#### **ORIGINAL RESEARCH**



# Housing Instability in an Era of Mass Deportations

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#### Abstract

The current era of mass deportation has disrupted a record number of families and households in immigrant communities. In most cases, when a parent is deported, the rest of the family stays in the United States. Among those who remain in the US, deportations can have broad ramifications for housing stability. I use linear regression models with metro area and year-fixed effects to examine metro residents responding to the Current Population Survey (2013-2016) and merge these observations with contextual, administrative data from the implementation of a national immigration enforcement program (Secure Communities). I find metro residents in shared households (i.e., households with multiple families) are more likely to experience housing instability in high deportation areas. The positive association between instability and deportations holds only among residents in Hispanic households where noncitizens are present. By contrast, other residents—including those living with non-Hispanic noncitizens, Hispanic U.S. citizens, or non-Hispanic U.S. citizens—are not more likely to report instability in high deportation metros. I discuss possible explanations for these findings and the implications of this study for housing inequality.

**Keywords** Immigration enforcement · Noncitizens · Hispanic · Housing

#### Introduction

Mass deportations present challenges to U.S. society by disrupting the lives of noncitizens and their families. Poverty, foreclosures, and food insecurity have been shown to rise alongside immigration enforcement (Amuedo-Dorantes et al., 2018; Potochnick et al., 2017; Rugh & Hall, 2016). In the aftermath of the deportation of family members, those left behind have difficulty making ends meet with fewer adults paying housing and related costs (Gelatt et al., 2017), and often double up with other families to

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compensate (Chaudry et al., 2010). This suggests a link between housing instability and immigration enforcement that could compound inequality for immigrant family members in the U.S.

Absent data on which households were affected by deportations, we cannot directly test the link between housing instability and rising deportations. Instead, I ask: were metro residents more likely to report housing instability in high deportation contexts? Among these residents, rising housing instability (i.e., moving in search of cheaper housing or due to lost employment, foreclosure, or eviction) is expected to be more common in high deportation metro areas. The main purpose of this paper is examining whether instability was (a) common among those living with noncitizens in high deportation contexts or (b) limited to those most vulnerable to immigration enforcement (i.e., residents living with both Hispanics and noncitizens) and housing-related economic hardship (i.e., individuals who double up with other families). Since these households are at heightened risk of deportation, the consequences of family separation and housing instability can extend to household members who are noncitizens and U.S. citizens alike. In fact, the vast majority of these residents live in mixed-status households where, for example, adult members (typically parents) are not U.S. citizens while youth in the household are U.S.-born citizens.

I find deportations and instability rose in tandem among select metro residents while others reported no comparable disruptions. Merging contextual-level deportation rate data with individual-level data, I analyze instances of housing stability among metro residents based on responses to the Current Population Survey (CPS) after the Department of Homeland Security (DHS) implemented the Secure Communities immigration enforcement program across the country with assistance from county jail administrators. I find residents in Hispanic households living with the most likely targets of enforcement (noncitizens) shouldered the burden of a higher likelihood of instability in higher deportation contexts. 96% of these residents are themselves Hispanic. The vast majority (86%) of these residents live in mixed-status households where only some residents are U.S. citizens. The results, however, are mixed: these residents were more likely to report instability if they lived in shared households, while their counterparts who did not double up reported a lower likelihood of instability. I discuss potential explanations for the mixed results.

Disruptions to housing stability have potentially broad implications for demographic research on inequality (Phillips, 2020; Raley et al., 2019). The consequences of instability are well-known: losing a home due to job loss, foreclosure, eviction, and lack of affordable options disrupts families and fosters further disadvantage (Desmond & Shollenberger, 2015; Sandel et al., 2018). In addition, uneven enforcement can also drive a wedge between neighbors deeper. If current trends persist, housing stability gaps between residents in divergent enforcement contexts threaten to weaken our shared stake in a housing market that works for everyone.



## Background on Immigration Enforcement and Restrictive Immigration Policies

In the mid-2000s, state and local entities proposed and enacted a rapid rise in efforts designed to deport and the limit integration of unauthorized immigrants (Filindra, 2019; Steil & Vasi, 2014). I refer to laws, policies, and programs designed to make life difficult for immigrants as examples of restrictive immigration policymaking. Some of these restrictionist policies include efforts to identify, arrest, and deport unauthorized immigrants. Before the mid-2000s, federal agents had to proactively identify immigrants eligible for deportation: Border Patrol detained immigrants attempting to cross U.S. entry points; federal agents in charge of the Criminal Alien Program deported immigrants serving prison or jail sentences; and Fugitive Operations Program agents tracked down immigrants with outstanding deportation orders (Rosenblum & Kandel, 2012). During this time, state and local law enforcement agencies could apply to cooperate with federal agents via the 287(g) program, and about 70 entities participated in the program (Capps et al., 2011). A nationwide program altered the enforcement land-scape by providing federal agents with access to information on all new arrests.

Starting in October 2008, under a new restrictionist program called Secure Communities, federal agents automatically began receiving data on arrests made by local law enforcement. By January 2013, all counties participated in Secure Communities. The program's staggered implementation meant some counties (e.g., those with large Hispanic populations) and southwestern and southeastern states began participating earlier than others (Cox & Miles, 2013). Secure Communities differed from prior restrictive policymaking by using technology to automatically link federal agents to every county jail across the nation. No longer did immigration authorities need to rely solely on their own records or wait for local entities to volunteer to assist them. Secure Communities allowed immigration agents to compare arrestees' biometric data - collected by county jail administrators – with federal databases to identify noncitizen arrestees (Stumpf, 2015). The program afforded immigration and local authorities discretion when deciding whether to facilitate noncitizen deportations, resulting in wide variation in deportations from state to state (Moinester, 2018; Pedroza, 2013) and within counties and municipalities (Pedroza, 2019).

