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A Latent Profile Analysis of Suburban Single-Family Rental Housing (SFR) Neighborhoods

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ABSTRACT

Single-family rental housing (SFR) is an increasingly prevalent form of housing tenure in U.S. suburban neighborhoods, representing a paradigm shift in how households gain access to a suburban single-family home. This article uses latent profile analysis (LPA) to classify the types of suburban neighborhoods in the 20 largest U.S. metropolitan areas in which high rates of SFR are located. Findings indicate that concentrations of SFR are located in the following types of suburban neighborhoods: diverse middle-class, older white middle-class, low-income Hispanic, low-income black, and affluent. The study finds that the composition of high-SFR neighborhoods among and within metropolitan areas varies substantially. The article examines the variation in the types of high-SFR neighborhoods for the 20 metropolitan areas, then presents a detailed analysis of the spatial distribution of high-SFR neighborhood types in three metropolitan areas.

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Single-family homes have a particular significance in the United States. Ownership of a single-family detached house in the suburbs has long been associated with the prosperity and upward mobility of the mythic American Dream. Supported by public policies and bolstered by the housing boom of the early 2000s, the single-family homeownership rate in the United States was 86.4% in 2009 (U.S. Census Bureau, 2009). The foreclosure crisis compromised many Americans' financial ability to sustain homeownership and more broadly their faith in homeownership as a secure investment. Consequently, the 10 years following the foreclosure crisis have seen a substantial increase in rentership—particularly in households residing in single-family rental housing (SFR). This tenure shift resulted in an increase of more than 2.5 million renter-occupied single-family detached houses in the United States between 2009 and 2016 (U.S. Census Bureau, 2009, 2016). Thus, suburban neighborhoods that once might have been off-limits to households without the financial means or the desire to purchase a single-family house may be an option through rentership. The domestic setting of the American Dream—a single-family home in the suburbs—may increasingly be achievable without homeownership.

Historically, small investors have dominated investment in SFR, but in the wake of the 2008 housing crisis, large institutional investors began purchasing foreclosed single-family properties in bulk and, instead of reselling them, offering them for rent. Supported by federal policies, price discounts, low vacancy rates, increased demand from displaced former homeowners, and technological advances that allowed for more efficient management, large-scale institutional investment in scattered-site SFR continued, developing quickly into a new institutional asset class. And whereas the initial locations of SFR coincide with areas that had high rates of subprime lending and foreclosures, often in distressed neighborhoods (Immergluck, 2018), continued large-scale

investment in SFR has substantially expanded the types of neighborhoods in which SFR is located. More than a decade after the onset of the housing crisis, the SFR asset class has grown well beyond its origins. The concentration of SFR in advantaged suburban neighborhoods may increase households' "opportunity structures" (Galster & Killen, 1995, p. 9), but, conversely, SFR in disadvantaged neighborhoods may exacerbate the suburbanization of poverty.

Diversity of housing tenure in suburban neighborhoods increases options for households that may not have the financial means or the desire to purchase a single-family house. However, SFR, particularly that owned by large institutional investors, has come under increased scrutiny recently (e.g., Conlin, 2018; Semuels, 2019). Institutional investors can outbid or offer more advantageous terms (e.g., cash offers) when competing with individual households for the purchase of single-family houses. And when institutional investors own a significant percentage of the single-family houses in a neighborhood, they can substantially influence sales prices and rents. Moreover, corporate owners of SFR have a responsibility to their investors, not to their tenants and not to neighborhoods. This is borne out in how these firms approach issues such as property maintenance, tenant relationships, and eviction practices.

Criticisms of SFR have drawn the attention of housing rights advocates and have inspired policymakers to propose legislation to limit large-scale institutional investment in SFR (e.g., Warren, 2019). Yet a broad-brush approach to the regulation of SFR may inadvertently curtail housing type options for renters. A more detailed understanding of where SFR is located is needed to craft more nuanced public policies that limit the deleterious effects of SFR while accommodating the surge in demand for rental housing and extending access to the desirable amenities of suburban neighborhoods.

This study addresses the following questions: (a) 10 years on from the housing crisis, in what types of suburban neighborhoods is SFR located? And (b) how does this variation differ among and within metropolitan areas? Using latent profile analysis (LPA), the study classifies and describes the primary types of suburban neighborhoods in which concentrations of SFR are located. The article presents the five types of high-SFR suburban neighborhoods for 20 metropolitan areas, then presents a detailed analysis of the spatial distribution of SFR neighborhoods in the suburbs of three core-based metropolitan statistical areas (MSAs)—the Atlanta (Georgia), Los Angeles (California), and Boston (Massachusetts) MSAs. The policy implications of these findings are then discussed.

Background

Suburbia is an archetypal middle-class invention, historically representing class wealth and privilege (Fishman, 1987). Homeownership, particularly ownership of a suburban single-family home, is closely associated with the American Dream and the middle-class ideal. The suburban single-family house has traditionally represented stability and morality (Hayden, 2003). As Jackson (1985, p. 50) writes, "the single-family dwelling became the paragon of middle-class housing, the most visible symbol of having arrived at a fixed place in society, the goal to which every decent family aspired." The idea that suburban homeowners make good citizens underpins public policies that subsidize homeownership, but redlining, restrictive covenants, and racist sales practices historically limited nonwhite households' access to suburbs. Restrictive single-family residential zoning and minimum lot sizes, among other local land-use controls, limit the diversity of tenure in suburban neighborhoods—a legacy that remains entrenched in much of the built form of contemporary suburbia. The U.S. homeownership rate has increased steadily since the mid-1990s, reaching a seasonally adjusted high of 69.2% in 2004—near the peak of the 2000s housing boom. But it then declined to 62.9% in 2016, its lowest point in 50 years (U.S. Census Bureau, 2018).

The 2008 housing crisis profoundly altered many Americans' view of homeownership. Damaged credit histories, tightened mortgage markets, increased student loan debt burdens, and decreased earnings and savings have resulted in increasing numbers of households being either unable or

unwilling to own their place of residence (Immergluck, 2018). Moreover, when taking into consideration the length of time the average American household lives in a house, renting a house in which to live is often a more financially advantageous decision than buying one (Beracha & Johnson, 2012). The drivers of demand for rental housing are expected to persist, and rentership is predicted to remain at approximately the current rate (Immergluck, 2018). Multifamily rental housing will satisfy much of this demand, but SFR is likely to address a substantial portion.

Investment in SFR has historically been by small investors on a small scale (Garboden & Newman, 2012). This changed in the years following the housing crisis as the federal government enacted policies intended to stem the negative spillover effects from concentrated real estate owned (REO) properties—properties that are owned by a lender after an unsuccessful foreclosure sale or auction. REO investors range from small mom-and-pop investors to large firms (Ellen, Madar, & Weselcouch, 2015; Herbert, Lew, & Sanchez-Moyano, 2013; Immergluck, 2012; Pfeiffer & Molina, 2013). In 2012, the Federal Housing Finance Agency's REO-to-rental program was initiated to allow investors to purchase large pools of REO properties with the requirement that they rent out the properties for a specified number of years (Federal Housing Finance Agency, 2018). Shortly thereafter, the first SFR securitization offering took place (Fields, Hokli, & Schafran, 2016).

Large institutional entities are heavily invested in SFR. Invitation Homes, a subsidiary of the private equity firm The Blackstone Group, is the largest owner of SFR by number of units in the United States; it owns more than 80,000 properties in 17 markets, more than 12,000 of them in the Atlanta area alone (Invitation Homes Inc., 2019). Some of these large SFR investors, such as Invitation Homes, American Homes 4 Rent, and Front Yard Residential, are real estate investment trusts (REITs)—public companies whose shares are traded on a stock exchange. Many large SFR investment firms are financed through securitization, or the sale of bonds based on the future income stream of the underlying assets (i.e., single-family houses). This has resulted in the emergence of SFR bonds as a new financial instrument and SFR as an emerging and highly profitable institutional asset class. The securitization of SFR has grown quickly since 2012 (Mills, Molloy, & Zarutskie, 2019). In 2013 through 2015 alone, 21 SFR securitizations included more than 84,000 single-family residential properties (Fields et al., 2016). SFR has proved to be quite profitable for investors, and demand for SFR to invest in has outpaced the supply of foreclosed and REO properties. Moving beyond the conversion of scattered-site foreclosed homes to SFR, entirely new build-to-rent SFR developments are being constructed. In fact, one third of the \$150 million in SFR recently acquired by American Homes 4 Rent was newly constructed (Mattson-Teig, 2019).

