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Joseph Tracy

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Abstract

The Federal Housing Administration (FHA) has stated that its goal is to foster sustainable homeownership. In this paper, we propose some metrics for evaluating the degree to which the FHA is attaining this goal for first-time homebuyers. This work uses New York Fed Consumer Credit Panel data to examine the long-term outcome for households that make the transition from renting to owning using an FHA-insured mortgage. In addition to calculating the fraction of these borrowers whose FHA homeownership experience ends in default, we measure the degree to which these borrowers successfully remain homeowners after paying off their credit risk to the FHA. For the 2001 and 2002 cohorts, which were less impacted by the financial crisis than later cohorts, we find that 12 percent had their homeownership experience end in default while around 55 percent sustained their homeownership without the need for an FHA mortgage. Another 20 percent are either in their original home or have moved but continue to use an FHA mortgage.

Key words: FHA mortgages, first-time homebuyers, Federal Housing Administration

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The Commissioner of the Federal Housing Administration (FHA), David Stevens, in remarks delivered on December 12, 2009, defined the purpose of the FHA as follows.

> "As a mission-driven organization, FHA's goal is to provide sustainable homeownership options for qualified borrowers."[1]

These remarks followed a remarkable increase in the scope of the FHA mortgage insurance program in response to the financial crisis and housing bust. This comment by Commissioner Stevens is important in that it clarifies a goal of the FHA program.[2] However, this clarity was not followed up by the FHA with a definition of "sustainable homeownership." Nor was there any documented attempt by the FHA to develop metrics to track their progress toward this objective, or a commitment by the FHA to make this information available to the public in the future.

Program evaluation is an integral part of any effective program—government or private. We illustrate in this paper that advances in data availability offer the opportunity for the FHA to both define what it means by sustainable homeownership and to measure its progress against this definition. We believe that it would be beneficial for the FHA to be transparent in this effort and to report on not only its definition and metrics, but also on its progress on an annual basis. Improved tracking of long-term outcomes of FHA borrowers will better help inform the FHA on program design. This should lead to improved outcomes over time and enhanced public support.

We focus our analysis on first-time homebuyers who are an important market segment for the FHA. The mission of sustainable homeownership is particularly relevant for these new homeowners. The benefits of a government mortgage insurance program that helps to facilitate the transition from renting to owning rests importantly on the success of these new borrowers in remaining homeowners in the future. However, to date, the FHA has not systematically tracked the progress of its first-time homebuyers after they pay off their credit risk to the FHA. We use the New York Fed's Consumer Credit Panel (CCP) data to do this analysis starting with the 2002 cohort of FHA first-time homebuyers.

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[1] http://nationalmortgageprofessional.com/news15159/fha-commissioner-david-stevens-addresses-mortgage-industry-policy-concerns

[2] The FHA in its 2015 Annual Management Report reiterated this mission as follows: "Today, FHA continues to serve the nation by stabilizing the housing market; … promoting sound, sustainable and affordable housing; …"

A brief history of FHA Mortgage Insurance

The Great Depression created a crisis in mortgage finance. During the 1920s due to state and federal legislation most mortgages originated by banks were interest only with terms between five and ten years.[3] Mortgages were considered highly illiquid by banks and therefore they did not want to commit funds for long terms.[4] At maturity, borrowers would have to either roll over the mortgage or sell their house. Most states restricted banks and insurance companies from lending more than 50 percent of the appraised value of the house.[5] This made housing very difficult to purchase. Households either had to save the considerable downpayment amount, or take out a 2nd - and possibly even a 3rd-lien mortgage at high interest rates and initial fees.[6] Second-lien mortgages tended to have terms of one to three years and required amortization.[7]

This system of mortgage finance was inherently instable due to the rollover risk facing borrowers. Even for borrowers who managed the high downpayment, if house prices fell then additional equity would be required in order to refinance the mortgage. For borrowers who used a second mortgage to help finance the purchase, access to this financing might be difficult in periods of economic stress.[8] At the time of the refinancing, borrowers would also be subject to the risk of monthly payment shocks if mortgage rates had increased. Borrowers who had positive equity but who could not roll over their mortgage faced the risk that they would not be able to sell the house in time to avoid default. Potential buyers might themselves find it difficult to attain mortgage credit in order to complete the purchase.

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[3] The National Bank Act of 1864 prohibited national banks from holding mortgages with terms greater than five year. See Gries and Ford (1932), page x. In contrast, the average term for mortgages from building and loan associations (and mutual savings banks in the northeast) tended to vary from seven to twelve years. Building and loan associations and life insurance companies generally originated amortizing mortgages. Mutual savings banks and insurance companies were moving toward amortized mortgages. Gries and Ford (1932), page 20, 26. See also Lloyd (1994).

[4] See Gries and Curran (1928), page 5.

[5] See Herzog (2009).

[6] Origination fees for second mortgages typically were 15 to 20 percent of the loan balance. See Gries and Ford (1932), page 28. These high fees were a means of avoiding usury laws that applied to interest rates. See Gries and Curran (1928), page 10. The seller of the property often holds the third mortgage if one exists, Gries and Curran (1928), page 11.

[7] Second liens reduced the downpayment in many cases to less than 10 percent. See Gries and Ford (1932), page 20-21, 29 and Gries.

[8] Many second mortgage companies failed during the depression. Those that survived tended not to lend beyond a cumulative LTV of 75. See Gries and Ford (1932), page 10, 29-30.

These fragilities became clear with the onset of the Great Depression. House prices declined precipitously and unemployment rose sharply. As defaults and foreclosures increased, bank balance sheets came under pressure from the increase in their non-performing mortgages. A study by the Department of Commerce in January 1934 estimated that 45 percent of urban owner-occupied homes with mortgages were in default.[9] In response, the Home Owners' Loan Act of 1933 established the Home Owners Loan Corporation (HOLC) to provide relief to distressed residential mortgage borrowers and their lenders. Over the next three years, HOLC purchased over a million distressed illiquid mortgages from lenders replacing them with highly liquid government guaranteed HOLC bonds.[10] Borrowers, in turn, had their mortgages refinanced by HOLC into an 80 percent loan-to-value (LTV) 15-year amortizing mortgage with a 5 percent mortgage rate.[11]

The focus of HOLC was on balance sheet repair of banks over homeowners.[12] By statute, HOLC could not offer households a refinanced mortgage for an LTV greater than 80 percent based on a current appraisal. For this reason, the appraisals used by HOLC to determine the price to purchase distressed mortgages from banks were, on balance, biased upward. Banks were also given the ability to accept or reject HOLC applications on a loan by loan instead of on a pool basis. Consequently, banks typically were paid face value for most of their distressed mortgages sold to HOLC. This, in turn, limited the degree to which HOLC could provide principal reductions to borrowers. The strategy to support households, instead, was to support the recovery in housing markets so that over time debt amortization and house price appreciation would restore borrower equity.[13] Ensuring the ongoing provision of new mortgage credit was viewed as critical to this strategy.

