Corporate Landlords, Institutional Investors, and Displacement: Eviction Rates in Single-Family Rentals

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Abstract: In this research we document the eviction crisis in the city of Atlanta and adjacent suburbs. We place eviction-driven housing instability in the broader context of changing housing markets, examining the relationships between post-foreclosure single-family rentals, large corporate landlords, and eviction rates. The rise of the large corporate landlord in the single-family rental market has the potential to rehabilitate vacant properties and offer affordable housing in desirable neighborhoods, or conversely could perpetuate housing instability and spatial inequality. To understand the eviction rate in Atlanta and investigate how corporate ownership relates to housing instability, we use a unique data set: publicly available, parcel-level eviction records from Fulton County, Georgia. We document a high, spatially concentrated eviction rate. Over 20 percent of all rental households received an eviction notice in 2015 and up to 12.2 percent of all households were forcibly displaced. Evictions are spatially concentrated: in some zip codes over 40 percent of all rental households received an eviction notice and over 15 percent of all households were evicted.

Examining single-family rentals with a cross-sectional regression, we find that large corporate owners of single-family rentals, which we define as firms with more than 15 single-family rental homes in Fulton County, are 8 percent more likely than small landlords to file eviction notices. Although evictions are highly correlated with neighborhood characteristics such as education levels, change in the employment-population rate, and racial composition, the trend holds true even after controlling for property and neighborhood characteristics. Another analysis identifies large private equity investors and finds that some firms have uniquely high eviction rates. Some of the largest firms file eviction notices on a third of their property and neighborhood characteristics.

JEL Classification: R3 real estate markets, spatial production analysis, firm location

Key words: evictions, institutional investors, private equity, Atlanta, post-foreclosure, single-family rental

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Renting is on the rise in the United States. Since the recent real estate and financial crisis, homeownership has fallen to 62.9 percent, a 51-year low. More households are renting for a variety of reasons: home price instability; demographic shifts; changing tastes among millennials, delayed household formation, and widening wealth and income inequality; and rapid change in the financial institutions that undergird mortgage markets, leading to the credit tightness that characterizes the postcrisis mortgage markets.

In response to the postcrisis decline in demand for homes and the glut of bank-owned properties, the government made some effort to stabilize neighborhoods and help struggling homeowners. The largest response came from private sector institutional investors that poured cash into an illiquid housing market. From 2011 to 2013, private equity firms and hedge funds bought an estimated 350,000 bank-owned homes (Eisfeldt & Demers, 2014). Those purchases were concentrated in Sunbelt cities like Atlanta. Investors purchased for a variety of reasons: to resell quickly; to rent for the short term and resell; or, in many cases, to manage properties long term as scattered-site rental properties. Research in the last five years has tried to understand what sort of landlords these corporations would be. Would scattered-site, single-family rentals be viable as a business model? What sort of strategies would this new breed of landlord pursue, and would these strategies lead to safe, affordable housing, or would they contribute to housing insecurity and instability? What effect would they have on overall neighborhood stability and quality?

Housing instability or insecurity is different from the typical definition of homelessness. It describes the condition where a household or family has a residence, but because of personal and financial issues, has difficulty maintaining that residence. Families with insecure or unstable housing may move frequently, suffer eviction, or otherwise be at increased risk of homelessness. As homeownership has declined and renting increased, demand for rentals has caused urban rents to increase sharply. The number of households that are housing cost burdened has climbed, rental housing instability has increased, and there is increasing documentation of an ensuing high rate of evictions in U.S. cities, partly due to tenants' inability to afford higher rents. Eviction rates are concerning because residential displacement has been linked to a variety of adverse outcomes for individuals and neighborhoods. Evictions can result in personal loss of property, trigger job loss, and lead to underperforming schools and poor student outcomes. Even an eviction filing that is resolved can mar a tenant's credit record and bar that person from renting elsewhere or accessing public assistance. At the neighborhood level, high eviction rates are associated with poor housing conditions, high rates of school turnover, and neighborhood and community instability (Desmond, 2016). Despite the importance of evictions as a cause of poor outcomes among low-income tenants, and instability in disadvantaged neighborhoods, evictions are still poorly understood. This research seeks to shed light on the high rate of evictions in the city of Atlanta and its suburbs, and to place this phenomenon in the frame of a shifting institutional context for housing.

We ask, how has the rise of the large corporate landlord in the single-family rental market affected housing stability? To understand the prevalence of evictions and how corporate ownership relates to eviction rates, we used a unique data set: publicly available eviction court records from Fulton County, Georgia, which the authors matched by address to parcels. Using a cross-sectional regression model, our research found higher, spatially concentrated eviction rates in Fulton County. For comparison, Desmond (2016) finds that in Cleveland, 11 percent of renting families received eviction notices: in Chicago, the figure is 7 percent. In Fulton County, an average of 107 eviction notices are filed each day, for a yearly total equal to 22 percent of all rental households. In Milwaukee, Desmond finds that 16 percent of all rental families are evicted. A similar rate occurs in Fulton County, where 15 percent of all rental households are evicted. Eviction rates are highest among multifamily rentals, but they are also prevalent in single-family rentals. We find that large corporate owners in the single-family rental business are more likely than small landlords to evict tenants, even after controlling for parcel-level and neighborhood-level factors.

