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# The Continued Impact of the Housing Crisis on Self-Employed Households

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There is wide recognition that self-employed people find it more difficult to get approved for a mortgage than people who receive a regular paycheck.[1] The self-employed can be more difficult to underwrite in part because they, unlike salaried workers, experience greater income volatility and lack pay stubs or W-2 wage statements that make it easy for lenders to verify and document income (Maag et al. 2017). Consequently, before approving a mortgage application, lenders must rely on other forms of documentation, such as previous tax returns and bank statements, to analyze prior income and assets and determine whether an applicant's current income can be reasonably expected to continue. These documentation requirements are prescribed in detail in appendix Q to the Bureau of Consumer Financial Protection's (BCFP's) qualified mortgage rule.[2] Appendix Q lays out requirements for calculating borrower income and debt to determine the debt-to-income ratio and whether the loan meets the requirements of a qualified mortgage.

In this brief, we use American Community Survey data to explore how self-employed households have fared compared with salaried households in terms of income, mortgage use, and homeownership rate.[3] These data are available from 2001 to 2016 and are useful for understanding how self-employed and salaried households have evolved along these financial dimensions. We look at metrics such as size of the self-employed population, incomes, homeownership rates, and mortgage use for self-employed and salaried households. The data show that self-employed households have higher median incomes than salaried households, but self-employed households were hit harder during the recession and have been slower to recover. Incomes, mortgage use, and the homeownership rate for both household types declined during the recession, but self-employed households lost more ground. Most strikingly, even when income is held constant, mortgage use and the homeownership rate for self-employed households fell more than they did for salaried households, suggesting that other factors, such as reduced credit availability, are likely at play.

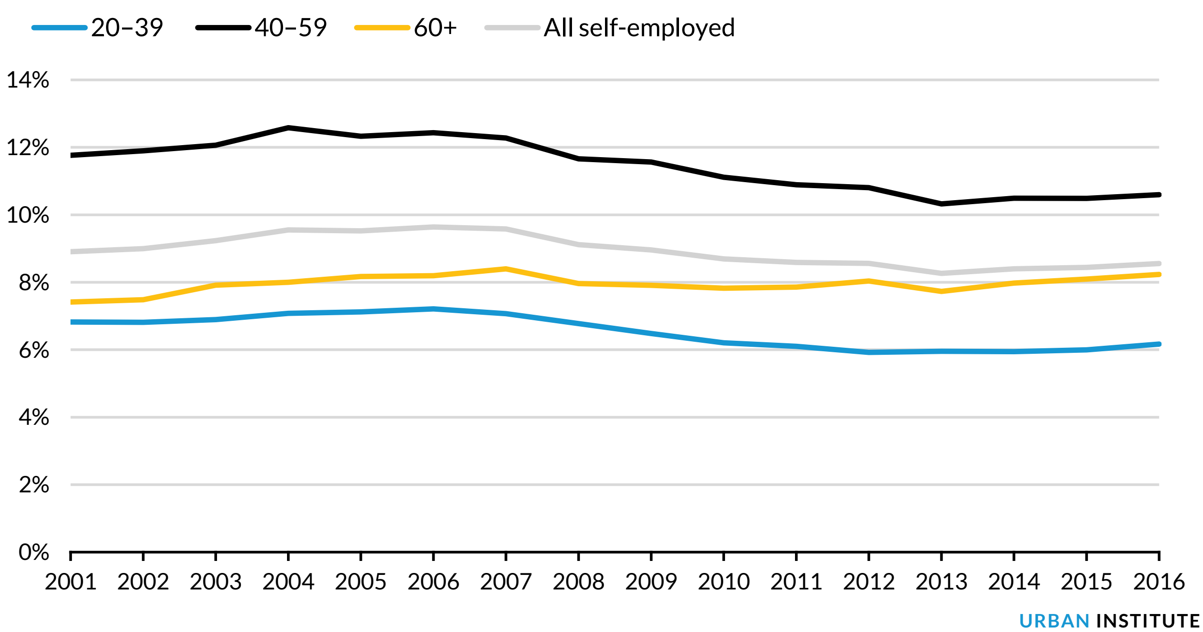
We highlight six take-aways from these data and show that falling incomes alone do not explain reduced mortgage use and lower homeownership rates for self-employed households. We conclude by urging policymakers to ensure that the mortgage market adequately meets the lending needs of self-employed households.

## Self-Employed Households Account for Nearly One-Tenth of US Households

In 2016, about 8.5 percent of US households were headed by a self-employed person, according to the American Community Survey. Another 3.4 percent were salaried but earned some income from self-employment, according to the Federal Reserve's Survey of Household Economics and Decisionmaking. Thus, around 12 percent of US households earn at least a portion of their income from self-employment.

