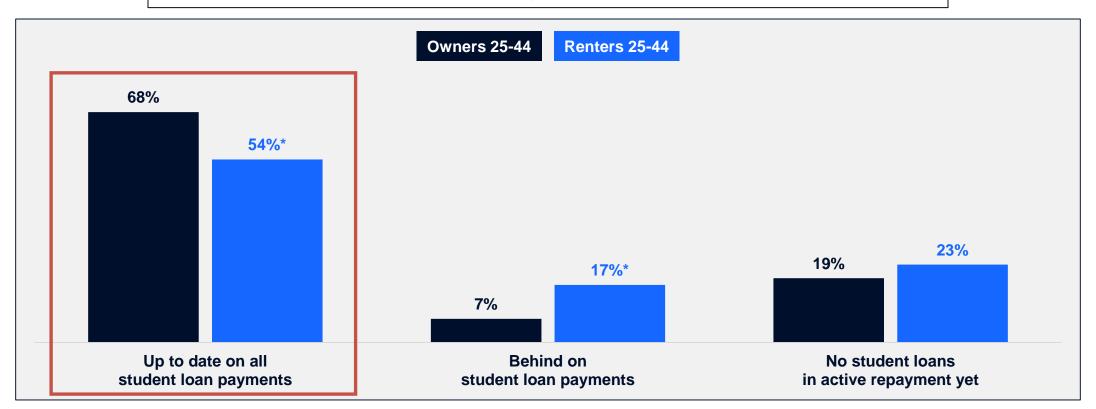0%-10% of income   11%-25% of income   26%-100% of income

* Indicates a statistically significant difference between owners 25-44 and renters 25-44 at the 95% confidence level

Among those aged 25-44, renters are more likely than owners to be behind on student loan payments

[IF HAS STUDENT LOANS] Which of the following describes your payment status on your student loan? If you have multiple student loans in active repayment, please tell me about the one that is furthest behind in terms of on-time payments.
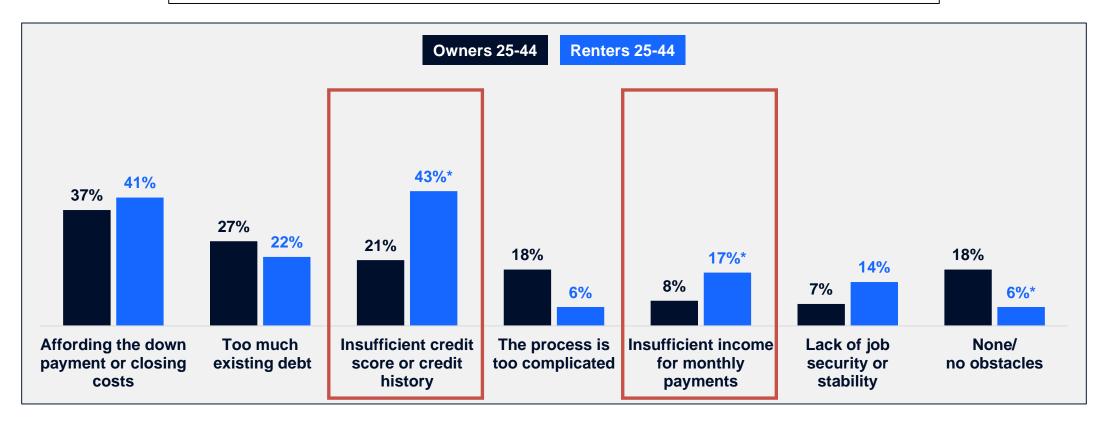*Q3 2015*

Owners 25-44 **Renters 25-44**

Category	Owners 25-44	Renters 25-44
Up to date on all student loan payments	68%	54%*
Behind on student loan payments	7%	17%*
No student loans in active repayment yet	19%	23%

* Indicates a statistically significant difference between owners 25-44 and renters 25-44 at the 95% confidence level
According to Federal Reserve Bank of New York's Household Debt and Credit Report (https://www.newyorkfed.org/microeconomics/hhdc.html) 17% of student loans were delinquent or in default in 2014 (see appendix). NHS data for "Behind on student loan payments" likely includes loans that are both delinquent and in default.