Literature Review

Private Equity and REO to Rental

The emergence of single-family rentals is tied to a broader process of institutional change in U.S. housing markets (Streeck & Thelen, 2009; Streeck & Thelen, 2005). Homeownership has long been a core institution in the United States creating the basis for a property-owning society and stabilizing a system in which public goods like schools and access to services and jobs are allocated through location. Homeownership rates are at the low point of a volatile cycle, and the government-sponsored enterprises (GSEs) underpinning U.S. mortgage and housing markets are undergoing change. Leading up to the recent crisis, deregulation and technological innovation saw the rise of private label

securitization, risk-based pricing, the growth of shadow banking, and rapid rises in homeownership. During the crisis, subprime mortgage lending and private label securitization ground to a halt; GSEs Fannie Mae (the Federal National Mortgage Association, or FNMA) and Freddie Mac (the Federal Home Loan Mortgage Corporation, or FHLMC) went into receivership; fiscal and monetary policies went into effect to help troubled homeowners and to inject liquidity into secondary markets; and the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act created a new residential mortgage regulatory body, the Consumer Financial Protection Bureau (CFPB), and restructured the residential mortgage lending business (Immergluck, 2011).

In unwinding their bank-owned properties, the GSEs, U.S. Treasury, and Federal Reserve innovated new structured transactions for disposing of hundreds of thousands of bank-owned homes, also known as real estate owned (REO). The Federal Reserve was the first to suggest that private equity firms were the one group with cash on hand to invest in foreclosed homes (Bernanke, 2012). In 2012, the Federal Housing Finance Agency (FHFA), conservator of the GSEs, issued a pilot to develop structured transactions that could be used to sell its REO homes in bulk. The private market followed by developing and standardizing financial instruments to allow broader market investment in converting foreclosed homes into single-family rentals (Fields, Kohli, & Schafran, 2016). Rental housing, traditionally the purview of mom-and-pop landlords (Mallach, 2010), caught the attention of large financial firms. Nationwide, an estimated 350,000 homes were purchased by institutional investors from 2011 to 2013, and these were spatially concentrated in cities like Atlanta with high numbers of bank-owned homes and the prospect of future home price appreciation (Eisfeldt & Demers, 2014). Today there is high concentration in the single-family rental business, with an estimated 170,000 single-family rental homes owned by the seven largest firms (Fields et al., 2016).

Atlanta's residential mortgage and construction foreclosure crisis presented certain kinds of investment opportunities for private firms wishing to purchase residential real estate. Shifts in the institutional framework of housing and homeownership interacted with local urban processes. The geography of the foreclosure crisis and the timing of home price rises and investor entry into the Atlanta market governed where large investors bought homes. Four local factors stand out as important: the glut of brand-new homes in construction foreclosure concentrated in the suburbs; swaths of residential mortgage foreclosures concentrated in older in-town neighborhoods; the expectation that Atlanta's long-term home prices and economic health were bright; and finally, high levels of racial and income segregation that structured the housing market recovery (Raymond, Wang, & Immergluck, 2015).

During the early 2000s, Atlanta builders flooded the market with new homes as mortgage firms originated cheap prime purchase mortgages, subprime purchases, and cash-out refinances. As the foreclosure crisis unfolded, REO became spatially concentrated in the suburbs in Gwinnett, Henry, and Clayton Counties, alongside construction foreclosures in new developments in these more peripheral locations. These newly constructed, suburban properties were often favored by institutional investors (Fields et al., 2016). REO were also concentrated in historically black neighborhoods in the southwest of the city (Immergluck & Law, 2014).

Small investors were important buyers in early years, purchasing 40 percent of foreclosed properties from 2005 to 2009 (Immergluck, 2013). While small investors were a large proportion of buyers of REO homes from 2009 to 2012, it wasn't until the 2013 rise in home prices in other Sunbelt

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cities that large institutional investors began buying Atlanta properties in earnest or consolidating small investors' holdings by buying their portfolios (Herbert, Lew, & Sanchez-Moyano, 2013). Herbert et al. (2013) find few purchases by large investors prior to 2012. At that time, large investors' purchases were concentrated in moderate- to middle-income neighborhoods in the suburbs outside of Fulton County and the city of Atlanta. These buyers only made purchases in Fulton County after 2012. The timing of the entry of large institutional investors into the REO purchases coincides with a shift in the prices and neighborhood characteristics of the properties being sold. From 2005 to 2009, homes with the weakest home prices and highest-risk loans went into foreclosure; those homes were concentrated in lower-middle-income, high-minority areas. As the subprime crisis progressed into the foreclosure crisis from 2010 onward, properties from less distressed and middle-income neighborhoods went into foreclosure investors have invested in less distressed, higher-income neighborhoods than smaller purchasers.

Housing instability derives in part from neighborhood dynamics, and so the spatial distribution of rental properties will affect eviction rates. For instance, if a neighborhood has a declining employment rate, we might expect higher eviction rates, as tenants find themselves less able to make rent, all else being equal. Because of the timing of entry into the REO to rental market, and the preferences institutional investors had for new homes, we expect large investors to be a smaller part of the single-family rental market in Atlanta. While they may be more invested in disadvantaged neighborhoods than mom-and-pop landlords who invested before the crisis, we do not expect they will be more heavily invested in disadvantaged neighborhoods than small firms who bought in the 2009 to 2012 era. Furthermore, in Atlanta, larger firms, particularly if they were securitizing their rental properties or thinking of going public, have sold their most distressed and least profitable homes to smaller firms (Gittelsohn & Perlberg, 2014).