The proliferation of SFR grew out of the increased volume of foreclosures and REO sales in the wake of the 2008 housing crisis. Immergluck (2012) finds that the REO sales—particularly low-value REO sales—to investors in the early years of the federal Neighborhood Stabilization Program (2008–2009) were concentrated in lower income neighborhoods. In their study of the spatial pattern of investor-owned single-family houses in Atlanta, Immergluck and Law (2014) find high rates of investor ownership in areas affected by the early subprime phase of the foreclosure crisis, which have high poverty and vacancy rates and a high percentage of black residents. They find that the locations of REO sales shifted between 2008 and 2011 as more foreclosed houses became available in less distressed neighborhoods. This trend reflects the shift in the location of foreclosures from those that were the result of subprime lending, which affected lower income households, to those that occurred in more moderate- and middle-income neighborhoods. Similarly, Ellen et al. (2015) find that in the latter years of the foreclosure crisis, neighborhoods that continued to be burdened by high concentrations of REO properties were not the places with the lowest incomes but were places with high percentages of black residents.

Few studies specifically address the geographic locations or implications of SFR. In his study of increases in SFR in the Atlanta metropolitan area, Immergluck (2018) finds that neighborhoods with high percentages of Asian, Hispanic, and black residents saw larger increases in SFR. In neighborhoods with lower property values, increases in SFR were associated with high rates of foreclosures, an association that was not observed in neighborhoods with higher property values (Immergluck,

2018). Pfeiffer and Lucio (2015) found that the conversion of former foreclosed single-family houses into SFR expanded low-income renters' options to include rental housing in more advantaged neighborhoods in the city of Phoenix, Arizona.

The entrance of corporate landlords—large institutional investors—into SFR poses unique questions for housing rights advocates. The physical idiosyncrasies of scattered-site, detached single-family housing pose challenges for maintenance. Invitation Homes has been criticized for inadequate maintenance and is the subject of a class-action lawsuit over its management practices (Conlin, 2018). And corporate owners of SFR are more likely than others to file eviction notices (Raymond, Duckworth, Miller, Lucas, & Pokharel, 2016). Moreover, publicly traded real estate investment firms such as Invitation Homes and American Homes 4 Rent have a fiduciary duty to their shareholders to maximize shareholder wealth and pay dividends. Concentrations of SFR may result in a deterioration of the physical quality of the neighborhood: research has shown that renter-occupied housing is maintained at a lower rate than owner-occupied housing is (Sweeney, 1974). Moreover, SFR may negatively affect nearby house values (Wang, Grissom, Webb, & Spellman, 1991), and competition with large-scale corporate SFR investors may create barriers to homeownership for households.

SFR in advantaged suburban neighborhoods increases households' housing options to include places in predominantly owner-occupied neighborhoods where homeownership is otherwise required for access to the opportunity those neighborhoods may provide. Access to housing affects one's access to opportunity structures (Acolin & Wachter, 2016; Rohe, Van Zandt, & McCarthy, 2002), which Galster and Killen (1995, p. 7) define as the "social systems, markets, and institutions that aid in upward mobility." Advantaged neighborhoods foster intergenerational social mobility for children from low-income households through their high-quality schools, local social networks, and access to employment (Chetty, Hendren, Kline, & Saez, 2014). It follows, then, that SFR in advantaged neighborhoods may provide access to spatially constituted opportunity structures.

Previous studies on the topic of SFR identify changes in the number of SFR units in neighborhoods and begin to reveal characteristics of the neighborhoods in which they are located, particularly in places hardest hit by the housing crisis (Chilton, Silverman, Chaudhry, & Wang, 2018; Immergluck, 2018). However, little research examines the types of neighborhoods in which SFR is located or focuses on metropolitan areas with relatively low rates of SFR overall. Increasing numbers of SFR units in neighborhoods once dominated by owner-occupied single-family housing, however, have drawn the concern of some neighboring homeowners and policymakers (Mills et al., 2019). Some homeowners fear that their house values will be negatively affected by the presence of nearby SFR—an empirically substantiated concern (Wang et al., 1991). In response, some municipalities have enacted policies to restrict renter occupation (Coulson & Wommer, 2019). Federal policy proposals intended to protect renters, such as that proposed by Senator Warren of Massachusetts (Warren, 2019), have the potential to affect the numbers of SFR units across the United States. Thus, an understanding of the diversity of suburban neighborhoods in which SFR is located will shed much-needed light on the different types of neighborhoods in which it is found. This realization will assist policymakers in crafting nuanced policies that limit the negative effects of SFR on some neighborhoods while increasing access to neighborhoods once off-limits to renters.

Developing a Typology

Typology studies seek to differentiate observations while at the same time reducing them to a small set of internally similar groups. Neighborhood typologies are created to classify and thereby better understand variation among neighborhoods. Typology studies have been used to better understand the complex organization of urban space (e.g., Delmelle, 2015; Lucy & Phillips, 2000; Owens, 2012; Short, 2007; Vicino, Hanlon, & Short, 2007, 2011; Wyly, 1999). Several studies use typologies specifically to study differences among suburban neighborhoods. Vicino (2008a, 2008b) examines the characteristics of declining suburban neighborhoods in Baltimore, Maryland. Hanlon (2009) explores

Table 1. Variables used in the latent profile analysis.

Variable
Race and ethnicity
Percentage of the population non-Hispanic white
Percentage of the population non-Hispanic black
Percentage of the population non-Hispanic Asian
Percentage of the population Hispanic
Percentage foreign-born in Europe
Percentage foreign-born in Asia
Percentage foreign-born in Latin America
Age and family structure
Percentage of population under 18
Percentage of population between 18 and 34
Percentage of population between 35 and 64
Percentage of population over 65
Percentage of married families with children
Percentage of married families with no children
Percentage of single person families
Percentage of female-headed families with children
Education and employment
Percentage with no high school diploma
Percentage with high school diploma
Percentage with a college degree
Percentage with a postgraduate degree
Percentage employed in management and professional occupations
Percentage employed in service occupations
Percentage employed in sales and office occupations
Percentage employed in construction, extraction, and mining
Percentage employed in production and transportation occupations
Income
Percentage families in poverty
Owner-occupied median income (relative to MSA)
Renter-occupied median income (relative to MSA)
Housing
Median house value (relative to MSA)
Median rent (relative to MSA)
Percentage of housing units owner occupied
Percentage of housing units built before 1940
Percentage of housing units built 1940 to 1969
Percentage of housing units built 1970 to 1999
Percentage of housing units built after 2000

Note: MSA = metropolitan statistical area.

race, ethnicity, and class in inner-ring suburbs. Also with a focus on inner-ring suburban neighborhoods, Charles (2018) creates a typology of mansionization. Thus, typology studies have proven to be useful in fostering more nuanced understanding of urban and suburban places.

Demographic, socioeconomic, and housing data were gathered for all suburban census tracts within each MSA. Suburban census tracts are those that are located within a core-based MSA but outside the principal city. The variables measure race and ethnicity, age and family structure, education and employment, income, and housing. These variables were chosen to capture differences among suburban neighborhoods and reflect variables used in previous neighborhood typology studies (e.g., Charles, 2018; Vicino et al., 2011). The variables included in the analysis are presented in Table 1. Median incomes, house values, and rents are measured as a ratio of the median of the tract to that of the MSA in which it is located.

Identifying High-SFR Suburban Neighborhoods

An examination of SFR in raw percentages or absolute numbers indicates concentrations of SFR in several Sunbelt cities, such as Las Vegas (Nevada), Riverside (California), Memphis (Tennessee), and Phoenix (Arizona) (Immergluck, 2018). The literature on SFR largely overlooks metropolitan areas in

the Northeast and Midwest in which overall rates of SFR may be comparatively low. Within these metropolitan areas, however, some neighborhoods have higher concentrations of SFR than others. Thus, this study focuses specifically on neighborhoods with high rates of SFR (SFR neighborhoods) in the 20 largest U.S. MSAs. SFR neighborhoods (census tracts) were identified as those places with relatively higher rates of SFR. Following the process that Vicino et al. (2011) use in their study of immigrant neighborhoods, in this study we first identified neighborhoods with high rates of SFR using an SFR location quotient (*SFR LQ*). The *SFR LQ* for suburban census tract *i* and MSA *j* for 2016 was calculated as follows:

$$SFR\ LQ_{ij2016} = \frac{\text{Percent } SFR_{i2016}}{\text{Percent } SFR_{j\ \text{suburban census tracts } 2016}}$$

The *SFR LQ* compares the percentage of SFR in each suburban census tract within an MSA to the percentage of SFR in all suburban census tracts in that MSA in 2016. An *SFR LQ* of 1.0 indicates that the percentage of SFR in a suburban census tract was the same as the percentage of SFR in all census tracts within the MSA. High-SFR neighborhoods were identified as those census tracts with an *SFR LQ* greater than 1.25. The numbers of total census tracts, suburban tracts, and high-SFR tracts are presented in Table 2. Seventy-one percent of all census tracts within the 20 largest MSAs were identified as suburban. Of those, 6,103 (32.3% of all suburban census tracts) were identified as high-SFR neighborhoods.