The self-employed share of the total population increased from 8.9 percent in 2001 to 9.6 percent in 2006. It fell during the recession, bottoming out at 8.3 percent in 2013, followed by a slight increase to 8.5 percent in 2016 (figure 1). The share declined in every age group during the recession. Household heads ages 40 to 59, had the largest share of self-employed households, at 10.6 percent in 2016, while household heads ages 20 to 39 had a self-employed share of 6.1 percent.

FIGURE 1
**Share of US Households That Are Self-Employed, by Age of Household Head**



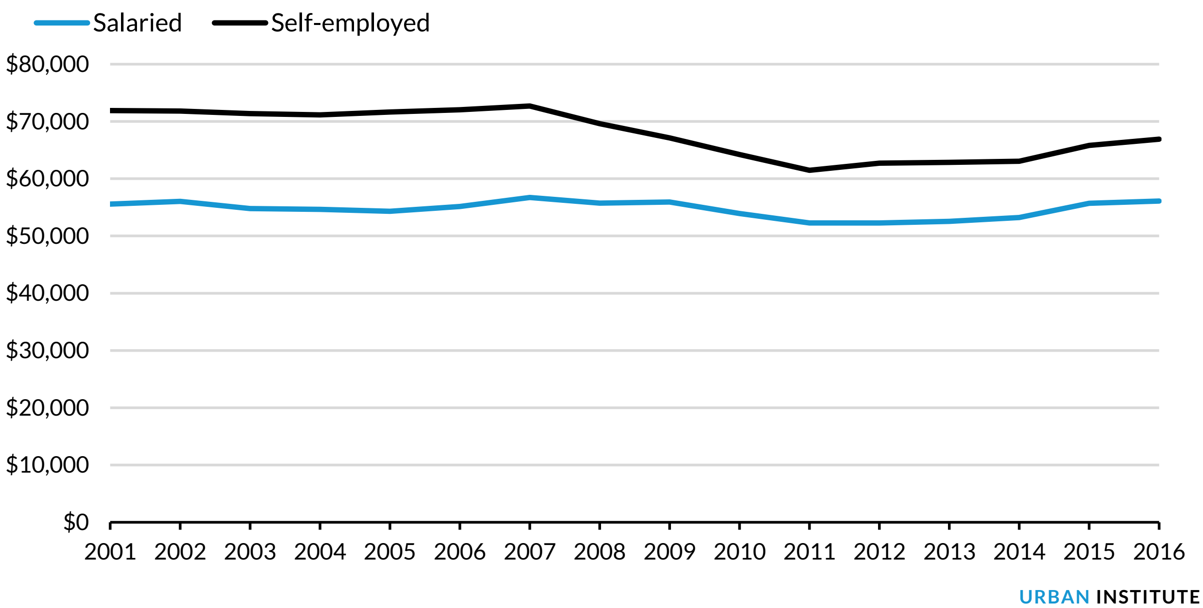

**Source:** American Community Survey.

## Self-Employed Households Have Higher Median Incomes Than Salaried Households Do

Figure 2 shows median annual household incomes for self-employed and salaried households from 2001 to 2016. Incomes for self-employed households have been higher than for salaried households for a long time.

FIGURE 2

**Median Annual Household Income for Self-Employed and Salaried Households**




**Source**: American Community Survey.

Incomes for both household types fell during the recession, but the decline for self-employed households was larger. Between 2001 and 2007, self-employed households had a median annual income of about $71,800, roughly $16,500 more than the $55,300 salaried households earned. Incomes fell for both groups from 2008 to 2011, and by 2011, self-employed households' incomes were only $9,200 greater than salaried households' incomes. In 2016, self-employed households earned a median $66,900 compared with $56,100 for salaried households. Although self-employed households still earned more, the gap, at $10,800 in 2016, had only partially recovered. Also noteworthy is that the 2016 median household income for self-employed households was still below the 2007 level of $72,700. In contrast, the 2016 median income for salaried households had almost reverted to the 2007 precrisis level.

# Self-Employed Households Are More Likely to Experience Income Volatility Than Salaried Households

Higher median incomes notwithstanding, self-employed households are more likely than salaried households to experience month-to-month income variation, according to the Survey of Household Economics and Decisionmaking. Table 1 shows the share of households with income either "roughly the same most months, but some unusually high or low months during the year" or "often varies quite a bit from one month to the next." We break down results separately for owners and renters, self-employed and salaried, by age and income.