The conversion of single-family homes from owner-occupied to rentals in moderate- and middle-income communities could improve access to desirable locations for renting households. Historically, the spatial concentration of owner-occupied housing stock in high-income neighborhoods has been a barrier to entry for many desirable neighborhoods. In some cities, the rise of investor-owned foreclosed homes has generated new opportunities for low-income renters. Pfeiffer and Lucio (2015) find that voucher holders in Phoenix living in investor-owned homes are more likely to live in neighborhoods with less poverty when compared to other voucher holders. Conversely, Kim and Cho (2016) study the post-foreclosure trajectory of REO homes in Orange County, Florida, and find that post-REO properties are more likely to be renter occupied in high-minority neighborhoods, presenting affordable rental opportunities but possibly also reinforcing racial and ethnic segregation. Other authors find that eviction rates are lower among low-income residents of advantaged or gentrifying neighborhoods, perhaps because tenants make more effort to stay in place even with higher housing cost burdens (Desmond, Gershenson, & Kiviat, 2015).

In addition to location, landlord characteristics also affect housing stability. Strategies for pursuing profit have ramifications for tenants and for neighborhood well-being. Research has described an array of landlord strategies and behaviors in post-foreclosure properties. Mallach (2010) describes two landlord strategies: "milkers" and "holders." Milkers focus on rental income more than resale value. Landlords extract the highest rents with the least investment, allowing building condition to deteriorate,

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then dump the property on the market or the municipality. Holders seek profits through home price appreciation, place more importance on maintenance, and may keep properties vacant until prices rise.

Investor size affects the ability to withstand short-term costs and willingness to take a risk on low-income tenants. Small investors have less operating income and cannot withstand tenant turnover. Investor location matters, too, with local landlords being more willing to invest in properties where they are likely to capture spillover effects, either through other properties or because they themselves live nearby; whereas nonlocal owners may be more likely to "milk" properties (Mallach, 2010).

Other factors influencing housing stability include the ability to attract voucher-holding tenants and property management incentives. Interviews with Atlanta landlords suggest that tenants with vouchers had higher housing stability, but that landlords who worked with property managers sometimes had higher turnover, as property managers sought to maximize fee revenue by selecting tenants who would turn over quickly (Herbert et al., 2013; Immergluck, 2013).

Rental Housing Instability and Evictions

Residential mobility, or frequent changes of residence within and between disadvantaged neighborhoods, has been identified as a cause of individual and neighborhood distress. Social scientists who study increased residential mobility within disadvantaged areas find it is associated with poor school outcomes, crime, psychological decline, and fraying of social networks and community ties (Desmond, 2012).

Eviction has been identified as a key cause of high levels of residential mobility within disadvantaged neighborhoods. Housing instability due to eviction is of great concern because of the long list of negative consequences for households, landlords, and neighborhoods. At worst, evicted families and individuals face homelessness (Crane & Warnes, 2000). If households are able to find another home after an eviction, their moves are characterized by greater increases in neighborhood poverty and crime compared to voluntary moves (Desmond & Shollenberger, 2015). The scramble to secure a need as basic as shelter, often with short notice, compels households to accept more dangerous environments with less opportunity. Eviction also causes families to accept substandard housing conditions. Dissatisfaction with the poor living conditions households are forced into by an eviction often leads to another move. Compounding residential instability harms children and communities (Desmond, An, Winkler, & Ferriss, 2013; Desmond et al., 2015).

Eviction also leads to negative consequences for health and income. Renters who experience the stressful and time-consuming process of a forced move are more likely to lose their jobs (Desmond & Gershenson, 2016). Evicted mothers experience higher levels of parenting stress, depression, and poorer physical health in addition to greater material hardship. These effects continue for years after the eviction (Desmond & Kimbro, 2015). The stress associated with evictions has even led to suicides (Fowler, Gladden, Vagi, Barnes, & Frazier, 2015). High rates of eviction also impair neighborhood wellbeing. There is evidence that residential turnover leads to loss of social cohesion/neighborliness, which can create opportunities for violent crime (Morenoff, Sampson, & Raudenbush, 2001; Sampson, Raudenbush, & Earls, 1997). What causes eviction? Often an underlying cause is rising land costs, increasing housing cost burden, and the subsequent nonpayment of rent (Wyly & Hammel, 1999). This nonpayment can happen because of high housing cost burdens, in which tenants have moved into a property they cannot quite afford, and are subsequently evicted from, or because there is a shock to tenant income or life events such as illness, car repairs, or a lost job. The number of renters with high housing cost burdens has reached record levels in the United States. Over 21 million households spend more than 30 percent of their income on rent; 11 million of those spend more than 50 percent, which is considered severely cost burdened. Much of the increase in households reporting housing insecurity can be attributed to soaring rents as demand for rental housing climbs (Joint Center for Housing Studies of Harvard University, 2016).

Atlanta's land prices have not risen as steeply as those in supply-constrained cities like Boston and San Francisco, but they still follow the national trend of declining affordability. Immergluck, Carpenter, and Lueders (2016) find in 2014 that over half, or 53.4 percent of renters, are cost burdened in Atlanta. During the 2010 to 2014 period, low-cost rentals in Atlanta declined by more than 15 percent. Gentrification, or the influx of wealthier residents accompanied by rising property prices and the displacement of existing, lower-income residents, can be a factor in evictions. The increase in gentrification in the city of Atlanta and environs and the decrease in affordable rental properties may have the long-term effect of suburbanizing poverty. That trend may over the long term lower the eviction rate in central counties like Fulton County; in the short term, it may result in increased nonpayment of rent and higher eviction rates.

When tenants are severely cost burdened, eviction can be part of landlords' routine rent collection strategy. This does not always result in displacement. A common feature of low-income tenant relationships with landlords is that rent is short, late, or deducted due to necessary repairs and maintenance. In these cases, routine eviction filings are part of a rent collection/late-fee strategy on the part of the landlord. They are not used to evict tenants, but rather filed, then dismissed to increase revenue. Some landlords make a substantial portion of their income on late fees. When an eviction notice is filed, it shows up on tenants' credit records and can make it difficult for them to access public assistance and rent private housing in the future. Whether or not there is subsequent displacement, an eviction notice in and of itself can be an adverse event for the tenant (Desmond et al., 2015).

