

SURVEY OF CONSUMER EXPECTATIONS
Housing Survey – 2019

Federal Reserve Bank of New York

Andrew Haughwout & Haoyang Liu
with Mike Neubauer & Kyle Smith

April 2019

Outline

- 1 Technical Notes & Demographic Characteristics (3-11)
- 2 Zip Code Home Price Expectations (12-22)
- 3 General Questions for Both Owners and Renters (23-41)
- 4 Homeowner Section (42-82)
 - Questions for All Homeowners (41-56)
 - Questions for Homeowners with Debt (57-81)
- 5 Renter Questions (83-99)

Technical Notes

- 1 Household heads in the SCE panel were invited to participate in the internet-based housing survey during February 2019.
- 2 Of 1474 eligible respondents, 1101 (74.7%) participated in the survey, of whom 822 (74.7%) were current homeowners.
- 3 Only selected questions are presented.
- 4 The general layout of each slide is such that we show the question wording, the summary statistics for that question, and the relevant sub-sample to whom the question was directed.
- 5 All continuous outcomes reported in the chart packet are winsorized at the top/bottom 2.5%, unless otherwise specified. “Bounded” questions such as those asking for a “percent chance” are not winsorized, since only responses ranging from 0 to 100 were accepted by the online survey.

Technical Notes (continued)

- ⑥ All statistics shown are weighted to be representative of the US population of household heads in terms of income, education, age, and region.
- ⑦ Note that the SCE Housing Survey results that were published in 2014 and 2015 (e.g. [here](#)) were unweighted.

Findings from Earlier Waves

See the following hyperlinks:

- Chart packets:
 - ▶ [2018](#), [2017](#), [2016](#), [2015](#), [2014](#)
- Blog Posts:
 - ▶ [Just Released: Is Housing a Good Investment? Where You Stand Depends on Where You Sit \(2018\)](#)
 - ▶ [Just Released: 2017 SCE Housing Survey Finds Increased Optimism about Home Price Growth \(2017\)](#)
 - ▶ [Just Released: 2016 SCE Housing Survey Shows Modest Decline in Home Price Expectations \(2016\)](#)
 - ▶ [How Sensitive Is Housing Demand to Down Payment Requirements and Mortgage Rates? \(2015\)](#)
 - ▶ [Just Released: 2015 SCE Housing Survey Shows Households Optimistic about Housing Market \(2015\)](#)
 - ▶ [Why Aren't More Renters Becoming Homeowners? \(2014\)](#)
 - ▶ [Introducing the SCE Housing Survey \(2014\)](#)

Demographic Characteristics

Demographics

	Full Sample	Renters	Owners
Observations	1101	279	822
Weighted Fraction of Sample (%)		26.8	73.2
Age	51.5 (15.5)	45.3 (15.9)	53.8 (14.7)
Male	55.5	36.0	62.7
Retired	25.0	14.0	29.0
Married or Living with Partner	62.1	44.1	68.7
Education: College Degree or Higher	34.7	26.5	37.8
White	79.3	69.3	82.9
Region: Midwest	22.1	16.8	24.0
Region: Northeast	17.3	20.7	16.1
Region: South	38.4	43.7	36.4
Region: West	22.2	18.8	23.4
Tenure in Town/City, Years	23.2 (18.8)	18.7 (19.3)	24.8 (18.4)
Unemployed	3.7	4.4	3.5
Have You Ever Owned a Home?	82.4	34.4	
Own home that is not primary residence	13.2	4.5	16.4
Has been foreclosed on before	4.2	7.9	2.8

Note: Mean reported for continuous outcomes; standard dev. in parentheses.

Household Income

Which category represents the total combined pre-tax income of all members of your household (including you) during the past 12 months?

Please include money from all jobs, net income from business, farm or rent, pensions, interest on savings or bonds, dividends, social security income, unemployment benefits, Food Stamps, workers compensation or disability benefits, child support, alimony, scholarships, fellowships, grants, inheritances and gifts, and any other money income received by members of your household who are 15 years of age or older.

	Full Sample	Renters	Owners
	Pct	Pct	Pct
<\$10k	4.7	10.4	2.6
\$10k-20k	8.0	15.8	5.0
\$20k-30k	10.7	16.0	8.7
\$30k-40k	10.0	13.4	8.7
\$40k-50k	9.6	14.2	7.9
\$50k-60k	8.3	7.4	8.6
\$60k-75k	10.7	6.4	12.2
\$75k-100k	11.7	5.3	14.0
\$100k-150k	14.4	7.5	16.9
\$150k-200k	6.2	2.0	7.7
\$200k+	5.9	1.4	7.6
N	1088	278	810

Note: Question asked in Monthly SCE.

Credit Score

What would you say is your credit score?

	Full Sample	Renters	Owners
	Pct	Pct	Pct
< 620	11.4	25.9	6.1
620-679	9.5	15.8	7.2
680-719	10.1	12.4	9.2
720-760	17.7	18.7	17.3
> 760	42.0	16.4	51.4
Don't Know	9.3	10.8	8.8
N	1099	278	821

Liquid Savings

If you added up all the money in the following accounts that you and your family members have invested in, which category represents how much they would amount to?

- *Checking or savings accounts*
- *Money market funds*
- *CDs (Certificates of Deposit)*
- *Government/Municipal Bonds or Treasury Bills*
- *Stocks or bonds in publicly held corporations, stock or bond mutual funds, or investment trusts*

	Full Sample	Renters	Owners
	Pct	Pct	Pct
< \$2,000	27.6	54.0	17.8
\$2,000 - \$10,000	15.3	15.5	15.2
\$10,000 - \$50,000	21.9	18.0	23.3
\$50,000 - \$250,000	21.8	7.2	27.3
> \$250,000	13.5	5.4	16.5
N	1089	276	813

Non-Housing Debt

Which category represents your current total outstanding debt, excluding all housing debt (such as mortgage debt, and home equity loans and lines of credit)? This would, for example, include outstanding carried-over balances on credit cards (including retail cards), student loans, auto loans, and other personal loans.

