

SURVEY OF CONSUMER EXPECTATIONS  
Housing Survey – 2016

Federal Reserve Bank of New York

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June 2, 2016

# Outline

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## Technical Notes

- 1 Household heads in the SCE panel were invited to participate in the internet-based housing survey during February 2016.
- 2 Of 1322 eligible respondents, 1060 (80.2%) participated in the survey, of whom 778 (73.4%) 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%. An exception is made for “bounded” questions such as those asking for a “percent chance,” 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 prior years (e.g. [here](#)) were unweighted.

# Findings from Earlier Waves

See the following hyperlinks:

- Chart packets:
  - ▶ [2015](#)
  - ▶ [2014](#)
- Blog Posts:
  - ▶ [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	1060	282	778
Weighted Fraction of Sample (%)		28.9	71.1
Age	50.4 (15.5)	42.1 (14.7)	53.8 (14.5)
Male	51.6	39.5	56.5
Retired	23.7	8.2	30.1
Married or Living with Partner	65.3	48.9	72.0
Education: College Degree or Higher	33.1	27.9	35.3
White	80.7	70.2	85.0
Region: Midwest	22.3	25.8	20.9
Region: Northeast	17.8	13.5	19.6
Region: South	37.4	40.7	36.1
Region: West	22.4	20.0	23.4
Tenure in Town/City, Years	21.8 (18.4)	13.7 (15.1)	25.0 (18.7)
Unemployed	5.1	8.2	3.9
Have You Ever Owned a Home?	25.6	25.6	.
Own home that is not primary residence	12.3	3.3	15.9
Has been foreclosed on before	5.0	7.6	4.0

**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	5.6	12.1	2.9
\$10k-20k	9.9	17.8	6.7
\$20k-30k	11.9	17.0	9.9
\$30k-40k	10.2	11.8	9.5
\$40k-50k	8.6	10.0	8.1
\$50k-60k	7.5	7.5	7.5
\$60k-75k	12.9	7.9	14.9
\$75k-100k	10.7	7.4	12.0
\$100k-150k	14.9	5.8	18.6
\$150k-200k	3.8	1.4	4.8
\$200k+	3.9	1.2	5.0
N	1051	282	769

**Note:** Question asked in Monthly SCE.



## Credit Score

*What would you say is your credit score?*

	Full Sample	Renters	Owners
	Pct	Pct	Pct
< 620	11.3	26.6	5.1
620-679	12.0	18.7	9.3
680-719	13.1	12.6	13.3
720-760	19.5	15.8	20.9
> 760	32.8	11.1	41.6
Don't Know	11.3	15.2	9.8
N	1060	282	778

## 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	31.3	57.9	20.2
\$2,000 - \$10,000	19.5	20.7	19.1
\$10,000 - \$50,000	18.4	10.2	21.8
\$50,000 - \$250,000	19.8	9.3	24.2
> \$250,000	11.0	1.9	14.8
N	1038	279	759

## 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	Renters	Owners
	Pct	Pct	Pct
Less than \$500	25.6	14.4	30.2
\$500 to \$999	5.0	7.0	4.2
\$1,000 to \$1,999	6.0	7.7	5.3
\$2,000 to \$4,999	9.8	11.9	8.9
\$5,000 to \$9,999	9.7	7.0	10.8
\$10,000 to \$19,999	10.5	11.2	10.2
\$20,000 to \$29,999	10.0	11.0	9.6
\$30,000 to \$49,999	9.1	16.3	6.2
\$50,000 to \$99,999	8.7	9.4	8.4
\$100,000 or more	5.6	4.1	6.2
N	1057	282	775

# 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	231878.3	25%	120000.0
Std. Dev.	183711.8	50%	175000.0
		75%	280000.0
N	1059		

## 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	4.9	8.4	0.0	3.1	7.1	527
Past Perceived Change, 5yrs	3.2	4.8	0.9	2.7	5.0	527

**Note:** Question seen by 1/2 of sample only. 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	4.9	8.4	0.0	3.1	7.1	527
Past Perceived Change, 5yr	3.2	4.8	0.9	2.7	5.0	527
Realized HPI Change, 1yr	4.7	4.7	1.4	4.4	7.4	530
Realized HPI Change, 5yr	3.9	3.1	1.9	3.4	6.0	530

**Note:** Question seen by 1/2 of sample only. 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	3.4	8.0	0.0	2.2	5.3	529
Exp. Future Change in Zip, 5yrs	1.9	4.1	0.7	1.9	3.7	528