Fulton County, Georgia

Fulton County is the most populous county in the Atlanta-Sandy Springs metropolitan statistical area. Fulton County almost fully encompasses the city of Atlanta as well as several smaller municipalities and stretches from southwest of the city through downtown Atlanta into affluent neighborhoods in the north, providing a wide variety of neighborhood contexts. By population, the city of Atlanta accounts for half of the county. Atlanta is one of the most highly segregated cities in the nation, by race and by income (Massey & Denton, 1989, 1993; Massey & Tannen, 2015).

Figure 1 depicts the distribution of single-family rentals in Fulton County. Single-family rentals are predominantly found in the southwest of the county. Their distribution roughly follows the distribution of past foreclosures and real estate owned properties by investors (Immergluck & Law, 2014). Although not shown here, the U.S. Census Bureau's American Community Survey 2014 5-year

estimates show all rentals (multi- and single-family) concentrated in the southwest of the county and along the MARTA (Metropolitan Atlanta Rapid Transit Authority) rail line stops running north.

Figure 1 Tenure in Single-Family Rental by Census Tract, Fulton County



Sources: Author calculations, Fulton County parcel tax assessors' data¹

Census data for 2014 show Fulton County has 373,005² households and a population of 967,100. The population is 46 percent white, 44 percent black, and 10 percent other. Slightly under half, or 48 percent, of all households rent. While rental properties are distributed throughout the county, single-family rentals are clustered in South and West Atlanta, and in the suburban tracts of Fulton County to the south. RealtyTrac reports on the single-family rental market in Fulton County. RealtyTrac reports that rents have increased 3.1 percent over the last year, and rental yields, defined as rental income as a share of property value, are 6.4 percent. The county just south of Fulton, Clayton County, which closely resembles South Fulton County in demographics and housing market dynamics, has one of the highest rental yields in the country at 25.8 percent (Staff, 2016).

¹ Single-family rental units defined as those with land use code of 101 or 107, where owner and property addresses do not match; calculated as a percentage of all households.

² The figure is according to 2014 American Community Survey 5-year estimates.

The Legal Process of Eviction

Evictions and housing displacement can occur rapidly in Georgia as the state has a swift eviction process that typically lasts less than a month. Hatch (2016) divides state landlord-tenant law into three clusters: protectionist, which favor tenants; pro-business, which favors landlords; and contradictory, which is a mixture. Hatch classifies Georgia as a pro-business state, with few landlord-tenant laws overall and a higher proportion of statutes benefiting landlords in landlord-tenant law.

This research on housing instability relies on the paper trail that a legal eviction process generates as it moves through the courts; that data document many of the moments in which a tenant can be displaced. The legal process of an eviction can follow many pathways, of which many result in a tenant being forced to relocate. Figure 2 depicts some ways a case can proceed. The legal process of an eviction is distinct from events on the ground, and it only partially captures the number of tenants who leave under pressure from their landlord; thus, many displacements are not captured in the data. Some landlords use the eviction process as an ancillary to collection efforts, and service of an eviction notice (or in legal terms, a dispossessory filing) does not necessarily end in the landlord obtaining a writ of possession, but rather collection of fees and rent due. However, tenants commonly leave immediately after an eviction notice is served so that displacement occurs without any further paperwork being filed.



Figure 2 Simplified Eviction Legal Process for Fulton County, Georgia

Source: Atlanta Volunteer Lawyers Foundation

As shown in figure 2 in the dark shaded box, evictions begin when a landlord files a dispossessory or eviction notice. From there, intermediate steps are blue, and potential final outcomes

are white. Regardless of the outcome of the eviction case, once an eviction notice is filed, unless the eviction is dismissed, this event is reflected on a tenant's record and visible to future landlords who pursue background checks. After a filing, the tenant has seven days to answer. If the tenant fails to answer, the court issues a default judgment and the tenant is subject to forcible eviction. If the tenant does answer, he or she is granted a hearing. Hearings take place at the Magistrate Court in three different sessions. In dispossessory courts one and two, the tenant's answer has raised a potential defense. The first court is for cases in which neither the tenant nor the landlord has a lawyer. In the second court, one or both parties have a lawyer. There are a handful of lawyers who represent the vast majority of landlords in these cases. Most of these cases are sent to mediation for settlement. In dispossessory court 4, the tenant's answer was deemed by the court to be insufficient for a defense. The fourth court is remarkable because all tenants who appear are evicted en masse.

At the hearing the judge may issue an order and judgment, which in almost all cases is in favor of eviction, or the two parties may resolve the dispute themselves (Lucas & Thaler, 2016). This resolution results in a consent judgment, agreement, or order. A judgment or order can be used to garnish wages, establish terms of payment, establish that a tenant must leave, or all three. Once a judgment or order is obtained, the landlord can go to the court and for a \$20 filing fee, obtain a writ of possession that allows marshals to remove a tenant forcibly from the home. The writ leads to a tenant being ejected or vacated. If part of the judgment involves monetary conditions, once the tenant has completed payment, the landlord should file a satisfaction of judgment. At any point in this process the landlord may dismiss the eviction case or the tenant may decide to leave the rental property. However, not all landlords go to the trouble of filing a dismissal (Lucas & Thaler, 2016). This failure to file a dismissal can have effects on the credit record of the tenant and means that the resulting paper trail can indicate evictions in situations where the case was dismissed. These records document the timing, geography, decision points, and prevalence of evictions.