Latent Profile Analysis

LPA is a statistical technique to recover hidden groups from observed data. LPA is a type of a mixture model that uses continuous variables to cluster observations into groups using Bayesian posterior probabilities. It is particularly useful when reducing a large number of potentially correlated variables to a few easily interpreted groups (Oberski, 2016). Urban studies researchers have extensively used principal component analysis (PCA) followed by cluster analysis to create groups (clusters) of neighborhoods that show similar patterns in their characteristics. Unlike PCA and cluster analysis, LPA derives groups (i.e., profiles) based on a probabilistic model to describe the distribution of the data. A major advantage of LPA is that the probabilities used to determine the LPA model indicate the probability that an observation (neighborhood) belongs to each of the types. The LPA in this study was undertaken using Stata/IC software version 15.1, with the LPA analysis carried out using the generalized structural equation model (*gsem*) estimation command (StataCorp, 2017).

Latent profile models were fitted using the 34 variables presented in Table 1 for each high-SFR suburban census tract in the 20 largest MSAs ($N = 5,814$), starting with two classes and adding one class with each subsequent model.¹ The optimal number of classes was determined using the Bayesian information criterion (BIC), entropy (measuring how well census tracts were classified into latent classes), and log-likelihood goodness-of-fit criteria. Models with lower BIC but higher entropy and log-likelihood were preferred in determining the most interpretable solution. BIC increases and log-likelihood decreases as the number of latent profiles increases from two to seven. All five models have a high entropy score, indicating a high degree of class separation. Five profiles were determined to be most appropriate for this study in that they were most qualitatively different and interpretable. The probability of each of the 5,814 high-SFR census tracts belonging to each of the five types was calculated, and each census tract was assigned to the type with the maximum probability.

Suburban SFR Neighborhood Typology

The overall housing rentership rate and in particular the SFR rentership rate—the percentage of all detached single-family houses that are renter occupied—have increased substantially since the

Table 2. High single-family rental housing (SFR) census tracts for the 20 largest metropolitan statistical areas (listed in descending order of the overall SFR rate).

MSA	Total census tracts	Total suburban census tracts	High SFR suburban census tracts			
			SFR rate			
			Median	Low	High	
	<i>N</i>	<i>N</i>	<i>N</i>	%	%	%
Riverside-San Bernardino-Ontario, CA	821	757	237	42.0	30.4	100.0
Los Angeles-Long Beach-Anaheim, CA	2,924	1,926	699	46.0	28.6	100.0
Phoenix-Mesa-Scottsdale, AZ	991	645	184	38.5	28.4	100.0
San Diego-Carlsbad, CA	627	347	112	42.1	27.9	100.0
San Francisco-Oakland-Hayward, CA	975	779	263	39.3	24.3	100.0
Tampa-St. Petersburg-Clearwater, FL	738	643	195	32.4	23.3	100.0
Atlanta-Sandy Springs-Roswell, GA	951	824	278	34.9	22.8	100.0
Miami-Fort Lauderdale-West Palm Beach, FL	1,215	1,116	355	36.3	21.3	100.0
Houston-The Woodlands-Sugar Land, TX	1,069	605	186	29.1	20.6	59.2
Dallas-Fort Worth-Arlington, TX	1,324	1,023	349	30.5	20.6	100.0
Seattle-Tacoma-Bellevue, WA	718	586	164	29.2	20.2	100.0
Detroit-Warren-Dearborn, MI	1,298	1,002	226	31.4	19.7	100.0
Denver-Aurora-Lakewood, CO	620	477	133	30.3	17.9	100.0
Chicago-Naperville-Elgin, IL-IN-WI	2,210	1,413	397	25.4	14.3	73.7
Washington-Arlington-Alexandria, DC-VA-MD-WV	1,358	1,179	409	28.3	13.6	100.0
New York-Newark-Jersey City, NY-NJ-PA	4,690	2,525	894	27.6	11.9	100.0
Baltimore-Columbia-Towson, MD	680	480	157	17.2	10.5	62.2
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1,476	1,093	362	22.1	9.6	100.0
Minneapolis-St. Paul-Bloomington, MN-WI	789	674	200	16.2	9.6	100.0
Boston-Cambridge-Newton, MA-NH	1,003	825	303	17.8	8.4	100.0
Total	26,477	18,919	6,103	31.3	8.4	100.0

Note: SFR = single-family rental housing.

Source: American Community Survey 2012–2016 (5-year estimates), Census Bureau.

start of the housing crisis (Immergluck, 2018). Overall, there are more than 3.5 million SFR units in the 20 largest MSAs (U.S. Census Bureau, 2016). The overall SFR rate is 15.3%, ranging from 6.7% to 24.2%.² The SFR rate is highest in the Riverside, Los Angeles, and Phoenix MSAs and lowest in the Philadelphia (Pennsylvania), Minneapolis (Minnesota), and Boston MSAs. Table 3 presents the characteristics of the housing stock in the 20 largest MSAs, listed in descending order of the 2016 SFR rate.

Results of the LPA reveal that the 1,263,088 SFR units are located in the following types of high-SFR suburban neighborhoods: *diverse middle-class* (28.7%), *older white middle-class* (26.4%), *low-income Hispanic* (22.5%), *low-income black* (12.9%), and *affluent* (9.6%).³ Overall, the highest proportions are located in the Los Angeles MSA (175,000, or 13.9%), followed by the Atlanta (8.2%), New York (8.1%), and Dallas (Texas; 8.0%) MSAs, each of which has more than 100,000 SFR units located in high-SFR neighborhoods. The SFR rentership rate overall in the high-SFR neighborhoods is 27.4%. The concentration of SFR in each of the five types of neighborhoods—the percentage of SFR out of the overall single-family housing stock—is 30.3% in the diverse middle-class type, 20.9% in the older white middle-class type, 37.5% in the low-income Hispanic type, 31.6% in the low-income black type, and 22.3% in the affluent type, on average.

Averages for each of the 34 variables included in the LPA for each of the five types of high-SFR neighborhoods were calculated.⁴ The average ratios of the median incomes for households living in owner-occupied housing and for households living in rental housing, median house values, and median rents were calculated relative to the median of that variable in the MSA in which each neighborhood (tract) is located and averaged for each SFR neighborhood type. The number and percentage of census tracts, as well as single-family houses overall and SFR, in each of the five classes is presented in Table 4. The defining characteristics of each type of SFR neighborhood are presented in Table 5.

Table 3. Population and rentership rates for the 20 largest metropolitan statistical areas (listed in descending order of the overall SFR rate).

MSA	Population 2016 (N)	Total single-family houses 2016 (N)	Total SFR 2016 (N)	SFR rate 2016 (%)
Riverside-San Bernardino-Ontario, CA	4,430,646	933,568	226,199	24.2
Los Angeles-Long Beach-Anaheim, CA	13,189,366	2,162,677	494,181	22.8
Phoenix-Mesa-Scottsdale, AZ	4,486,153	1,079,673	244,769	22.6
San Diego-Carlsbad, CA	3,253,356	576,760	127,964	22.1
San Francisco-Oakland-Hayward, CA	4,577,530	851,016	164,146	19.2
Tampa-St. Petersburg-Clearwater, FL	2,927,714	681,828	126,871	18.6
Atlanta-Sandy Springs-Roswell, GA	5,612,777	1,368,580	248,536	18.1
Miami-Fort Lauderdale-West Palm Beach, FL	5,926,955	956,588	162,721	17.0
Houston-The Woodlands-Sugar Land, TX	6,482,592	1,430,888	235,422	16.4
Dallas-Fort Worth-Arlington, TX	6,957,123	1,600,667	263,182	16.4
Seattle-Tacoma-Bellevue, WA	3,671,095	843,796	136,570	16.1
Detroit-Warren-Dearborn, MI	4,296,731	1,192,725	187,572	15.7
Denver-Aurora-Lakewood, CO	2,752,056	641,079	91,492	14.2
Chicago-Naperville-Elgin, IL-IN-WI	9,528,396	1,873,901	214,546	11.4
Washington-Arlington-Alexandria, DC-VA-MD-WV	6,011,752	1,019,572	110,627	10.8
New York-Newark-Jersey City, NY-NJ-PA	20,031,443	2,652,914	251,952	9.4
Baltimore-Columbia-Towson, MD	2,780,873	490,008	40,993	8.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	6,047,721	1,037,975	79,553	7.6
Minneapolis-St. Paul-Bloomington, MN-WI	3,488,436	831,784	63,700	7.6
Boston-Cambridge-Newton, MA-NH	4,728,844	871,090	58,652	6.7
Total		23,097,089	3,529,648	15.3

Note: SFR = single-family rental housing.