**Note:** Question seen by 1/2 of sample only. 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)

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
< X	11.9	18.4	0.0	5.0	15.0	530
Between X and V	31.0	26.9	10.0	25.0	50.0	530
Between V and Y	45.8	30.6	20.0	45.0	70.0	530
> Y	11.3	14.8	0.0	8.0	20.0	530

**Note:** Question seen by 1/2 of sample only. 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	10.5	18.6	0.0	5.0	10.0	529
Between X and V	22.2	22.7	5.0	20.0	30.0	529
Between V and Y	47.8	30.4	25.0	50.0	75.0	529
> Y	19.5	23.5	2.0	10.0	30.0	529

**Note:** Question seen by 1/2 of sample only. 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	1321.7	25%	800.0
Std. Dev.	773.5	50%	1100.0
		75%	1600.0
N	1056		

### Expected Future Changes

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Exp. Average Monthly Rent in 1yr	6.9	7.1	1.3	5.6	10.0	1054
Exp. Average Monthly Rent in 5yrs	4.0	3.2	2.1	3.7	5.9	1054

**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	14.0	5.5	10.4	13.8	16.7	529
1 Year from Now	13.9	6.3	10.2	13.2	16.4	527
5 Years from Now	13.2	7.0	9.3	12.5	15.5	527

**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	20.9
Somewhat good investment	38.3
Neither good nor bad as an investment	27.5
Somewhat bad investment	10.4
Very bad investment	2.9
N	1060

## 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	12.8
Somewhat Better	29.3
Neutral	53.0
Somewhat Worse	4.1
Much Worse	0.9
N	1060

# 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*	19.2	30.4	0.0	4.0	20.0	1052
3yr Moving Probability	31.0	35.0	0.0	15.0	50.0	1052

**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	62.9
Weak economy/job market	1.8
Have not saved enough	4.5
Difficult to qualify for mortgage	2.3
Difficult to find a new place to move into	2.6
I cannot get the price I want for my current home	4.2
I cannot sell my home for enough to cover my mortgage	1.9
Children in school	4.4
Closeness to family	5.5
Age/health	5.8
Other	4.0
N	847

**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	47.6	25%	10.0
Std. Dev.	34.9	50%	50.0
		75%	80.0
N	722		

**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	63.0	25%	40.0
Std. Dev.	33.6	50%	75.0
		75%	95.0
N	722		

**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	41.5
I don't have enough money saved up, or I have too much debt	42.5
My credit is not good enough	30.0
I am worried about my or my spouse's job security	9.7
I am concerned housing prices might fall	8.3
It is more affordable to rent than buy	16.3
I don't want to tie my money up in a house	19.5
I don't want to, or can't be tied-down to a certain area	16.0
I don't want the upkeep of ownership	27.5
I can live in a better neighborhood or in a nicer home by renting	9.9
Would likely not stay in the new home very long	8.9
Age/health reasons	26.0
Other	8.6
N	292

**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	8.9	25%	0.0
Std. Dev.	18.6	50%	0.0
		75%	10.0
N	1051		

## 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	33.4
Investment Property	47.6
Residence for Family Member	15.0
Other	4.0
N	485

**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	4.4	2.2	3.2	4.0	4.9	915
Exp. National Rate	4.7	2.5	3.7	4.0	5.0	916

**Note:** 143 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 3.65 and 3.72% over the time period the survey was fielded (Feb. 01 - 29).

# 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	0.39	0.85	0.00	0.25	0.90	914
Exp. Mortgage Rate Change, 3yr	1.4	1.7	0.5	1.0	2.0	914

**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	9.6	14.7	0.0	5.0	15.0	915
Between -1 and 0 percentage points	40.9	28.7	20.0	40.0	55.0	915
Between 0 and +2 percentage points	40.5	28.9	20.0	40.0	50.0	915
Higher by 2 percentage points or more	9.1	14.5	0.0	5.0	10.0	915

**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	58.4
Likely Fixed Rate	19.6
Make No Recommendation	20.2
Likely Adjustable	1.8
Definitely Adjustable	0.1
N	1060

## 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	7.4	5.5	6.9
Somewhat Harder	31.0	27.3	31.3
Equally Easy/Hard	46.2	52.4	44.4
Somewhat Easier	14.9	14.1	16.1
Much Easier	0.5	0.7	1.4
N	1060	1060	1060