	Full Sample Pct	Renters Pct	Owners Pct
Less than \$500	23.7	21.0	24.7
\$500 to \$999	4.2	6.3	3.4
\$1,000 to \$1,999	5.0	5.7	4.7
\$2,000 to \$4,999	11.1	12.5	10.6
\$5,000 to \$9,999	11.2	11.7	11.0
\$10,000 to \$19,999	11.6	11.1	11.8
\$20,000 to \$29,999	7.4	11.0	6.1
\$30,000 to \$49,999	12.8	12.2	13.0
\$50,000 to \$99,999	8.0	5.5	8.9
\$100,000 or more	5.0	3.0	5.7
N	1095	277	818

Zip Code Home Price Expectations

Estimate of Current Price for Typical Home in Zip

Consider a typical home (house/apartment) in your zip code. What is your best guess of the value of such a home as of today?

(By value, we mean how much that typical home would approximately sell for today.)

	Summary		Percentile
Mean	255869.2	25%	125000.0
Std. Dev.	198522.3	50%	200000.0
		75%	300000.0
N	1100		

Past Perceived Home Price Change

You indicated that you estimate the current value of a typical home in your zip code to be X dollars (see previous question). Now, think about how the value of such a home has changed over time. What do you think the average value of such a home was one and five years ago?

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Past Perceived Change, 1yr	5.7	10.1	0.0	3.2	7.7	1097
Past Perceived Change, 5yrs	3.3	3.9	1.0	2.6	4.6	1089

Note: Values are percent change, annualized (100 = 100%). T Year annual percent change constructed as

$$\left(\frac{\text{Estimate of Current Price for Typical Home in Zip}}{\text{Past Perceived Home Price, } T \text{ Years Ago}} \right)^{(1/T)} - 1$$

See **previous slide** for more information on “Estimate of Current Price for Typical Home in Zip.”

Past Perceived Home Price Changes for Zip Code vs. Realized HPI

Comparison to realized values of CoreLogic HPI*:

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Past Perceived Change, 1yr	5.7	10.1	0.0	3.2	7.7	1097
Past Perceived Change, 5yr	3.3	3.9	1.0	2.6	4.6	1089
Realized HPI Change, 1yr	4.6	3.6	2.7	4.7	6.5	1101
Realized HPI Change, 5yr	4.9	2.7	3.1	4.6	6.7	1101

Note: Values are percent change, annualized (100 = 100%). HPI T year annual percent change constructed as

$$\left(\frac{\text{CoreLogic HPI Today}}{\text{CoreLogic HPI, } T \text{ Years Ago}} \right)^{(1/T)} - 1$$

See **previous slide** for more information on annualized past perceived home price changes.

*HPI values at the one- and five-year horizons are matched, in decreasing order of preference, to a respondent's zip code, county, and state HPI. A zip or county HPI match exists for approximately 92% of the sample.

Expected Future Annual Price Changes in Zip

You estimated the current value of a typical home in your zip code to be X dollars (see earlier question). Now, we would like you to think about the future value of such a home.

What do you think the average value of a home in your zip will be one and five years from today?

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Exp. Future Change in Zip, 1yr	3.6	7.8	0.0	2.2	5.0	1097
Exp. Future Change in Zip, 5yrs	2.0	3.0	0.7	1.6	3.1	1096

Note: Values are percent change, annualized (100 = 100%). T Year annual percent change constructed as

$$\left(\frac{\text{Exp. Future Home Price in Zip, } T \text{ Years From Today}}{\text{Estimate of Current Price for Typical Home in Zip}} \right)^{(1/T)} - 1$$

See **previous slide** for more information on “Estimate of Current Price for Typical Home in Zip.”

Uncertainty about Future Home Prices, One-Year Horizon

You estimated the current value of a typical home in your zip code to be V dollars (see question). What do you think is the percent chance that the value of such a home one year from today will be less than $\$X$, between $\$X$ and $\$V$, between $\$V$ and $\$Y$, or more than $\$Y$?

$X = 0.95 \times$ (Estimate of Current Price for Typical Home in Zip)

$V = 1.00 \times$ (Estimate of Current Price for Typical Home in Zip)

$Y = 1.10 \times$ (Estimate of Current Price for Typical Home in Zip)

	Percentile					
	Mean	Std. Dev.	25%	50%	75%	N
< X	10.6	16.5	0.0	5.0	15.0	1099
Between X and V	26.8	25.9	5.0	20.0	40.0	1099
Between V and Y	49.9	31.4	25.0	50.0	75.0	1100
> Y	12.6	16.1	0.0	10.0	20.0	1099

Note: Values are in percent (100 = 100%). See **previous slide** for more information on “Estimate of Current Price for Typical Home in Zip.”

Uncertainty about Future Home Prices, Five-Year Horizon

What do you think is the percent chance that the value of such a home five years from today will be less than \$X, between \$X and \$V, between \$V and \$Y, or more than \$Y?

$X = 0.9 \times$ (Estimate of Current Price for Typical Home in Zip)

$V = 1.0 \times$ (Estimate of Current Price for Typical Home in Zip)

$Y = 1.2 \times$ (Estimate of Current Price for Typical Home in Zip)

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
< X	8.9	15.7	0.0	2.0	10.0	1099
Between X and V	21.2	23.0	0.0	15.0	30.0	1099
Between V and Y	52.8	31.0	25.0	50.0	80.0	1100
> Y	17.1	21.9	0.0	10.0	25.0	1099

Note: Values are in percent (100 = 100%). See **previous slide** for more information on “Estimate of Current Price for Typical Home in Zip.”

Rents: Current Levels and Expected Changes

If this typical home in your zip code could be rented, what do you think the average monthly rent of such a home (excluding utilities) would be today, one year from today, and five years from today?