Source: American Community Survey 2012–2016 (5-year estimates), Census Bureau.

Table 4. Numbers and percentages of census tracts, single-family detached houses, and single-family rental housing (SFR) for the five SFR neighborhood profiles.

SFR neighborhood profile	Census tracts		Single-family houses		SFR		SFR rate
	N	%	N	%	N	%	%
Diverse middle-class	1,510	26.0	1,197,229	26.0	362,738	28.7	30.3
Older white middle-class	1,524	26.2	1,590,968	34.6	332,919	26.4	20.9
Low-income Hispanic	1,181	20.3	757,502	16.5	283,765	22.5	37.5
Low-income black	734	12.6	515,264	11.2	162,734	12.9	31.6
Affluent	865	14.9	543,400	11.8	120,932	9.6	22.3
Total	5,814	100.0	4,604,363	100.0	1,263,088	100.0	27.4

Note: SFR = single-family rental housing.

Diverse Middle-Class

The diverse middle-class neighborhood type encompasses 28.7% of all SFR located in high-SFR neighborhoods within the 20 largest metropolitan areas—the largest of the five types, accounting for more than 360,000 units of SFR. This type is the most racially and ethnically diverse of the five types. On average, non-Hispanic white residents make up roughly one third of the population, whereas non-Hispanic black, Asian, and Hispanic residents constitute 16%, 11%, and 37% of the population, respectively. The average median income for households in renter-occupied housing in the diverse middle-class type of SFR neighborhood is roughly on a par with the average median income of the respective MSAs (93%). The average owner-occupied median income is 79% that of the MSA.

In addition to the racial and ethnic diversity of this type of neighborhood, it is also differentiated by the age of the housing stock. On average, the majority of the housing is relatively new—built after 1970. Of the five types, it has the lowest percentage of housing built in the pre-World War II period. Median house values are 71% of the average for the MSA. Rents are on a par with the MSA average (97%). Thus, the diverse middle-class type of SFR neighborhood is, on average, made up of

Table 5. Distinguishing characteristics of the five single-family rental housing (SFR) neighborhood profiles.

Type	Race and ethnicity	Age and family structure	Education and employment	Income	Housing
Diverse middle-class	32% of the population is non-Hispanic white; 16% of the population is non-Hispanic black; 37% of the population is Hispanic; 28% of the population was born in Europe, Asia, or Latin America.	40% of the population is between 35 and 64; 15% of the population is 65 or older; 23% of the population is between 18 and 34; 44% of the population is married households without children present.		Median incomes for owners are 79% of the median for owners in the respective MSA. Median incomes for renters are 93% of the median for renters in the respective MSA.	12% of the housing stock was built before 1940; 43% of the housing stock was built between 1940 and 1970.
Older white middle-class	73% of the population is non-Hispanic white; 9% of the population is black; 12% of the population is Hispanic; 5% of the population was born in Latin America.			9% of families are living in poverty; Median incomes for owners are 83% of the median for owners in the respective MSA; Median incomes for renters are 105% of the median for renters in the respective MSA.	63% of housing units are owner-occupied.
Low-income Hispanic	73% of the population is Hispanic; 10% of the population is white; 35% of the population was born in Latin America.	30% of the population is (under 18); 43% of the population is 35 or older; 26% of households comprise married adults without children present.	40% of the population does not have a high school diploma; 63% of the population is employed in service, construction, production, and transportation occupations.	24% of families are living in poverty. Median incomes for owners are 66% of the median for owners in the respective MSA. Median incomes for renters are 79% of the median for renters in the respective MSA.	Median house values are 58% of the median for the respective MSA; 43% of housing units were built between 1940 and 1970; 33% of housing units were built between 1970 and 1999; 9% of housing was built since 2000.
Low-income black	67% of the population is non-Hispanic black; 14% of the population is white.	44% of households are married couples; 26% are single-person households; 25% of households are female-headed with children.	65% of the population has a high school diploma as the highest level of education; 26% of the population works in service occupations, and 26% works in sales and office occupations.	24% of families live in poverty. Median incomes for owners are 65% of the median for owners in the respective MSA. Median incomes for renters are 72% of the median for renters in the respective MSA.	Median house values are 50% of the median for the respective MSA; 39% of housing units were built between 1940 and 1970.

(Continued)

Table 5. (Continued).

Type	Race and ethnicity	Age and family structure	Education and employment	Income	Housing
Affluent	15% of the population is Asian, 12% of the population was born in Asia.	19% of the population is under 18; 30% of the population is 18 to 34; 78% of the population is married, 34% with children present and 44% without children present; 11% of households are headed by a single person; 8% of households are female-headed with children.	5% of the population does not have a high school diploma; 37% of the population has a high school diploma as the highest level of education; 55% of the population has a college degree or higher education; 56% of the population is employed in professional and management occupations.	6% of families live in poverty. Median incomes for owners are 115% of the median for owners in the respective MSA. Median incomes for renters are 148% of the median for renters in the respective MSA.	Median house values are 134%, and median rents are 125% of the median for the respective MSA; 17% of the housing stock was built before 1940; 18% of the housing stock was built after 2000; 27% of housing units built between 1940 and 1969.

a racially and ethnically diverse population, with newer housing than the other four types, house values and incomes for households living in owner-occupied housing less than the MSA median, and rents and incomes for households living in rental housing close to the overall median for the MSA.

Older White Middle-Class

Overall, 26.4% of all SFR units located in the high-SFR neighborhoods studied are located in the older white middle-class type of SFR neighborhood. SFR makes up 20.9% of single-family houses in this type of SFR neighborhood, the lowest single-family rentership rate of the five types. Thus, at the neighborhood level, SFR is the least concentrated in the older white middle-class type of neighborhood. This type has the highest percentage of non-Hispanic white residents among the five types and the lowest percentages of black and Hispanic residents and of residents born in Latin America. Few residents are foreign born compared with residents of the other four types. The age of the residents also differentiates this type from the others. The older white middle-class type of SFR neighborhood has the highest percentage of residents over 35 and the lowest percentage of 18- to 35-year-olds of all five types. On average, 40% of the population is between 35 and 64, and 15% of the population is over 65. The type also has the highest percentage of married households without children present.

In the older white middle-class type of SFR neighborhood, only slightly more than a quarter of the population has a college degree or higher. The median income of residents of owner-occupied housing is, on average, 83% of the respective MSA median. Residents of renter-occupied housing have incomes 105% of the respective MSA median for renter-occupiers. This type has the largest percentage of owner-occupied housing of all five types. The age of the housing stock is similar to that of the diverse middle-class type—it has an equally high rate of housing built after 1970.

Low-Income Hispanic

The low-income Hispanic type is the third-largest type by number of SFR units. Overall, 23% of all SFR located in high-SFR neighborhoods falls within this type. SFR is the most concentrated in this type of high-SFR neighborhood—over 37% of the single-family housing stock is SFR. The low-income Hispanic neighborhood type is distinguished by the high percentage of Hispanic residents and the high percentage of the population born in Latin America. In this type of SFR neighborhood, on average, the population is 73% Hispanic and 35% born in Latin America. Only 12% of the population is white and 10% of the population is black, on average.

This type has the highest percentage of children, the lowest percentage of the population over 35, and the lowest percentage of married households with no children present. This contrasts sharply with the age makeup of the older white middle-class type described above. This type has the highest percentage of residents without a high school diploma and the lowest percentage of residents with a college degree or more education. Only 15% of the population is employed in management and professional occupations, on average. The low-income Hispanic type of SFR neighborhood has the highest percentages of residents employed in service, construction, and production and transportation occupations, and a low percentage of residents employed in sales and service occupations. This SFR neighborhood type has the highest percentage of families living in poverty and the lowest median incomes. The median income for households in owner-occupied housing is 66% of the median for owner-occupiers in the respective MSAs, and renter-occupied median incomes are 79% of those for renter-occupiers in the respective MSAs. Both median incomes are among the lowest of all five types of SFR neighborhoods.