## 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	2.9	2.9
Somewhat worse	21.5	24.6
Unchanged	41.4	25.5
Somewhat better	32.4	42.2
Much better	1.8	4.8
N	1060	1060

## 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	24.9	25%	10.0
Std. Dev.	21.3	50%	20.0
		75%	40.0
N	1054		

**Note:** Values in percent (100 = 100%)

## Foreclosure History

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

	Percent
No	92.3
Yes	7.7
N	745

**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	38.9
A disability	11.0
Job loss/unemployment	47.9
Reduction in income	49.2
Death of a spouse	0.0
Separation or divorce	24.8
Increase in monthly mortgage payment due	27.3
Decline in home value	30.3
Other	8.4
N	55

**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	97.7
Yes	2.3
N	745



## Reasons for Short Sale

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

	Pct
Health issues/medical bills	33.2
A disability	0.0
Job loss/unemployment	24.4
Reduction in income	32.0
Death of a spouse	0.0
Separation or divorce	17.5
Increase in monthly mortgage payment due	14.7
Decline in home value	34.9
Other	7.9
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	1999	25%	1992
Std. Dev.	15	50%	2004
		75%	2010
N	777		

## Expected Tenure in Residence

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

	Percent
< 2yrs	0.1
2-3 yrs	2.3
4-5 yrs	6.8
6-7 yrs	3.7
8-10 yrs	6.0
> 10 yrs	44.5
No specific time frame	36.6
N	778

## Expected Future Tenure in Residence

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

	Percent
< 2yrs	9.3
2-3 yrs	6.4
4-5 yrs	10.8
6-7 yrs	7.9
8-10 yrs	10.8
> 10 yrs	54.8
N	776

# Purchase Price

*What did you pay for this home?*

	Summary		Percentile
Mean	160719.3	25%	64000.0
Std. Dev.	137693.0	50%	130000.0
		75%	200000.0
N	756		

## Down Payment

*How much was your down payment?*

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Down Payment Amount	28472	44387	3000	10000	32000	634

As a fraction of the purchase price:

	Mean	Std. Dev.	Percentile			N
			25%	50%	75%	
Down Payment Fraction	0.14	0.14	0.04	0.10	0.20	636

**Note:** 117 respondents (8.60% 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	233387.5	25%	109000.0
Std. Dev.	186176.4	50%	180000.0
		75%	290000.0
N	777		



# Perceived Annual Change in Home Price Since Purchase

*Perceived percent annual home price change since purchase:*

	Summary		Percentile
Mean	2.8	25%	0.8
Std. Dev.	3.2	50%	2.4
		75%	4.5
N	747		

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

$$\left( \frac{\text{Current Home Price Estimate}}{\text{Purchase Price}} \right)^{\frac{1}{(2016 - \text{Purchase Year})}} - 1$$

## 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	2.6	4.2	0.0	2.4	4.5	774
Exp. Future Annual Price Change, 5yrs	1.7	2.6	0.8	1.7	2.9	774

**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	13.1	25%	0.0
Std. Dev.	23.8	50%	2.0
		75%	10.0
N	771		

## 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*	32.5	33.8	4.0	20.0	50.0	772
Prob. Invest, 3yrs	44.7	35.1	10.0	50.0	75.0	772

**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	40.9
Yes	59.1
N	778

## 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	12427.2	25%	3000.0
Std. Dev.	17586.0	50%	6000.0
		75%	15000.0
N	457		

**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	52.9
Yes, HELOC only	5.5
Yes, both mortgage(s) and HELOC	6.5
No	35.1
N	777

**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	4.8	25%	0.0
Std. Dev.	11.5	50%	0.0
		75%	5.0
N	771		

**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	74.7
To help pay my other debt, such as credit card debt, auto loans, student loans, or medical bills	19.2
To pay for cost of college, education, or training for members of my household (including myself)	4.0
To make the down payment on a second home or investment property	6.7
To pay for a car	9.1
To pay for traveling or vacation	6.7
To pay for other large purchases	6.1
To invest in my own (or my family's) business, or to start a new business	3.5
To make other financial investments (for instance, buy stocks)	6.6
To pay for my regular living expenses	12.8
To help a family member	5.4
To put in a savings account	3.1
Other	5.5
N	151

**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	140221.9	25%	66000.0
Std. Dev.	106531.2	50%	112000.0
		75%	180000.0
N	524		

**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	60.3	25%	40.0
Std. Dev.	27.1	50%	60.8
		75%	80.7
N	522		

**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 30 respondents indicate that they have negative equity (that is,  $LTV > 100$ ).