Perceived Current Rent

	Summary		Percentile
Mean	1498.2	25%	850.0
Std. Dev.	900.0	50%	1200.0
		75%	1800.0
N	1097		

Expected Future Changes

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Exp. Average Monthly Rent in 1yr	7.3	7.3	2.0	6.7	11.1	1095
Exp. Average Monthly Rent in 5yrs	4.5	3.8	2.4	4.1	5.9	1094

Note: Values in “Expected Future Changes” table are percent change, annualized (100 = 100%). T Year annual percent change constructed as

$$\left(\frac{\text{Expected Average Monthly Rent, } T \text{ Years from Today}}{\text{Estimate of Average Monthly Rent, Today}} \right)^{(1/T)} - 1$$

Current and Expected Price-to-Rent Estimates

Ratio of estimated price to estimated yearly rental price for average home in zip:

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Today	14.2	6.2	10.4	13.2	16.9	1095
1 Year from Now	13.6	6.2	9.8	12.8	16.7	1091
5 Years from Now	12.7	6.1	8.9	11.7	15.8	1091

Note: Ratio constructed using **Estimate of Current Price for Typical Home in Zip**, **Expected Future Home Prices in Zip**, and **Estimate and Expectations of Monthly Rent** as follows

- Ratio today:

$$\frac{\text{Estimate of Current Price for Typical Home in Zip}}{12 \times \text{Estimate of Current Average Monthly Rent in Zip}}$$

- Ratio T years from Now

$$\frac{\text{Expected Future Home Price in Zip, } T \text{ Years from Now}}{12 \times \text{Expected Future Average Monthly Rent in Zip, } T \text{ Years from Now}}$$

Investment Value of Homes in Zip

If someone had a large sum of money that they wanted to invest, would you say that relative to other possible financial investments, buying property in your zip code today is

	Percent
Very good investment	18.0
Somewhat good investment	46.9
Neither good nor bad as an investment	26.0
Somewhat bad investment	7.7
Very bad investment	1.4
N	1100

Investment Value, Now vs. Future

Do you think that buying property in your zip code is a better investment idea today than it will be a year from today?

	Percent
Much Better	10.0
Somewhat Better	26.3
Neutral	56.3
Somewhat Worse	5.7
Much Worse	1.7
N	1100

General Questions for Both Owners and Renters

Future Moving Plans

3yr Moving Probability: *We would now like you to think about your future moving plans. What is the percent chance that over the next 3 years you will move to a different primary residence?*

1yr Moving Probability: *And looking at the more immediate future, what is the percent chance that over the next 12 months you will move to a different primary residence?*

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
1yr Moving Probability*	17.8	28.6	0.0	3.0	21.0	1101
3yr Moving Probability	28.7	34.1	0.0	10.0	50.0	1101

Note: “1yr Moving Probability” is only asked if “3yr Moving Probability” \geq 5%.

*For those who answer $<$ 5% for “3yr Moving Probability,” the probability at the 1 year horizon is imputed by setting the 1 year value equal to the 3 year probability.

Main Reasons for Not Moving

What would be your main reason for not moving to a different primary residence over the next 3 years?

	Percent
I like my current home, or no reason to move	63.7
Weak economy/job market	0.6
Have not saved enough	5.9
Difficult to qualify for mortgage	2.4
Difficult to find a new place to move into	3.3
I cannot get the price I want for my current home	3.5
I cannot sell my home for enough to cover my mortgage	0.4
Children in school	4.4
Closeness to family	5.4
Age/health	6.2
Other	4.2
N	904

Note: Question only asked to those respondents whose 3yr Moving Probability (see **previous slide**) is less than 70%.

Probability of Moving to Same Town/City

If you were to move to a different primary residence over the next 3 years, what is the percent chance that this home would be in your current town/city?

	Summary		Percentile
Mean	45.6	25%	10.0
Std. Dev.	35.0	50%	50.0
		75%	80.0
N	715		

Note: Question only asked to those respondents whose 3yr Moving Probability (see **previous slide**) is greater than or equal to 5%.

Probability of Buying Given Move

And if you were to move to a different primary residence over the next 3 years, what is the percent chance that you would buy (as opposed to rent) your new home?

	Summary		Percentile
Mean	63.9	25%	40.0
Std. Dev.	33.6	50%	75.0
		75%	94.0
N	716		

Note: Question only asked to those respondents whose 3yr Moving Probability (see **previous slide**) is greater than or equal to 5%.

Main Reasons for Renting over Buying

Which of the following are reasons you would rent and not purchase a home if you were to move over the next three years?

	Pct
I don't make enough money	41.7
I don't have enough money saved up, or I have too much debt	41.6
My credit is not good enough	29.5
I am worried about my or my spouse's job security	8.7
I am concerned housing prices might fall	7.8
It is more affordable to rent than buy	23.4
I don't want to tie my money up in a house	19.1
I don't want to, or can't be tied-down to a certain area	16.3
I don't want the upkeep of ownership	31.4
I can live in a better neighborhood or in a nicer home by renting	9.2
Would likely not stay in the new home very long	9.2
Age/health reasons	26.4
Other	8.4
N	307

Note: Respondents could select multiple reasons.

Question only asked to those respondents whose **3yr Moving Probability** is greater than or equal to 5%, and whose **Probability of Buying Given Move** is less than 70%.

Buy Non-Primary Home

What is the percent chance that over the next 3 years you will buy a home that you would NOT use as your primary residence (meaning you would use it as a vacation home, or as an investment property, etc.)?

	Summary		Percentile
Mean	10.2	25%	0.0
Std. Dev.	19.7	50%	0.0
		75%	10.0
N	1101		

Use for Second Home

If you were to buy such a home over the next 3 years, what would you most likely use it as?

	Percent
Vacation/Second home	32.4
Investment Property	51.6
Residence for Family Member	12.9
Other	3.1
N	572

Note: This question is only asked to those respondents who answer Prob. Buy New Non-Primary 3yr with a probability greater than 0.