Insufficient credit is a much bigger concern for renters aged 25-44 with student loans than it is for their home-owning counterparts

What would be your biggest obstacle to getting a mortgage to purchase or refinance a home today? SELECT UP TO 3
Among respondents with student loans – Q3 2015

Legend: Owners 25-44 | Renters 25-44

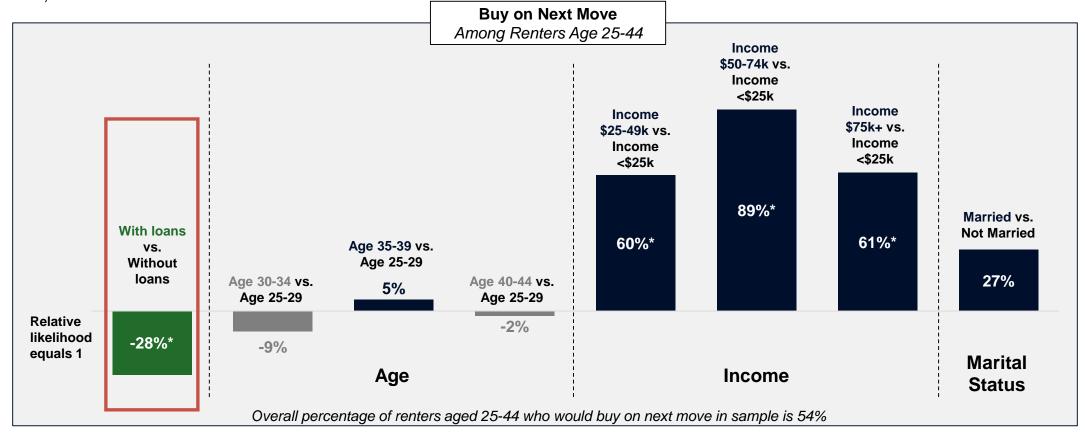| Category	Owners 25-44	Renters 25-44
Affording the down payment or closing costs	37%	41%
Too much existing debt	27%	22%
Insufficient credit score or credit history	21%	43%*
The process is too complicated	18%	6%
Insufficient income for monthly payments	8%	17%*
Lack of job security or stability	7%	14%
None/ no obstacles	18%	6%*

* Indicates a statistically significant difference between owners 25-44 and renters 25-44 at the 95% confidence level

Having student loans may delay homeownership

- Renters with student loans are less likely to say that they will buy on their next move than those without student loans, controlling for age, income, and marital status
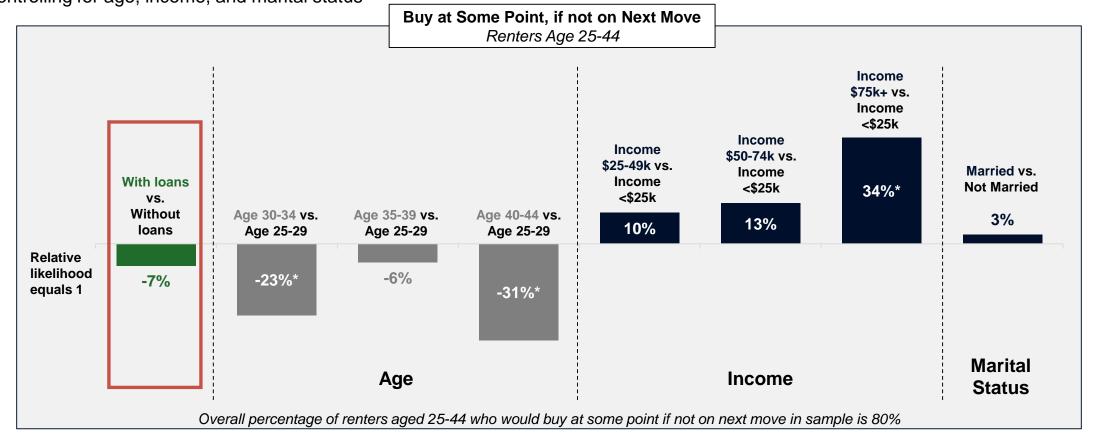

Buy on Next Move
Among Renters Age 25-44

Relative likelihood equals 1

With loans vs. Without loans
-28%*

Age 30-34 vs. Age 25-29
-9%

Age 35-39 vs. Age 25-29
5%

Age 40-44 vs. Age 25-29
-2%

Age

Income $25-49k vs. Income <$25k
60%*

Income $50-74k vs. Income <$25k
89%*

Income $75k+ vs. Income <$25k
61%*

Income

Married vs. Not Married
27%

Marital Status

Overall percentage of renters aged 25-44 who would buy on next move in sample is 54%

* Indicates a statistically significant difference at the 95% confidence level
Analysis is based on 2015 Q3 sample (N = 318), which only looks at "buy" or "rent" at next move, and doesn't take into consideration when they plan to move, therefore the estimated student loan effect can only serve as an indirect measure of a "delaying purchase" effect