TABLE 1

**Share of Self-Employed and Salaried Households Reporting Income Volatility**

| | Age | | | | | Income | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **18–29** | **30–44** | **45–59** | **60+** | **All** | **< $30K** | **$30–$75K** | **> $75K** | **All** |
| **Homeowners** | | | | | | | | | |
| Self-employed | 89.1% | 52.3% | 43.5% | 50.6% | 51.3% | 60.2% | 51.4% | 48.8% | 51.3% |
| Salaried | 31.2% | 25.2% | 25.3% | 17.7% | 23.0% | 24.8% | 26.2% | 20.8% | 23.0% |
| All | 35.6% | 27.1% | 27.1% | 20.9% | 25.6% | 28.7% | 28.1% | 23.4% | 25.6% |
| **Renters** | | | | | | | | | |
| Self-employed | 64.9% | 65.5% | 56.9% | 57.8% | 62.0% | 57.3% | 71.7% | 56.7% | 62.0% |
| Salaried | 44.7% | 35.0% | 26.5% | 15.9% | 34.8% | 35.7% | 37.1% | 31.3% | 34.8% |
| All | 45.7% | 37.2% | 29.5% | 18.7% | 36.7% | 37.4% | 39.2% | 32.8% | 36.7% |
| **All** | | | | | | | | | |
| Self-employed | 74.1% | 57.3% | 46.4% | 51.5% | 54.3% | 58.8% | 58.0% | 50.0% | 54.3% |
| Salaried | 40.8% | 28.8% | 25.5% | 17.4% | 27.1% | 31.0% | 30.3% | 23.2% | 27.1% |
| All | 42.8% | 30.8% | 27.6% | 20.5% | 29.3% | 33.6% | 32.3% | 25.5% | 29.3% |

**Source**: Survey of Household Economics and Decisionmaking 2017.

**Note**: The numbers in this table represent households that selected options 2 or 3 in response to the following American Community Survey question: In the past 12 months, which one of the following best describes how your income changes from month to month, if at all? (1) Roughly the same amount each month, (2) Roughly the same most months, but some unusually high or low months during the year, (3) Often varies quite a bit from one month to the next.

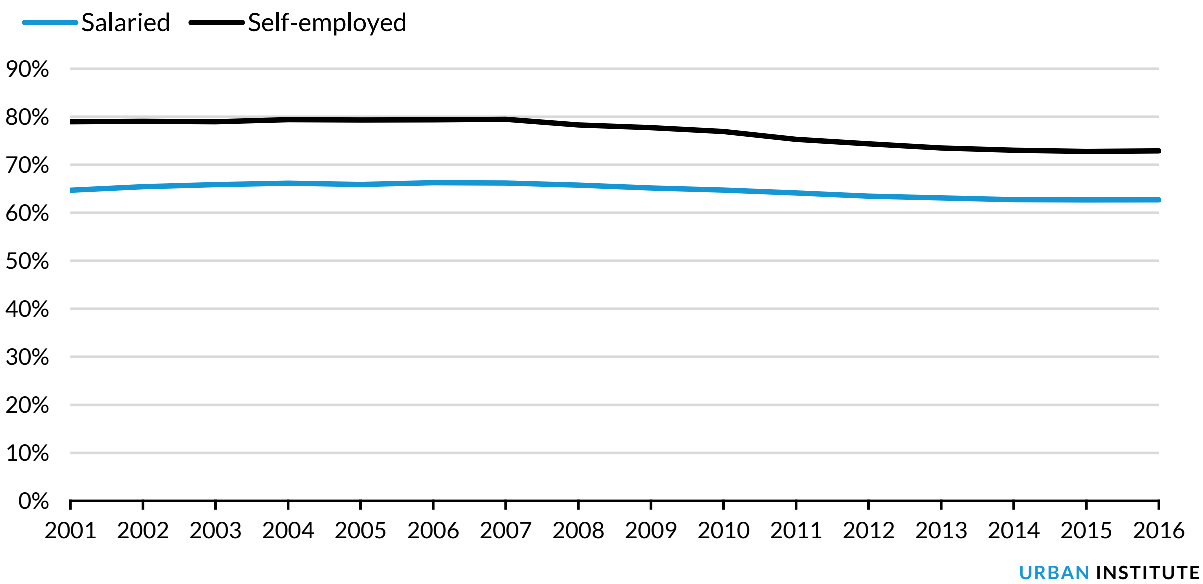
Other than self-employed households' higher likelihood of experiencing income volatility, these data show that younger households, whether self-employed or salaried, are more likely to experience income volatility than older households: 42.8 percent of all households headed by 18-to-29-year-olds experienced income volatility, compared with 30.8 percent of 30-to-44-year-olds and 27.6 percent of 45-to-59-year-olds. Similarly, low-income households, whether self-employed or salaried, are more likely to experience income volatility than high-income households. Across all age and income groups, renters are more likely than homeowners to experience income volatility.

