

SPOTLIGHT ON UNDERSERVED MARKETS

Single-Family Rental | An Evolving Market




Freddie Mac
MULTIFAMILY



Single-Family Rental: An Evolving Market

Across the United States today there are nearly 43 million renter households – 35.5 million live in urban and suburban markets and 7.5 million in rural markets.¹ Typically, rental housing is thought of as apartments: high-rise and mid-rise buildings downtown, garden apartments out in the suburbs and federally subsidized housing around the country. Indeed, over 18 million renter households live in multifamily buildings like that. But where do the other 25 million renter households live? The answer, for an overwhelming majority, is in single-family rental (SFR) homes. These homes can take many forms — detached homes, townhomes and two- to four-unit properties — and can be found in nearly any market in the country. Indeed, in rural markets, SFRs make up 66 percent of the rental housing stock.² In fact, this market is so widespread that it amounts to a valuation of well over \$4 trillion,³ compared with \$3.7⁴ trillion for the traditional five or more unit multifamily market. Despite the size of the valuation and ubiquity of SFRs, the SFR market is not broadly understood (though increasing attention is being paid to it by investors and policymakers alike).

In this paper we provide a consolidated understanding of the SFR market overall as well as its importance in rural communities as defined by the Federal Housing Finance Agency (FHFA) in the Duty to Serve (DTS) regulation. We analyze market size and demand, geographic distribution and affordability; we break out the different tiers of investors and how they access financing and investment capital; and we examine Freddie Mac's SFR pilot to date for trends, using both aggregated data and three case studies that demonstrate the breadth of SFR opportunities.

We find that:

1. The SFR market is the single largest segment of the rental market by valuation and households served
2. The overwhelming majority of SFRs are owned and operated by individuals or very small investors
3. There is a slow-growing middle-tier investor market with further potential for growth
4. Large-scale institutional investors are a new entry into the market, but are limited to a select few firms that own approximately 1 percent of SFRs
5. Apart from these select few institutional investors with access to the capital markets, there are limited secondary market opportunities for SFR loans with middle-tier investors that would

¹ Freddie Mac tabulations of 5-Year 2016 American Communities Survey data

² Freddie Mac tabulations of 5-Year 2016 American Communities Survey data

³ Amherst Capital estimates scaled up to include two- to four-unit properties

⁴ NMHC estimate found at <https://www.nmhc.org/research-insight/quick-facts-figures/quick-facts-investment-returns-on-apartments/#Apt-stock>

provide liquidity and stability, and there is not a uniform set of terms and credit standards for loans on SFRs

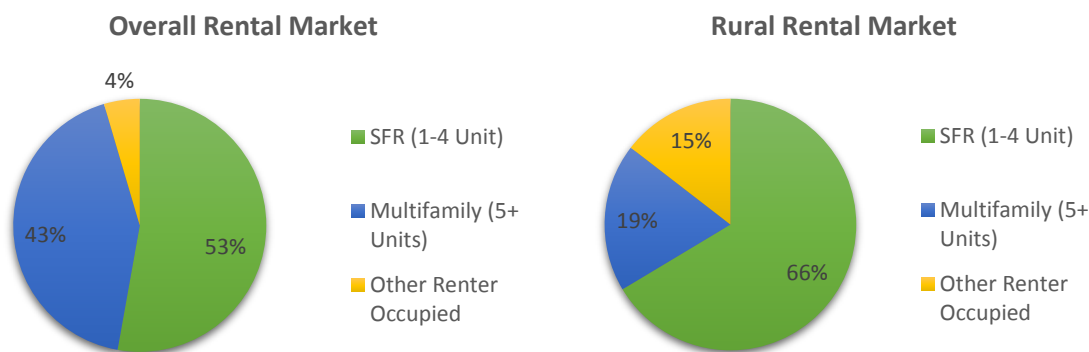
- Freddie Mac’s pilot included both middle-tier investors and affordable homes in select large-investor portfolios and demonstrated how a secondary market infrastructure focused on SFRs affordable at 80 percent of the area median income (AMI) could be created and operated, particularly for middle-tier investors

SFR Market Overview

Market Size Estimates

SFRs have long made up a significant portion of the national overall rental market, and the number has grown in recent years. Pre-recession data, from 1985-2005, shows that SFRs have consistently made up 10-12 million units, or 30-35 percent of the renter market share.⁵ Since the Great Recession, this sector has been the fastest growing segment of rental occupied households (particularly in FHFA defined High Opportunity Areas), adding 4 million rental homes, which is an increase of 35 percent over the past 10 years, according to 2016 American Community Survey (ACS) data. These estimates look only at single-unit dwellings (which today would still make up 35 percent of the rental market per 2016 ACS, recognizing the overall rental market has grown). When adding the roughly 8 million two- to four-unit properties, the total number of SFRs is approximately 23 million, or 53 percent of the total rental market. In rural markets, there are nearly 5 million SFR households, which is 66 percent of the rural rental market of 7.5 million households.

Figure 1: Rental Market Distribution by Housing Type by Share of Households



While the SFR market has existed for some time, scalable investment interest, and therefore research interest, has increased in recent years. Despite this, there is not a uniform view of market valuation, and such valuations are dependent upon how different organizations define SFRs. For example, Amherst

⁵ Amherst Capital White Paper: U.S. Single-family Rental – An Emerging Institutional Asset Class <https://www.amherstcapital.com/documents/20649/22737/US+SFR+Emerging+Asset+Class/9d84e0da-4a9f-4665-9880-88a4515d9d2b>

Capital — an investor in SFRs — estimates market value to be approximately \$3.1 trillion based on single-unit SFRs using Census Bureau data (scaled up based on 2016 ACS to estimate 15.4 million SFRs, which is more than 2016 ACS alone shows). This is smaller than their estimated \$3.5 trillion five or more unit multifamily market, but larger than the other commercial real estate (CRE) sectors: office (\$2.2 trillion), retail (\$2.7 trillion), industrial (\$1.6 trillion) and hospitality (\$0.9 trillion).⁶ However, Amherst Capital's estimate only includes one-unit dwellings. Given that there are nearly 8 million two- to four-unit properties, which we view as part of the SFR market, the SFR market valuation is substantially larger. Using an estimated property value of approximately \$200,000 based on Amherst Capital's assumptions for one-unit dwellings (~\$3.1 trillion/15.4 million), the approximately 8 million two- to four-unit properties they estimate could add an additional \$1.6 trillion to the market, bringing the total estimated valuation to \$4.7 trillion.

HouseCanary, a research firm that specializes in SFRs, has a different estimate based on their analysis of public records. They focus on single-family detached homes (which would exclude townhomes and any detached two- to four-unit properties) and value the market to be \$4.2 trillion. This is larger than the traditional multifamily market.

Whatever the total valuation of the SFR market may be, it is important to recognize that (1) it is substantial, and (2) not all the homes have mortgage debt on them or are eligible for, or even likely to pursue, financing. Indeed, investments in this market space are not funded uniformly with mortgage debt, as is the case in the single-family ownership market or the multifamily rental market. However, if the leverage in this market were similar to the traditional multifamily market (35 percent Loan-to-Value (LTV)), that would suggest a debt market of over \$1 trillion to \$1.5 trillion. Debt market size should be considered with some caution, however, given that there is not the same standardization or access to credit as there is in the single-family ownership market or the multifamily rental market, and only a subset of participants is likely to make deliberate and scaled pursuit of financing — whether through mortgage debt or other means. This is clearer when we view the market by different segments of ownership types.

SFR Market Segmentation by Ownership Types

To understand the presence of different ownership types in the SFR market, we commissioned data analysis from HouseCanary. In their data, they focus on single-unit dwellings. While not the entire SFR market, we can use this as a proxy to understand ownership type distribution generally. In this data, we see that today there are more than 15.5 million different investors owning approximately 23 million units.

While the SFR market has been sizable and active for decades, it is still highly fragmented, though we can see the beginning of some consolidation. At this stage several distinct stratifications of market

⁶ Amherst Capital White Paper: U.S. Single-family Rental – An Emerging Institutional Asset Class

participants have emerged: institutional investors, middle-tier investors, small investors and very small investors, which defined in Figure 2.

Figure 2: SFR Market Share by Owner Type⁷

	Portfolio Size	Population of Investors	SFR Properties	Estimated Market Share
Institutional Investors	2,000+	18	~188,000	1%
Middle-Tier Investors	50-2,000	~6,250	~703,000	4%
Small Investors	11-50	~88,000	~1.6MM	7%
Very Small Investors	1-10	~15.5MM	~19.3MM	88%

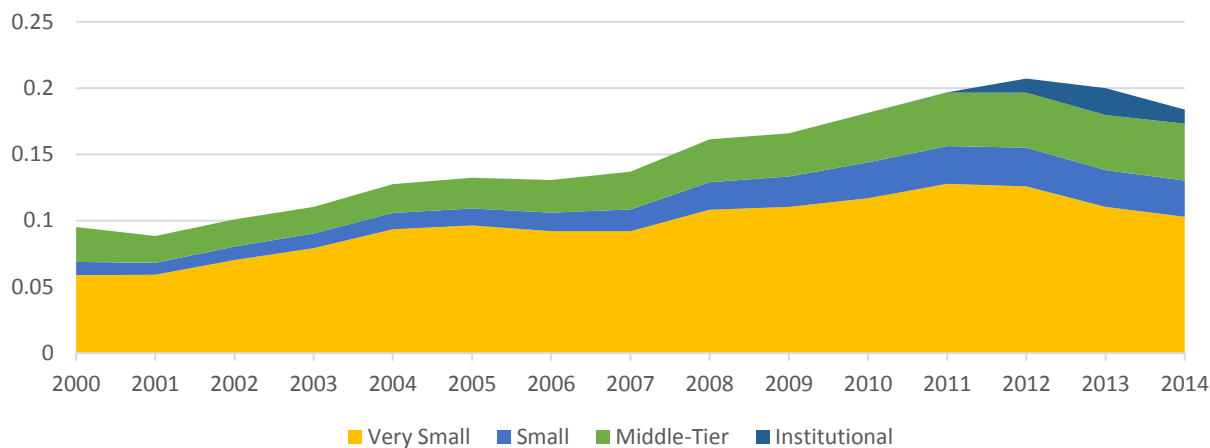
While all segments have increased their activity since 2000, very small investors easily remain the largest single participant in the market space, while institutional investors are the most financially sophisticated and able to act at considerable scale. However, the institutional participants make up only a small percentage (1 percent) of the total SFR market, and have only recently begun acquiring and operating portfolios of homes.