Having student loans doesn't seem to affect renters' long-term homeownership aspirations

- Renters with student loans are almost as likely as those without student loans to say they will buy at some point, if not on their next move, controlling for age, income, and marital status

Buy at Some Point, if not on Next Move
Renters Age 25-44

Relative likelihood equals 1

With loans vs. Without loans: **-7%**

Age
- Age 30-34 vs. Age 25-29: **-23%***
- Age 35-39 vs. Age 25-29: **-6%**
- Age 40-44 vs. Age 25-29: **-31%***

Income
- Income $25-49k vs. Income <$25k: **10%**
- Income $50-74k vs. Income <$25k: **13%**
- Income $75k+ vs. Income <$25k: **34%***

Marital Status
- Married vs. Not Married: **3%**

Overall percentage of renters aged 25-44 who would buy at some point if not on next move in sample is 80%

* Indicates a statistically significant difference at the 95% confidence level
Analysis is based on the 2015 Q3 sample of renters who say they would rent on their next move (N = 154), a small subset of the student loan relevant population

Appendix

HPSI Sample

- For this study, Penn Schoen Berland conducted 12,015 telephone interviews, which included the following audiences, from January through December 2015:

Audience	Sample Size	Margin of Error
High School, no student loans Individuals whose highest level of education is a high school diploma or equivalent, and have no student loans	3042	± 1.78%
• **Age 25-34**	467	± 4.53%
• **Age 35-44**	457	± 4.58%
No College Degree, has student loans Individuals whose highest level of education is some college level education but did not receive college degree, and have student loans	998	± 3.10%
• **Age 25-34**	253	± 6.16%
• **Age 35-44**	180	± 7.30%
College Degree, has student loans Individuals whose highest level of education is a college degree or graduate school degree, and have student loans	973	± 3.14%
• **Age 25-34**	388	± 4.98%
• **Age 35-44**	264	± 6.03%
College Degree, no student loans Individuals whose highest level of education is a college degree or graduate school degree, and have no student loans	2514	± 1.95%
• **Age 25-34**	392	± 4.95%
• **Age 35-44**	478	± 4.48%

- Note that on each question, respondents had the option to answer "don't know" (volunteered), which is why in some cases, the total % may not equal 100
- The data from the General Population portion of this study has been weighted to make it reflective of the U.S. Census American Community Survey demographic statistics in terms of gender, age, race/ethnicity, income, education, and housing tenure.

Detailed Regression Results

- The population aged 25-44, the age range where student loans were found to be most prevalent, was divided into four distinct groups for further investigation

"edusloan" Values	Descriptions
1	High school, no student loans
2	High school without college degree, has student loans
3	College degree, has student loans
4	College degree, no student loans

- Logistical regressions were run on Homeownership Status (Q24), Buy on Next Move (Q31), and Buy at Some Point (Q50), generating the following odds ratio tables:

Student Loan Status and Homeownership (Q24) among Renters Age 25-44, Odds Ratio

Effect	Odds Ratio	P-Value
Age 30-34 vs. Age 25-29	1.903	0.025
Age 35-39 vs Age 25-29	4.813	0.000
Age 40-44 vs Age 25-29	9.103	0.000
edusloan 2 vs 1	0.515	0.055
edusloan 3 vs 1	1.708	0.040
edusloan 4 vs 1	2.443	0.001

Rows shaded gray indicate a statistical significance at the 95% confidence level

Odds Ration Tables Continued

Student Loan Status and Plan to Buy on Next Move (Q31) among Renters Age 25-44, Odds Ratio

Effect	Odds Ratio	P-Value
Age 30-34 vs. Age 25-29	0.835	0.630
Age 35-39 vs. Age 25-29	1.110	0.789
Age 40-44 vs. Age 25-29	0.953	0.909
Student loan	0.526	0.024
Income $25-49k vs. Income < $25k	2.290	0.017
Income $50-74k vs. Income < $25k	3.369	0.007
Income $25-35k vs. Income < $10k	2.323	0.050
Married vs. Not Married	1.633	0.086

Student Loan Status and Plan to Buy at Some Point if Not on Next Move (Q50) among Renters Age 25-44, Odds Ratio

Effect	Odds Ratio	P-Value
Age 30-34 vs. Age 25-29	0.241	0.016
Age 35-39 vs. Age 25-29	0.609	0.554
Age 40-44 vs. Age 25-29	0.175	0.009
Student loan	0.668	0.414
Income $25-49k vs. Income < $25k	1.490	0.460
Income $50-74k vs. Income < $25k	1.687	0.507
Income $25-35k vs. Income < $10k	7.797	0.026
Married vs. Not Married	1.170	0.715