## Self-Employed Households Have a Higher Rate of Homeownership Than Salaried Households

Reflecting higher incomes, self-employed households have had a higher homeownership rate than salaried households going all the way back to 2001. Figure 3 shows the homeownership rate for both household types. Between 2001 and 2007, the homeownership rate for self-employed and salaried households averaged 79.2 percent and 65.8 percent, respectively, a 13.4 percentage-point gap. In 2016, the two groups had homeownership rates of 72.9 percent and 62.7 percent, respectively, a 10.2 percentage-point gap. The homeownership rate fell for both self-employed and salaried households during the downturn, but self-employed households witnessed a bigger drop. This drop occurred despite the higher median income of self-employed households.

FIGURE 3

**Homeownership Rate for Self-Employed and Salaried Households**



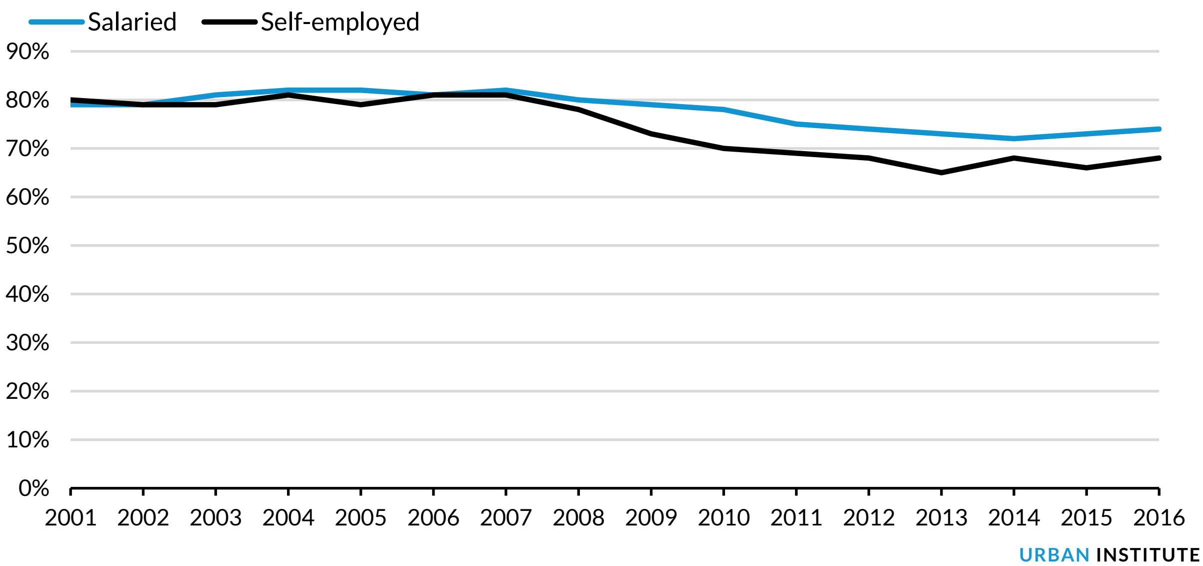

**Source**: American Community Survey.

## Mortgage Use among Self-Employed Households Has Declined More Than for Salaried Households

As with the homeownership rate, mortgage use for self-employed households declined more than for salaried households (figure 4). We define *mortgage use* as the ratio of the number of new homebuyers with a mortgage in a given year to the number of new homebuyers in the same year. In other words, it is the share of each year's new homebuyers that had a mortgage. Before 2007, self-employed households who purchased a home were almost as likely to carry a mortgage as salaried household homebuyers—about 80 percent in each category. Mortgage use declined for both groups after 2007, but self-employed households that purchased a home in 2016 were less likely to have a mortgage (67 percent) than salaried households that purchased a home in the same year (74 percent), notwithstanding the higher median income of self-employed households. In other words, self-employed mortgage use declined 13 percentage points compared with 6 percentage points for salaried households.