A further breakout of these segments of the SFR market into smaller categories indicates that the large institutional investors did not enter the market until 2012 and have only accounted for 1-2 percent of the total share of purchases through 2014. Per analysis from James Mills, Raven S. Molloy and Rebecca E. Zarutskie, these large institutional investors have spent \$16 billion in purchases from 2012-2014 with an additional \$3 billion in renovations.⁸ The following chart summarizes the annual single-family home purchases by the categories of SFR ownership types.

⁷ Based on data from HouseCanary for single unit SFRs

⁸ James Mills, Raven S. Molloy, and Rebecca E. Zarutskie (2015). "Large-Scale Buy-to-Rent Investors in the Single-Family Housing Market: The Emergence of a New Asset Class?," Finance and Economics Discussion Series 2015-084. Washington: Board of Governors of the Federal Reserve System, <http://dx.doi.org/10.17016/FEDS.2015.084>.

Figure 3: Share of Single-Family Home Purchases by Owner Type



Source: Freddie Mac analysis of data from *Large-Scale Buy-to-Rent Investors in the Single-Family Housing Market: The Emergence of a New Asset Class?* By James Mills, Raven S. Molloy, and Rebecca E. Zarutskie

Geographic Distribution of the SFR Market

The SFR market is not a uniform national market. It varies by geography. Some geographies have higher concentrations of SFRs than others, and in some parts of the country, SFRs are overwhelmingly the predominant rental option. Additionally, the ownership types of SFRs vary around the country, with nearly all SFRs owned by institutional investors being located in non-rural markets. In this section, we look at both the geographic distribution of the properties, as well as the different concentrations of ownership types.

Geographic Distribution of Properties

Nationally, of the 22.6 million renter households living in SFRs, about five million live in rural areas as defined in the DTS regulation, while 17.6 million live in non-rural areas. In non-rural areas, SFRs comprise half of the rental housing stock, while in rural areas, they comprise 66 percent of the stock. This is naturally a reflection of a less concentrated population, but it also speaks to the importance of this form of rental meeting the needs of rural residents. Indeed, in rural markets, the percentage of renter households living in “other” forms of rental housing, such as manufactured homes, RVs, or houseboats, is almost as large as the shared living in multifamily units (15 percent vs. 19 percent).⁹ Often these other forms of rental homes are not new homes, but rather rentals of older stock in various levels of disrepair.

⁹ Freddie Mac tabulations of 2016 ACS data

Figure 4: Geographic Distribution of Rental Housing by Rural and Non-Rural Areas

	Counts			Percent of Renter Occupied		
	All	Rural	Non-Rural	All	Rural	Non-Rural
Renter Occupied	42,835,169	7,530,332	35,304,837			
Single-Family Rental (1-4 Units)	22,621,205	4,999,804	17,621,401	53%	66%	50%
Multifamily (5+)	18,256,844	1,435,178	16,821,666	43%	19%	48%
Other Renter Occupied	1,957,120	1,095,350	861,770	5%	15%	2%

Within the SFR stock, we can see a difference in the types of SFRs by location, with a much greater percentage of non-rural SFRs being two- to four-unit properties (36 percent) than rural SFRs (26 percent).

Figure 5: Geographic Distribution of SFRs by Rural and Non-Rural Areas

	Counts			Percent of SFRs		
	All	Rural	Non-Rural	All	Rural	Non-Rural
Single-Family Rental (1-4 Units)	22,621,205	4,999,804	17,621,401	100%*	22%*	78%*
1 Unit Rental	14,921,447	3,711,200	11,210,247	66%	74%	64%
2 Unit Rental	3,264,980	607,344	2,657,636	14%	12%	15%
3-4 Unit Rental	4,434,778	681,260	3,753,518	20%	14%	21%

* The numbers in this line reflect the percentage of total SFRs, while the numbers in the lines below reflect percentages of each type of SFR (1 unit, 2 unit, 3-4 unit) in their respective categories (All, Rural, or Non-Rural)

SFRs play a prominent role in more specialized geographies as well.

In areas identified by FHFA as High Opportunity Areas under the DTS regulation, SFRs are home to 52.3 percent of renter households in these areas and 13.9 percent of households overall.¹⁰ Indeed, as the SFR market grew after the Great Recession, the largest growth rate was in High Opportunity Areas at 17.9 percent, compared with 12.3 percent growth rate overall based on a comparison of 2011 and 2016 ACS data.¹¹ Conversely, SFRs are also an important part of the rental market for households living in Areas of Concentrated Poverty (ACPs) as defined in DTS.¹² In ACPs, 28.3 percent are SFRs, and as such provide a

¹⁰ FHFA defines High Opportunity Areas as an area designated by the Department of Housing and Urban Development (HUD) as a Difficult Development Area (DDA) whose poverty rate is below 10 percent (for metropolitan DDAs) and below 15 percent (for non-metropolitan DDAs); or an area designated by a state or local Qualified Allocation Plan (QAP) as a high opportunity area and which meets further criteria identified in the DTS evaluation guidance found here: <https://www.fhfa.gov/PolicyProgramsResearch/Programs/Documents/Final-Evaluation-Guidance-DTS-Program.pdf>

¹¹ Freddie Mac tabulations of 2011 and 2016 ACS data

¹² FHFA defines ACPs Poverty as either a Qualified Census Tract (QCT) or a Racially/Ethnically Concentrated Area of Poverty (R/ECAP)

substantial number of affordable homes. This part of the market grew by 7.9 percent since the Great Recession.

Figure 6: Geographic Distribution of SFRs by High Opportunity Areas and ACPs

	Counts		Percent of Total SFRs	
	High Opportunity	ACPs	High Opportunity	ACPs
Single-Family Rental (1-4 Units)	2,863,487	6,399,117	12.7%*	28.3%*
1 Unit Rental	2,108,806	3,707,103	9.3%	16.4%
2 Unit Rental	286,235	1,150,334	1.3%	5.1%
3-4 Unit Rental	468,446	1,541,680	2.1%	6.8%

* The numbers in this line reflect the percentage of total SFRs, while the numbers in the lines below reflect percentages of each type of SFR (1 unit, 2 unit, 3-4 unit) in their respective categories (High Opportunity or ACPs)

In rural geographies, SFRs feature strongly in High Needs Rural Areas as defined in DTS: Middle Appalachia, the Lower Mississippi Delta, and Persistent Poverty Counties not in Middle Appalachia or the Lower Mississippi Delta. In these locations, the prevalence of single-unit dwellings is stronger than in rural markets overall, particularly in Middle Appalachia.

Figure 7: Geographic Distribution of SFRs by DTS High Needs Rural Areas

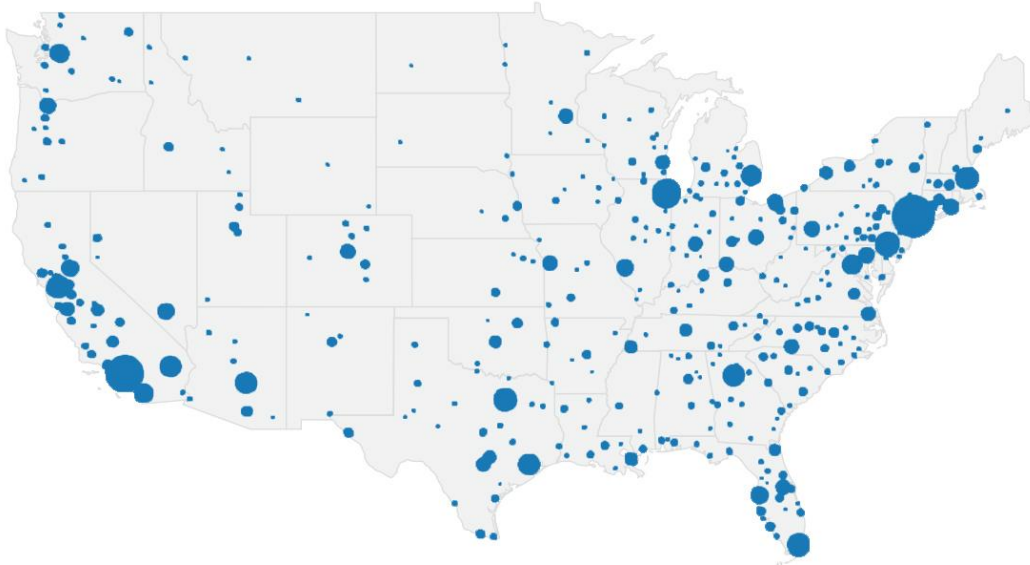
	Counts			Percent of SFRs		
	Mid App	LMD	PPC	Mid App	LMD	PPC
Single-Family Rental (1-4 Units)	338,201	401,334	335,394	1.4%*	1.7%*	1.4%*
1 Unit Rental	262,979	299,771	246,600	78%	75%	74%
2 Unit Rental	34,818	51,671	40,924	10%	13%	12%
3-4 Unit Rental	40,404	49,892	47,870	12%	12%	14%

* The numbers in this line reflect the percentage of total SFRs, while the numbers in the lines below reflect percentages of each type of SFR (1 unit, 2 unit, 3-4 unit) in their respective categories (Middle Appalachia, Lower Mississippi Delta, or Persistent Poverty Counties)

While there are 1.1 million SFR households in some of these hardest to serve rural areas, this comprises less than 5 percent of the SFR market overall, which is generally concentrated around highly populated Metropolitan Statistical Areas (MSAs).¹³

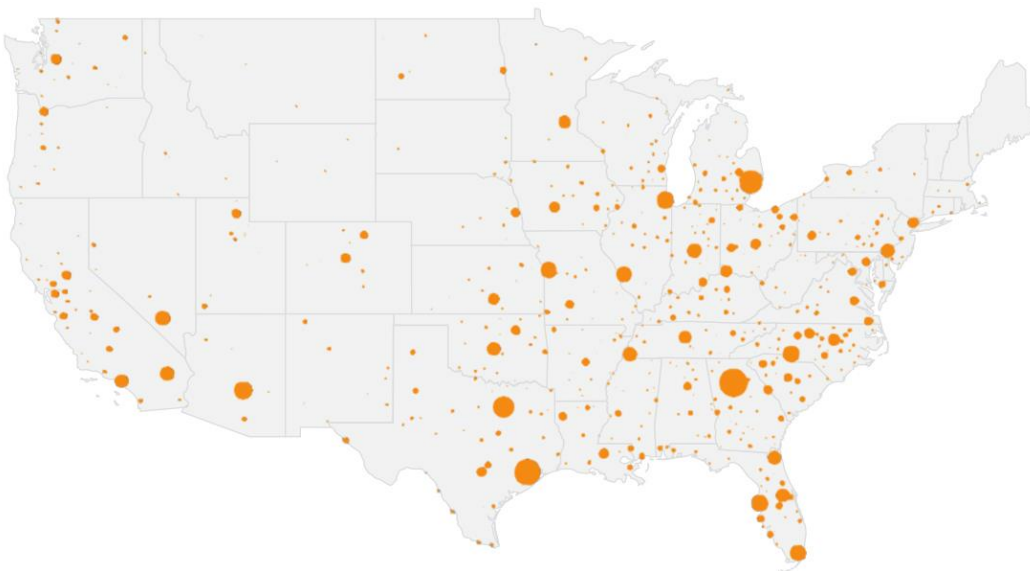
¹³ MSAs contain both non-rural and rural areas

Figure 8: Geographic Concentration of All SFRs¹⁴



This concentration changes somewhat when we look just at middle-tier and institutional investors. There is a shift in concentration toward the southeast and away from the high-cost northeast and west coast markets, as well as less concentration in rural markets.