House values are the second lowest of all five types, on average, at 58% of the MSA median. Rents are 87% of the MSA median. Of all five types, this type has the highest percentage of postwar

housing (built between 1940 and 1970); only 42% of housing units were built in or after 1970, the lowest of all five types.

Low-Income Black

The low-income black type of SFR neighborhood includes 12.9% of all SFR units in high-SFR neighborhoods. This type has the highest percentage of non-Hispanic black residents. As in the older white middle-class type, few residents are foreign born on average. This type of neighborhood has low percentages of married households both with and without children present and high rates of single households and female-headed households with children.

This type of SFR neighborhood has a high percentage of residents with a high school diploma as the highest level of education, but unlike the low-income Hispanic type, it does not have a high percentage of residents without a high school diploma. Of the five types, this type has the highest percentage of residents employed in service occupations, similar to the low-income Hispanic type; but unlike that type, the low-income black type has a high percentage of residents employed in sales and office occupations. Nearly one quarter of families live in poverty—the second-highest rate of families living in poverty of all SFR neighborhood types.

The low-income black SFR neighborhood type has a similarly low owner-occupied median income at 65% of the MSA owner-occupied median and renter-occupied median income at 72% of the MSA renter-occupied median, both comparable with proportions for the low-income Hispanic type. The ratio of the median house value is less than half that of the respective MSA medians, the lowest of all five types. This type has a low percentage of housing built in the postwar period and low rates of housing built after 1970.

Affluent

The type of SFR neighborhood that encompasses the fewest SFR units located in high-SFR suburban neighborhoods in this study (9.6%) is the affluent type. This type has a low percentage of non-Hispanic black residents, similar to the older white middle-class type. Among the five types, it has the highest percentage of Asian residents and of residents born in Asia. This affluent type of SFR neighborhood has the lowest percentage of the population under 18 but the highest percentage of residents between 18 and 34. This type of neighborhood has the highest percentage of married households with and without children present.

The affluent type of SFR neighborhood has the most-educated residents, on average: 57% of the population has a college degree or higher education. Over half of the population, on average, works in management and professional occupations; this type has the lowest percentages of residents employed in service, sales and office, construction, and production occupations. It has the lowest rate of families living in poverty and the highest median incomes. The owner-occupied median income is 115% of the respective MSA owner-occupied median, and the renter-occupied median income is 148% of the MSA renter-occupied median. Median house values are similarly high, at 134% of the MSA medians, and rents are 125% of the MSA median rents, on average. The affluent type of neighborhood has the highest percentage of housing built in the prewar era and the lowest percentage built in the postwar era of all five types.

Composition of SFR Neighborhoods Among MSAs

The composition of high-SFR neighborhood types among the 20 largest MSAs varies substantially from one MSA to another. The percentage of SFR in each of the five types of high-SFR neighborhoods for each of the 20 MSAs is presented in [Table 6](#). The diverse middle-class type of SFR neighborhood contains the greatest number of SFR units overall; 28.7% of all single-family rentals (over 364,000) in suburban high-SFR neighborhoods of the 20 largest MSAs are located in this type

of SFR neighborhood. The MSAs with the highest percentage of SFR units located in the diverse middle-class neighborhood type are the San Diego (California) and Houston (Texas) MSAs—in both, more than 43% of suburban SFR is located in this type of high-SFR neighborhood. Conversely, Baltimore and Philadelphia have relatively little SFR—less than 8%—in the diverse middle-class type of SFR neighborhood.

The older white middle-class type of SFR neighborhood, which includes 26.4% of all SFR units located in high-SFR neighborhoods in the 20 largest MSAs, is most prominent in the Baltimore, Minneapolis, and Tampa (Florida) MSAs. More than 60% of the SFR in these three MSAs are located in the older white middle-class type of SFR neighborhood. This contrasts with the Los Angeles MSA, in which less than 2% of SFR units located in high-SFR neighborhoods are located in that type.

The MSAs with the highest percentage of SFR units in the low-income Hispanic type of SFR neighborhood are the Los Angeles and Riverside MSAs. Notably, 7.3% of all SFR units in the study (over 92,000 houses) are located in Los Angeles low-income Hispanic SFR neighborhoods. Over half of all the SFR units in high-SFR neighborhoods in Los Angeles are located in this type of neighborhood. This contrasts with the Minneapolis, Detroit (Michigan), Baltimore, and Seattle (Washington) MSAs, in which less than 1% of SFR units studied are located in low-income Hispanic SFR neighborhoods. Minneapolis and Detroit have no low-income Hispanic high-SFR neighborhoods at all.

The Atlanta MSA suburbs have the highest proportion of SFR units in the low-income black type of SFR neighborhood. More than 45% of SFR units located in the high-SFR neighborhoods of suburban Atlanta are located in this type of SFR neighborhood. High rates of SFR units in the low-income black type of high-SFR neighborhood are also found in the Detroit (36.6%), Miami (Florida; 33.8%), and Chicago (Illinois; 32.3%) MSAs. Whereas these MSAs have high rates of SFR units in neighborhoods of the low-income black type, MSAs such as San Diego, Denver (Colorado), and Seattle have no or almost no SFR units in this type of neighborhood—0.0%, 0.2%, and 0.5%, respectively.

The affluent type of SFR neighborhood is the site of the fewest SFR units overall. However, in the Boston and Washington, DC, MSAs, over one quarter of all SFR units studied are located in this type of SFR neighborhood. In fact, of all SFR units in high-SFR neighborhoods in the Boston MSA, most (27.8%) are located in the affluent type of SFR neighborhood. Whereas overall the fewest SFR units are located in the affluent neighborhood type, all 20 MSAs have some high-SFR suburban neighborhoods of this type—in 15 of the 20 MSAs studied, more than 5% of SFR units are in this type of neighborhood.

Intra-MSA Composition of SFR Neighborhoods

Overall, the types of SFR neighborhoods are not equally distributed among the 20 largest MSAs. In the following section, the study examines the spatial location of the five identified types in the suburban census tracts of three MSAs: Atlanta, Los Angeles, and Boston. The three MSAs were chosen for their differences in percentage of SFR. The Boston MSA had the lowest overall SFR rate of the 20 largest MSAs in 2016 (6.7%), whereas the Los Angeles and Atlanta MSAs had two of the highest (22.8% and 18.1%, respectively). The numbers and percentages of single-family housing overall and SFR by high-SFR neighborhood type for each of the three MSAs are presented in [Table 7](#).

The suburbs of Atlanta contain 8.2% of all SFR units located in high-SFR neighborhoods in the 20 largest MSAs—a rate second only to that of the Los Angeles suburbs. In the Atlanta MSA, SFR units are heavily skewed to the low-income black type of SFR neighborhood. Overall, 45.2% of all SFR units studied are located in the low-income black type of SFR neighborhood—the highest of all 20 MSAs studied. In the low-income black type of neighborhood, roughly one third of single-family houses studied are SFR. High percentages of the SFR are also located in the diverse middle-class (26.4%) and older white middle-class (20.9%) types of SFR neighborhoods. Far fewer SFR units in the Atlanta suburbs are located in the low-income Hispanic (4.6%) and affluent (2.9%) types of SFR neighborhoods, compared with the other MSAs studied. In fact, the Atlanta suburbs have one

Table 7. Percentage of single-family houses and single-family rentals in each of the five SFR neighborhood profiles for the Atlanta (Georgia), Los Angeles (California), and Boston (Massachusetts) metropolitan statistical areas (MSAs).

MSA	SFR neighborhood profiles													
	Diverse middle-class				Older white middle-class		Low-income Hispanic		Low-income black		Affluent		Total	
	N	% of total	N	% of total	N	% of total	N	% of total	N	% of total	N	% of total	N	% of total
Atlanta-Sandy Springs-Roswell, GA														
Single-family houses	84,986	25.8	79,448	24.1	11,829	3.6	142,728	43.3	10,499	3.2	329,490	100.0		
Single-family rentals	27,318	26.4	21,620	20.9	4,782	4.6	46,770	45.2	3,001	2.9	103,491	100.0		
Single-family rentership rate (%)	32.1		27.2		40.4		32.8		28.6		31.4			
Los Angeles-Long Beach-Anaheim, CA														
Single-family houses	150,894	36.5	9,049	2.2	203,742	49.3	5,197	1.3	44,661	10.8	413,543	100.0		
Single-family rentals	59,659	34.1	3,217	1.8	92,415	52.8	2,648	1.5	17,068	9.8	175,007	100.0		
Single-family rentership rate (%)	39.5		35.6		45.4		51.0		38.2		42.3			
Boston-Cambridge-Newton, MA-NH														
Single-family houses	21,162	10.7	112,515	56.6	4,936	2.5	2,350	1.2	57,668	29.0	198,631	100.0		
Single-family rentals	3,880	14.4	14,027	52.0	1,163	4.3	384	1.4	7,509	27.8	26,963	100.0		
Single-family rentership rate (%)	18.3		12.5		23.6		16.3		13.0		13.6			

Note: SFR = single-family rental housing.