In 1933, however, there was considerable uncertainty over the near-term path of the economy and house prices. In addition, the private mortgage insurance industry that developed at the turn of the century had collapsed.[14] Without some form of mortgage insurance, banks—even with improved balance sheets as a result of HOLC—would either be reluctant to provide new

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[9] See Wheelock (2008).
[10] HOLC received applications for 1,886,491 refinances and 1,017,948 were approved—an approval rate of 54 percent. See Fisher (1951).
[11] Forbearance of principal payments was also allowed for up to three years. It took until 1951 to wind down the HOLC loan portfolio.
[12] For more details, see Rose (2011).
[13] After 7 years, amortization would produce an updated loan-to-value of 50 percent assuming no change in the house values.
[14] See Alger Commission Report (1935).

mortgage credit, or would charge a high risk premium that would make new mortgages unaffordable. In addition, the HOLC program had inserted the federal government directly in the business of residential mortgage finance. While this was viewed as necessary at the time, there was a strong preference to have the private sector quickly resume the lead role in mortgage lending going forward.[15]

The approach taken to support the private sector provision of mortgage credit was to create a government mortgage insurance program. The National Housing Act of 1934 created the Federal Housing Administration.[16] The goal for the FHA Section 203(b) mortgage insurance program was to make housing and mortgages more affordable and to mitigate fragilities in mortgage finance. Unlike the earlier private mortgage insurance which covered only a portion of the borrower credit risk, the new government mortgage insurance covered all of the credit losses associated with a default. This broader coverage eliminated any need for banks to charge a risk premium even with the considerable economic uncertainty at the time—an important element in keeping mortgages affordable. The FHA insurance required the mortgage to have a 20 percent downpayment on a fully amortizing 20-year fixed rate mortgage. The maximum loan amount was $16,000, but the median house price in 1930 was just $4,778.[17] Consequently, the program covered virtually all of the housing market at the time. Borrowers were charged an annual insurance premium of 50 basis points.[18] The FHA insured mortgages had no prepayment penalty and were assumable. Like the HOLC mortgages, FHA insured mortgages eliminated roll-over risk and facilitated equity buildup through amortization in addition to any future house price appreciation. They also eliminated the high fees associated with second mortgages.[19]

At the outset, the FHA government insurance program was designed to support mortgage lending in the private sector. The economy relapsed in 1937 creating additional strains on housing finance. The Steagall National Housing Act of 1938 expanded FHA's support by reducing the downpayment requirement from 20 to 10 percent for new homes valued less than $6,000. In

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[15] See Herzog (2009), page 18.
[16] Title II, section 203(b).
[17] See Vandell (1995), page 302.
[18] This annual fee was unchanged until 1983 when it was replaced with an up-front premium of 3.8 percent that could be financed into the balance of the mortgage. In 1990, the 0.5 percent annual fee was reinstated for a specific duration depending on the LTV. See Vandell (1995), page 332.
[19] FHA representatives had to meet with each state legislature in order to amend state restrictions against lending institutions holding the types of mortgages to be guaranteed by the FHA. See Lloyd (1994), page 65.

addition, the loan term was extended from 20 to 25 years. Finally, the annual premium was reduced from 50 to 25 basis points. For existing homes, the maximum term remained 20 years and the minimum downpayment 20 percent.[20] The guaranteed mortgages represented 23 percent of new lending between 1935 and 1939. Its lending share increased to 45 percent during the war, but then declined to 18.5 percent between 1945 and 1949.[21]

Over the FHA's initial 20 years, its primary focus was on promoting stability in housing markets through providing insurance on mortgages that emphasized the accumulation of borrower equity. This goal was stated in a 1936 publication by the FHA.

> "The possession of a home, free and clear of all debt at the earliest possible date, should be the goal of every American family."[22]

That is, at its conception, sustainable homeownership was a core mission for the FHA— the concept of homeownership was understood as a path to owning a home free and clear. Sustainability was supported by a focus on borrower equity—both initially through a downpayment and over time through debt amortization. Consequently, by design, there was only modest credit risk on these FHA insured mortgages. From 1934 to 1954, the FHA insured 2.9 million mortgages and in only 9,253 cases did the borrowers go through a foreclosure—a rate of only 0.3 percent.

The focus of the FHA providing insurance on stable mortgages that emphasized equity accumulation diminished over time. As of 1950, with the amendments to the National Housing Act, Section 203 mortgages on existing home mortgages were still subject to the 20 percent minimum downpayment and 20 year maximum term as in the original 1934 legislation.[23] The current FHA loan term of 30 year was not authorized until 1948 for new construction and 1954 for existing homes.[24] In a series of legislative changes in the 1950s, minimum downpayments were reduced from 12.5 (20) percent for new (existing) homes under $10,000 in 1950 to 3 (3) percent in 1957.[25] As a consequence of these changes, the amortized LTV on a $10,000 home after five years (assuming no

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[20] See Fisher (1951)
[21] See Vandell (1995), page 307.
[22] FHA (1936).
[23] Section 203 refers to the main FHA insurance program. See McFarland (1963), page 22.
[24] See Pinto (2015).
[25] This reflected legislative changes in 1954, 1956, 1957, 1958, 1959 and 1961. See McFarland (1963), Table 7.

house price appreciation) increased from 76.5 percent in 1950 to 91.5 percent in 1961.[26] Currently, the minimum downpayment is 3.5 percent.[27] In addition, borrowers today can finance their up-front mortgage insurance premium which further raises the origination LTV and hence borrower leverage. The move to a 30-year term and minimal downpayment shifted the FHA's focus over time from sustainable to "affordable" homeownership.

Fisher (1951) writing before the significant liberalization of FHA insurance requirements commented on the likely futility of trying to maintain affordability in a rising house price environment by relaxing underwriting terms.

> "As prices rise, and it becomes difficult, in spite of the liberalization of mortgage terms, for purchasers to make the required down payments and to carry the necessary monthly payments, a demand ordinarily develops for further lengthening of term and reduction of down payment. Such changes assume, however, that the debt service will be reduced. For it to be so prices would have to remain unchanged. In a buyer's market, they probably would, but apparently not in a seller's. In the latter it is more likely that the liberalization of mortgage terms will increase both the price and the amount of the debt, with debt service remaining approximately unchanged." (page 82)

In this case, further demands for liberalization of lending terms are often made.