FIGURE 4

**Share of New Homebuyers with a Mortgage**



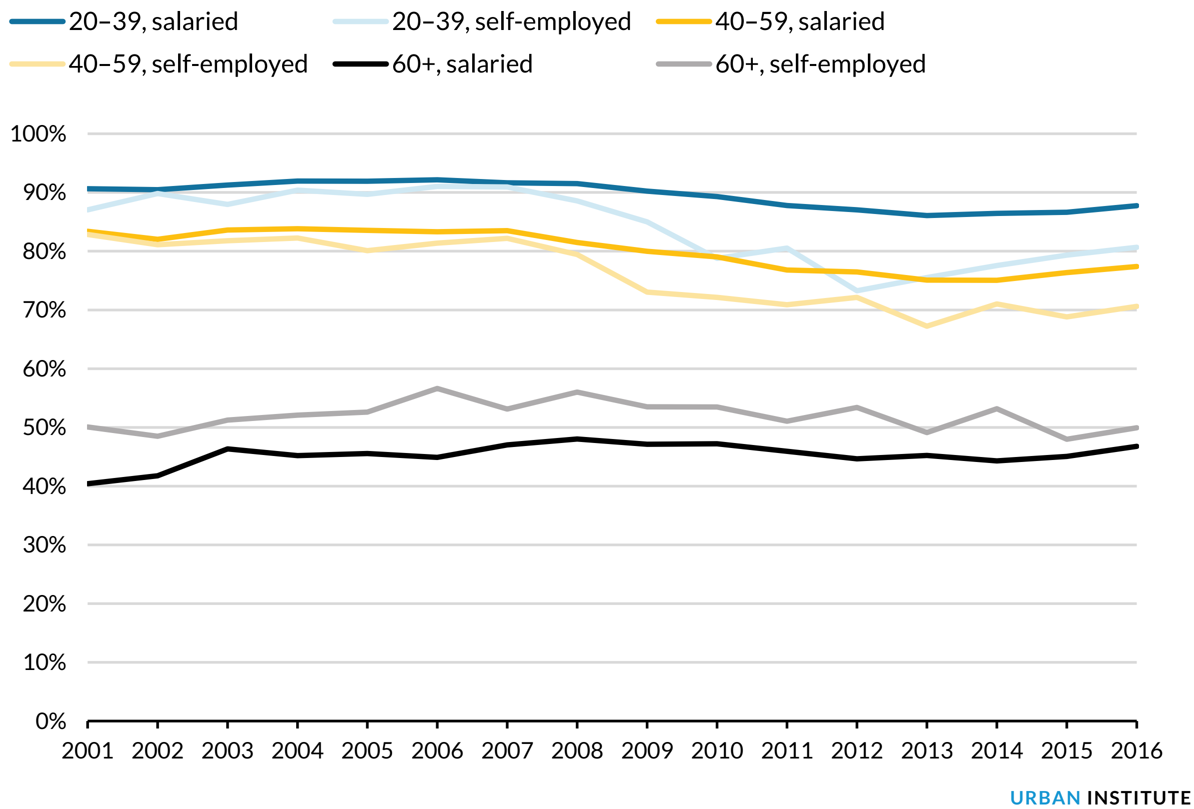

**Source**: American Community Survey.

# Young Households Were Hit Hard by the Recession, but Young Self-Employed Households Were Hardest Hit

Figure 5 shows mortgage use for self-employed and salaried households by age. We use three age buckets: ages 20 to 39, ages 40 to 59, and ages 60 and older. Figure 5 shows that mortgage use for self-employed and salaried households declined in all three age buckets, with households ages 60 and older being the least affected. In the other two age buckets, self-employed households witnessed larger declines in mortgage use. Before 2007, mortgage use for 20-to-39-year-old self-employed households was only marginally less than for salaried households (both close to 90 percent). By 2016, however, mortgage use for self-employed households had fallen to 80.6 percent, while mortgage use for salaried households had fallen to 87.7 percent. A similar pattern can be seen for 40-to-59-year-olds. Breaking out mortgage use by age is insightful because it allows us to focus on households in the prime homebuying age. And this figure makes it clear that self-employed households of prime homebuying age (i.e., ages 20 to 39) are the ones whose likelihood of having a mortgage has fallen the most since 2007.

FIGURE 5

**Mortgage Use for Self-Employed and Salaried Households, by Age**




**Source**: American Community Survey.

# Discussion

Self-employed households were more adversely affected by and have been slower to recover from the housing crisis than salaried households. Larger declines in the homeownership rate and mortgage use for self-employed households partly reflects the fact that their incomes fell more. All else equal, that would make it more difficult to qualify for a mortgage.