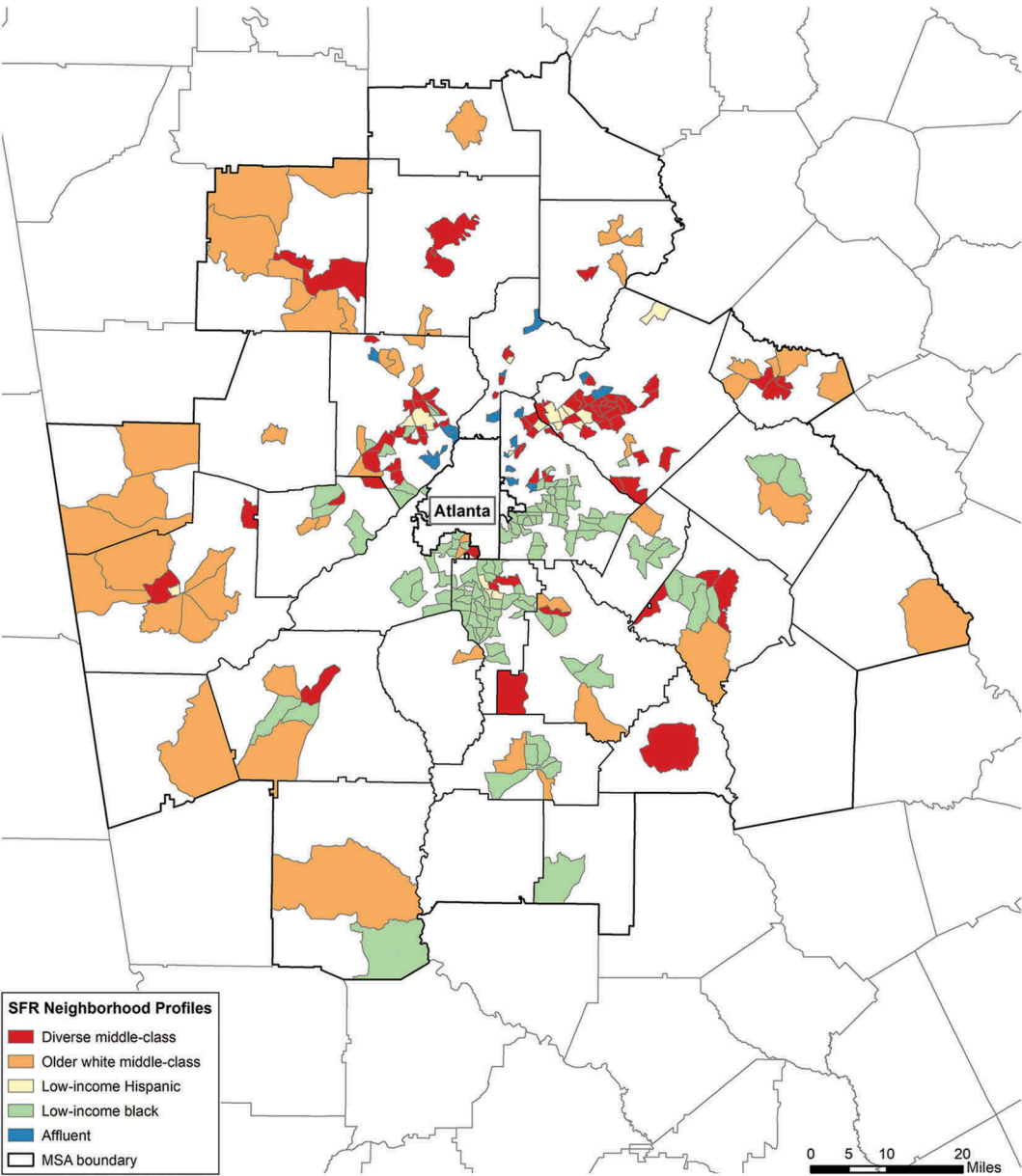


Figure 1. A map of the five types of single-family rental housing (SFR) neighborhoods in the Atlanta, Georgia, suburbs.

of the lowest rates of SFR in the affluent type of high-SFR neighborhood of all 20 MSAs studied. Although relatively few SFR units are located in the low-income Hispanic type of high-SFR neighborhood, in those neighborhoods over 40% of single-family housing is SFR. For the other four types of high-SFR neighborhoods, SFR makes up roughly one third of all single-family housing. [Figure 1](#) presents a map of the five types of SFR neighborhoods in the Atlanta suburbs. The low-income black type of SFR neighborhood is located primarily south and east of the city of Atlanta in DeKalb and Clayton counties. The diverse middle-class type of SFR neighborhood is primarily located in the inner to middle ring of suburbs, with concentrations in Gwinnett and Cobb counties. The older white middle-class type of SFR neighborhood is located throughout the outlying

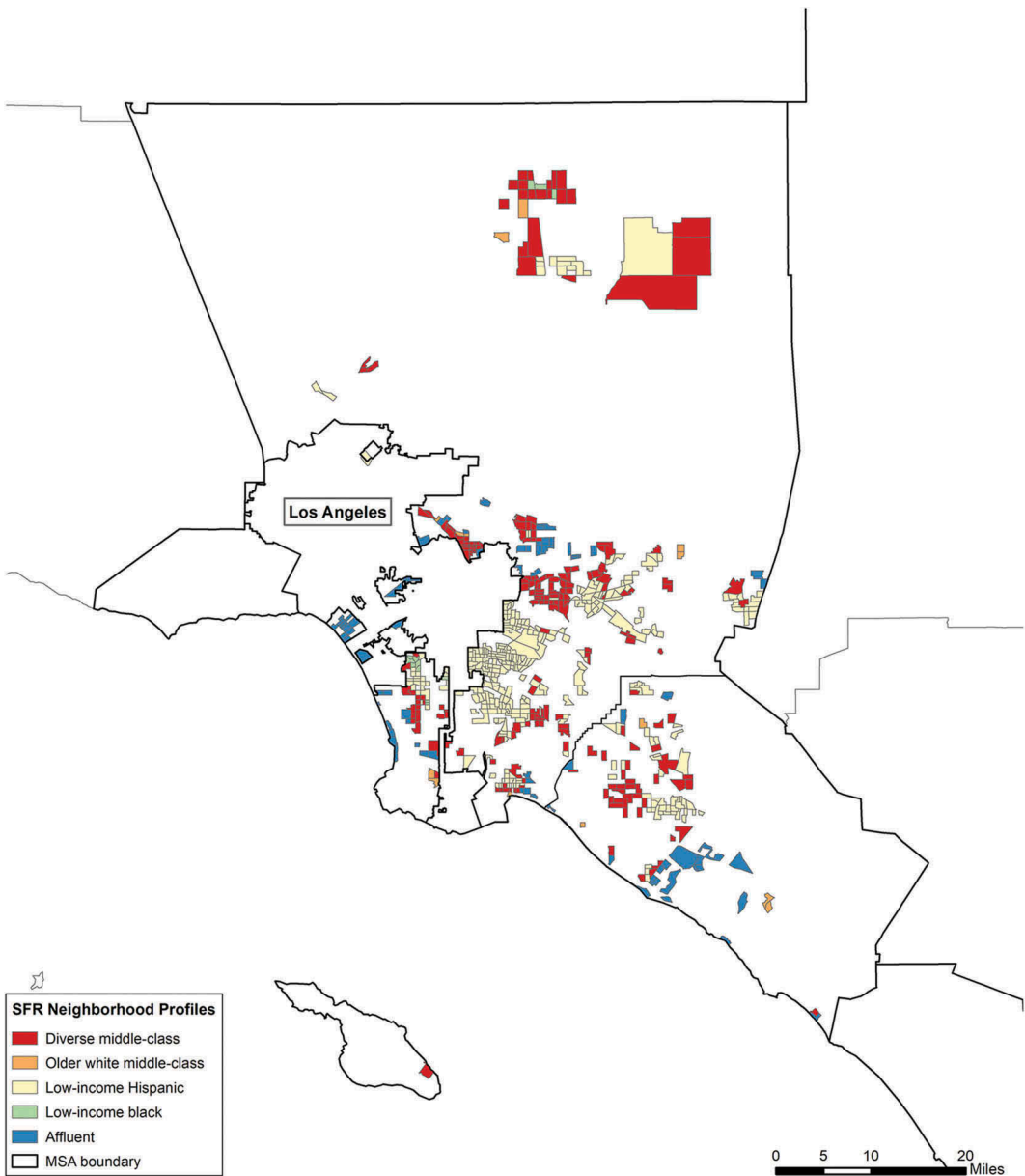


Figure 2. A map of the five types of single-family rental housing (SFR) neighborhoods in the Los Angeles, California, suburbs.

counties, with contiguous groupings of neighborhoods in the western counties of Bartow, Haralson, and Carroll.