A direct consequence was a dramatic increase in default rates on FHA mortgages. Figure 1 presents Section 203 related foreclosure counts for the period from 1948to 1961. In a sample of foreclosures between July 1961 and March 1962, FHA mortgages on existing homes with LTVs between 96 and 97 accounted for 49 percent of total foreclosures yet only 16.8 percent of total insured mortgages.[28] This connection between the increase in foreclosures and the easing of FHA underwriting standards was identified in the FHA's 1963 report.[29]

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[26] The 10-year amortized LTV increased from 63 percent in 1950 to 84.3 percent in 1961. See McFarland (1963), Table 8.
[27] This applies to borrowers with a credit score of 580 or higher.
[28] In contrast, mortgages with LTVs of 80 or less accounted for only 1.2 percent of all foreclosures and 12.4 percent of total insured mortgages. McFarland (1963), Table 12.
[29] Foreclosures in the early 1950s were also subdued due to rapid house price appreciation.

> "There can be no question that the assumption by FHA of progressively increasing risks to accomplish the legislative objective of making home purchases more widely possible has had an influence on the recent FHA property acquisition experience."

From 1977 to 2013, the average FHA default rate had increased to twelve percent— forty times higher than the rate over its first 20 years.[30]

This default rate is inconsistent with claims that the FHA has remained focused on sustainability. Going forward, if the FHA maintains a goal of sustainable homeownership, then it would be helpful to take accountability for the goal and produce a scorecard on its performance relative to this goal.

Measuring Sustainability of Homeownership

What are the factors that one would look at in defining and measuring the sustainability of homeownership for first-time buyers? A clear case where sustainability is not met is when the borrower defaults and loses the house damaging his/her credit rating. Conditional on a default, it will take years for the borrower to repair his/her credit and potentially again transition back to homeownership.[31] To date, the FHA has not clarified what default rate it views as compatible with a goal of sustainable homeownership. This is an important first step.

As discussed in Caplin et al (2015), in the case of the FHA default should be measured at the borrower and not the mortgage level. The FHA has an internal refinance program that allows borrowers with FHA-insured mortgages to refinance even if they are in negative equity. In fact, borrowers can refinance multiple times. This is a sensible program given that the FHA already has the credit exposure to the borrower and a lower mortgage rate will reduce the likelihood of a default.[32] During the housing bust and the Great Recession, this internal refinancing activity was quite prevalent. As a result, if we followed a first-time FHA purchase mortgage and observed that it was paid off in full, this could be associated with an internal refinance and not a sale of the house and pay down of the FHA's credit exposure to the household. In addition, the refinance mortgage

[30] See Pinto (2015). Also, see Vandell (1995) for a discussion of the FHA and broader housing policy from the 1970s to the early 2000s.
[31] See Brevoort and Cooper (2010).
[32] See for example Tracy and Wright (2016) and Fuster and Willen (forthcoming).

that replaces the original purchase mortgage could subsequently end in default. Consequently, we need to follow the borrower through any FHA refinance mortgages connected to the purchase mortgage to determine if the borrower defaulted or successfully paid off the credit risk to the FHA. Previously, this was a difficult empirical exercise for outside researchers, but could easily be done using internal FHA data. As we will discuss, new data allow us to compute FHA default rates at the borrower level.

On the other end of the spectrum, those first-time borrowers who sustain their homeownership by remaining homeowners consist both of those households that move and those that don't move. For the households that move and remain homeowners, we can divide them into those that no longer rely on an FHA-insured mortgage and those that still have an FHA-insured mortgage. Similarly, for those households who did not move, we can divide them into those that refinanced to a non-FHA-insured mortgage and those that still have an FHA-insured mortgage.[33] For both the movers and the stayers who remain homeowners, we may want to count as more successful those households who have "graduated" out of the FHA system. For the movers, we want to allow for the possibility that a household may rent for a brief transition period between homeownership experiences. The length of this period needs to be selected so that if the household is not observed owning a home during this period, then we are comfortable treating this as a real break in the homeownership experience.

In this partition of FHA first-time homebuyers, the remaining group consists of those households who pay off their credit risk to the FHA without a default, but who do not transition to a new homeownership experience during the allowed period of time. That is, these are households who are observed continuously renting for the full time period selected following the pay down on their credit risk to the FHA. Like defaulters, this group did not sustain their homeownership. However, the costs of their failure to do so are much less than for the group of defaulters.

Implementing this partition of the long-term outcomes of FHA first-time homebuyers involves considerable demands on the data. Initially, we need to be able to identify first-time FHA purchase mortgages apart from trade-up FHA purchase mortgages. The FHA classifies a purchase mortgage as a first-time mortgage if the borrower has not had a mortgage in at least three years. A

[33] For well-seasoned vintages, a household that is still in its original FHA purchase mortgage (or a subsequent internal refinance) has demonstrated sustainable homeownership. For newer unseasoned vintages, many of these households will likely move into one of our other outcome categories as time goes by.

cleaner identification would look to see that there are no mortgage liens in a borrower(s) full credit history.

Having identified the set of FHA first-time homebuyers, we need data that allow us to track these households over time and observe any subsequent mortgage liens and the locations of the properties that secure them.[34] This combination allows us to properly measure FHA default rates for first-time homebuyers. In addition, the availability of subsequent mortgage lien and location information allow us to classify households that transition to new homeownership experiences and those that transition to renting. Loan level mortgage servicing data will not meet these data requirements.

FRBNY Consumer Credit Panel

Here we describe the data that we use to produce an example scorecard on sustainability of FHA first-time homebuyers. The FRBNY Consumer Credit Panel (CCP) is a five percent random sample of U.S. households with credit files derived from Equifax where we can follow the credit files of the household members over time. The quarterly data begin in 1999. In addition to a detailed summary of the households' credit at each point in time, the data have scrambled mailing addresses for the household along with zip codes and county information. Narrative codes are provided which allow us to identify mortgage liens as FHA, VA, GSE securitized and "Other" (privately securitized and bank portfolio).[35] For each mortgage, the current balance and the payment status as of the end of that quarter is provided.