The goal of this research is to understand whether the new phenomenon of thousands of singlefamily homes shifting into rental markets and the emergence of large corporate landlords managing scattered-site rentals has resulted in higher levels of housing instability. This research connects to three strands in the housing literature. We follow in the footsteps of other research into the trajectory of REO homes in the wake of the foreclosure crisis; we continue to investigate the ramifications of the rise of the large investor landlord in the scattered-site, single-family rental space; and we contribute to a growing understanding of the phenomenon of high rates of evictions in distressed neighborhoods.

Design and Conceptual Framework

This research examines housing instability in Fulton County, Georgia, by seeking to answer three questions.

- 1. What is the prevalence of eviction in Fulton County?
- 2. Do single-family rentals owned by large corporate landlords have more housing instability than other single-family rental properties?
- 3. Do single-family rentals owned by large corporate landlords with institutional investor or private equity backing have more housing instability than other single-family rental properties?

We define housing instability as the probability of a landlord filing for eviction. This form of housing instability is caused by four types of factors: landlord characteristics, tenant characteristics, property characteristics such as housing quality, and neighborhood characteristics like employment rates, access to jobs, and neighborhood change such as gentrification, demographics, and income (see figure 3).

Figure 3 Conceptual Framework



We expect that tenant characteristics will affect housing instability. However, these characteristics are unobserved in our data set. So we model them on the left-hand side, as part of the set of landlord practices that might affect the eviction rate. Housing instability captures not just a landlord's propensity to evict, but an array of practices about tenant recruitment, property management, and eviction related tendencies. Eviction causes costly turnover and is not a generally positive outcome for any party. Within a given market, landlords exercise some control over the characteristics of tenants who rent their properties using price, renovation, marketing, and recruitment practices, and exercise discretion on how to handle maintenance, late payment, and other tenant issues. For these three reasons we have conceptualized renter factors as part of housing instability in our dependent variable. This framework does not change the results, but it helps us interpret them correctly.

Data

Our data are a cross-sectional, parcel-level data set for all single-family homes in Fulton County in 2015. We match eviction records to Fulton County tax assessor's data and deeds data by address, which provides us with ownership and property characteristics. Our analysis focuses on single-family rental properties, so we removed multifamily and owner-occupied parcels.³ That left us with 48,451 single-family rentals, 7,027 of which experienced an eviction filing in 2015. We then matched parcels to census tract-level data to measure relevant neighborhood-level characteristics. Summary statistics and sources are displayed in table 1.

Our dependent variable, housing instability, comes from eviction records collected from the Fulton County Magistrate Court website. Case data were scraped from the Magistrate Courts website in March 2016 for all 2015 dispossessory filings. Because the data show that the majority of eviction notices resulted in displacement, because of the difficulty in ascertaining whether an eviction proceeding resulted in displacement based on the paper trail, and because an eviction notice without

³ First, nonresidential parcels were removed by dropping parcels where the number of livable units was zero. Single-family parcels were identified by land use codes 101 ("residential 1 family") and 107 ("single-family residential townhouse"). Parcels coded with other land uses were dropped. Non-owner-occupied parcels were identified by comparing the property address to the owner's mailing address. If they matched, the parcel was dropped from the sample.

displacement is still an adverse outcome for tenants, we use service of an eviction notice as our measure of housing instability. The variable is specified as 1/0, 1 indicating the presence of at least one eviction filing at a given parcel in 2015.

Owner information comes from the Fulton County assessor's parcel database. We used the name in the "owner" field provided by the county for most parcels. However, some companies own significant numbers of properties, but use (sometimes very slightly) different names, including several known large corporate landlords with institutional investor backing. For these firms, we collapsed subsidiaries into single names to get an accurate count of the single-family rentals they own in Fulton County.

To identify other large corporate landlords, we examined the distribution of the number of properties each landlord owned in Fulton County, researched some of the larger property owners, and created a definition of large corporate landlord as one that holds more than 15 single-family rental properties. Other research (Herbert et al., 2013; Immergluck & Law, 2014) has defined large landlords as those acquiring more than 10 REO properties; because we are defining a static variable, and based on the distribution of properties in the data, we chose 15 as the cutoff. This measure identified 79 firms. Our regression results were not sensitive to using this higher figure. We also excluded banks, public entities, and nonprofits from the definition of large corporate landlord.

To capture the impact of foreclosure history on housing instability separately and to allow us to compare landlord type among post-foreclosure rentals, we use deeds data to tag homes that had a foreclosure during the recent real estate crisis.

We predict that neighborhood change characteristics are important drivers of evictions. Both neighborhood decline and neighborhood improvement like gentrification may affect eviction rates. Rising land prices may lead to higher rents, higher housing cost burden, and more evictions. We measure gentrification by looking at the change in the percentage of residents who have a bachelor's degree, the change in median income, and the change in racial composition. We also measure changes in the employment-population rate, which may directly affect the ability of tenants in a neighborhood to pay rent. In order to take advantage of consistent census tract boundaries, we use measures of demographic change from the 2005 to 2010 to the 2009 to 2014 5-year American Community Service (ACS). Because both neighborhood decline and gentrification could be associated with rising housing instability, we tried modeling these variables as quadratic, but did not find improved fit.

Static neighborhood characteristics may also affect eviction rates between neighborhoods. There are several census tract variables that are included as levels. We evaluate the impact of commute times because of research that access to jobs and services is correlated with lower employment rates (Gobillon, Selod, & Zenou, 2007), declining land prices (Raymond, 2016), and general measures of downward social mobility (Ewing, Hamidi, Grace, & Wei, 2016).