Figure 9: Geographic Concentration of SFRs with Middle-Tier and Institutional Investors¹⁵



The top five MSAs by count of SFRs correlates strongly with the larger areas based on overall renter households: New York, Los Angeles, Chicago, Philadelphia and Dallas. Indeed, by count, the top 10 MSAs by SFR count equals 5.4 million units, or 24 percent of all SFRs, and 85 percent of SFRs are found in all

¹⁴ Freddie Mac Tabulations of 2016 ACS data

¹⁵ Freddie Mac tabulations of HouseCanary data. Note that this data includes Single Family Detached units only.

MSAs. While the number of SFRs is high in all the above MSAs, the concentration of SFRs in these top five MSAs compared with total renter households varies from 58 percent in Philadelphia to 37 percent in New York.¹⁶

Several larger cities¹⁷ have a higher concentration of SFRs; Riverside, California has the highest concentration of SFRs with 63 percent of all renter households residing in SFRs. Other cities with higher concentrations of SFRs include Providence, Rhode Island (62 percent); St. Louis (61 percent); Sacramento, California (60 percent); and Pittsburgh (60 percent).

Of the 19.2 million SFRs in MSAs, 1.6 million are in designated rural areas, and roughly one-third of rural SFRs are located within the boundaries of MSAs. The five MSAs with the largest number of SFRs in rural designated areas are Riverside, California; Dallas, Texas; Atlanta; Nashville, Tennessee; and Columbus, Ohio. The concentration of renter households in these MSAs that are designated rural areas ranges from 5 percent to 18 percent, and a significant portion of those renters live in SFRs. The concentration of SFRs among the rural designated areas in those MSAs is substantial, from 77 percent in Riverside, California to 61 percent in Dallas, Texas.

The remaining 3.4 million SFRs in rural areas outside of MSAs are spread throughout the country. The top 10 SFR markets by county in non-MSA rural areas makes up only 3.6 percent of the 3.4 million SFRs. Counties with the largest number of SFRs in non-MSA rural areas are: Humboldt, California; Hawaii, Hawaii; Litchfield, Connecticut; Chautauqua, New York; and Schuylkill, Pennsylvania. The concentration of SFRs to total renter households is higher in non-MSA rural areas than in MSA rural areas, ranging from 70 percent in Litchfield County to 79 percent in Hawaii County.

Geographic Distribution of Ownership

Looking more closely at the comparison between rural and non-rural markets to understand the distribution of properties and ownership types, we are confronted with some data limitations, as we cannot rely on ACS data to reveal ownership of SFRs. Here we must rely on HouseCanary data, which is limited to single-unit SFRs (detached and attached), so we must extrapolate some conclusions about the broader market.

Nationally, we see that among the nearly 22 million SFRs in HouseCanary's data, we tabulate that 95.3 percent are in portfolios we define as small or very small (with less than 50 properties), while 3.8 percent are held by middle-tier investors, and only 0.9 percent by institutional participants.

In rural markets, the balance tilts more heavily toward the smallest owners. Ninety-eight percent of the SFRs are in portfolios we define as small or very small. For the remaining properties in rural areas, 2 percent, or 170,000 properties, are associated with middle-tier portfolios (51 to 2,000 properties) and only 3,500 properties, or 0.04 percent, are in institutional portfolios (greater than 2,000 properties).

¹⁶ Freddie Mac tabulations of 2016 ACS data

¹⁷ MSAs with greater than 500,000 occupied housing units

In non-rural markets, where there is a greater concentration of homes, we see more middle-tier and institutional involvement, with 4.8 percent of properties associated with portfolio sizes 51 to 2,000 properties and 1.6 percent in portfolios with greater than 2,000 properties. This leaves 93.6 percent of the properties in small and very small portfolios.¹⁸

Figure 10: Share of SFRs by Ownership Type and Geography

Ownership Type	National	Non-Rural	Rural
Institutional	0.9%	1.6%	0.04%
Middle-Tier	3.8%	4.8%	2%
Small and Very Small	95.3%	93.6%	98%

Among institutional investors, 1-2 percent of their SFR properties are in rural markets, while among middle-tier investors, just over 20 percent are in rural markets,¹⁹ which is generally in line with the percentage of SFR households in rural areas overall (22 percent per 2016 ACS data). This suggests that while there is a low likelihood of institutional investors developing a foothold in rural markets, middle-tier investors do have an important role to play in providing greater standardization and stability in rural markets.

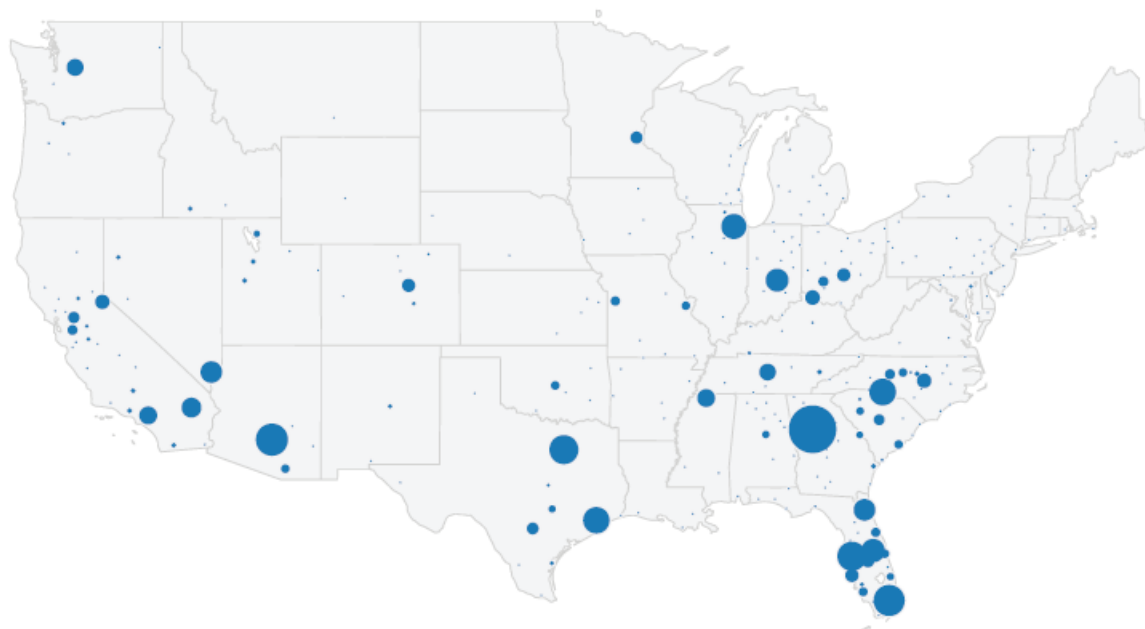
Further, per analysis from Amherst Capital, institutional investors have tended to concentrate their investment in certain markets in Southeast Texas, and parts of the Midwest such as Atlanta; Dallas-Fort Worth, Texas; Chicago; and Indianapolis,²⁰ particularly where there was a low price-to-rent ratio and where properties had experienced substantial declines in value during the Great Recession, while middle-tier investors are distributed more evenly across the country based on the availability of SFRs.²¹

¹⁸ Freddie Mac tabulations of HouseCanary data

¹⁹ Freddie Mac tabulations of HouseCanary data

²⁰ <https://www.amherstcapital.com/documents/20649/22737/HousingWire+article+%E2%80%93+Amherst+The+state+of+single-family+rental+investments/27072294-622b-4855-bfb0-5fe8901c4453>

²¹ James Mills, Raven S. Molloy, and Rebecca E. Zarutskie (2015). "Large-Scale Buy-to-Rent Investors in the Single-Family Housing Market: The Emergence of a New Asset Class?," Finance and Economics Discussion Series 2015-084. Washington: Board of Governors of the Federal Reserve System, <http://dx.doi.org/10.17016/FEDS.2015.084>.

Figure 11: Concentration of SFRs Purchased by Institutional Investors²²

The Affordability of the SFR Market

While SFRs are generally larger than multifamily apartments in the same markets, they remain an affordable rental option, especially for renters that need larger homes relative to their comparable-sized units in 5+ multifamily properties. Indeed, supply of affordable SFRs is more abundant than the supply of comparably sized multifamily units.

In effect, families that need more space for kids, pets and changing lifestyles (as discussed below) are hard pressed to find that in the multifamily market. According to the 2015 American Housing Survey (AHS), the median size of an SFR is 1,291 square feet (sf) compared with 811 sf in multifamily rentals. While the median monthly housing cost (total cost = rent + utilities + other expenses) of a single-family home is higher than its multifamily counterpart (\$1,023 vs. \$929), SFRs are larger and are more affordable relative to their size. Rent per square foot in single-family homes is \$0.79 compared with \$1.15 in five or more unit structures. For rents only, the median monthly cost paid for rent is lower than the multifamily equivalent (\$810 vs. \$835).

²² <https://www.amherstcapital.com/documents/20649/22737/HousingWire+article+%E2%80%93+Amherst+The+state+of+single-family+rental+investments/27072294-622b-4855-bfb0-5fe8901c4453>

When we look at mean SFR rents in different geographic areas, we can see broadly that SFRs are affordable to households making 80 percent of the AMI, and in some markets, SFRs are on average affordable to households making 60 percent of AMI.

Figure 12: Mean Rent of SFRs by Geographic Area²³

Mean Rent	Non-Rural	Rural	National
1-Unit Mean Rent	1,234	712	1,126
2-4 Unit Mean Rent	1,033	649	986
SFR Mean Rent	1,152	695	1,073
Average of 60% AMI Rent	1,171	978	1,126

Further, an analysis of SFRs scattered across the country found 66 percent of rents are affordable to families earning below 100 percent of AMI and 55 percent are below their respective 2016 Small Area Fair Market Rents (SAFMR) set by the U.S. Department of Housing and Urban Development (HUD) for Section 8 voucher rent limits. Comparing this set of SFRs with REIS multifamily apartment data shows that 30 percent of single-family rentals are below REIS market rent.²⁴ While SFRs provide affordability to families requiring more space than traditional multifamily rental units, they also provide affordable housing for roommate or shared living arrangements. A 3-bedroom SFR split among three separate renters will, on average, be cheaper than one-bedroom multifamily rentals.