Mortgage Rate Estimates

Items in table and corresponding question:

- **Current Self Rate Estimate:** *Assume that you applied for a 30-year fixed-rate mortgage today. What mortgage rate do you think you would qualify for?*
- **Current Average Rate Estimate:** *What do you think the average interest rate (for all borrowers) on a new 30-year fixed-rate mortgage is as of today?*

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Exp. Self Rate	5.2	2.8	4.0	4.3	5.0	938
Exp. National Rate	5.5	3.1	4.0	4.5	5.5	938

Note: 199 respondents selected “Would not qualify at any rate.” These respondents are not included in the statistics on this slide, or the next two slides (**here** and **here**).

Freddie Mac Primary Mortgage Market Survey rate ([link](#)) was between 4.35 and 4.46 % over the time period the survey was fielded (Feb. 01 - 28).

Mortgage Rate Expectations

What do you think the average interest rate on a 30-year fixed-rate mortgage will be: one year from today and three years from today?

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Exp. Mortgage Rate Change, 1yr	0.37	0.87	0.00	0.20	0.50	937
Exp. Mortgage Rate Change, 3yr	1.3	2.0	0.1	1.0	2.0	937

Note: Expected rate change computed as

$$(\text{Expected Average Rate in } T \text{ years}) - (\text{Current Average Rate Estimate})$$

For more information on “Current Average Rate Estimate”, see **previous slide**.

Uncertainty about Future Mortgage Rates, 1yr

What do you think is the percent chance that one year from today average interest rate on a 30-year fixed-rate mortgage will be

- $< X\%$, where $X = (\text{Current Ave. Rate Estimate}) - 1\%$.
- Between $X\%$ and $V\%$, where $V = (\text{Current Ave. Rate Estimate})$.
- Between $V\%$ and $Y\%$, where
 $Y = (\text{Current Ave. Rate Estimate}) + 2\%$.
- $> Y\%$.

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Lower by at least 1 percentage point	8.8	14.9	0.0	5.0	10.0	936
Between -1 and 0 percentage points	41.0	27.4	20.0	40.0	50.0	937
Between 0 and +2 percentage points	41.6	28.1	20.0	40.0	50.0	937
Higher by 2 percentage points or more	8.5	12.1	0.0	5.0	10.0	937

Note: Values are in percent (100 = 100%). See previous slides for **Current Ave. Rate Estimate** and **Expected Ave. Rate in T Years**

Rate Type Recommendation

If a friend of yours sought your advice about taking out a fixed-rate mortgage or an adjustable-rate mortgage today, would you recommend a fixed-rate mortgage or an adjustable-rate mortgage?

(An adjustable-rate mortgage is one where the interest rate of the mortgage can change over the life of the loan, depending on market interest rates.)

	Percent
Definitely Fixed Rate	60.2
Likely Fixed Rate	20.2
Make No Recommendation	17.3
Likely Adjustable	2.2
Definitely Adjustable	0.1
N	1101

Credit Conditions

Current Credit Conditions: *Compared to 12 months ago, do you think it is generally harder or easier these days for people to obtain a mortgage?*

Expected Credit Conditions: *Looking ahead, do you think that 12 months (and 3 years) from now it will generally be harder or easier for people to obtain a mortgage than it is currently?*

	1yr ago	1yr hence	3yrs hence
	Pct	Pct	Pct
Much Harder	5.3	4.5	6.1
Somewhat Harder	29.6	30.3	36.4
Equally Easy/Hard	49.2	52.8	41.9
Somewhat Easier	15.2	11.9	14.7
Much Easier	0.6	0.4	0.8
N	1100	1099	1099

Expected Economic Conditions

Do you think that 12 months from now (and 3 years from now) economic conditions in your town/city will be better or worse than they are currently?

	12 Months from Now	3yrs From Now
	Pct	Pct
Much worse	2.5	4.0
Somewhat worse	22.7	24.8
Unchanged	40.9	26.2
Somewhat better	32.1	42.2
Much better	1.9	2.8
N	1101	1101

Perceived Underwater Status, Own Zip

Please indicate your best guess as to what percentage of all homeowners with a mortgage in your zip code owe more on their home than what it is worth now?

	Summary		Percentile
Mean	23.0	25%	5.0
Std. Dev.	21.4	50%	15.0
		75%	30.0
N	1096		

Note: Values in percent (100 = 100%)

Foreclosure History

Have you ever entered foreclosure on a home you owned (or currently own)?

	Percent
No	93.8
Yes	6.2
N	769

Note: Question asked to current owners and renters who indicate that they have previously owned a home.

Reasons for Foreclosure

Which of the following were factors in your home being foreclosed?

	Pct
Health issues/medical bills	25.1
A disability	21.7
Job loss/unemployment	36.7
Reduction in income	46.2
Death of a spouse	0.0
Separation or divorce	17.1
Increase in monthly mortgage payment due	8.3
Decline in home value	13.7
Other	17.0
N	48

Note: Respondents could select multiple reasons.

Question only asked to those respondents who have entered foreclosure on a home they own or have owned.

Short Sale History

Have you ever sold a home you owned in a short sale?

A short sale is where the seller of a home arranges with their mortgage lender to accept a price that's less than the amount they owe on the property. As part of this arrangement, the lender typically agrees to forgive the rest of the loan.

	Percent
No	98.6
Yes	1.4
N	769

Reasons for Short Sale

Which of the following were factors in your home being short sold?

	Pct
Health issues/medical bills	10.0
A disability	0.0
Job loss/unemployment	26.8
Reduction in income	42.9
Death of a spouse	0.0
Separation or divorce	9.3
Increase in monthly mortgage payment due	0.0
Decline in home value	37.0
Other	25.1
N	15

Respondents could select multiple reasons.

Note: Question only asked to those respondents who have sold a home they owned in short sale.

Homeowner Section

Purchase Year

What year did you buy your current primary residence?

	Summary		Percentile
Mean	2002	25%	1997
Std. Dev.	15	50%	2005
		75%	2013
N	821		

Expected Tenure in Residence

When you moved to your primary residence, how long did you expect to stay in this home?

	Percent
< 2yrs	0.6
2-3 yrs	1.6
4-5 yrs	6.3
6-7 yrs	2.6
8-10 yrs	8.4
> 10 yrs	46.4
No specific time frame	34.2
N	822

Expected Future Tenure in Residence

How many more years do you expect to stay in this home as of today?