SFR in the Los Angeles suburbs takes a very different pattern from that of Atlanta. Over half of all SFR in the Los Angeles suburbs is located in the low-income Hispanic type of neighborhood. And within this type of SFR neighborhood, SFR makes up 45.4% of all single-family housing. In fact, SFR in the Los Angeles suburbs makes up a higher percentage of the single-family housing stock in all five types than in Atlanta and Boston, ranging from 35.6% (older white middle-class) to 51.0% (low-income black). This low-income Hispanic type of SFR neighborhood is found in a large contiguous cluster of census tracts located immediately southeast of the city of Los Angeles. The

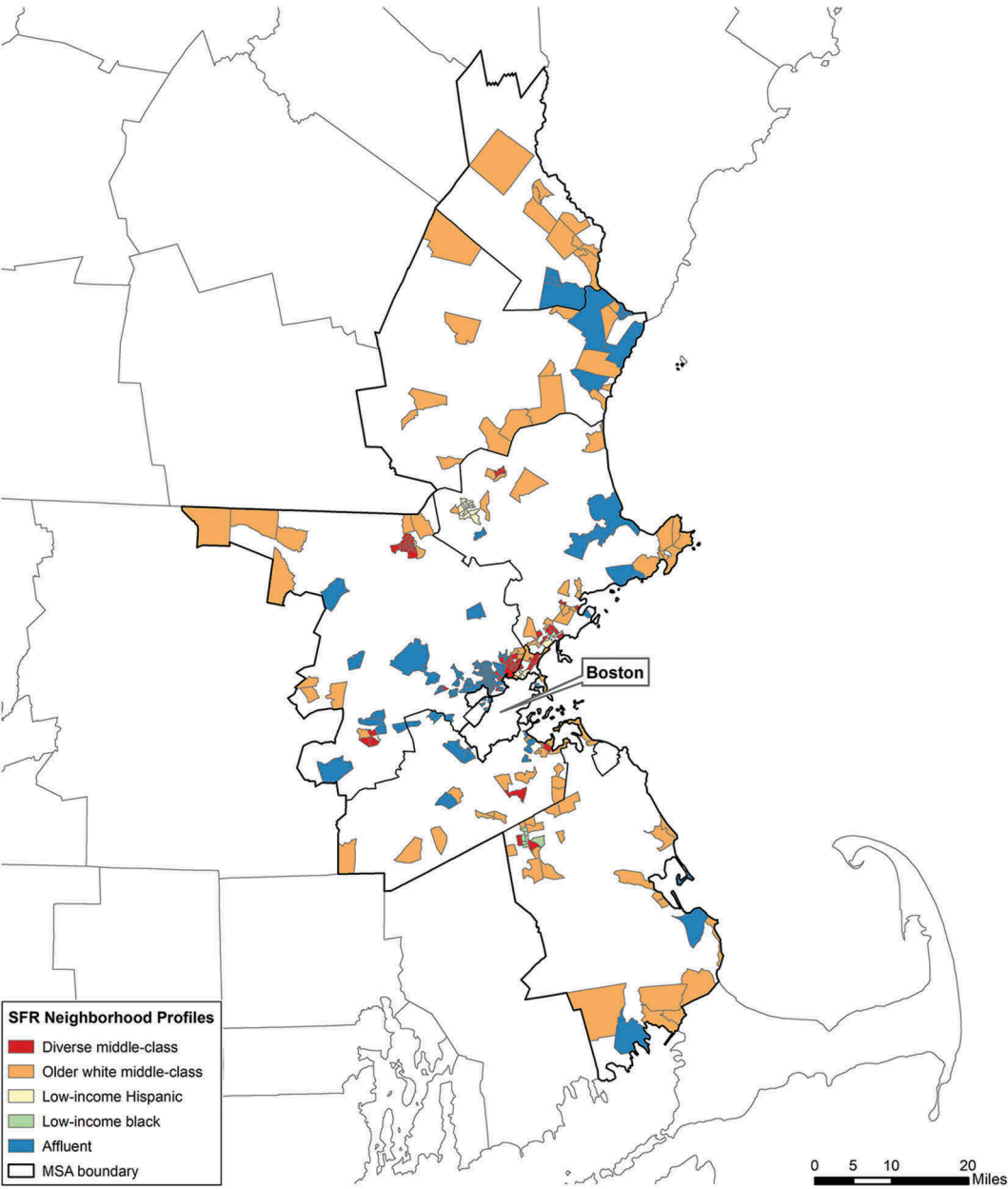


Figure 3. A map of the five types of single-family rental housing (SFR) neighborhoods in the Boston, Massachusetts, suburbs.

diverse middle-class type of SFR neighborhood contains 38.3% of the SFR in the suburbs of Los Angeles; the housing is located throughout southeastern Los Angeles and northwestern Orange counties. Although it contains far fewer SFR units than the previously discussed types, the affluent type of SFR neighborhood can be found in portions of western Los Angeles and Orange counties. Very little SFR is located in the older white middle-class (1.8%) and low-income black (1.5%) types of high-SFR neighborhoods. Although there is relatively little SFR in the low-income black type of SFR neighborhood, over half of the single-family housing in that type of neighborhood is SFR. [Figure 2](#) presents a map of the suburban Los Angeles SFR neighborhoods.

The Boston suburbs exhibit a very different pattern of SFR neighborhoods from the Atlanta and Los Angeles MSAs. Over half (52.0%) of the SFR in the Boston suburbs is in the older white middle-class type of SFR neighborhood. The second-highest rate of SFR in the Boston MSA suburbs is found in the affluent type of SFR neighborhood. Nearly 28% of all SFR is in this type of SFR neighborhood, and 14.4% is in the diverse middle-class type of SFR neighborhood. Little SFR is located in low-income Hispanic (4.3%) SFR neighborhoods, with the exception of a cluster of low-income Hispanic SFR neighborhoods in Lawrence (Massachusetts). Very little SFR is located in low-income black (1.4%) SFR neighborhoods. SFR accounts for a low percentage of the single-family housing stock in the high-SFR suburban neighborhoods in the Boston MSA. In the older white middle-class type of SFR neighborhood, only 12.5% of the single-family housing stock is SFR. In the affluent type, SFR makes up only 13.0% of the single-family housing stock. The highest concentration of SFR of the five types is found in the low-income Hispanic type of SFR neighborhood (23.6%), a rate considerably lower than in that type of SFR neighborhood in Atlanta (40.4%) and Los Angeles (45.4%). The older white middle-class type of SFR neighborhood is located throughout the MSA; the affluent type is located primarily west of the city of Boston and north along the Atlantic coast. For the most part, the diverse middle-class type of SFR neighborhood is located immediately north of the city of Boston. [Figure 3](#) presents a map of the suburban Boston SFR neighborhoods.

Discussion

This study finds five distinct types of high-SFR neighborhoods in the 20 largest U.S. MSAs: diverse middle-class, older white middle-class, low-income Hispanic, low-income black, and affluent. The greatest number of SFR units are located in the diverse middle-class type (28.7%), followed by the older white middle-class type (26.4%). Together, these two types of neighborhoods contain over half of SFR located in high-SFR neighborhoods in the 20 largest U.S. metropolitan areas. These two types of neighborhoods are not highly distressed; they have relatively low rates of families living in poverty, and median incomes are near the median for the MSAs in which they are located.