In High Opportunity Areas, SFRs have a particularly important role to play as a source of workforce housing, as they provide homes for 2.86 million households, which is 360,000 more than the number of households living in traditional multifamily units, and SFRs are on balance still affordable at 80 percent of AMI in these markets. While the aggregate mean SFR rents appear higher than mean multifamily rents, there are two factors to consider: (1) multifamily rents include smaller units, such as studios and 1-bedroom, that have lower rents and are not comparable to SFRs, and (2) multifamily units are far more likely than SFRs to be subject to regulatory agreements that ensure lower rents.²⁵ If adjusting for this, it is reasonable to conclude that SFR rents are generally in line with rents at comparable multifamily units.

²³ Freddie Mac tabulations of 2016 ACS data

²⁴ Analysis included properties located where REIS reports data and limited to properties with 3-bedrooms and less. REIS reports average rent by bedroom unit, from 0 to 3 bedrooms, across the top metro areas.

²⁵ SFRs can have regulatory agreements, but it is far less common than it is for multifamily. Our examination of data from the National Housing Preservation Database shows that there are approximately 86,000 properties with regulatory agreements, and of these, just under 10,000 have fewer than 5 units. The database can be accessed on this site: <https://preservationdatabase.org>. Similarly, our examination of HUD data suggests that of the approximately 47,000 properties with Low-Income Housing Tax Credits, only 8,000 have fewer than 5 units. Data for this can be downloaded from this site: <https://lihtc.huduser.gov>.

Figure 13: Mean Rent of SFRs in High Opportunity Areas²⁶

Mean Rent	Not High Opportunity	High Opportunity	National
Multifamily Mean Rent	968	1,430	1,027
SFR Mean Rent	994	1,574	1,073
Average of 80% AMI	1,484	1,652	1,515

Affordability of SFRs can vary somewhat by ownership type and by owner. Some types, and some owners, may have more focus on larger, higher value homes that can command higher rents. This is generally the case among the large institutional investors. Mills, Molloy and Zarutskie found that institutional investors tend to buy larger, newer homes than other investors. Fifty percent of the homes institutional investors purchased between 2012 and 2014 were built in 2000 or later, versus only 20 percent for other investors, and institutional investors were more likely to buy three- and four-bedroom homes than other investors. Additionally, institutional investors paid higher purchase prices for these homes than other investors did for comparable homes, even when controlling for variables such as property distress, location and other characteristics. And while rent growth was not likely to increase as a result of institutional investment, these properties, by dint of size and location, can charge generally higher rents.²⁷

SFR Demand and Growth Potential

Demand for SFRs

SFRs are a necessary part of the rental housing stock. Without them, there simply is not enough supply of multifamily properties to meet the need for the sheer number of renters around the country. Even with SFRs there is still a shortage of affordable rental housing nationwide. This is especially apparent in rural markets where a large majority of renters live in SFRs, and the geography, demographics and economies do not readily support multifamily development, particularly in high needs rural areas such as Middle Appalachia.

Generally speaking, the main demographic for SFRs are young households with children or even large pets who need more space than the average apartment (though this would not necessarily be the case in markets where SFRs are virtually the only viable rental option). Single-family rentals are more conducive to larger households, with 60 percent of single-family rentals having three or more bedrooms compared with only 8 percent in traditional multifamily buildings. This is especially crucial to larger

²⁶ Freddie Mac tabulations of 2016 ACS data

²⁷ James Mills, Raven S. Molloy, and Rebecca E. Zarutskie (2015). "Large-Scale Buy-to-Rent Investors in the Single-Family Housing Market: The Emergence of a New Asset Class?," Finance and Economics Discussion Series 2015-084. Washington: Board of Governors of the Federal Reserve System, <http://dx.doi.org/10.17016/FEDS.2015.084>.

households that choose to rent (for many reasons) and need more space than traditional multifamily units provide.

According to the 2016 ACS, an estimated 65.2 million people live in SFRs (or 60 percent of the total renter population) which indicates the average size of an SFR household is 2.9 people, compared with the average size of a multifamily rental household of 2.1 people.

SFRs are typically a stable form of rental housing with a higher retention rate than apartments, as SFR residents tend to become more tied to schools and neighborhoods and are therefore less likely to move.²⁸ SFRs have a 70 percent retention rate,²⁹ whereas multifamily apartments have had a 50-53 percent retention rate since 2013.³⁰

Several main factors have helped drive demand for SFRs. Many of these are shared by the multifamily sector and include tighter single-family mortgage lending standards, the large size of the millennial generation, higher student debt, changes in preferences about homeownership versus renting, and high cost of purchasing and then maintaining a single-family home.

To understand the qualitative factors driving demand for SFRs as a rental option, the Turner Center at University of California - Berkeley conducted a national survey of single-family renters and supplemented the findings with in-depth interviews. In the survey, the Turner Center focused on three areas: “the reasons households choose to rent single-family homes, their future housing aspirations and the barriers that keep those who want to own from being able to buy a home.”³¹

Survey respondents said they chose to rent SFRs because of the positive attribute of that type of housing, and the amenities associated with it. They had access to features they may not have had otherwise, such as a yard and greater privacy — and even private laundry, which was the leading reason cited — and single-family homes aligned with their vision of housing for their stage in life.

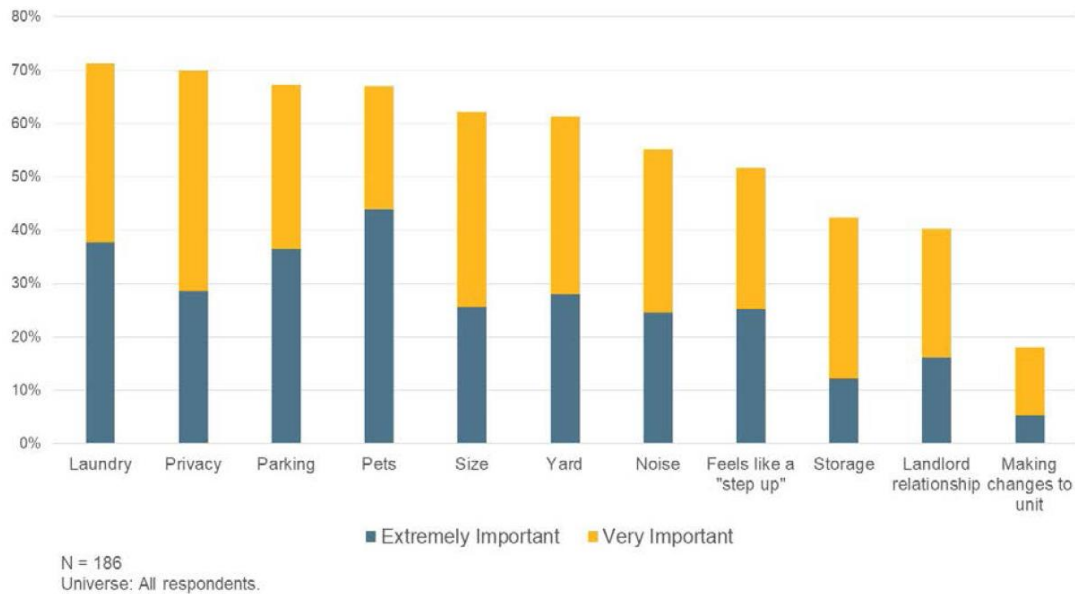
²⁸ *Homing In: Single-Family Rental Firms Ponder End Game* by Allison Rice; Multifamily Executive

²⁹ *Homing In: Single-Family Rental Firms Ponder End Game* by Allison Rice; Multifamily Executive

³⁰ <https://www.realtor.com/research/lease-renewal-flatten-as-new-supply-mounts/>

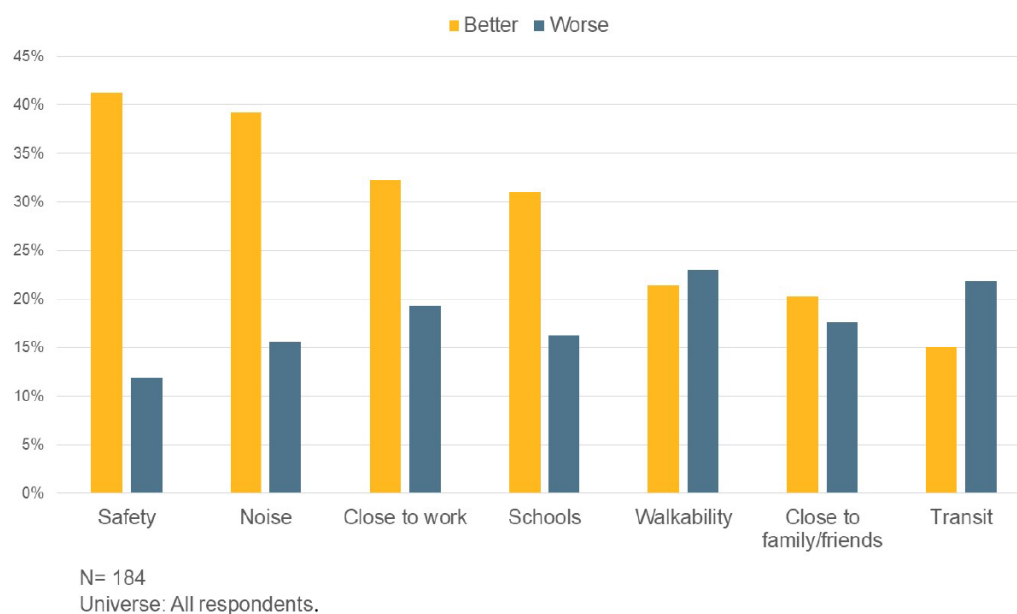
³¹ Carolina K. Reid, Rocio Sanchez-Moyano, Carol J. Galante (2018), “The Rise of Single-Family Rentals after the Foreclosure Crisis”

Figure 14: Factors that Influence Rental Housing Choice³²



Neighborhood played an important role for the survey respondents as well, with respondents generally more satisfied with their new neighborhood than their prior neighborhood on all points except walkability and transit. These last two tend to be stronger in more urban areas, so to the extent people move from more urbanized areas to suburban neighborhoods, it is likely they will find less convenient public transportation and reduced walkability.