	Percent
< 2yrs	7.4
2-3 yrs	7.1
4-5 yrs	11.7
6-7 yrs	6.2
8-10 yrs	13.6
> 10 yrs	54.2
N	822

Purchase Price

What did you pay for this home?

	Summary		Percentile
Mean	176528.2	25%	70000.0
Std. Dev.	143391.4	50%	140000.0
		75%	232000.0
N	801		

Down Payment

How much was your down payment?

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Down Payment Amount	33791	57308	3000	10000	33000	679

As a fraction of the purchase price:

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Down Payment Fraction	0.15	0.17	0.04	0.10	0.20	677

Note: 132 respondents (9.25% of homeowners) selected “I/we did not take out a mortgage.” Down payment fraction constructed using Down Payment amount and Purchase Price (see **previous slide**):

$$\frac{\text{Down Payment Amount}}{\text{Purchase Price}}$$

Current Home Price Estimate

What do you think your home would sell for today?

	Summary		Percentile
Mean	258136.5	25%	119000.0
Std. Dev.	204129.8	50%	210000.0
		75%	330000.0
N	819		

Perceived Annual Change in Home Price Since Purchase

Perceived percent annual home price change since purchase:

	Summary		Percentile
Mean	3.3	25%	0.9
Std. Dev.	4.5	50%	2.6
		75%	4.5
N	788		

Note: Values are percent change, annualized (100 = 100%). Values constructed using **Purchase Year**, **Purchase Price**, and **Current Home Price Estimate**:

$$\left(\frac{\text{Current Home Price Estimate}}{\text{Purchase Price}} \right)^{\frac{1}{(2018 - \text{Purchase Year})}} - 1$$

Expected Future Annual Price Changes for Own Home

Please think about the current and future value of your home, under the assumption that you don't make any investments in your home other than regular maintenance/repairs. What do you think your home would sell for one year from today and five years from today?

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Exp. Future Annual Price Change, 1yr	2.1	3.9	0.0	1.4	3.6	818
Exp. Future Annual Price Change, 5yrs	1.5	2.5	0.8	1.5	2.6	817

Note: Values are percent change, annualized (100 = 100%). T Year annual percent change constructed as

$$\left(\frac{\text{Exp. Future Own Home Price, } T \text{ Years From Today}}{\text{Current Home Price Estimate}} \right)^{(1/T)} - 1$$

See **previous slide** for more information on “Current Home Price Estimate.”

Chance of Selling

What is the percent chance that you will put your primary residence up for sale in the next 12 months?

	Summary		Percentile
Mean	11.5	25%	0.0
Std. Dev.	20.9	50%	2.0
		75%	10.0
N	822		

Probability of Investing in Own Home

What do you think is the percent chance that, over the next 12 months and 3 years, you will make any investments in your home (such as remodeling, additions, upgrades, landscaping, but not including regular maintenance and repairs) costing more than \$5000 total?

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Prob. Invest, 1yr*	34.7	33.6	5.0	20.0	53.0	821
Prob. Invest, 3yrs	47.9	34.5	10.0	50.0	79.0	821

Note: “Prob. Invest 1yr” only asked if Prob. Invest, 3yr \geq 5%.

*For those who answer < 5% for “Prob. Invest 3yr,” the 1 year horizon is imputed by setting the 1 year value equal to the 3 year probability.

Past Investment in Home

Over the past 3 years, did you make any investments in your home (such as remodeling, additions, upgrades, landscaping, but not including regular maintenance and repairs)?

	Percent
No	38.4
Yes	61.6
N	822

Size of Investment in Home

Approximately how much did you spend on investments in your home (not including regular maintenance and repairs) over the past 3 years?

	Summary		Percentile
Mean	14833.3	25%	4000.0
Std. Dev.	17782.8	50%	8000.0
		75%	20000.0
N	501		

Note: Question only asked to those who have invested in the past 3 years (see **previous slide**).

Outstanding Loans

Do you (or your spouse/partner) have any outstanding loans against the value of your home, including all mortgages, home equity loans and home equity lines of credit?

	Percent
Yes, mortgage(s) only	48.6
Yes, HELOC only	5.7
Yes, both mortgage(s) and HELOC	7.9
No	37.8
N	821

Note: Question asked to all respondents who own their primary residence.

Probability of an Additional Loan

What is the percent chance that over the next 12 months, you will apply for an additional loan on your primary residence?

	Summary		Percentile
Mean	5.4	25%	0.0
Std. Dev.	12.4	50%	0.0
		75%	5.0
N	821		

Note: Question asked to all respondents who own their primary residence, including those who currently have no outstanding loans against their home.

Reasons for an Additional Loan

If you do end up taking out an additional loan on your primary residence over the next 12 months, what would you use it for?

	Pct
To make renovations or improvements to the home	72.3
To help pay my other debt, such as credit card debt, auto loans, student loans, or medical bills	23.3
To pay for cost of college, education, or training for members of my household (including myself)	8.2
To make the down payment on a second home or investment property	11.4
To pay for a car	8.0
To pay for traveling or vacation	2.5
To pay for other large purchases	7.0
To invest in my own (or my family's) business, or to start a new business	1.7
To make other financial investments (for instance, buy stocks)	0.8
To pay for my regular living expenses	6.0
To help a family member	2.5
To put in a savings account	6.1
Other	4.0
N	157

Note: Respondents could select multiple uses. Question only asked to those respondents whose **Probability of an Additional Loan** in the next 12 months is greater than or equal to 10%.

Questions for Homeowners with Debt

Total Outstanding Home Loan Balances

Approximately, what is the total amount of outstanding loans against your primary residence as of today, including all mortgages and home equity loans?

	Summary	Percentile
Mean	148983.8	25% 62000.0
Std. Dev.	116942.7	50% 120000.0
		75% 200000.0
N	533	

Note: Question only asked to those homeowners who have outstanding loans (see previous slide).