The table above excludes the 251 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	1226.2	25%	700.0
Std. Dev.	798.6	50%	1000.0
		75%	1500.0
N	524		

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

## Loan Payments as a Fraction of Household Income

Annual loan payments as a percent of annual household income:

	Summary		Percentile
Mean	19.4	25%	11.2
Std. Dev.	12.0	50%	16.5
		75%	23.1
N	521		

**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.

## 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	97.5
Yes	2.5
N	526

**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	42.5
A disability	18.7
Job loss or unemployment	57.1
Reduction in income	51.2
Death of a spouse	0.0
Separation or divorce	5.5
Increase in monthly mortgage payment due	12.3
Decline in home value	4.3
Accidentally forgot to pay	6.4
To get lender to modify loan	16.6
Other	17.3
N	19

**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	3.7	25%	0.0
Std. Dev.	12.9	50%	0.0
		75%	1.0
N	522		

**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	23.0	25%	0.0
Std. Dev.	33.0	50%	5.0
		75%	40.0
N	522		

**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	78.2
Yes, considered but did not stop	19.3
Yes, seriously considered but did not stop	2.5
Yes, actually did stop	0.0
N	30

**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	82.1
The lender can come after my other belongings if I stop making payments	6.6
House prices will recover and my home will eventually be worth more than the debt on the home	42.7
Not making payments will negatively affect my credit score	68.6
The cost of having to move to a different home is too high if I stop making payments	16.7
I think it is morally wrong to stop making payments	60.4
Not making payments will negatively affect the community	14.4
Other	3.8
N	30

**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	2.6	25%	0.0
Std. Dev.	11.4	50%	0.0
		75%	1.0
N	522		

**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	10.3
Fixed	89.7
N	474

**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	4.3	25%	3.5
Std. Dev.	1.2	50%	4.0
		75%	5.0
N	481		

**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	43.3
Yes	56.5
Don't Know	0.2
N	482

**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	4.8
6 mos to 1yr ago	9.0
1yr to 2yrs ago	9.7
2yrs to 3yrs ago	23.9
3yrs to 5yrs ago	26.9
5yrs to 7yrs ago	8.4
More than 7yrs ago	17.4
N	282

**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	89.8
Balance increased	21.0
Term increased	4.0
Term decreased	19.3
Floating to fixed	3.3
Fixed to floating	3.3
Changed servicer	33.7
Other	2.9
N	282

**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	1.9
To pay for refinancing fees and other fees	11.4
To make renovations or improvements to the home	43.7
To help pay my other debt, such as credit card debt, auto loans, student loans, or medical bills	50.7
To pay for college, education, or training for members of my household (including myself)	3.7
To make the down payment on a second home or investment property	2.4
To pay for a car or other large purchases	9.8
To pay for traveling or vacation	1.4
To invest in my own (or my family's) business, or to start a new business	4.3
To make other financial investments (for instance, buy stocks)	12.2
To pay for my regular living expenses	1.7
To help a family member	2.3
Put it into my savings	2.3
Other	7.2
N	58

**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	17.2
Unchanged	15.9
Decreased	62.4
Don't Know	4.6
N	282

*By approximately how much did your monthly payment change?*

	Summary	Percentile
Mean	-120.7	25%
Std. Dev.	216.2	50%
		75%
N	270	

**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	20.1
Paid down other debt (e.g. on credit cards, auto loans, student loans, or medical bills)	34.8
Used it to finance a large purchase (e.g. a car)	5.2
Used it to make renovations or improvements to the home	11.5
Used it to pay for other expenses	32.7
Used it to purchase financial assets (e.g. stocks)	1.7
Other	8.5
Nothing / put it into my savings	22.7
N	166

**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	11.3	25%	0.0
Std. Dev.	20.1	50%	2.0
		75%	11.0
N	478		

**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	87.8
Increase the balance on my mortgage (cash out some of the equity in my home)	10.6
Pay off part of the balance on my mortgage	13.9
Reduce the term of my mortgage (for instance, change from a 30-year to a 15-year mortgage)	27.6
Increase the term of my mortgage (for instance, change from a 15-year to a 30-year mortgage)	7.1
Change from an adjustable/floating rate mortgage to a fixed-rate mortgage	5.6
Change from a fixed-rate mortgage to an adjustable/floating rate mortgage	0.6
Change my mortgage servicer	10.2
Combine multiple liens into a single mortgage	4.6
Consolidate non-mortgage debt	12.1
Other	2.0
N	176