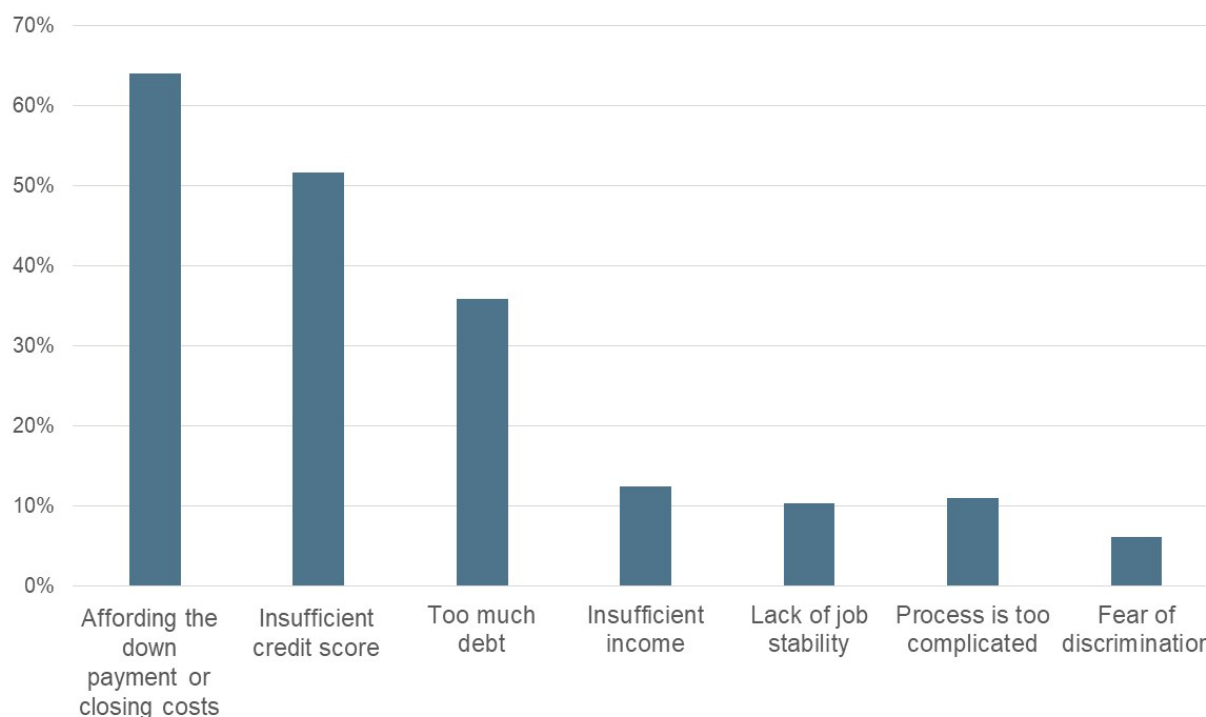
Figure 15: Respondents’ Perceptions of Current Neighborhood Compared with Prior Neighborhood



³² Carolina K. Reid, Rocio Sanchez-Moyano, Carol J. Galante (2018), “The Rise of Single-Family Rentals after the Foreclosure Crisis”

Demand for SFRs is not just driven by the attractiveness of the combination of renting (which respondents favored for affordability and flexibility) and single-family structures. It is also driven in part by difficulties in achieving homeownership. While 80 percent of survey respondents said they wanted to own a home and hoped to do so in the next five years, 65.3 percent cited investment value as a reason. Among respondents who stated they planned to purchase a home within the next five years, the financial requirements of purchasing a home was a deterrent, particularly affording a down payment or having a sufficient credit score. SFRs allowed them to pursue single-family living either in the interim or longer term.

Figure 16: Barriers to Obtaining a Mortgage and Buying a Home ³³



N= 145

Universe: Respondents who were planning to buy a home in the next 5 years.

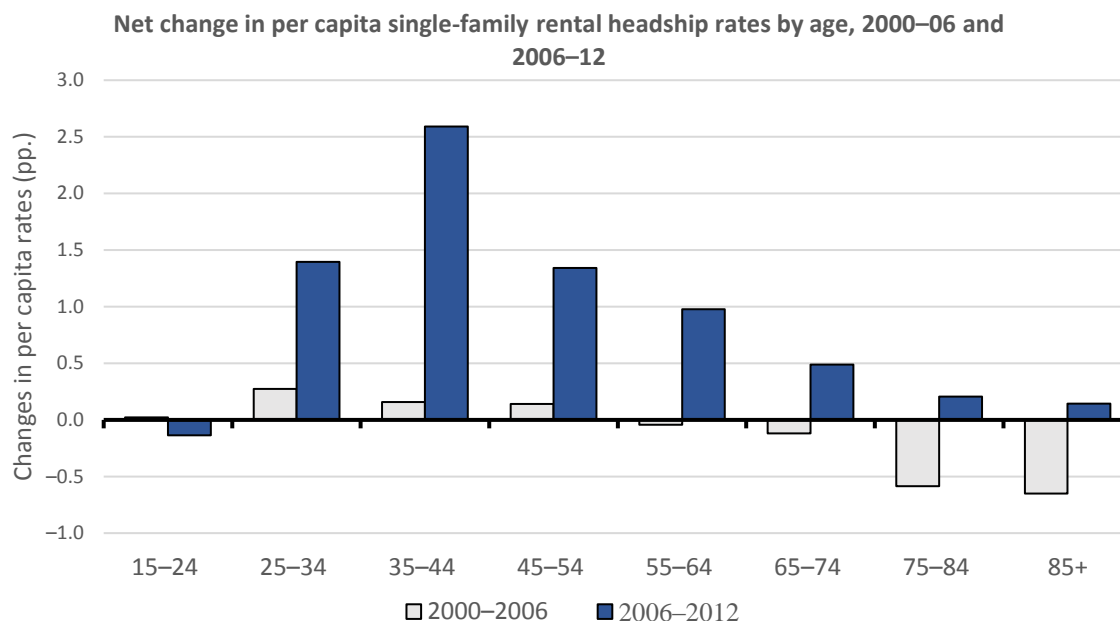
From the Turner Center’s survey, it is clear that SFRs fill a need based on providing both renter choice of living arrangements given their stage in life as well as access to the benefits of single-family housing and neighborhoods without obtaining a mortgage. This suggests demand for SFRs is strong.

We can see this demand represented in the data as well as in survey results. Throughout the years leading up to the Great Recession (2000-2006), demand for SFRs remained relatively stable across the younger age cohorts (those under 75 years old). During the recession and the years immediately after (2006-2012), the percentage growth in single-family rentals increased substantially. In a report prepared by the University of Southern California for the Research Institute for Housing America, the greatest

³³ Carolina K. Reid, Rocio Sanchez-Moyano, Carol J. Galante (2018), “The Rise of Single-Family Rentals after the Foreclosure Crisis”

demand was among ages 35-44, the peak age for raising school-aged children. This cohort experienced a 2.6 percent increase in single-family renters, compared with 0.8 percent increase in multifamily renters and 4.7 percent decrease in homeownership for this age group.³⁴

Figure 17: Change in SFR Rentership by Age



Source: 2000, 2006, 2012 American Community Survey (ACS) 1-year estimates

Finally, in the years after the Great Recession, demand for SFRs has been robust. The same report measures the difference in simulated householders for 2012 compared with the actual households in 2012 (using the per capita rates of householders who own and rent in 2000). In 2012, there were 2.6 million more SFR households than expected. Across the nation, that implies the number of SFRs was greater than expected by 22.1 percent. The results differ greatly by geographical location. For example, in Phoenix, SFR households were 103.8 percent greater than expected, and 56.5 percent greater in Atlanta, while only 6.9 percent greater in Los Angeles.

Future Growth Potential

While future growth can be challenging to predict, particularly in an evolving market, several of the points addressed above — historical post-recession data, and preferences and needs described in the Turner Center survey — suggest demand for SFRs could remain strong and potentially grow. While we may see some single-family renters move to ownership, we also see the need for SFRs to increase due to constrained affordability and the size of the millennial generation. While the trend right now is for

³⁴*Diverted Homeowners, the Rental Crisis and Foregone Household Formation* by Dowell Myers, Gary Painter, Hyojung Lee, and JungHo Park from the University of Southern California

younger adults to live in urban city centers with amenities and high walkability, if their preference for renting rather than owning continues into household formation years, an SFR becomes a more desirable option than a traditional multifamily property.

Indeed, the SFR market has been on a growth trajectory. Over the last 30 years, existing single-family home prices grew on average by 3.7 percent annually.³⁵ While price growth can fluctuate based on overall economic environment and has ranged from -9 percent to 14 percent annually, over the long-term, single-family home prices are expected to continue to increase, which will increase the market value of this segment.

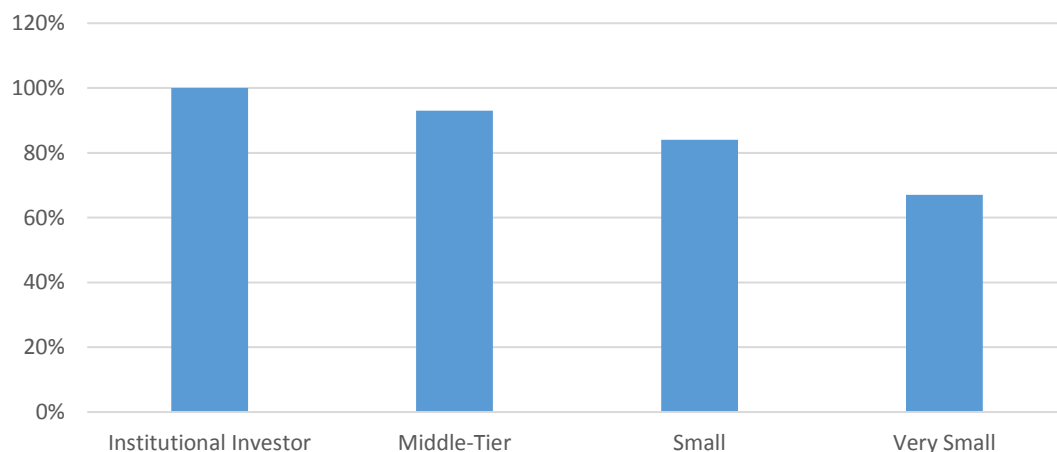
With demand for SFRs likely to remain strong or grow, the question is, what segment of the market will most facilitate that growth — large institutional investors, middle-tier investors, or small and very small investors? The answer is largely dependent upon access to capital at scale, and the standards applied to the market through the provision of liquidity warrants further study over time.

Overview of the SFR Lending and Capital Markets

With such a large SFR market serving not only tens of millions of renters, but also tens of millions of property owners (and potential borrowers in need of access to stable financing), it is important to consider where the money for acquisitions comes from, how properties are financed, and what are the fundamental terms of that financing. This often varies by the type of owner.

The larger the owner type, the less likely they are to finance their purchases with individual mortgages. The chart below shows the fraction of purchases without mortgage financing based on investor size.