Perceived Equity in Home

Loan to Value (LTV):

	Summary		Percentile
Mean	57.4	25%	38.8
Std. Dev.	25.9	50%	60.4
		75%	77.4
N	526		

Note: Values are in percentages (100 = 100%). Constructed using **Total Outstanding Home Loan Balances** and **Current Home Price Estimate**:

$$LTV = 100 \times \left(\frac{\text{Outstanding Loan Balances}}{\text{Current Home Price Estimate}} \right)$$

A total of 18.0 respondents indicate that they have negative equity (that is, $LTV > 100$).

The table above excludes the 288.0 respondents who own their home but indicate that they have no outstanding home loans.

Monthly Loan Payments

Approximately, how much do you pay per month in total on all outstanding loans against your primary residence (including all mortgages and home equity loans)?

	Summary		Percentile
Mean	1268.9	25%	670.0
Std. Dev.	832.0	50%	1064.0
		75%	1700.0
N	533		

Note: Question only asked to those homeowners with outstanding loans. This outcome is winsorized at the top/bottom 5%.

Loan Payments as a Fraction of Household Income

Annual loan payments as a percent of annual household income:

	Summary		Percentile
Mean	18.3	25%	10.8
Std. Dev.	11.2	50%	15.1
		75%	23.0
N	531		

Note: Question only asked to those homeowners with outstanding loans. Values in percent (100 = 100%), constructed using **Monthly Loan Payments** and annual **Household Income**

$$100 \times \frac{12 \times \text{Monthly Loan Payments}}{\text{Household Income}}$$

To get a continuous measure of household income, we take the midpoint of household income intervals (see **previous question**). For the highest interval, we set the continuous measure equal to the lower bound.

This outcome is winsorized at the top/bottom 5%.

History of Missed Payments

During the past 12 months, did you miss two or more payments on any outstanding loans against your primary residence (including all mortgages and home equity loans)?

	Percent
No	98.1
Yes	1.9
N	533

Note: Question only asked to those homeowners with outstanding loans.

Reasons for Missing Payments

Which of the following are reasons you missed two or more payments on loans against your home?

	Pct
Health issues or medical bills	9.2
A disability	0.0
Job loss or unemployment	19.5
Reduction in income	47.2
Death of a spouse	0.0
Separation or divorce	0.0
Increase in monthly mortgage payment due	61.6
Decline in home value	39.8
Accidentally forgot to pay	0.0
To get lender to modify loan	32.0
Other	4.6
N	8

Note: Respondents could select multiple reasons.

Risk of Missing Current Payments

What do you think is the percent chance that over the next 12 months you will miss two or more payments on any outstanding loans against your home?

	Summary		Percentile
Mean	4.5	25%	0.0
Std. Dev.	11.9	50%	0.0
		75%	5.0
N	533		

Note: Question only asked to those homeowners with outstanding loans.

Hypothetical Risk of Missing Higher Payments

If your monthly payment was 50 percent higher than it is today, what do you think would be the percent chance that over the next 12 months you would miss two or more payments on any outstanding loans against your home?

	Summary		Percentile
Mean	20.5	25%	0.0
Std. Dev.	28.7	50%	5.0
		75%	30.0
N	532		

Note: Question only asked to those homeowners with outstanding loans.

Consideration of Stopping Payments

*You mentioned that the total amount of outstanding loans against your primary residence as of today is \$X (from **previous question**), while you think the house would sell for \$Y (from **previous question**). That is, you owe more on the home than you think it could sell for. Over the past 12 months, have you considered no longer making your monthly payments on loans against your home?*

	Percent
No, absolutely not	100.0
Yes, actually did stop	0.0
N	18

Note: Question only asked of those respondents who indicate that they have negative equity (see **previous slide**).

Reasons for Stopping Payments

Why did you not stop making your mortgage payments?

	Pct
I like my home and don't want to lose it	67.6
The lender can come after my other belongings if I stop making payments	12.6
House prices will recover and my home will eventually be worth more than the debt on the home	21.2
Not making payments will negatively affect my credit score	48.0
The cost of having to move to a different home is too high if I stop making payments	26.8
I think it is morally wrong to stop making payments	49.3
Not making payments will negatively affect the community	18.8
Other	3.8
N	18

Note: Respondents could select multiple reasons. Question only asked if respondent did not stop making payments (see **previous slide**).

Chance of Future Foreclosure

What is the percent chance that over the next 12 months you will face foreclosure or lose your home through a repossession?

	Summary		Percentile
Mean	3.1	25%	0.0
Std. Dev.	9.5	50%	0.0
		75%	2.0
N	533		

Note: Question only asked to those respondents with outstanding loans.

Type of Mortgage Rate

In the next few questions, we will ask you about the mortgage on your primary residence. If you have more than one mortgage on your primary residence, please consider the one with the largest balance when answering these questions.

Is the interest rate of your mortgage adjustable/floating (meaning it can change over the life of the loan) or fixed?

	Percent
Adjustable/Floating	4.7
Fixed	95.3
N	482

Note: Question only asked to those respondents who currently have a mortgage.

Current Mortgage Rate

And what is the current interest rate on your mortgage?

	Summary		Percentile
Mean	4.2	25%	3.5
Std. Dev.	1.1	50%	4.0
		75%	4.7
N	492		

Note: Values in percent (100 = 100%). Question only asked to those respondents who currently have a mortgage.

Refinance History

Have you ever refinanced the mortgage on your primary residence?

	Percent
No	50.5
Yes	49.0
Don't Know	0.6
N	493

Note: Question only asked to those respondents who currently have a mortgage.

Refinance Year

When did you last refinance your mortgage?

	Percent
Last 6 mos	2.7
6 mos to 1yr ago	8.1
1yr to 2yrs ago	10.1
2yrs to 3yrs ago	17.2
3yrs to 5yrs ago	19.7
5yrs to 7yrs ago	18.1
More than 7yrs ago	24.1
N	243

Note: Question only asked to those respondents who have refinanced their mortgage (see previous slide).