The CCP satisfies the data requirements for our sustainability scorecard. We are able to create a cleaner identification of first-time FHA homebuyers than the official FHA measure by being able to look at the entire history of the households' credit files back to 1999 in conjunction with the information indicating the age of the oldest mortgage including open and closed mortgages on the credit report. We define a first-time mortgage as the first appearance of an active mortgage since 1999 and no trace of any prior closed mortgages on the borrower's credit report. We start our

[34] In the CCP data the location information is the mailing address for the borrower.
[35] The GSE mortgages originated by some lenders were not coded as such and we classified them as "other". Consequently, the GSE category is an undercount of the GSE population.

analysis with the 2001 cohort of first-time homebuyers. This gives us a much longer window than the FHA's definition using a 3 year window.[36]

By observing the mortgage balance and location of the household, we can identify internal FHA refinances. This allows us to follow a household from its first-time FHA purchase mortgage through any subsequent FHA refinances to the final disposition of the FHA credit exposure on that property. If any subsequent internal refinance mortgage goes into default, we link that default back to the original purchase mortgage.

The CCP also allow us to determine if a household continues homeownership following the payoff of its FHA first-time credit exposure. We can identify if the household moves addresses, remains in the same zip code or moves to a new zip code, and whether they acquire a new mortgage lien. We interpret the absence of any mortgage lien associated with a different address as evidence that the household is renting.[37]

FHA First-Time Homebuyers

Dimensions of the First-Time Market

We turn now to using the CCP data to provide some description informative on first-time homebuyers in general and on FHA first-time homebuyers in particular. Figure 2 shows flow by year of purchase mortgages broken down by first-time versus repeat status. The flow of purchase mortgages peaked in 2003 at 7.1 million.[38] The pace of new purchase mortgages then declined reaching a trough in 2011 at 2.4 million—a third of its prior peak. Purchase mortgage originations since 2011 have slowly recovered reaching 3.6 million in 2016.

In 2002 the share of first-time mortgages of overall purchase mortgages was 45 percent. As the housing boom intensified, the first–time share declined modestly to 40 percent. From 2008 to 2010, with the onset of steep house price declines associated with the housing bust, the first-time

[36] This definition was introduced in the Federal Housing Enterprises Financial Safety and Soundness Act of 1992. Beginning that year, the Uniform Residential Loan Application collected this information in Section VIII m.
[37] We would misclassify situations where a household inherits a parents' house and moves in without a mortgage, or inherits enough wealth to be able to pay cash for a house.
[38] Note that the peak in purchase mortgage originations was three years prior to the peak in house prices.

share increased reaching 51 percent in 2010. Over the next three years, the first-time share again dropped, reaching back to 42 percent in 2013. Since then, the first-time share has recovered somewhat and held steady at around 45 to 46 percent.[39] Appendix Figure A1 provides a quarterly time-series on the first-time purchase mortgage share from 2002 to 2016 using both our definition and the traditional 3-year look back definition. Using only the traditional 3-year look back to define first-time buyers consistently overstates the first-time share by 10 percentage points or more..

Figure 3 shows the flow of first-time purchase mortgages by year disaggregated by FHA, VA, GSE and other. From 2001 to 2006, the volume of GSE first-time mortgages fluctuated from 1.5 to 3.8 times the volume of FHA first-time mortgages. The overall flow of first-time purchase mortgages peaks in 2003 at around 3.2 million loans. In the early 2000s, both the FHA and GSE market shares of first-time mortgages were being competed away by the private label security (PLS) market. This compression of the FHA and GSE shares continued until 2006 and then started to reverse in 2007 as the PLS market began to implode. By 2008, as the financial crisis intensified, FHA first-time originations began to grow dramatically and eclipsed GSE originations from 2009 to 2012. The GSE market share began to recover slowly beginning in 2012.

Figure 4 shows by year the share of FHA first-time purchase mortgages relative to all FHA purchase mortgages. First-time buyers have traditionally been a very important constituent for the FHA. In the early to mid-2000s, first-time mortgages represented from 73 to 77 percent of all FHA purchase mortgage originations. Close behind, during this period the first-time share for the VA program was between 56 and 61 percent. In contrast, the first-time share for the GSEs and Other programs were much lower at around 39 percent. With the onset of the financial crisis, the FHA's first-time share dropped to 66 percent in 2008, and continued to trend downward reaching 58 percent in 2015. The FHA's first-time share rebounded in 2016 to 62 percent.

The credit profile of FHA first-time buyers over time is shown in Figure 5. From 2001 to 2007, borrowers with credit scores below 640 represented around half of the flow of new FHA first-time buyers. As the FHA's role in the first-time market expanded in 2008, it began to attract higher credit borrowers. The share of FHA first-time buyers with credit scores below 640 declined to

[39] Oliner and Pinto (2016) report a first-time share of 52.1% in March 2016 up from 51.4% in March 2015 based on data that define a first-time buyer using a 3-year look back period. The CCP data indicate lower first-time shares of 44% in 2016 Q1 and 43% in 2015 Q1. When we restrict our definition of first-time buyer to only look back 3 years, we get shares around 61 to 62 percent for these two time periods—higher than the Oliner and Pinto estimates.

roughly a third of its flow in 2008 and 2009, and remained around a quarter in 2010 to 2016. In comparison, as shown in Figure 6 the credit profile of VA first-time buyers is relatively better than those with FHA. The share of VA first-time buyers with credit scores below 640 was around 35 percent in 2001 to 2007, and declined to about 20 percent in 2010 to 2016.

An FHA First-Time Buyer Sustainability Scorecard

With this background, we now turn to describing how the FHA has performed on its mission of sustainable homeownership for its first-time buyers. Figure 7 shows the five categories of outcomes discussed earlier for the 2001 to 2010 cohorts. We will focus our discussion on the 2001 and 2002 cohorts of FHA first-time buyers for two reasons: we have the longest history to track their sustainability and they were less impacted by the financial crisis relative to later cohorts. Starting with the most obvious example of a failure of sustainability, roughly 12 percent of the 2001 and 2002 FHA first-time buyers had their homeownership experience end in default[40]. The default rates increased for later cohorts reaching a maximum of 30 percent for the 2006 cohort of FHA first-time buyers.

The second category representing a failure of sustainability of homeownership consists of those first-time buyers who are able to pay off their FHA mortgage, but who transition back to renting. Again, we use a three year time window after the payoff of the FHA mortgage for a household to transition back to homeownership. The data indicate that 12 percent of these two cohorts of FHA first-time buyers transitioned back to renting after paying off their FHA mortgage. While these buyers did not incur the costs of default, they did not sustain their homeownership. Combining the two, between 24 percent of these two vintages of FHA first-time buyers did not sustain their homeownership.