Figure 18: Percentage of SFR Purchases without Mortgage Financing by Owner Type, 2012-2014



Source: Freddie Mac tabulations of data from *Large-Scale Buy-to-Rent Investors in the Single-Family Housing Market: The Emergence of a New Asset Class?* By James Mills, Raven S. Molloy, and Rebecca E. Zarutskie

³⁵ S&P/Case-Shiller U.S. National Home Price Index Seasonally Adjusted

Institutional investors often get funds in advance of purchase from private equity, bank lines-of-credit, or public bonds, and generally purchase the homes for cash. When they have amassed a sufficient portfolio, they issue bonds backed by homes in their portfolio. Since November 2013, 48 rated single-sponsor/borrower³⁶ deals have been settled for a total debt of \$29 billion. The two largest borrower/sponsors are Invitation Homes (13 transactions for \$11.4 billion) and Progress Residential (11 transactions for \$5.9 billion), and comprise half of the total number of transactions.³⁷ The transactions themselves are diverse. Many are variable rate with a 24-month term and three one-year extensions. Some offer fixed-rate bonds for five years, others for 10 years. The rating agencies specializing in this product are Kroll, Morningstar and to a lesser extent Moody's. The typical transactions offer 5-7 series ranging from "non-rated" to AAA. Subordination levels (NR classes) range from 15 percent to 0 percent.

In 2017 there were 10 deals issued for approximately \$5 billion, eight of which were single-borrower transactions, and two of which were multi-borrowers. In 2018, there have been 10 deals issued for \$7 billion, nine of which were single-borrower deals.

³⁶ Single Borrower deals are secured by a single loan made to an institutional owner of SFR properties

³⁷ Freddie Mac tabulations of Intex and Bloomberg data

Figure 19: SFR Securitizations Since November 2013³⁸

Number	Deal	Sponsor	Size	Closing Date	Rated	Deal Type
1	IHSFR 2018-SFR4	Invitation Homes	\$ 960,304,000	11/7/2018	Y	Single-borrower Deal
2	PROG 2018-SFR3	Progress Residential	\$ 1,033,188,000	10/4/2018	Y	Single-borrower Deal
3	PROG 2018-SFR2	Progress Residential	\$ 379,136,000	8/2/2018	Y	Single-borrower Deal
4	CAFL 2018-1	CoreVest American Finance	\$ 236,784,337	7/6/2018	Y	Multi-borrower Deal
5	IHSFR 2018-SFR3	Invitation Homes	\$ 1,300,383,000	6/28/2018	Y	Single-borrower Deal
6	HPA 2018-1	Home Partners of America	\$ 460,170,754	6/7/2018	Y	Single-borrower Deal
7	IHSFR 2018-SFR2	Invitation Homes	\$ 1,057,225,000	5/8/2018	Y	Single-borrower Deal
8	TAH 2018-SFR1	Tricon American Homes	\$ 339,965,000	4/18/2018	Y	Single-borrower Deal
9	PROG 2018-SFR1	Progress Residential	\$ 343,250,000	2/22/2018	Y	Single-borrower Deal
10	IHSFR 2018-SFR1	Invitation Homes	\$ 916,571,000	2/8/2018	Y	Single-borrower Deal
11	TAH 2017-SFR2	Tricon American Homes	\$ 394,200,000	12/20/2017	Y	Single-borrower Deal
12	CAFL 2017-2	CoreVest American Finance (Freddie Mac FRESR)	\$ 202,726,620	12/18/2017	Y	Multi-borrower Deal
13	PROG 2017-SFR2	Progress Residential	\$ 271,087,000	12/1/2017	Y	Single-borrower Deal
14	IHSFR 2017-SFR2	Invitation Homes	\$ 865,027,000	11/9/2017	Y	Single-borrower Deal
15	CAFL 2017-1	CoreVest American Finance	\$ 207,208,633	10/31/2017	Y	Multi-borrower Deal
16	SWH 2017-1	Starwood Waypoint Homes	\$ 771,240,000	9/29/2017	Y	Single-borrower Deal
17	TAH 2017-1	Tricon American Homes	\$ 499,000,000	8/23/2017	Y	Single-borrower Deal
18	PROG-2017-SFR1	Progress Residential	\$ 459,000,000	7/26/2017	Y	Single-borrower Deal
19	HPA 2017-1	Home Partners of America	\$ 336,000,000	6/29/2017	Y	Single-borrower Deal
20	FNGT 2017-T1	Fannie Mae / Invitation Homes	\$ 1,000,000,000	4/28/2017	Y	Single-borrower Deal
21	RCO 2016-SFR1	RCO Mortgage	\$ 114,000,000	12/16/2016	Y	Multi-borrower Deal
22	PROG 2016-SFR2	Progress Residential	\$ 616,000,000	12/6/2016	Y	Single-borrower Deal
23	CAFL 2016-2	Colony American Finance	\$ 188,000,000	11/15/2016	Y	Multi-borrower Deal
24	CSH 2016-2	Colony Starwood Homes	\$ 611,000,000	11/3/2016	Y	Single-borrower Deal
25	TAH 2016-SFR1	Tricon American Homes	\$ 382,000,000	10/25/2016	Y	Single-borrower Deal
26	AMSR 2016-SFR1	Amherst SFR Assets	\$ 489,000,000	10/14/2016	Y	Single-borrower Deal
27	HPA 2016-2	Home Partners of America	\$ 343,000,000	9/13/2016	Y	Single-borrower Deal
28	PROG 2016-1	Progress Residential	\$ 877,000,000	8/4/2016	Y	Single-borrower Deal
29	B2R 2016-1	B2R Finance	\$ 199,000,000	8/4/2016	Y	Multi-borrower Deal
30	CSH 2016-1	Colony Starwood Homes	\$ 536,000,000	6/7/2016	Y	Single-borrower Deal
31	CAFL 2016-1	Colony American Finance	\$ 255,000,000	5/20/2016	Y	Multi-borrower Deal
32	HPA 2016-1	Home Partners of America	\$ 509,000,000	2/4/2016	Y	Single-borrower Deal
33	B2R 2015-2	B2R Finance	\$ 301,000,000	11/24/2015	Y	Multi-borrower Deal
34	PROG 2015-3	Progress Residential	\$ 450,000,000	11/3/2015	Y	Single-borrower Deal
35	CAFL 2015-1	Colony American Finance	\$ 252,000,000	10/29/2015	Y	Multi-borrower Deal
36	AH4R 2015-SFR2	American Homes 4 Rent	\$ 478,000,000	9/22/2015	Y	Single-borrower Deal
37	IH 2015-SFR3	Invitation Homes	\$ 1,194,000,000	6/25/2015	Y	Single-borrower Deal
38	CAH 2015-1	Colony American	\$ 674,000,000	6/11/2015	Y	Single-borrower Deal
39	PROG 2015-SFR2	Progress Residential	\$ 439,000,000	6/2/2015	Y	Single-borrower Deal
40	TAH 2015-1	Tricon American Homes	\$ 380,000,000	5/12/2015	Y	Single-borrower Deal
41	FKL 2015-SFR1	First Key Lending	\$ 241,000,000	4/23/2015	Y	Multi-borrower Deal
42	B2R 2015-1	B2R Finance	\$ 230,000,000	4/22/2015	Y	Multi-borrower Deal
43	IH 2015-SFR2	Invitation Homes	\$ 637,000,000	4/10/2015	Y	Single-borrower Deal
44	AH4R 2015-SFR1	American Homes 4 Rent	\$ 553,000,000	3/6/2015	Y	Single-borrower Deal
45	PROG 2015-SFR1	Progress Residential	\$ 559,000,000	2/3/2015	Y	Single-borrower Deal
46	IH 2015-SFR1	Invitation Homes	\$ 541,000,000	1/29/2015	Y	Single-borrower Deal
47	SWAY 2014-1	SWAY	\$ 531,000,000	12/19/2014	Y	Single-borrower Deal
48	AH4R 2014-SFR3	American Homes 4 Rent	\$ 528,000,000	11/25/2014	Y	Single-borrower Deal
49	IH 2014-SFR3	Invitation Homes	\$ 769,000,000	11/12/2014	Y	Single-borrower Deal
50	PROG 2014-SFR1	Progress Residential	\$ 473,000,000	9/30/2014	Y	Single-borrower Deal
51	AH4R 2014-SFR2	American Homes 4 Rent	\$ 513,000,000	9/19/2014	Y	Single-borrower Deal
52	ARP 2014-1	American Residential Properties	\$ 342,000,000	8/26/2014	Y	Single-borrower Deal
53	IH 2014-SFR2	Invitation Homes	\$ 720,000,000	8/14/2014	Y	Single-borrower Deal
54	SBY 2014-1	Silver Bay Realty	\$ 313,000,000	8/12/2014	Y	Single-borrower Deal
55	CAH 2014-2	Colony American	\$ 559,000,000	6/30/2014	Y	Single-borrower Deal
56	IH 2014-SFR1	Invitation Homes	\$ 994,000,000	5/30/2014	Y	Single-borrower Deal
57	AH4R 2014-SFR1	American Homes 4 Rent	\$ 481,000,000	5/21/2014	Y	Single-borrower Deal
58	CAH 2014-1	Colony American Homes	\$ 514,000,000	4/10/2014	Y	Single-borrower Deal
59	IH 2013-SFR1	Invitation Homes	\$ 479,000,000	11/19/2013	Y	Single-borrower Deal

³⁸ Freddie Mac tabulations of Intex and Bloomberg data

While institutional investors have ready access to capital, this does not appear to be the case for middle-tier investors as a whole, especially when it comes to capital markets executions. Essentially, these investors must cobble together funds and financing from different sources — to acquire properties, to refinance portfolios after acquisition and to recycle capital for future acquisitions — and are therefore constrained in their ability to grow via efficient capital deployment and bring the benefits of scale and standardization to more renters.

Less than 10 percent of SFRs owned by middle-tier investors and nearly 20 percent of SFRs owned by small investors were purchased with mortgage financing, while the rest were purchased with other sources of funds. While no reliable data exists on these sources of funds, it is reasonable to conclude that the homes were acquired for cash sourced through bank lines-of-credit or private equity. Where middle-tier and small investors have obtained mortgage financing, our outreach to investors and lenders has indicated that shorter-term, full-recourse mortgage financing from community banks or specialized lenders is a major source of funds. Per our survey of the market and a sampling of transactions we were presented, we found that these sources of funds (many of which are variable rate and susceptible to longer-term rate volatility) generally have higher note rates (between 6 and 7 percent) than loans backed by traditional multifamily properties.

Despite the lack of a scalable secondary market for middle-tier investors, there have been a small number of rated multi-sponsor/borrower³⁹ securitizations that have settled since 2013, though this does not represent a mature market. These are transactions that pool together multiple smaller, middle-tier investors (typically those who have less than 100 homes) and are sponsored by larger lenders that, among their many loan products, include SFRs. The typical multi-borrower transaction is \$100 million to \$300 million backed by 70-100 loans, each loan generally secured by 50 or more homes. Two lenders have been active in this space – CoreVest (formerly Colony American Finance) and B2R Finance. These two lenders have sponsored nine of the 11 total transactions of this variety. These 11 transactions total \$2.4 billion.