Rows shaded gray indicate a statistical significance at the 95% confidence level

Student Loan Payment Status

[IF HAS STUDENT LOANS] Which of the following describes your payment status on your student loan? If you have multiple student loans in active repayment, please tell me about the one that is furthest behind in terms of on-time payments.	GP 25-44	Owners 25-44	Renters 25-44
N=	313	153	156
None of my student loans are in active repayment yet	21%	19%	23%
I am up to date on all my student loan payments	61%	68%	54%
I am less than 31 days behind on at least one of my student loan payments	4%	3%	4%
I am 32 - 60 days behind on at least one of my student loan payments	2%	0%	4%
I am 61 - 90 days behind on at least one of my student loan payments	1%	2%	0%
I am 91 days - 6 months behind on at least one of my student loan payments	1%	1%	1%
I am more than 6 months behind on at least one of my student loan payments	4%	1%	8%
Don't know	6%	5%	6%

Indicates a statistically significant difference between owners 25-44 and renters 25-44 at the 95% confidence level

Student Loan Information – Comparison with the Federal Reserve Data

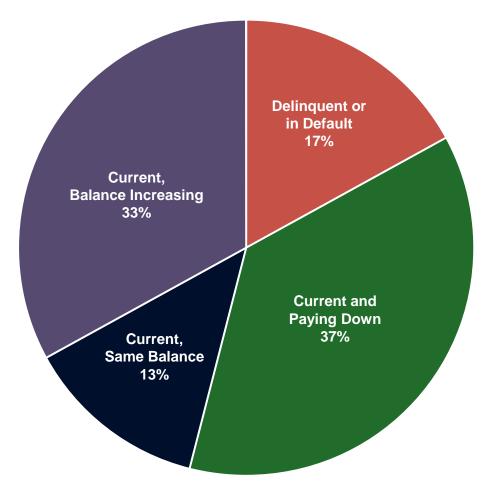| Number of People with Student Loans	Federal Reserve Bank of New York* Q4 2014	National Housing Survey Q3 2015
Have Student Loans	43 million	~44 million

- The size of the population based on NHS data was calculated by taking the US population over 18 and multiplying it by the percentage of respondents who said they have school loans.

Student Loan Balances	Federal Reserve Bank of New York* Q4 2014	National Housing Survey Q3 2015
< $10,000	39%	35%
$10,000-$25,000	28%	24%
$25,000-$50,000	19%	12%
$50,000-$100,000	10%	7%
$100,000-$150,000	2%	1%
$150,000-$200,000	1%	1%
$200,000+	1%	3%
Unsure	NA	18%
Average	$26,700	$32,274

Source: Federal Reserve Bank of New York Consumer Credit Panel / Equifax
https://www.newyorkfed.org/medialibrary/media/research/data_indicators/data_2015_lse_StudentLoanBriefingData.xlsx

Student Loan Repayment Status in 2014

Source: New York Fed Consumer Credit Panel / Equifax

National Housing Survey

Background

- The Fannie Mae National Housing Survey is a monthly attitudinal survey, which polls the adult general population of the United States to assess their attitudes toward owning and renting a home, home purchase and rental prices, homeownership distress, household finances, and overall confidence in the economy.

- Each respondent is asked more than 100 questions, making the Fannie Mae National Housing Survey the most detailed attitudinal survey of its kind. The survey is conducted on a monthly basis to track attitudinal shifts that occur among homeowners and renters in the United States.

Survey Methodology

- Each month, beginning in June 2010, approximately 1,000 live (not automated) telephone interviews (60 percent landline and 40 percent cell phone) with Americans age 18 and older are conducted by Penn Schoen Berland (PSB), in coordination with Fannie Mae. The margin of error for the total monthly sample is ±3.1 percent at the 95 percent confidence level and larger for sub-groups. Data collection occurs over the course of the first three weeks of each month although most occurs in the first two weeks of the month.

Monthly and Topic Analyses and Research Briefs

- Monthly reports provide a timely view of trends in consumers' attitudes using twelve key indicators.
http://www.fanniemae.com/portal/research-and-analysis/housing-survey.html

- Topic analyses provide deeper insights into one or more issues based on the compilation of three monthly samples. The three monthly studies that make up any given topic analysis are identical in wording and placement of questions. Additionally, research briefs are occasional and rigorous research reports, conducted internally or by external partners such as academics, exploring attitudes and behaviors on key issues.
http://www.fanniemae.com/portal/research-and-analysis/consumer-research-analysis.html