A review of the literature lead us to test the following property characteristics. Research has shown that, when not renting to voucher holders, landlords had higher stability and less turnover at higher price points (Immergluck, 2013). We include three property characteristics to measure price point: age, price per square foot, and price per acre. These measures are indicators of housing quality, housing cost, and location desirability. We expect all three will affect eviction rates. Higher-quality

properties, more expensive properties, and homes located on desirable and more expensive land will typically be rented at higher price points.

Table 1 Summary Statistics

Category	Variable	Data Source	Obs	Mean	Std. Dev.	Min	Max
Owner characteristics	Owner has > 15 single-family rental properties in Fulton County (binary)	Author calculated; 2015 Fulton County tax assessors data	48,451	0.09	0.28	0	1
	Previous foreclosure (binary)	Author calculated; Fulton County deeds data	48,451	0.42	0.49	0	1
Neighborhood change census	Change in median home value	2010–14 ACS 5- year estimates	48,451	-\$50,377	\$41,087	-\$390,697	\$168,460
characteristics	Change in employment- population ratio	2010–14 ACS 5- year estimates	48,451	-4.1%	6.6%	-22.7%	27.8%
	Change in percent of population with BA	2010–14 ACS 5- year estimates	48,451	0.3%	4.7%	-12.1%	15.8%
	Change in percent black	2010–14 ACS 5- year estimates	48,451	-0.2%	5.6%	-31.6%	28.9%
	Change in median household income	2010–14 ACS 5- year estimates	48,451	-\$5,454	\$9,892	-\$62,192	\$75,740
Static census tract demographic characteristics	Percent black	2014 ACS 5-year estimates	48,451	65.6%	34.9%	0.9%	100.0%
	Percent of population with BA	2014 ACS 5-year estimates	48,451	21.7%	12.6%	0.0%	56.3%
	Median household income (\$)	2014 ACS 5-year estimates	48,451	\$52,116	\$33,819	\$2,499	\$176,615
	Median house value (\$)	2014 ACS 5-year estimates	48,451	\$177,246	\$149,081	\$44,733	\$1,016,663
	Median commute time (minutes)	2014 ACS 5-year estimates	48,451	29.67	4.61	16.00	40.00
Property characteristics	Year built	Tax assessors data	48,451	1967	28	1800	2013
	Appraised value of improvement/sq. ft.	Fulton County and tax assessors data	48,451	\$47	\$50	\$0	\$816
	Appraised value of the land/acre	Fulton County	48,451	\$159,316	\$335,174	\$147	\$8,642,620
Dependent variable	Service of eviction notice (binary)	Author calculated; Fulton County Magistrates Court	48,451	0.07	0.26	0.00	1.00

Methods

After mapping and calculating descriptive statistics of evictions in Fulton County, we segment out single-family rentals for analysis. We use an ordinary least squares linear probability model (OLS LP). Our data contain a cross-section of 48,451 single-family rentals with a binary dependent variable that is equal to 1 in the cases that there is an eviction notice served on a tenant at a property in 2015, and 0 if it is not.

We apply a linear probability model with clustered standard errors to the following model:

 $Y_{ij} = \alpha + \beta_1 X_{ij} + \beta_2 W_{ij} + \beta_3 V_j + \epsilon_{ij}$

i = parcel

j = census tract

X = ownership characteristics

W = property characteristics

V = neighborhood characteristics

This model uses a control strategy to deal with selection issues around the different geographic distribution of large landlords as compared to mom-and-pop investors. As a check, we calculate a census tract fixed-effects model to verify that the coefficients obtained in this model do not change when we compare single-family rentals within census tracts.

We expect spatial correlation and account for this by clustering standard errors at a geography large enough to encompass regional factors. In order to choose a geography, we analyzed the data set using a between-effects panel at various levels, and found significant relationships between regressors and the eviction rate at the census tract (196 clusters) and elementary school district (102 clusters) level, but not the zip code level (42 clusters). So, for the OLS LP model, we clustered errors at the zip code level. The standard errors and significance did not vary meaningfully when clustering standard errors at different levels in the OLS LP model. One potential problem with the OLS LP model is that probabilities can fall below 0 or above 1; that was not the case in this model. We also tested a logistic model and did not find materially different results.

Results and Discussion

The overall rate of eviction filings in Fulton County—combining multi- and single-family properties—is high, even when compared with other places with high eviction filings, like Chicago (7 percent) and Cleveland (11 percent). In 2015, landlords of all (multifamily and single-family) rental units initiated eviction processes 39,221 times, or 107 times a day. Some 22.2 percent of all renting households in Fulton County faced eviction proceedings in 2015. On average, eviction cases took 26 days, and 15,608 of these cases were dismissed. It is difficult to say in these cases whether dismissal occurred because the tenant moved immediately or if the tenant stayed in place. Of the remaining 21,658 cases, we expect the vast majority of these resulted in a tenant vacating or being evicted,

resulting in an estimated 12.2 percent eviction rate (Lucas & Thaler, 2016). In 9,298 rental households in Fulton County, an eviction was directly documented in the case filings as "Tenant Ejected/Vacated," resulting in a 5.2 percent eviction rate lower limit. The actual rate of displacement is most likely closer to the 12.2 percent figure.

	Multifamily	Single Family	Total
Eviction filings	32,194	7,027	39,221
Rental households	128,534	48,451	176,985
Evictions filings rate	25%	15%	22%
Percent of total households	73%	27%	100%

Table 2 Eviction Rates by Single Family and Multifamily

Sources: Author calculations, Fulton County Magistrates Court, U.S. Census Bureau's American Community Survey 2010–14 5-year estimates

In Fulton County, evictions are concentrated in multifamily properties. As depicted in table 2, 25 percent of all households in multifamily buildings had an eviction notice filed compared to 15 percent in single-family rentals. Rates of eviction filings are also spatially concentrated; in four southwest Atlanta zip codes the rate exceeds 40 percent of all rental households, as shown in table 3.