Very small investors (those with 10 properties or less) are eligible for conventional single-family home loans that can be purchased by Freddie Mac or Fannie Mae based on investment property credit standards, which are more stringent than those for primary residences. The parameters for these programs limit the number of investment homes held by the same investor to 10.

Lessons from Freddie Mac's SFR Pilot

In January 2017, Freddie Mac received approval from FHFA to develop and execute an SFR pilot that allowed us to purchase and/or guarantee and securitize loans on SFRs — essentially, to develop from the ground up and test a new secondary market deliberately focused on SFRs affordable to households making 80 percent of AMI or below. This pilot was approved with a \$1.3 billion limit, at which point it would be subject to review and potential extension by FHFA. On August 21, 2018, FHFA announced that

³⁹ Multi-Borrower deals are secured by multiple loans made to many smaller investors that typically own less than 100 SFR properties

the pilot would not be extended.⁴⁰ Despite this, an understanding of our activity and successes under the pilot has the potential to be instructive for other market participants and analysts.

We focused our efforts on two parts of the market: (1) middle-tier sponsors — those with sufficient experience, quality of operations, and net worth and liquidity to be strong borrowers — where there is not a readily scalable secondary market today, and (2) affordable homes in institutional investor portfolios. Our goal in supporting both types of investors was to learn from the breadth of the market while supporting affordable SFRs. We conducted extensive outreach; developed credit policies and standards around asset management, insurance, replacement reserves, property quality, inspection and leases; and formulated a network of eight primary market SFR lenders and servicers. We also developed risk-transfer executions to be able to distribute risk away from taxpayers and attract private capital into the affordable SFR market. We executed our first transaction in December 2017.

We created and operated this pilot under the view that we could assist in developing a strong secondary market that would provide high standards that benefit tenants through better quality housing, more renter choice, better financing terms, and support more affordable SFRs; and that we could create a mechanism that distributes risk to private capital at scale, which begets a stable system that supports renters nationwide and in rural markets where SFRs make up most of the rural rental housing stock.

By the end of 2018, over the course of one year of active business operations, we will have purchased or are committed to purchase loans for the full \$1.3 billion allotment. At the time of publication, we have purchased, committed to purchase, or guaranteed over \$1.1 billion of loans across 16 transactions and approximately 15,000 homes in 27 states and 90 MSAs. Apart from three atypically large transactions (each of which had more than 2,500 homes with an average transaction size of just over \$315 million), the average deal size was approximately \$15 million containing around 235 homes. Including the large transactions, the average deal size was \$75,541,774 containing 917 homes. Across all the transactions, over 90 percent of the homes have rents affordable at 80 percent of AMI, and over 98 percent have rents affordable at or below 100 percent of AMI.

In addition to purchasing loans on portfolios with individual borrowers, we also developed a new SFR securitization model called FRESR. In this model we can issue securities on pools of SFRs from other lenders' portfolios or based on loans from our portfolio. We executed our first FRESR transaction in December 2017 with CoreVest (see Figure 18 above), where we securitized SFR loans on affordable properties from their portfolio with a wide range of borrowers of different sizes, thereby providing liquidity to CoreVest so they can clear their balance sheet and recycle debt capital into new SFR loans.

⁴⁰ <https://www.fhfa.gov/Media/PublicAffairs/Pages/Fannie-Mae-and-Freddie-Mac-to-Conclude-Single-Family-Rental-Pilot-Programs.aspx>

Geographic Distribution of Freddie Mac Financed SFRs

The SFRs for which we provided financing are distributed widely across the country but are primarily focused in urban and suburban markets, which is broadly consistent with our findings above about concentration of homes by ownership type.

Figure 20: National Distribution of Freddie Mac Financed SFRs⁴¹

	National		Non-Rural		Rural	
	Amount	%	Amount	%	Amount	%
Homes	14,677	100.0%	14,163	96.5%	514	3.5%
Dollars	\$1.145B	100.0%	\$1.128B	98.5%	\$16.8MM	1.5%

Among the homes we financed during the pilot, 3.5 percent were rural. This is higher than the rural concentration of institutional investor portfolios (1-2 percent), but not as great a concentration as the middle-tier investors have in their portfolios (20 percent) at the aggregate level. While rural homes were a consideration in the pilot, under our 2018-2020 DTS Underserved Markets Plan, it was our intention to study the rural SFR market in 2018, develop and test offering terms for rural markets in 2018 and 2019, and deliberately purchase loans secured by rural SFRs in 2020.

Overall, Freddie Mac supported SFRs in 27 states and on both coasts, with the highest concentration coming in the Midwest and the Southeast. In our portfolio, 29 percent of the SFRs are in Ohio, followed by 23.2 percent in Georgia, 12.4 percent in Florida, 7.4 percent in Texas and 4.8 percent in Indiana.

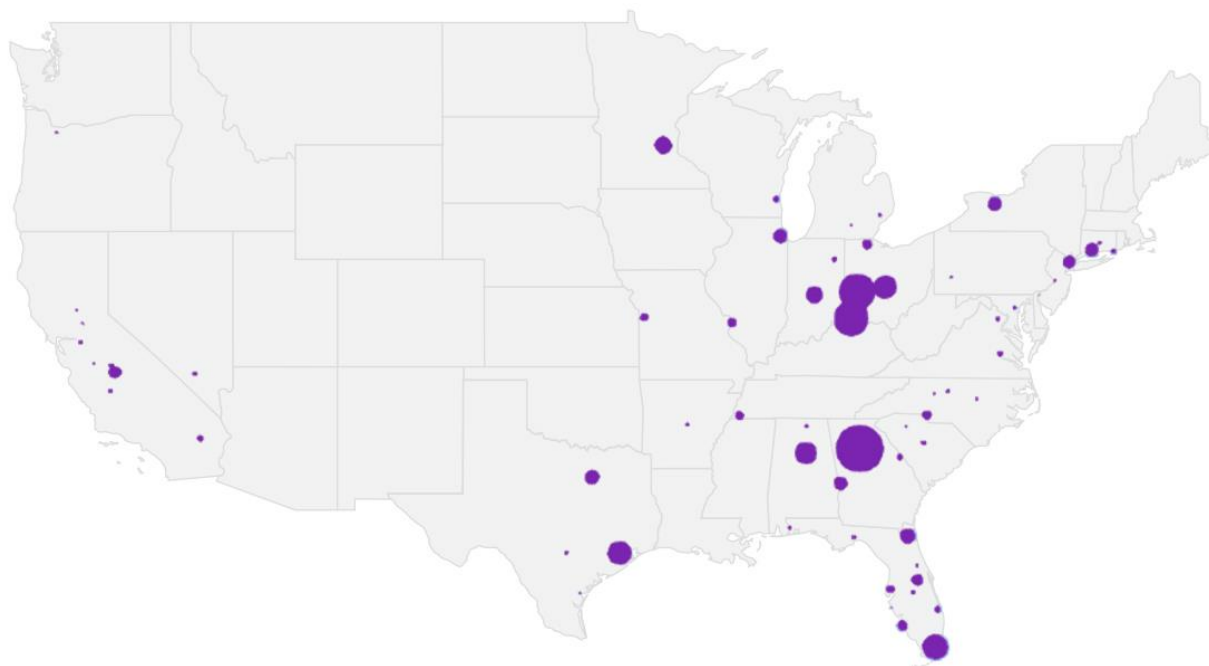
⁴¹ This table includes homes from both the FRESR execution and loans purchased by Freddie Mac

Figure 21: SFRs in Freddie Mac’s Portfolio Compared with All SFRs by State

State	SFR Households	% of SFR Household	SFRs in FRE Portfolio	% of SFRs in FRE Portfolio
Alabama	332,338	1.5%	755	5.1%
Alaska	59,382	0.3%		
Arizona	505,209	2.2%		
Arkansas	247,193	1.1%	25	0.2%
California	3,073,323	13.6%	368	2.5%
Colorado	351,863	1.6%		
Connecticut	260,267	1.2%	182	1.2%
Delaware	53,674	0.2%		
District of Columbia	48,389	0.2%		
Florida	1,315,975	5.8%	1,826	12.4%
Georgia	726,368	3.2%	3,400	23.2%
Hawaii	110,153	0.5%		
Idaho	126,323	0.6%		
Illinois	857,853	3.8%	219	1.5%
Indiana	460,710	2.0%	704	4.8%
Iowa	205,716	0.9%		
Kansas	234,506	1.0%		
Kentucky	338,028	1.5%	37	0.3%
Louisiana	377,678	1.7%		
Maine	96,990	0.4%		
Maryland	332,590	1.5%	45	0.3%
Massachusetts	524,248	2.3%		
Michigan	610,876	2.7%	40	0.3%
Minnesota	254,285	1.1%	402	2.7%
Mississippi	217,142	1.0%	2	0.0%
Missouri	502,502	2.2%	226	1.5%
Montana	89,362	0.4%		
Nebraska	136,600	0.6%		
Nevada	255,672	1.1%	24	0.2%
New Hampshire	81,672	0.4%		
New Jersey	607,016	2.7%	171	1.2%
New Mexico	146,201	0.6%		
New York	1,303,426	5.8%	218	1.5%
North Carolina	720,025	3.2%	220	1.5%
North Dakota	44,316	0.2%		
Ohio	933,830	4.1%	4,254	29.0%
Oklahoma	316,209	1.4%		
Oregon	334,714	1.5%	35	0.2%
Pennsylvania	966,676	4.3%	29	0.2%
Rhode Island	101,962	0.5%	23	0.2%
South Carolina	301,541	1.3%	85	0.6%
South Dakota	54,867	0.2%		
Tennessee	489,737	2.2%	118	0.8%
Texas	1,678,102	7.4%	1,141	7.8%
Utah	163,939	0.7%		
Vermont	47,038	0.2%		
Virginia	548,495	2.4%	69	0.5%
Washington	495,684	2.2%		
West Virginia	123,184	0.5%		
Wisconsin	413,801	1.8%	59	0.4%
Wyoming	43,555	0.2%		

When we look at the concentration of SFRs financed by Freddie Mac on a map, we can see this distribution more plainly. When compared with the distribution of institutional investor portfolios, it is apparent that Freddie Mac has similar concentrations of SFRs in certain markets in the Southeast, such as in Atlanta and in south Florida, as well as in urban and suburban areas of Ohio and Indiana, but we also had a wider distribution of locations. Compared with the national distribution of SFRs, our concentration was somewhat similar, though we had less concentration in the northeastern and west coast markets, and in rural markets, which is likely the result of multiple factors such as market exposure, the concentration of ownership types and affordability — our pilot was focused on 80 percent AMI rents, but in very high and extremely high cost markets, the likelihood of finding substantial SFRs at such rent levels diminishes.