Darden and Wylie (2010) argue that the foreclosure crisis was deeply racialized, that black and Hispanic households were targeted for subprime loans, and that they bore the brunt of the negative effects of the housing crisis. The low-income black and the low-income Hispanic types of SFR neighborhoods reflect this. These two types of SFR neighborhood have the most concentrated SFR of all five types—31.6% of all single-family houses in the low-income black neighborhood type are SFR units as are 37.5% of single-family houses in the low-income Hispanic neighborhood type. This is likely the legacy of the housing crisis, reflecting the concentration of REO and foreclosed properties. SFR as an institutional asset class largely grew out of policies to address vacant REO single-family houses resulting from the housing crisis and Great Recession. The results presented herein indicate that the types of neighborhoods in which SFR was located in 2016 conform somewhat to the initial locations of foreclosures in the wake of the housing crisis. But as large investors have entered into ownership and management of SFR, the asset class has evolved. Investment in SFR has proven to be highly financially profitable; large SFR investment firms have continued to acquire SFR. As this research indicates, the types of neighborhoods in which SFR is located have changed. But with respect to the low-income black and low-income Hispanic types of SFR neighborhoods, the effects of the housing crisis have shifted from concentrated single-family foreclosures to concentrated single-family rentals.

The affluent type of SFR neighborhood is the smallest of the five types—overall, it contains only 9.6% of SFR in the high-SFR neighborhoods of the 20 MSAs studied. In Boston and Washington, DC, however, over one quarter of SFR studied is in such neighborhoods; moreover, eight MSAs have rates of SFR in the affluent type of SFR neighborhood greater than 10%. Many of the affluent

neighborhoods offer residents access to excellent school systems and public amenities. The existence of the affluent type of SFR neighborhood indicates the possibility of households gaining access to the amenities of affluent neighborhoods without necessarily having the financial qualifications (savings for a down payment, sufficiently high credit score, etc.) or desire to own a single-family house. This is promising in that greater housing options for renters there may also provide access to advantageous opportunity structures; however, more research is needed to better understand whom and toward what ends those opportunity structures serve. The SFR rentership rate—the percentage of the overall single-family housing stock that is SFR—in the affluent type of SFR neighborhood is low (22.3%) compared with other types. Thus, SFR is not highly concentrated in this type of neighborhood.

Sunbelt cities were hit hardest by the housing crisis. It follows, then, that the high rates of foreclosures experienced in the suburban neighborhoods of the Atlanta and Phoenix MSAs would result in high rates of SFR. In fact, the overall SFR rates in the Atlanta and Phoenix areas are in the top third of the 20 largest MSAs, 18.1% and 22.6%, respectively. Yet this study reveals that SFR in the suburbs of Atlanta is located in very different types of SFR neighborhoods than SFR in the suburbs of Phoenix is. In the Atlanta suburbs, 45.2% of SFR is located in the low-income black SFR neighborhood type. In the suburbs of Phoenix, the largest percentage of SFR is located in the diverse middle-class (39.2%) and older white middle-class (35.6%) types of SFR neighborhoods; only 1.4% of the SFR in suburban Phoenix is located in the low-income black type of SFR neighborhood. Undoubtedly, the sociodemographic composition of suburban neighborhoods and the makeup of the housing stock of an MSA going into the housing crisis greatly affected the types of neighborhoods where high rates of SFR persisted after the recovery. Thus, the geographic landscape of SFR varies considerably across U.S. suburbs, and consequently, policy responses should be specifically tailored to the local context.

Areas of the country that did not experience comparatively high rates of foreclosures—the Northeast and Midwest—have lower rates of SFR overall. The suburbs of Boston, Minneapolis, Philadelphia, and Baltimore have the lowest rates of SFR, ranging from 6.7% to 8.3%. In fact, these places are not identified as primary target markets fitting the investment criteria of the two largest institutional investors in SFR (American Homes 4 Rent, 2019; Invitation Homes Inc., 2019). In each of these four MSAs, the largest SFR neighborhood type is the older white middle-class type. More than half of all SFR units in these MSAs are of this type. In fact, in Baltimore, over 69% of all SFR units are in the older white middle-class type of SFR neighborhood, and 19% are in the affluent type of neighborhood, whereas far fewer are located in diverse middle-class, low-income Hispanic, and low-income black SFR neighborhoods.

Conclusion

Publicized accounts of the adverse effects of SFR on local housing markets have prompted housing advocates to suggest public policies to limit SFR. Policies to curtail institutional investment in SFR may be warranted to address negative implications of SFR. Concentrations of SFR in low-income neighborhoods, combined with abusive rental practices and neglected maintenance by institutional investors, may increase housing insecurity, exacerbate the concentration of poverty, and hasten the physical deterioration of suburban neighborhoods. Moreover, in these places high concentrations of SFR may prevent would-be homeowners from purchasing single-family houses because of the outsized control over local markets by large-scale global institutional SFR owners. But not all SFR neighborhoods fit this description. Less concentrated SFR is also found in affluent and middle-class neighborhoods, which may offer access to advantageous opportunity structures previously available only to homeowners. Whereas rental costs may be higher in these types of SFR neighborhoods, rentership does not require the wealth and creditworthiness necessary to qualify for a mortgage. The diversity of high-SFR neighborhoods presented herein suggests a need for a highly tailored policy approach.

Not only is SFR found in very different types of neighborhoods within MSAs, but the distribution of SFR neighborhoods varies substantially among MSAs, suggesting that policy approaches must also vary geographically. For example, SFR in the suburbs of Boston is predominantly located in older white middle-class and affluent SFR neighborhood types, and SFR makes up small percentages (12.5% and 13.0%, respectively) of the single-family housing stock in those two types of neighborhoods. This is in sharp contrast to SFR in the Atlanta suburbs, where the largest percentage of SFR studied is located in the low-income black type of SFR neighborhood. In the low-income black type of SFR neighborhood in suburban Atlanta, nearly one third of all single-family housing is SFR. In the Los Angeles suburbs, over half of the SFR studied is located in the low-income Hispanic type, and SFR in this type of neighborhood is highly concentrated—45.4% of the single-family housing stock is SFR. SFR in the low-income Hispanic SFR neighborhoods is also the most highly concentrated type in the Boston suburbs, albeit a smaller proportion than in Atlanta and Los Angeles. In places where SFR is highly concentrated, the challenge may be to address negative effects stemming from high rates of SFR in low-income SFR neighborhoods and to create opportunities for homeownership for low- and moderate-income households. In places with low SFR rentership rates in areas that may offer access to advantageous opportunity structures, the policy challenge may be to address homeowners' fears of renter-occupiers and the corresponding desire to limit SFR in their neighborhoods.

Mikelbank (2004, p. 937) writes that “classification is, in essence, a simplification.” Classifications, or typologies, help scholars better understand the nature of complex phenomena. The creation of a neighborhood typology differentiates neighborhoods while reducing them to a small set of internally homogeneous groups. This study demonstrates the use of latent profile analysis in the construction of a neighborhood typology. Principal component analysis and cluster analysis have heretofore been the more popular methods used to classify neighborhoods into types. As this study shows, LPA is a compelling method that has several advantages over PCA and cluster analysis. The statistics used to identify types are probability based and thus more objective than PCA and cluster analysis, which requires the researcher's subjective determination of the appropriate number of clusters. Moreover, LPA is particularly appropriate when the explanatory variables are highly correlated with one another—a situation common when using neighborhood socioeconomic data. LPA is an underemployed tool but has potential for use in constructing classifications in housing studies.

This study fills a gap in the SFR literature by identifying the types of neighborhoods in which high rates of SFR are located in a geographically diverse collection of suburban areas, but additional research on the topic of SFR is warranted. Future research is needed to better understand why patterns of high-SFR neighborhoods differ among cities as well as how the spatial patterns of high-SFR neighborhoods changed in the period following the housing crises. More research is also needed to understand the effects that SFR has on neighborhoods, including how high rates of SFR influence local housing markets and neighborhood conditions. Finally, a comparison of the demographic profiles of owners and renters in high-SFR neighborhoods is also needed to better understand how SFR affects the socioeconomic composition of neighborhoods.

Notes

1. The number of census tract observations ($N = 5,814$) used in the LPA is less than the number of suburban census tracts ($N = 6,103$) because of missing data.
2. The SFR rate is the number of detached single-family houses that are renter-occupied divided by the total number of occupied detached single-family houses. These data came from the American Community Survey 2016 (5-year estimates), Table B25032, downloaded from social Explorer.com.
3. Note that the 1,263,088 SFR units assigned to the five SFR neighborhood types are those located in suburban census tracts with an *SFR LQ* greater than 1.25 (i.e., high-SFR neighborhoods).
4. Averages for the 34 variables were calculated for custom geographies using Social Explorer's web-based census data browser (social Explorer.com).

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