Table 3 Top 15 Zip Codes by Eviction Rates, All Property Types

	Zip Code	Eviction Notice Filed	Eviction Notice Filed and Never	Writ of Possession Issued or Tenant Vacated/	Census 2010 # Rental Households	Eviction Notice Filed	Eviction Notice Filed and Never	Writ of Possession Issued or Tenant Vacated/
			Dismissed	Ejected			Dismissed	Ejected
1	30344	3,031	2,180	1,021	6,564	46%	33%	16%
2	30291	1,888	1,062	555	4,260	44%	25%	13%
3	30337	1,478	1,138	499	3,339	44%	34%	15%
4	30331	4,088	2,490	1,196	10,063	41%	25%	12%
5	30336	145	73	36	384	38%	19%	9%
6	30311	2,591	2,045	975	7,524	34%	27%	13%
7	30213	1,090	581	250	3,236	34%	18%	8%
8	30314	1,472	1,137	462	4,407	33%	26%	10%
9	30315	2,238	1,491	688	7,473	30%	20%	9%
10	30310	1,842	1,406	580	6,395	29%	22%	9%
11	30354	932	596	286	3,376	28%	18%	8%
12	30303	282	184	100	1,081	26%	17%	9%
13	30349	2,657	2,105	747	10,756	25%	20%	7%
14	30318	2,652	1,684	785	11,428	23%	15%	7%
15	30350	2,216	950	545	10,531	21%	9%	5%
Total	Fulton	39,221	21,658	9,247	176,985	22%	12%	5%

Sources: Author calculations, Fulton County Magistrate Records; excludes zip codes that cross Fulton County boundaries. These rates would be understated for these zip codes, as we do not have eviction counts for surrounding counties

Our data shed light on how landlords and tenants in Fulton County navigate the judicial system. Of the completed cases in 2015, 54 percent of the tenants did not answer. Unless these cases were dismissed by the landlord, this led to a default judgment in favor of the landlord. The remaining 46 percent of tenants answered the eviction notice, but over half of these were deemed not to have raised a legal defense and were assigned to dispossessory court 4 for a default judgment in favor of the landlord. That outcomes suggests that there may be a gap between what tenants believe constitutes a defense and that of the justice system (Lempert & Monsma, 1994). Only one-fifth of all cases were assigned to court 1 or 2, and therefore heard by a judge or mediator.

Figures 4 and 5 show the spatial concentration of eviction filings by census tract. In many census tracts, over 32 percent of households faced eviction in 2015. Eviction rates throughout the southwest of the city of Atlanta and Fulton County are extremely high. This geography coincides with predominantly black neighborhoods as displayed in figure 5 in the southwest of the city, though there are high eviction census tracts in the racially integrated neighborhoods to the north, and predominantly Hispanic areas of northeast Fulton County. While many factors drive eviction rates, these maps alone demonstrate that the households bearing the brunt of the extremely high housing instability in Atlanta live in predominantly black neighborhoods.

Figures 4 and 5 Eviction Rate (Single-Family and Multifamily) by Census Tract; Percent Black by Census Tract



Sources: Author calculations, Fulton County Magistrate Records, Fulton County parcel tax Assessors data; U.S. Census Bureau's American Community Survey 2014 5-year estimates

Table 4 Causes of Single-Family Rental Evictions: LinearProbability Model

Linear Regression

Number of obs	48,451
F(15, 41)	665.07
Prob > F	0
R-squared	0.034
Root MSE	0.25287

(Note: Std. Err. adjusted for 42 clusters in zip code)

Dep Var: Service of Eviction Notice (binary)			Std.			90% Confider	
			Err.	t	P>t	P>t Interval	
Owner	Large investor-owner (binary)	0.080	0.012	6.510	0.000	0.056	0.105
characteristics	Post-foreclosure (binary)	0.031	0.003	11.880	0.000	0.026	0.037
Neighborhood change census tract	Change in median home value	0.000	0.000	-1.130	0.267	0.000	0.000
	Change in employment- population ratio	-0.053	0.026	-2.030	0.049	-0.106	0.000
characteristics	Change in percent of population with BA	0.043	0.035	1.230	0.226	-0.028	0.114
	Change in percent black	0.001	0.040	0.030	0.975	-0.080	0.082
	Change in median income	0.000	0.000	0.690	0.492	0.000	0.000
Static census tract demographic characteristics	Median income (\$)	0.000	0.000	0.750	0.458	0.000	0.000
	Median house value (\$)	0.000	0.000	-0.870	0.390	0.000	0.000
	Average commute time (minutes)	-0.001	0.000	-1.710	0.094	-0.001	0.000
	Percent black	0.053	0.009	5.730	0.000	0.034	0.072
	Percent of population with BA	-0.070	0.034	-2.040	0.048	-0.140	-0.001
Property	Year built (z-score)	0.007	0.002	3.030	0.004	0.002	0.012
characteristics	Appraised value of improvement/sq. ft (z-score) Appraised value of the land/acre (z-score)	-0.004	0.002	-2.200	0.034	-0.007	0.000
	Constant	0.042	0.016	2.650	0.011	0.010	0.074

Note: See table 1 for data sources.

The regression results in table 4 show that our independent variable measuring ownership characteristics have a strong and significant relationship with housing instability. Single-family rentals with large corporate owners are 8 percent more likely to have housing instability after controlling for housing quality and neighborhood characteristics. Because previous research shows that, at least in the early years of the postcrisis decade, large investors were less likely than smaller corporate buyers to purchase in high-poverty, high-minority neighborhoods, we tested our results in a panel model, using census tract fixed effects. We obtain the same coefficient (0.079) on our dummy variable for large corporate owners in using a census tract fixed effects model. This similarity provides further evidence that within a given census tract, single-family rentals owned by large investors are 8 percent more likely to have housing instability.