Figure 22: Distribution of Freddie Mac Financed SFRs



A material portion of the homes in our SFR portfolio are located in certain DTS focus areas, with nearly 45 percent in High Opportunity Areas or ACPs. This is relatively consistent with the national distribution of SFRs in these markets, with 12.7 percent in High Opportunity Areas and 28.3 percent in ACPs. The exception is Rural High Needs areas. We are underrepresented here relative to the national market likely due to the different ownership types found in these markets — with a heavy concentration of investors who are unlikely to pursue greater scale or liquidity at this time.

Figure 23: Distribution of Freddie Mac Financed SFRs by DTS Focus Areas

	High Opportunity		ACPs		Rural High Needs	
	Amount	%	Amount	%	Amount	%
Homes	1,440	9.8%	5,050	34.4%	21	0.1%
Dollars	\$128MM	11.42	\$380MM	33.2%	\$1.9MM	0.2%

Affordability of Freddie Mac Financed SFRs

Overall, more than 90 percent of the homes financed by Freddie Mac were affordable at origination at 80 percent of AMI, which is a larger percentage than the standard terms set for our pilot, 69 percent are affordable at 60 percent of AMI, and over 98 percent are affordable at 100 percent of AMI.⁴²

Additionally, when we explore the markets in which these homes were located, we find that 3 percent were in FHFA designated high-cost markets, 4.3 percent in very high-cost markets and 0.9 percent in extremely high-cost markets. In such areas, where rents are generally higher than in standard markets, it is helpful to consider affordability at different AMI rent levels, which could be more consistent with rents paid in these markets and could be a better indicator of affordability by market type. FHFA uses market-based affordability thresholds for the traditional multifamily market, considering AMI-based rent affordability for standard markets as 60 percent of AMI, high-cost markets as 80 percent of AMI, very high-cost markets as 100 percent of AMI and extremely high-cost markets as 120 percent of AMI.⁴³ With this as reference, we can review Freddie Mac’s SFR portfolio affordability, recognizing the SFR pilot had as its benchmark 75 percent of homes affordable at 80 percent of AMI.

Figure 24: Affordability of Freddie Mac Financed SFRs by Market Type

Market Type	Percent Affordable at 60% AMI	Percent Affordable at 80% AMI	Percent Affordable at 100% AMI	Percent Affordable at 120% AMI
Standard	73.2%	95.2%	99.4%	99.8%
High	41.5%	88.3%	97.9%	100.0%
Very High	12.5%	30.2%	82.3%	98.6%
Extremely High	0.0%	10.0%	79.2%	96.2%
All	69.0%	91.4%	98.4%	99.8%

Even without market adjustments, when comparing mean rents of Freddie Mac financed SFRs with the mean rents of the SFR market overall per Census data, we find that, on balance, Freddie Mac mean SFR

⁴² This analysis is based on preliminary analysis. Final affordability analysis is completed at the end of each calendar year for all Freddie Mac loans.

⁴³ <https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/2018-Scorecard-12212017.pdf>

rents are lower by about \$20 per month, with Freddie Mac mean SFR rents being \$1,053 and Census mean rents being \$1,073 per month.⁴⁴

Analysis of Owner/Operators of Freddie Mac Financed SFRs

Across all the new origination SFR transactions executed or committed under the pilot at the time of publication, our intentional focus was on middle-tier owner/operators and affordable properties in institutional owners’ portfolios. While we did provide financing for two investors with portfolios larger than 2,000 homes, only one of these (and one of all the borrowers we worked with) had previously completed a capital markets execution independently, and the overwhelming majority of transactions were with middle-tier sponsors.

Figure 25: Distribution of Freddie Mac Financed SFRs by Ownership Type⁴⁵

Owner Type	Number of Homes	Number of Transactions
Middle-Tier	2,904	13
Institutional	8,881	2

Case Studies

While data in the aggregate is revealing of the breadth of the SFR pilot to date, three case studies stand out as uniquely instructive: PK Housing’s acquisition of a rural SFR portfolio; Front Yard Residential’s portfolio refinance, which included more than 1,500 SFRs that had received \$20,000 of improvements per home; and Promise Homes’ partnership with Operation HOPE to improve financial literacy for their SFR tenants.

Rural SFRs with PK Housing

In 2018, PK Housing, a Michigan-based owner/operator of rural multifamily properties with deep expertise in United States Department of Agriculture (USDA) Rural Development (RD) properties and loan programs, acquired a portfolio of both USDA 515 properties and SFR villas across Indiana, Ohio and Michigan. Of the 415 units in the villas, 367 units, or 88 percent of the portfolio, are located in rural areas as defined by FHFA.

While not typically an SFR owner/operator, PK was attracted to this portfolio because it is consistent with their mission, the properties are located in markets with which they have expertise, and the SFRs were all adjacent to USDA 515 properties they were also acquiring, which enables them to manage the properties together cost-effectively. PK noted that the Freddie Mac SFR loan was the only cost-effective source of capital that could facilitate the acquisition of all the SFR units scattered across multiple states and enable them to execute their preservation strategy. Without PK acquiring the properties, the SFR

⁴⁴ Freddie Mac tabulation of Census data

⁴⁵ This data does not include homes from the FRESR execution

portfolio likely would have been split apart and sold to individual owners who may not have had the rural mission focus and experience of an owner/operator like PK Housing.

Figure 27: PK Housing Transaction Summary

Location	Rural Indiana, Ohio, and Michigan
Number of Units	415
Loan Amount	\$6,720,000
Units Affordable at 80% AMI	100%
Key Feature	88% of the SFRs are in rural markets

Front Yard Residential Portfolio Refinance of Rehabbed Homes

Beginning in 2013 and continuing into 2018, Front Yard Residential, a large institutional owner/operator of SFRs, purchased and rehabbed 1,655 properties, resulting in \$36.9 million in total renovations in a portfolio of approximately 2,000 homes. This equates to more than \$20,000 per home in improvements. Of the \$36.9 million of rehab, \$10.4 million was invested in ACPs on 470 properties. In 2018, Front Yard applied for a Freddie Mac SFR loan to refinance a warehouse line of credit on these homes and to acquire an additional 2,800 homes from a large-scale investment fund that did not specialize in SFRs. In total, this portfolio supported homes in 12 states across the Southeast and Midwest.

This transaction, which was over \$500 million, was the largest in Freddie Mac’s pilot by nearly \$270 million. We selected it for three reasons: (1) the homes were largely affordable, (2) there had been significant improvement made to a substantial number of homes, and (3) it was consistent with the intention of the pilot to learn from all parts of the market while supporting affordable SFRs, which includes institutional investors. This portfolio demonstrates the reach that a large investor can have across the country while still supporting SFRs that are affordable for their markets. Even after rehab of the properties, 83 percent of the homes in this portfolio had rents affordable to households making 80 percent of AMI, over 100 percent were affordable at 100 percent of AMI, and 10 percent of the homes are occupied by Housing Choice Voucher holders. This portfolio also had many homes in very high- and extremely highcost markets, including in Broward County and Miami-Dade County, Florida, respectively. Homes in this portfolio could be considered relatively affordable for their markets.

Figure 28: Front Yard Affordability by Market Type

Market Type	Percent Affordable at 60% AMI	Percent Affordable at 80% AMI	Percent Affordable at 100% AMI	Percent Affordable at 120% AMI
Standard	66.3%	91.3%	99.1%	99.8%
High	30.0%	72.0%	96.0%	100.0%
Very High	0.9%	9.5%	79.5%	98.6%
Extremely High	0.0%	8.0%	79.6%	95.6%
All	59.7%	83.2%	97.2%	99.6%

Figure 29: Front Yard Residential Transaction Summary

Location	AL, FL, GA, IL, IN, MD, MN, MO, NC, PA, SC, TX
Number of Units	4,814
Loan Amount	\$508,700,000
Units Affordable at 80% AMI	83%
Key Feature	1,655 homes had previously experienced substantial rehabilitation

Promise Homes Partners with Operation HOPE to Improve Financial Literacy for Tenants

Promise Homes was founded in 2017 with the mission to provide affordable housing to families who want to live in single-family homes, but are unable to purchase their home due to financial and credit history issues. In addition to the acquisition and operation of affordable SFRs, Promise Homes provides free financial literacy training and credit counseling through a partnership with Operation HOPE, partners with local, minority-owned small businesses to provide property maintenance services for its homes, creating jobs in the communities where it invests.

Through the Freddie Mac SFR pilot, with a combination of their cash equity and Freddie Mac mortgage debt, Promise Homes acquired 117 homes in Atlanta; Orlando, Florida; and Tallahassee, Florida to add to their portfolio of 232 homes. Of the 117 homes, 99 percent were affordable to households making 80 percent of AMI.

Figure 30: Promise Homes Transaction Summary

Location	Georgia and Florida
Number of Homes	117
Loan Amount	\$7,830,000
Units Affordable at 80% AMI	99%
Key Feature	Free financial counseling and maintenance services provided by local minority-owned small businesses

Conclusion

SFRs are home to nearly 23 million households, 5 million of which are located in rural markets, and represent the single largest source of rental housing in the country. They offer renters choice in both where and how they live, and are particularly in demand among growing families and new households. For comparably sized units, SFRs are generally more affordable than traditional multifamily rentals and are far more prevalent. In rural markets, SFRs are particularly important, as they represent 66 percent of the rural rental housing stock and are, in many markets, the most viable source of rental housing.

The market for SFRs has been evolving. Large-scale investors, who have ready access to the capital markets, have entered the market in recent years and have been acquiring more units, but still represent 1 percent of the market overall and are concentrated in certain MSAs that provide favorable economics. The middle-tier investor market has been more successful reaching multiple segments of the SFR market, including serving some underserved markets. But middle-tier investors have been more constrained than larger investors partially because of a lack of financing options. Today, the vast majority of SFRs are owned by individuals and very small investors.

Freddie Mac's SFR pilot focused on the middle-tier investor market, and included affordable SFRs from two large institutional investors, one of which had previously accessed the capital markets. The intention was to gain breadth of experience and build the infrastructure necessary to create a sustainable secondary market deliberately focused on affordable SFRs. Through this pilot, we developed both the lending and securitization infrastructure through which we supported approximately 15,000 SFRs in 27 states and 90 MSAs. Ninety percent of the homes were affordable at origination at 80 percent of AMI, 69 percent were affordable at origination at 60 percent of AMI and over 98 percent were affordable at origination at 100 percent of AMI. Through the pilot we demonstrated that a secondary market focused on affordable SFRs and middle-tier investors could be efficiently developed and grown to scale nationwide.