Refinancing Consequences

When you last refinanced, how did the terms of your mortgage change?

	Pct
Lower rate	77.9
Balance increased	26.8
Term increased	5.8
Term decreased	28.2
Floating to fixed	10.3
Fixed to floating	2.7
Changed servicer	38.5
Other	3.5
N	243

Note: Respondents could select multiple options. Question only asked to those respondents who have refinanced their mortgage (see **previous slide**).

Use for Proceeds

You indicated that you increased the balance on your mortgage when you last refinanced. What did you use this money for?

	Pct
Use toward the down payment on some other home	0.0
To pay for refinancing fees and other fees	16.7
To make renovations or improvements to the home	60.3
To help pay my other debt, such as credit card debt, auto loans, student loans, or medical bills	62.5
To pay for college, education, or training for members of my household (including myself)	10.5
To make the down payment on a second home or investment property	1.3
To pay for a car or other large purchases	17.2
To pay for traveling or vacation	15.6
To invest in my own (or my family's) business, or to start a new business	0.0
To make other financial investments (for instance, buy stocks)	0.7
To pay for my regular living expenses	6.5
To help a family member	4.8
Put it into my savings	7.9
Other	4.1
N	67

Note: Question only asked to those respondents who increased the balance of their mortgage (see **previous slide**).

Monthly Payment Change Upon Refinance

As a result of refinancing your mortgage, how did your required monthly payment change?

	Percent
Increased	30.9
Unchanged	18.9
Decreased	47.5
Don't Know	2.7
N	243

By approximately how much did your monthly payment change?

	Summary		Percentile
Mean	-31.5	25%	-200.0
Std. Dev.	270.4	50%	0.0
		75%	100.0
N	234		

Note: Question only asked to those respondents who refinanced their mortgage. The table of monthly payment changes includes those respondents whose monthly payment did not change, in which case the change is recorded as \$0.

Use for Savings Upon Refinance

What did you do with the \$X (see previous question) you no longer had to spend on your monthly mortgage payment after the refinancing?

	Pct
Paid down some of the balance of my mortgage	25.4
Paid down other debt (e.g. on credit cards, auto loans, student loans, or medical bills)	44.7
Used it to finance a large purchase (e.g. a car)	2.9
Used it to make renovations or improvements to the home	16.2
Used it to pay for other expenses	24.8
Used it to purchase financial assets (e.g. stocks)	1.3
Other	4.2
Nothing / put it into my savings	17.5
N	117

Note: Question only asked to those respondents whose monthly mortgage payment decreased upon refinancing (see **previous slide**).

Probability of Refinancing

What is the percent chance that over the next 12 months you will refinance the mortgage on your primary residence?

	Summary		Percentile
Mean	8.1	25%	0.0
Std. Dev.	15.4	50%	1.0
		75%	10.0
N	493		

Note: Question only asked to those respondents who currently have a mortgage.

Reasons for Refinancing

If you do end up refinancing over the next 12 months, what would be your reasons for doing so?

	Pct
Lower the interest rate on my mortgage, and thus my monthly payment	62.4
Increase the balance on my mortgage (cash out some of the equity in my home)	19.1
Pay off part of the balance on my mortgage	12.2
Reduce the term of my mortgage (for instance, change from a 30-year to a 15-year mortgage)	26.2
Increase the term of my mortgage (for instance, change from a 15-year to a 30-year mortgage)	6.5
Change from an adjustable/floating rate mortgage to a fixed-rate mortgage	1.0
Change from a fixed-rate mortgage to an adjustable/floating rate mortgage	2.2
Change my mortgage servicer	16.4
Combine multiple liens into a single mortgage	5.6
Consolidate non-mortgage debt	15.0
Other	3.5
N	148

Note: Question only asked to those respondents whose **Probability of Refinancing** in the next 12 months is greater than 10%.

Reasons for Not Refinancing

If you do not end up refinancing over the next 12 months, what would be your reasons for that?

	Pct
The savings on my monthly payment would not be worth it	45.2
Too time consuming / too much hassle	20.2
I am planning to sell my home soon	11.3
The upfront monetary cost is too large	25.0
The balance on my mortgage is too low to refinance (it is almost paid off)	9.6
Don't want to take out a new long-term loan	30.0
Don't trust mortgage lenders / I'm afraid to be taken advantage of	3.3
Would not get approved because the value of my home is too low relative to my mortgage balance	3.2
Would not get approved because I don't have a good enough credit record	5.0
Would not get approved because I don't have sufficient income at the moment	7.2
I am satisfied with the terms of my current mortgage	55.2
Other	5.6
N	490

Note: Question only asked to those respondents whose **Probability of Refinancing** in the next 12 months is less than or equal to 90%.

HELOC Balances

Approximately, how much of the total amount of outstanding loans against your primary residence is in the form of home equity loans/lines of credit?

	Summary		Percentile
Mean	46144.3	25%	15000.0
Std. Dev.	45900.4	50%	40000.0
		75%	50000.0
N	106		

HELOC Uses

You indicated that you have home equity loans/lines of credit on your home. What did you use these for?

	Pct
Use toward the down payment on the home	3.1
To make renovations or improvements to the home	57.2
To help pay my other debt, such as credit card debt, auto loans, student loans, or medical bills	43.3
To pay for college, education, or training for members of my household (including myself)	6.6
To make the down payment on a second home or investment property	6.9
To pay for a car or other large purchase(s)	7.7
To pay for traveling or vacation	1.4
To invest in my own (or my family's) business, or to start a new business	2.2
To make other financial investments (for instance, buy stocks)	1.8
To pay for my regular living expenses	3.0
To help a family member	3.0
Other	6.9
Have not used it, or put into my savings	1.3
N	107

Renter Questions

Beginning of Lease

In what year did you start renting your current primary residence?

	Summary		Percentile
Mean	2013	25%	2010
Std. Dev.	7	50%	2015
		75%	2017
N	278		

Expected Tenure in Residence

When you moved to your primary residence, how long did you expect to stay in this home?