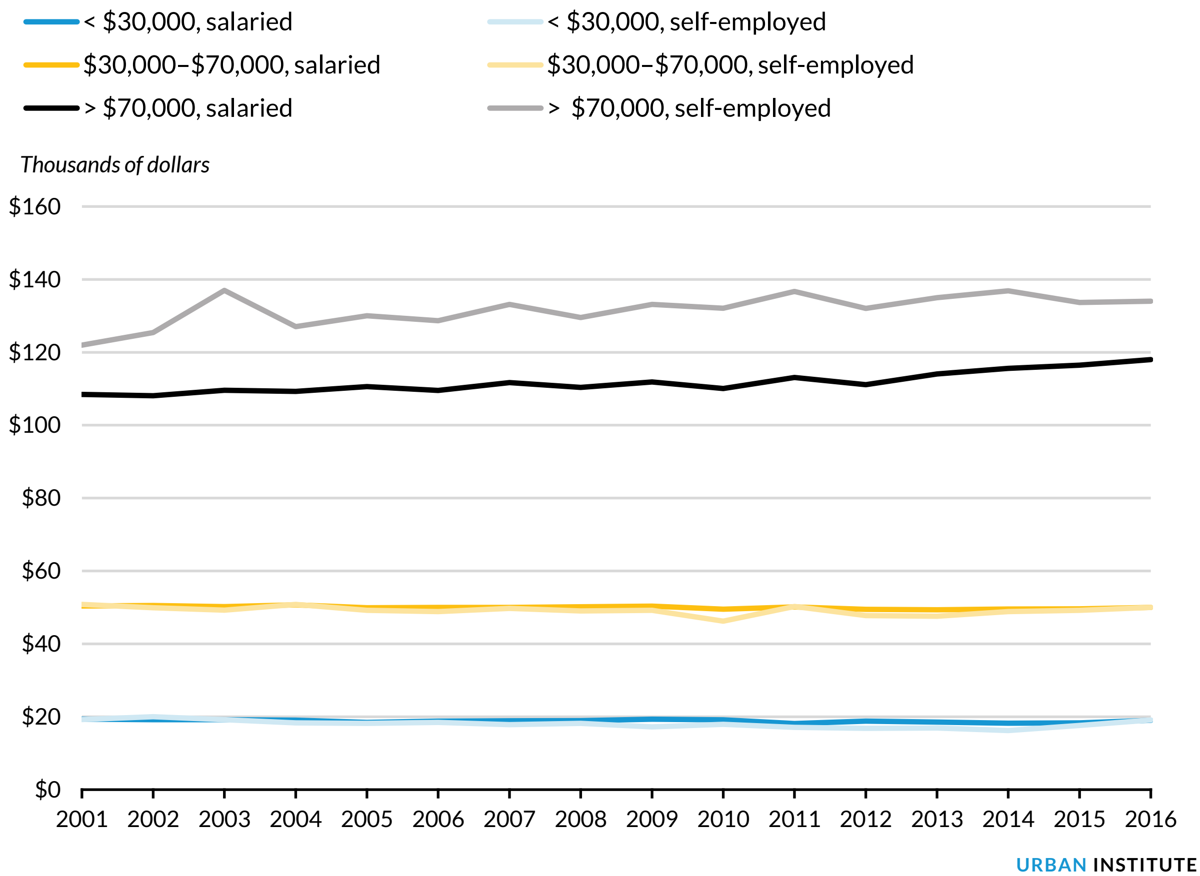
But a more nuanced picture emerges when we hold income constant. Figure 6 shows median annual household income by income bucket for self-employed and salaried households. We use three income buckets: up to $30,000, between $30,000 and $70,000, and more than $70,000. Contrary to figure 2, which shows declining median incomes postcrisis, figure 6 shows that median incomes within each bucket have been either flat or modestly higher over time. This reflects the changing composition of households in each bucket. That is, as incomes fell during the recession, many households dropped out of a higher income bucket and fell into a lower bucket.

But for households still making more than $70,000 a year, median incomes did not decline materially or at all. Self-employed households in this bucket earned a median annual income of

$133,000 in 2007 versus $134,000 in 2016. Salaried households earned $111,700 in 2007 and $118,000 in 2016, about $16,000 less than self-employed households in 2016. We focus on the highest income bucket because these households are most likely to have the financial resources to enter and sustain homeownership. For the other two buckets, self-employed and salaried households have had nearly identical and largely flat incomes since 2001.