The most compelling category of sustainable homeownership consists of those households who pay off their FHA first-time mortgage, move and remain homeowners without the need for a

[40] Default is defined as terminating the loan history with "120+ days past due" or "charged off."

subsequent FHA mortgages.[41] These households graduate out of the FHA system while remaining homeowners.[42] For the 2001-2002 cohorts, 55 percent met this criteria.

The final two categories fall in the middle between clear success and failure to sustain homeownership. The first are those households who remain in the same home continuing to pay off their FHA first-time mortgage (or subsequent refinance). For the 2001-2002 cohorts, these households have been homeowners continuously for 14 to 15 years. Consequently, they are building up equity in their homes and have experienced sustained homeownership. However, what we do not know is whether some of these families desired to move, but remained perhaps due in part to a financial friction associated with their FHA mortgages.[43] This category represents about 10 to 12 percent of these two cohorts of FHA first-time buyers.

The second of these two groups are those households who pay off their FHA first-time mortgage and purchase a trade-up home. However, they finance this trade-up purchase with an FHA mortgage. That is, they do not graduate from the FHA system. Again, these households are able to sustain their homeownership and to move. In this sense, they are a success. A goal of the FHA may be, though, to allow more households to be able manage this transition without needing an FHA mortgage. Roughly 8 to 10 percent of the 2001-2002 cohorts fell into this category.

As we have demonstrated, the CCP data allow us to develop a scorecard for FHA sustainable homeownership. Focusing on the 2001 and 2002 cohorts, the data indicate that 55 percent of first-time buyers sustained homeownership using the most conservative definition. Using a less conservative definition of sustainability, the data indicate that 80 percent of FHA first-time buyers in these two cohorts sustained their homeownership experience.

In Figure 8 we provide for comparison a similar scorecard for VA first-time buyers. The same categories are used as we did for the FHA program. The default rates for the 2001 and 2002 VA first-time cohorts were from 3 to 6 percent—at most half the default rates for the same FHA cohorts. A higher fraction of these VA cohorts, though, transition to renting after paying off their

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[41] The combination of moving and remaining homeowners implies that these households purchased a trade-up home and financed it with a non-FHA mortgage.

[42] Vandell (1995) page 332 points out that the in the early 1990s the "unused" portion of the FHA insurance premium could be refunded to borrowers who refinanced into a conventional mortgage instead of another FHA mortgage. This suggests an interest by the FHA in first-time borrowers graduating from the FHA mortgage guarantee program.

[43] FHA mortgages are assumable but not portable. The assumable feature should mitigate financial frictions.

VA mortgage. Consequently, around 20 percent of households in these two VA cohorts fail to sustain their homeownership experience. While this is slightly lower than the percentage of FHA first-time buyers that either default or return to renting, the two programs differ more in terms of the mix between defaulters and non-defaulting renters.

In terms of clear cases of sustainability, 41to 51 percent of the 2001-2002 VA cohorts pay off their VA mortgage, move and remain homeowners without relying on a subsequent VA mortgage—a lower percentage than for the FHA program. When we add in those households that move but rely on a VA mortgage for their trade-up purchase, the FHA and VA programs have similar sustainability results for these two cohorts. Appendix figures A2 and A3 provide similar sustainability analysis for GSE and other first-time buyers.

Conclusion

A stated mission of the FHA mortgage insurance program is to support sustainable homeownership. An examination of the history of the FHA program illustrates a strong initial focus on sustainability, but legislated changes in the 1950s and early 1960s shifted the focus to affordability. If sustainability remains an important goal for the FHA, then it would be desirable for the FHA to define what they mean by sustainability and to track their performance over time. Only by being transparent and holding themselves accountable can the FHA improve on this objective over time.

In this paper, we have demonstrated that data are now available to track a variety of measures of sustainability. This demonstrates the feasibility for the FHA to develop a sustainability scorecard. The objective of this paper was neither to argue for any particular definition of sustainability, nor to define numerical goals for any specific measure. Rather, the objective was to illustrate that there are no data related obstacles prohibiting the FHA from undertaking this analysis and reporting on its findings. By doing so, the FHA can better run its program and thus maintain taxpayer support.

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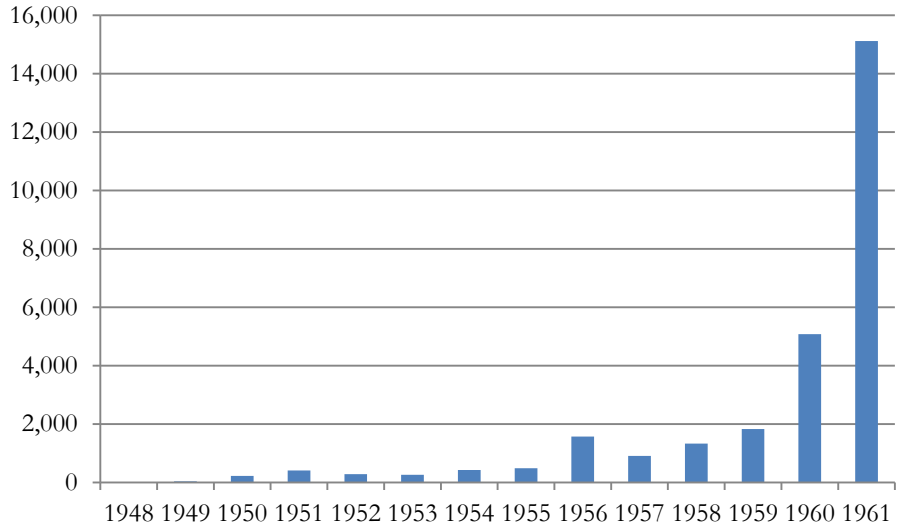
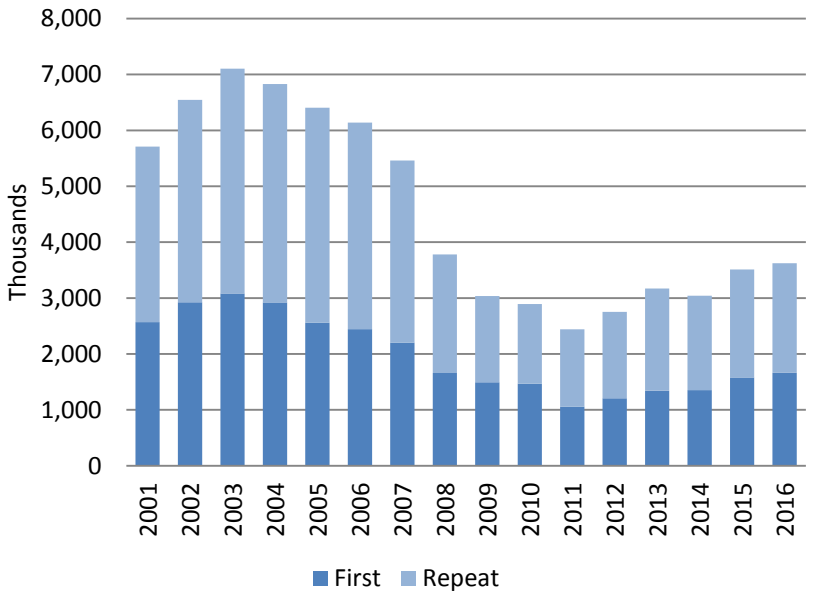
Figure 1. FHA Foreclosure Counts: Section 203