	Percent
< 1yr	5.0
1-2 yrs	21.7
2-3 yrs	17.8
4-5 yrs	9.7
6-7 yrs	1.6
8-10 yrs	3.7
> 10 yrs	9.5
No specific time frame	31.0
N	279

Current Monthly Rent

How much is the total monthly rent for your home (regardless of whether you pay the whole amount yourself or you split it with others)?

	Summary		Percentile
Mean	1046.3	25%	557.0
Std. Dev.	730.2	50%	860.0
		75%	1300.0
N	278		

Note: This outcome is winsorized at the top/bottom 5%.

Annual Rent as a Fraction of Household Income

Annual monthly rent payments as a percent of annual household income:

	Summary		Percentile
Mean	42.8	25%	16.5
Std. Dev.	42.2	50%	28.8
		75%	48.0
N	277		

Note: Values in percent (100 = 100%), constructed using **Current Monthly Rent*** and annual **Household Income**

$$100 \times \frac{12 \times \text{Current Monthly Rent}}{\text{Household Income}}$$

To get a continuous measure of household income, we take the midpoint of **household income intervals**. For the highest interval, we set the continuous measure equal to the lower bound.

This outcome is winsorized at the top/bottom 5%.

*Ratio likely biased upwards as “Current Monthly Rent” (see **previous slide**) corresponds to the total rent for the unit, regardless of whether payments are split with roommates or other non-family members living in the unit.

Monthly Rent at Move-In

How much was your monthly rent when you first moved to this home?

	Summary		Percentile
Mean	695.6	25%	425.0
Std. Dev.	433.0	50%	600.0
		75%	851.0
N	105		

Note: This outcome is winsorized at the top/bottom 5%.

Change in Rent Since Move-In

Estimated annualized rent increases for primary residence since move-in:

	Summary		Percentile
Mean	2.0	25%	0.3
Std. Dev.	2.2	50%	1.4
		75%	2.9
N	99		

Note: Values are percent change, annualized (100 = 100%). Values constructed using **Current Monthly Rent**, **Monthly Rent at Move-In**, and **Beginning of Lease**:

$$\left(\frac{\text{Current Monthly Rent}}{\text{Monthly Rent at Move-In}} \right)^{\frac{1}{2019 - \text{Beginning of Lease}}} - 1$$

This outcome is winsorized at the top/bottom 5%.

Expected Future Rent Change

*What do you think the rent for the home you are currently in will be **one year** and **five years** from today?*

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Exp. Annual Rent Change, 1yr	5.8	10.0	0.0	2.0	7.1	266
Exp. Annual Rent Change, 5yrs	4.0	4.3	1.3	2.9	5.7	266

Note: Values are percent change, annualized (100 = 100%). T Year annual percent change constructed with **Current Monthly Rent** as follows:

$$\left(\frac{\text{Exp. Future Monthly Rent, } T \text{ Years From Today}}{\text{Current Monthly Rent}} \right)^{(1/T)} - 1$$

Unable to Make Rent Payments

Were you unable to make a rent payment over the past 12 months?

	Percent
No	91.7
Yes	8.3
N	277

Note: Question only asked to respondents who rent their primary residence.

Reasons for Missed Payments

Which of the following are reasons you were unable to make a rent payment?

	Pct
Health issues/medical bills	8.8
A disability	14.3
Job loss/unemployment	46.1
Reduction in income	61.3
Death of a spouse	0.0
Separation or divorce	3.5
Increase in rent	5.8
Accidentally forgot to pay	0.0
Other	10.1
N	21

Note: Question only asked to those respondents who have missed a rent payment (see previous slide).

Chance of Missing Payments

What do you think is the percent chance that over the next 12 months you will be unable to make a rent payment?

	Summary		Percentile
Mean	15.1	25%	0.0
Std. Dev.	24.5	50%	2.0
		75%	20.0
N	279		

Note: Question only asked to respondents who rent their primary residence.

Ease of Obtaining Financing

If you wanted to buy a home today, do you think it would be easy or difficult for you to obtain a home mortgage?

	Percent
Very easy	9.8
Somewhat easy	11.6
Neither	20.8
Somewhat difficult	32.0
Very difficult	25.8
N	279

Note: Question only asked to respondents who rent their primary residence.

Home Ownership Among Renters

Have you ever owned a home?

	Percent
No	65.6
Yes	34.4
N	279

If yes, do you still own that home?

	Percent
No	86.8
Yes	13.2
N	92

Reasons for Renting

You indicated that you had previously owned a primary residence. Why are you now renting your primary residence?

	Pct
Renting better fits my needs in terms of the unit/location I could get	13.8
Renting better fits my household's needs right now	24.5
Renting is a better financial deal	9.7
I cannot currently afford to buy a home	25.9
I moved to a different area and was unable to find a home of my liking that I could own	9.6
I do not want to make a long-term commitment	14.6
I lost my previous home through foreclosure or short sale, and don't want to buy a home again	12.4
I lost my previous home through foreclosure or short sale, and have not been able to obtain a mortgage to buy a home again	7.6
Change in household composition (e.g. divorce)	34.3
Other	23.5
N	80

Note: Question only asked to renters who had previously owned their primary residence.

Respondents could select multiple reasons.

Preferences for Owning Over Renting

Assuming you had the financial resources to do so, would you like to own instead of rent your primary residence?

(By primary residence, we mean the place where you usually live.)

	Percent
Strongly prefer owning	46.9
Prefer owning	24.4
Indifferent renting/owning	9.3
Prefer renting	12.1
Strongly prefer renting	7.3
N	279

Chance of Owning in the Future

What do you think is the percent chance that you will own a primary residence at some point in the future?

	Summary		Percentile
Mean	52.6	25%	10.0
Std. Dev.	37.7	50%	50.0
		75%	93.0
N	279		

Timeline of Owning in the Future

At what point in the future do you think you will own a primary residence? Please provide us with your best guess.

	Percent
Less than 1 year	6.1
1-2 years	25.4
3-5 years	35.6
5-10 years	17.9
More than 10 years	15.0
N	228