FIGURE 6

**Median Household Incomes, by Income**

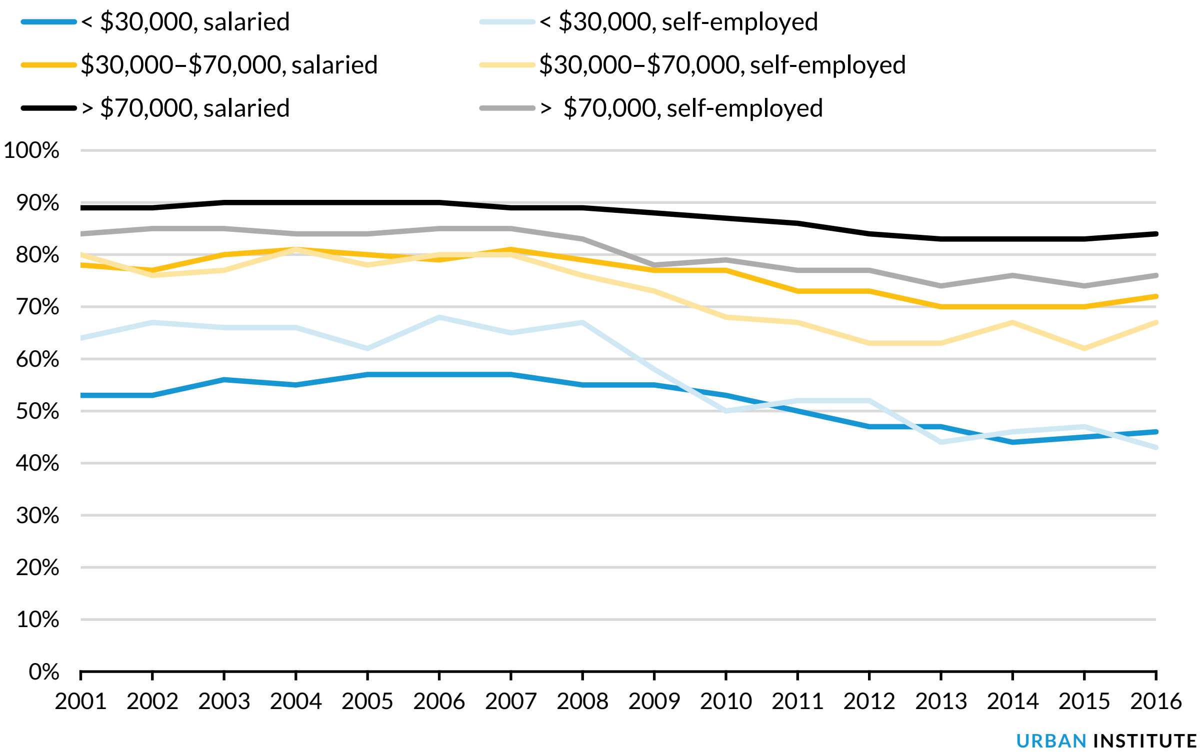



**Source**: American Community Survey.

Figures 7 and 8 show mortgage use and the homeownership rate for self-employed and salaried households using the same income buckets. Both figures show that mortgage use and the homeownership rate declined for self-employed and salaried households postcrisis in each bucket. This is despite the fact that median incomes did not fall in any income bucket. Put differently, even though median household income for self-employed and salaried households did not fall from 2007 to 2016, mortgage use and the homeownership rate did. In addition, the declines were bigger for self-employed households. For households earning more than $70,000, mortgage use for salaried households fell 5 percentage points, from 89 percent to 84 percent, between 2007 and 2016; for self-employed households, it fell 9 percentage points, from 85 percent to 76 percent. The homeownership rate for salaried households fell 5 percentage points, from 84 percent to 79 percent, between 2007 to 2016; for self-employed households, it fell 5 percentage points, from 90 percent to 85 percent. Similar trends are visible in the other two income buckets.

FIGURE 7

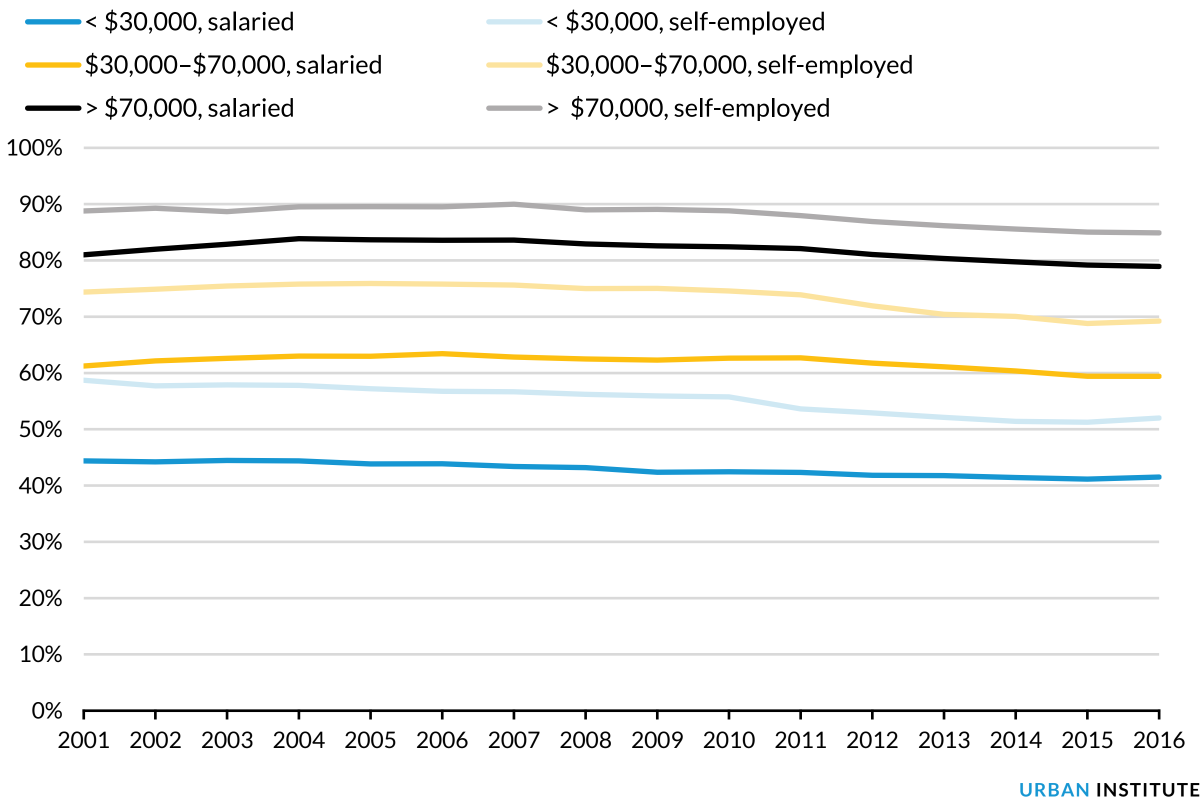
**Mortgage Use for Self-Employed and Salaried Households, by Income**