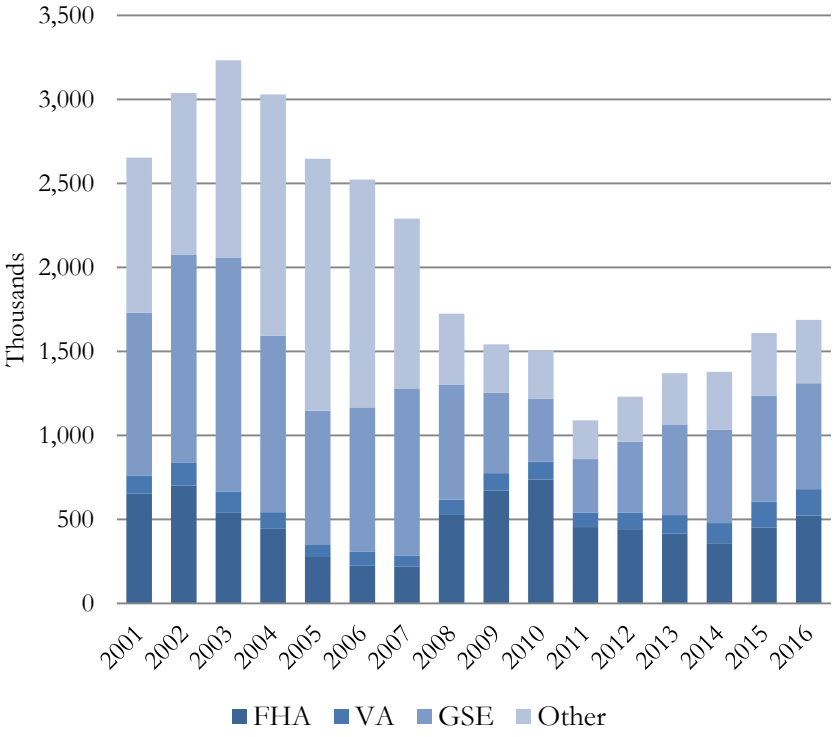
Source: McFarland (1963), Table 2.

Figure 2. Purchase Mortgage Originations: First-Time and Repeat



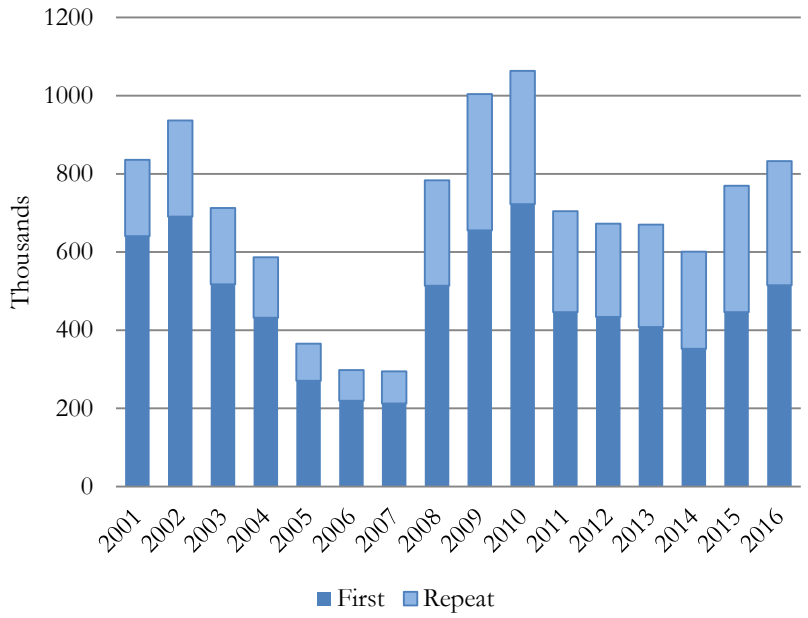
Source: New York Fed CCP/Equifax data authors' calculations

Figure 3. First-Time Purchase Mortgage Originations: By Type



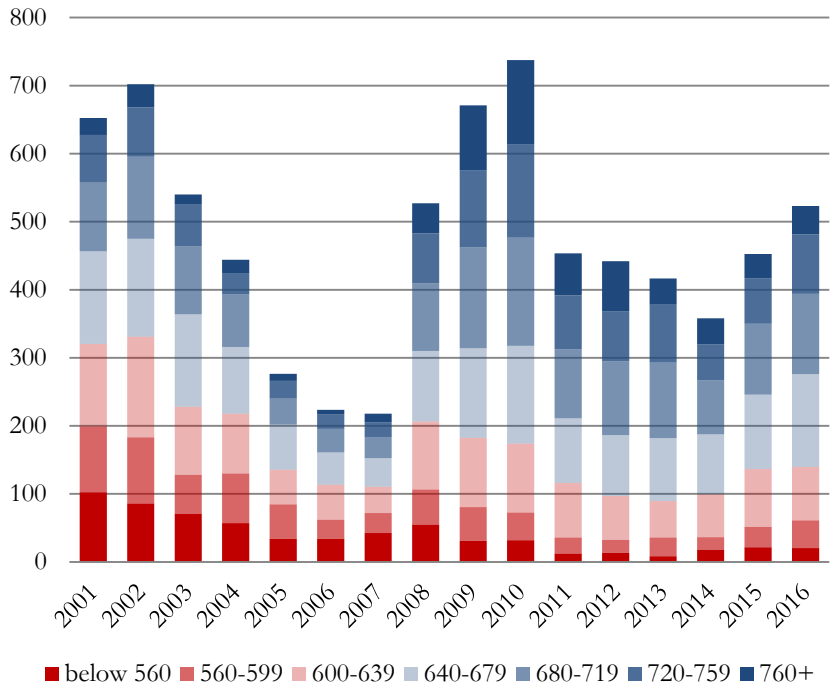
Source: New York Fed CCP/Equifax data authors' calculations