There appears to be a company effect as well, in which some large corporate landlords backed by institutional investors are far more likely to pursue eviction than others. When we include a fixed effects variable to the cross-sectional model above for large corporate landlords with institutional investor backing, we find that while for some of these firms, the eviction rate does not differ from the average, others are as much as 18 percent or 19 percent more likely to file eviction notices than small firms. One institutional investor-landlord filed eviction notices against a third of its tenants, and in the model were 19 percent more likely than other firms to file eviction notices after controlling for property characteristics and neighborhood demographics. Two other institutional investors-landlords filed eviction notices against a quarter of their tenants and were 11 percent and 10 percent more likely to file eviction notices than other firms, all else being equal.

Property-level characteristics have a small but significant impact on housing stability. Because of scaling issues, these variables are standardized as z-scores and the coefficients indicate the impact of a one standard deviation change on the probability of eviction. A one standard deviation increase in housing age resulted in slight (0.7 percent) increases in housing instability. Increases in the appraised value of the home, or in land prices, resulted in lower housing instability of -0.4 percent and -0.2 percent, respectively.

In the (not reported) fixed effects model using census tracts as groups, the between-group R_2 (0.181) is higher than the within-group R_2 (0.016), suggesting that while property characteristics are significant and strong, overall neighborhood characteristics are important and explain more of the variance in eviction rates than property-level characteristics. Our census tract-level variables were included in the linear probability model as controls for neighborhood factors like economic health, demographics, and neighborhood change processes, but if neighborhood effects dominate housing instability, cautiously interpreting these results seems merited.

The second group of characteristics measures demographic change at the census tract level. Except for employment-population ratio, none of our measures of neighborhood change are significant. This leads us to conclude that if gentrification is leading to displacement in Fulton County, these results suggest that either evictions are not the mechanism by which that displacement takes place, or that gentrification-driven evictions pale in comparison to eviction rates in other neighborhoods.

In all specifications of the model, percent black is highly correlated with higher single-family rental eviction rates, even after including metrics of neighborhood change, income, and education levels. Like the maps in figures 4 and 5, these results show that evictions-driven housing instability is disproportionately borne by tenants in predominantly black neighborhoods.

The percentage of residents with a bachelor's degree is strongly negatively correlated with eviction rates. This negative correlation suggests that neighborhoods with higher human capital are less likely to suffer housing instability than others, even after accounting for race and income.

A weakness of this research design is that it may not completely control for selection issues, namely, that large investors may be concentrated in certain types of areas rather than others. If neighborhood effects drive eviction rates, and we have not completely controlled for selection, these effects may be loading onto our investor type variable. We have attempted to minimize this issue by explicitly controlling for neighborhood factors and by confirming that the coefficient on owner size does not change in a census tract fixed-effects model. An improved model might use matching within census blocks to extract even more meaningful comparisons between single-family rentals that are owned by large and small investors, and the impact of ownership type on evictions.

One possible reason large corporate landlords backed by institutional investors may have higher eviction filing notices is that they may routinely use eviction notices as a rent collection strategy. Subsequent research could compare whether large firms are more likely to dismiss eviction notices or more likely to have a tenant listed as ejected/vacated in the records. While neither of these is a perfect measure of displacement, it could help differentiate between landlords who use the threat of eviction as a collection strategy and cases of actual displacement.

Conclusion

This research describes extremely high housing instability in Fulton County, Georgia. We find rates of evictions higher than other cities like Chicago and Cleveland, evictions are spatially concentrated in predominantly black census tracts, and extremely high levels of housing instability exist in many areas of Southwest Atlanta and Fulton County. The majority of evictions take place in multifamily properties, however, evictions are also common in single-family rentals. The data show extremely high levels of residential displacement in Atlanta, levels that in other cities have been linked to high levels of crime, schools beset with constant turnover, lack of community cohesion, and a dilapidated built environment (Desmond et al., 2015; Desmond & Kimbro, 2015).

We explore evictions in single-family rentals not because of the size of this sector, but because this strata of the rental market is a new development during a period of rapid change in housing institutions and urban real estate. During this period of institutional change in housing markets, it is possible that the United States is shifting somewhat away from a homeownership society and somewhat toward a rentership society. Large institutional investors have shown a strong appetite for this asset class. Understanding housing stability in this sector is important because it is a new phenomenon, and because it may grow over time.

There is no reason to expect large corporate landlords or institutional investors must engage in practices that will lead to more or less housing instability. Depending on their strategies, they may be more or less likely to maintain properties and attract and retain tenants than smaller investors. Their capital reserves could provide economies of scale and a higher capability to provide affordable housing as they are more likely to absorb short-term losses, or their lack of neighborhood embeddedness and need for bureaucracy may make them less flexible in working out rental agreements with low-income tenants outside of the formal justice system. So, the impact of large investors on housing instability is an empirical question.

We find in Fulton County that investor size is correlated with higher levels of housing instability. Looking into the data, there appears to be a company effect, with some firms having significant, and substantially higher, eviction rates than other firms, even after controlling for property quality, location, and foreclosure history. High levels of housing instability are disruptive to households and neighborhoods, affecting school performance, crime and safety, maintenance of buildings, community cohesion, and other attributes of community well-being. Further research is needed to understand why

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large corporate landlords increase housing instability compared to their smaller peers, and to work toward providing safe, stable, affordable rental housing for the growing number of households who rent in Atlanta and elsewhere.

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