**Source**: American Community Survey.

FIGURE 8

**Homeownership Rate for Self-Employed and Salaried Households, by Income Bucket**




**Source**: American Community Survey.

In sum, mortgage use and the homeownership rate within each income bucket fell more for self-employed households than for salaried households. The fact that this happened in the face of stable median incomes in each income bucket suggests that other factors, such as tight credit availability, are at play and have affected self-employed households more adversely.

# Conclusion

The Dodd-Frank Wall Street Reform and Consumer Protection Act requires the BCFP to assess and report on the effectiveness of the qualified mortgage rule within five years of the rule taking effect—in other words, by January 2019. This offers an opportunity to review how well the rule met its objectives and where improvements might be needed. This brief adds further support to the growing recognition that the mortgage market is not adequately meeting the lending needs of self-employed households. Although self-employed households continue to earn higher incomes than salaried households, this brief shows that they were hit harder by the housing crisis and have been slower to recover. Part of this is rooted in the fact that incomes for self-employed households are still below precrisis levels, even as incomes for salaried households have largely recovered. But part of it reflects the reality that at any income level, both mortgage use and the homeownership rate for self-employed households have declined more than they have for salaried households. This suggests that factors beyond income, such as tougher mortgage availability or requirements of appendix Q, are likely at play. We hope the data presented in this brief provide useful insights to the BCFP as it completes its assessment and evaluates potential changes to the qualified mortgage rule.

# Notes

1 The American Community Survey defines *self-employed* as people working for their own enterprise. Those working for their own enterprise and for someone else are classified based on the work relationship in which they spent the most time. See also Robyn A. Friedman, "Self-Employed Workers Face Mortgage Hurdles," *Wall Street Journal*, February 7, 2018, https://www.wsj.com/articles/self-employed-workers-face-mortgage-hurdles-1518018851.

2 See "Appendix Q to Part 1026—Standards for Determining Monthly Debt and Income," Bureau of Consumer Financial Protection, accessed December 11, 2018, https://www.consumerfinance.gov/policy-compliance/rulemaking/regulations/1026/Q/.

3 For this brief, a *self-employed household* is one in which the head of the household is self-employed. All other households are considered *salaried*. (Households in which the head is salaried and the spouse is self-employed are treated as salaried.)

# Reference

Maag, Elaine, H. Elizabeth Peters, Anthony Hannagan, Cary Lou, and Julie Siwicki. 2017. *Income Volatility: New Research with Implications for Income Tax Filing and Liabilities*. Washington, DC: Urban-Brookings Tax Policy Center.

# About the Authors

**Karan Kaul** researches topical housing finance issues to highlight the market impact of ongoing regulatory, industry, and related developments. He is also responsible for monitoring and reporting on mortgage market trends and current events weekly. He brings a deep understanding of key reform issues, political landscape surrounding reform, and pros and cons of different approaches concerning their impact on mortgage rates, credit availability, private capital, and other factors. Kaul came to Urban after five years at Freddie Mac, where he worked on various housing policy issues primarily related to the future of housing finance and the reform of the government-sponsored enterprises. Before Freddie Mac, Kaul worked as a research analyst covering financial institutions. He holds a bachelor's degree in electrical engineering and an MBA from the University of Maryland, College Park.

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