Figure 4. FHA First-Time Purchase and Repeat Mortgage Originations



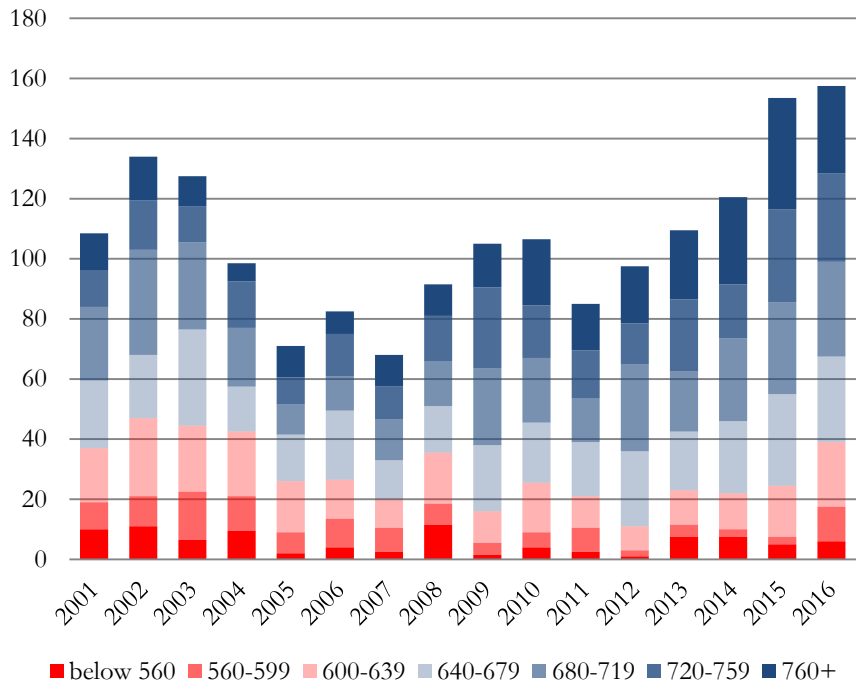
Source: New York Fed CCP/Equifax data authors' calculations

Figure 5. Credit Score Distribution for FHA First-Time Buyers



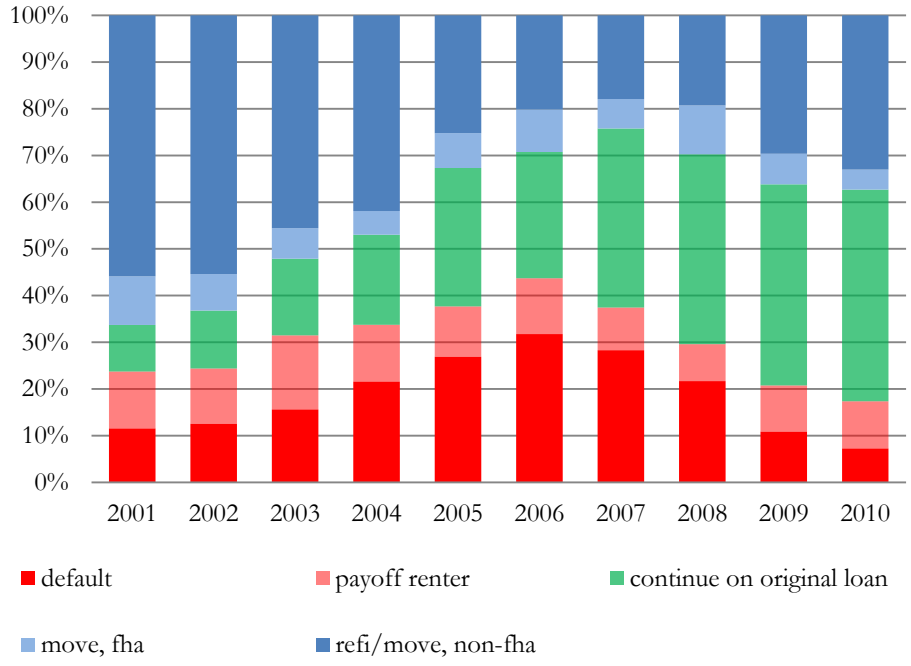
Source: New York Fed CCP/Equifax data authors' calculations. Credit Score = Equifax Risk Score

Figure 6. Credit Score Distribution for VA First-Time Buyers



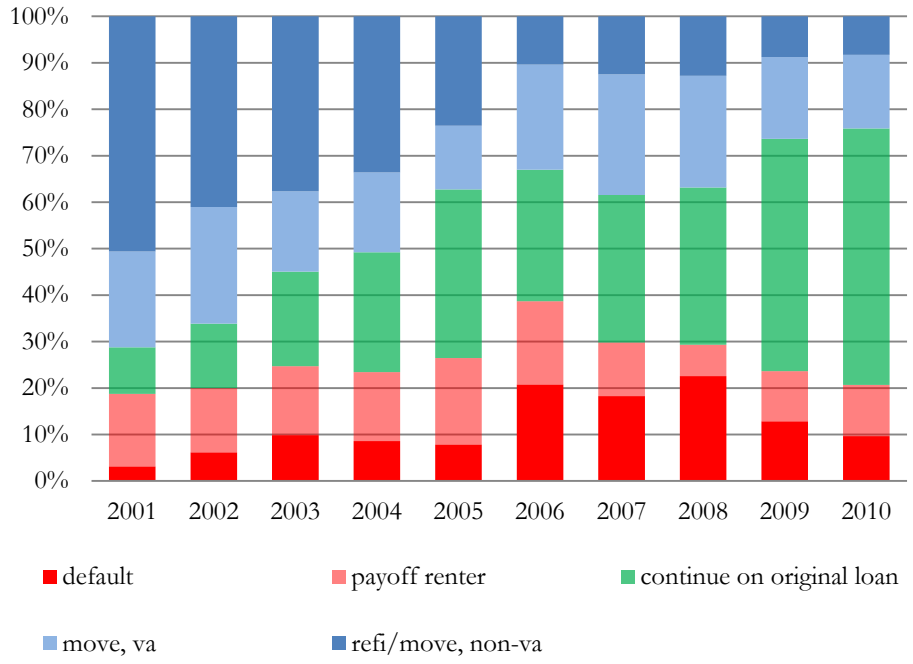
Source: New York Fed CCP/Equifax data authors' calculations. Credit Score = Equifax Risk Score