**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	54.1
Too time consuming / too much hassle	31.9
I am planning to sell my home soon	11.3
The upfront monetary cost is too large	36.7
The balance on my mortgage is too low to refinance (it is almost paid off)	8.3
Don't want to take out a new long-term loan	35.6
Don't trust mortgage lenders / I'm afraid to be taken advantage of	5.2
Would not get approved because the value of my home is too low relative to my mortgage balance	6.5
Would not get approved because I don't have a good enough credit record	7.1
Would not get approved because I don't have sufficient income at the moment	3.2
I am satisfied with the terms of my current mortgage	45.0
Other	4.3
N	473

**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	54201.9	25%	16000.0
Std. Dev.	67139.3	50%	33000.0
		75%	60000.0
N	107		

## 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	4.6
To make renovations or improvements to the home	50.5
To help pay my other debt, such as credit card debt, auto loans, student loans, or medical bills	46.6
To pay for college, education, or training for members of my household (including myself)	9.7
To make the down payment on a second home or investment property	6.3
To pay for a car or other large purchase(s)	10.7
To pay for traveling or vacation	4.0
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)	5.5
To pay for my regular living expenses	1.6
To help a family member	9.4
Other	5.6
Have not used it, or put into my savings	0.7
N	109

# Renter Questions

## Beginning of Lease

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

	Summary		Percentile
Mean	2011	25%	2009
Std. Dev.	6	50%	2013
		75%	2014
N	282		

## Expected Tenure in Residence

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

	Percent
< 1yr	1.4
1-2 yrs	23.9
2-3 yrs	23.9
4-5 yrs	14.0
6-7 yrs	6.2
8-10 yrs	1.8
> 10 yrs	5.3
No specific time frame	23.6
N	282

## 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	883.3	25%	500.0
Std. Dev.	522.9	50%	750.0
		75%	1130.0
N	279		

## Annual Rent as a Fraction of Household Income

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

	Summary		Percentile
Mean	43.4	25%	16.8
Std. Dev.	46.8	50%	28.6
		75%	40.0
N	279		

**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.

\*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	817.9	25%	500.0
Std. Dev.	453.2	50%	725.0
		75%	1095.0
N	202		



## Change in Rent Since Move-In

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

	Summary		Percentile
Mean	1.4	25%	0.0
Std. Dev.	2.2	50%	0.7
		75%	2.2
N	196		

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

$$\left( \frac{\text{Current Monthly Rent}}{\text{Monthly Rent at Move-In}} \right)^{\frac{1}{2016 - \text{Beginning of Lease}}} - 1$$

## 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	4.8	7.2	0.0	1.9	6.1	269
Exp. Annual Rent Change, 5yrs	3.7	3.5	1.5	3.0	5.0	269

**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	94.2
Yes	5.8
N	282

**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	43.7
A disability	2.0
Job loss/unemployment	77.4
Reduction in income	44.9
Death of a spouse	0.0
Separation or divorce	0.0
Increase in rent	8.1
Accidentally forgot to pay	0.0
Other	6.1
N	15

**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	15.0	25%	0.0
Std. Dev.	23.4	50%	5.0
		75%	20.0
N	275		

**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	2.7
Somewhat easy	14.9
Neither	15.6
Somewhat difficult	39.4
Very difficult	27.4
N	282

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

## Home Ownership Among Renters

*Have you ever owned a home?*

	Percent
No	74.4
Yes	25.6
N	282

*If yes, do you still own that home?*

	Percent
No	87.1
Yes	12.9
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	19.0
Renting better fits my household's needs right now	23.9
Renting is a better financial deal	5.4
I cannot currently afford to buy a home	33.2
I moved to a different area and was unable to find a home of my liking that I could own	13.0
I do not want to make a long-term commitment	15.3
I lost my previous home through foreclosure or short sale, and don't want to buy a home again	9.7
I lost my previous home through foreclosure or short sale, and have not been able to obtain a mortgage to buy a home again	11.7
Change in household composition (e.g. divorce)	25.6
Other	21.8
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	54.8
Prefer owning	19.4
Indifferent renting/owning	9.4
Prefer renting	10.9
Strongly prefer renting	5.6
N	281

## 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	55.9	25%	25.0
Std. Dev.	36.6	50%	51.0
		75%	96.0
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	7.0
1-2 years	24.8
3-5 years	34.0
5-10 years	18.0
More than 10 years	16.2
N	240