Figure 7. FHA First-Time Buyer Sustainability Scorecard



Source: New York Fed CCP/Equifax data authors' calculations

Figure 8. VA First-Time Buyers Sustainability Scorecard

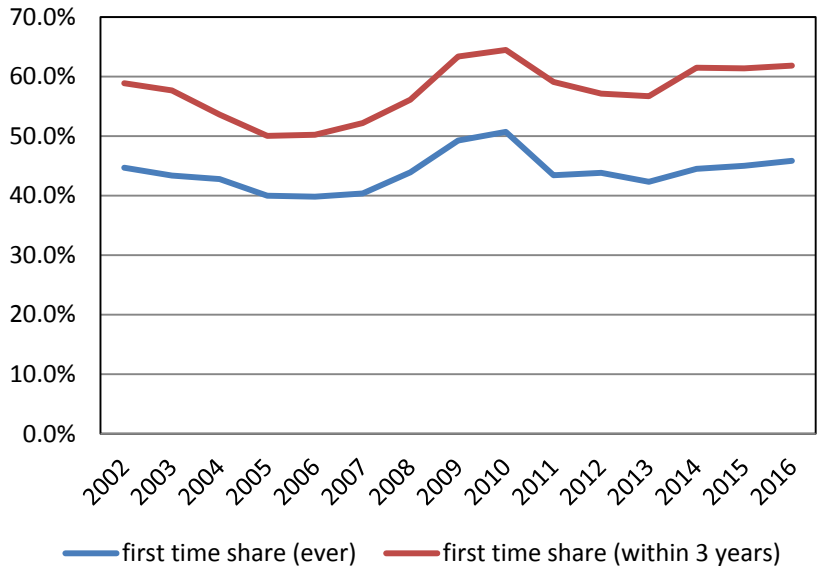


Source: New York Fed CCP/Equifax data authors' calculations

Appendix:

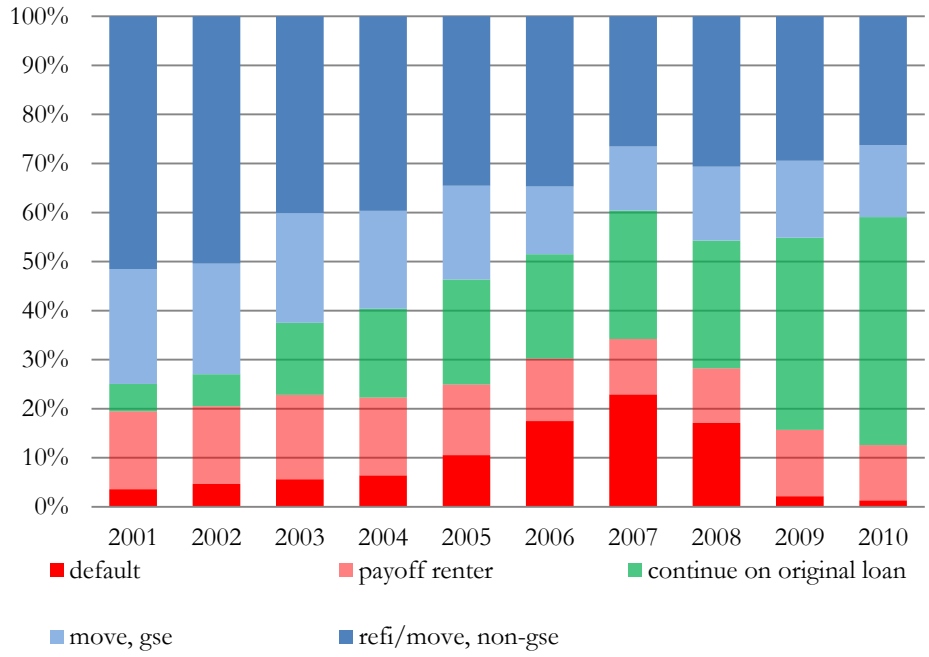
For completeness in Figures A2 and A3 we provide sustainability scorecards for the remaining two first time mortgage categories—GSE and Other. In each of these cases, there is not a similar reason to distinguish between movers who purchase a trade-up house using a similar type mortgage. However, for comparability we break out these two categories as before.

Figure A1: First-Time Purchase Mortgage Share



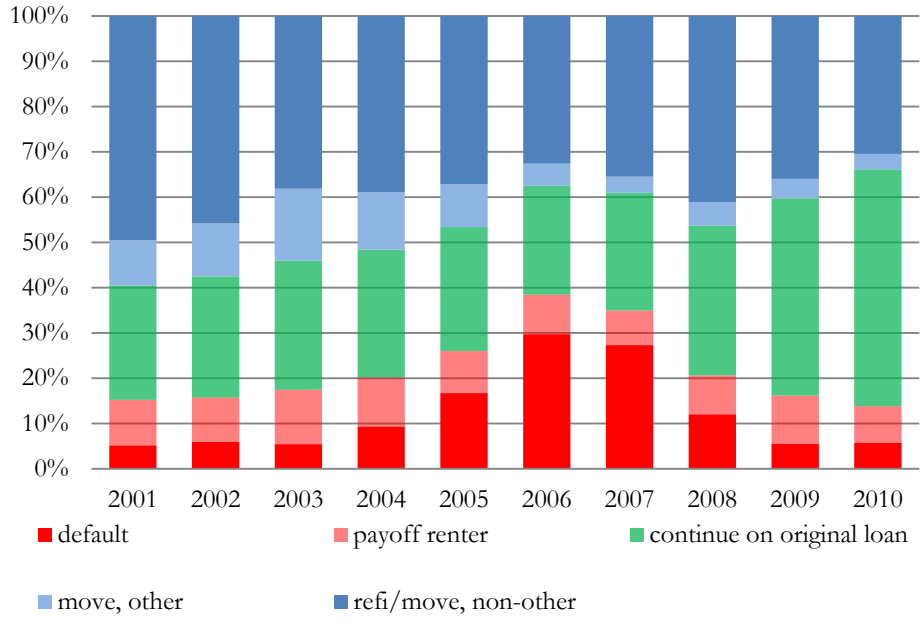
Source: New York Fed CCP/Equifax data authors' calculations

Figure A2: GSE First-Time Buyer Sustainability Scorecard



Source: New York Fed CCP/Equifax data authors' calculations

Figure A3: Other First-Time Buyer Sustainability Scorecard



Source: New York Fed CCP/Equifax data authors' calculations