Within a few years, Secure Communities helped federal authorities achieve the highest-ever volume of deportations in U.S. history. The study time period thus corresponds to a time when deportations peaked under the Obama Administration. As interior enforcement expanded across all county jails, federal authorities could effectively identify removable immigrants in more places than ever before. DHS apprehensions expanded rapidly in the era of Secure Communities and rivaled apprehensions by Customs and Border Patrol (CBP) during 2010 and 2011 (Department of Homeland Security (DHS), 2016). By fiscal year 2011, deportations facilitated by Secure Communities totaled nearly 80,000, or approximately one-quarter of 300,000 annual deportations reported by Immigration and Customs Enforcement (ICE), which exclude activities by CBP (Rosenblum &



Kandel, 2012; Rosenblum & Meissner, 2014). As restrictive policymaking proliferated, deportations affected hundreds of thousands of noncitizens annually (Hagan et al., 2015).

Secure Communities statistics are the best-available data to test whether deportations predict instability across U.S. metros for a number of reasons. First, no other local deportations data exist to capture variation across local areas (e.g., counties and metros) and within individual local areas over time. Second, Secure Communities deportations data exclude Border Patrol arrests of people attempting to enter the US and who are not already living in the U.S. Third, Secure Communities statistics include deportations under pre-existing 287(g) programs. In sum, variation in Secure Communities enforcement captures differences across U.S. counties and metros and measures deportations likely to disrupt residents' living situations. To be clear, Secure Communities data do not capture all ICE arrests. Although these data include 287(g) arrests, fugitive operations carried out without local law enforcement or county jail assistance are not captured in Secure Communities data. By fiscal year 2011, noncitizens identified via Secure Communities arrests (348,970) eclipsed noncitizen arrests by fugitive operations (39,446) as well as 287(g) arrests (33,180) (Rosenblum & Kandel, 2012).

The activation of Secure Communities (2008) overlapped with the Great Recession (2007–2009). The economic downturn may predict where enforcement and housing instability rose during this paper's study period (between 2013 and 2016). We know the consequences of the housing crisis diverged by racial/ethnic identification and nativity (Hall et al., 2015; Rugh & Massey, 2010), and foreclosures hit Black, Hispanic, and racially integrated neighborhoods particularly hard (Hall et al., 2015; Rugh & Massey, 2010; Rugh et al., 2015). We also know some locations with steep drops in homeownership (Hall et al., 2015; Painter & Yu, 2010, 2013; Rugh, 2014; Sánchez, 2019) were early adopters of immigration enforcement programs (Rugh & Hall, 2016). The analyses attempt to account for pre-existing trends and unemployment rates.

## Literature on Housing Instability and Immigration Restrictionism

## **Housing Instability**

In this paper, housing instability refers to moves due to disadvantages; namely, job loss, looking for work, foreclosure, eviction, and seeking cheaper housing. These moves differ from moving decisions in pursuit of opportunity, such as to start a new job or to retire (South & Lei, 2015; Wiemers, 2014). For instance, whereas highly educated movers might relocate across the country seeking career opportunities, moves due to socioeconomic hardship tend to be short-distance moves (Schachter, 2001). Crucially, those affected by housing instability moved during a time when moving for any reason has become less common. In fact, long-distance moves have long been in decline (Molloy et al., 2017), and – when people do move – they tend to relocate closer to home; especially after the Great Recession (Stoll, 2013). The long-term decline in internal migration also stems from population aging as well



as household and macroeconomic trends that have made moving away from home increasingly impractical or unnecessary as people find substitutes for migration (Cooke, 2011, 2013).

In order to make ends meet, housing instability can result in instances of 'doubling up,' whereby multiple families live together in a shared household. Research notes how families move in together to pool resources and weather tough economic times (Mykyta & Macartney, 2011; Seltzer et al., 2012), especially the unemployed (Wiemers, 2014), recently arrived Mexican immigrants (Van Hook & Glick, 2007), and Latinos who reorganized their households during the Great Recession (Quiroga et al., 2016). In turn, doubling up can create or worsen overcrowded housing, which tends to burden immigrant and poor households more than the general population (Myers & Lee, 1996; Myers et al., 1996).

The consequences of housing instability are well-known. Housing instability leads to job loss (Desmond, 2016) and negative health outcomes (Sandel et al., 2018). Evicted residents also tend to end up in neighborhoods with more poverty and crime (Desmond, 2016; Desmond & Perkins, 2016; Desmond & Shollenberger, 2015). Among movers who double up in response to instability, they risk experiencing overcrowding, which has a negative impact on children's academic outcomes (Goux & Maurin, 2005).

### **Consequences of Immigration Enforcement and Restrictionism**

We know restrictive policymaking affects households at risk of exposure to immigration enforcement. For instance, state and local policies drive more households of US-born children with likely unauthorized parents under the poverty line and Hispanic, US-born children into vulnerable living arrangements (Amuedo-Dorantes & Arenas-Arroyo, 2019; Amuedo-Dorantes et al., 2018). Similarly, 287(g) programs also raise food insecurity among Mexican noncitizen households with children (Potochnick et al., 2017). When focusing on housing outcomes, however, the profile of who is at risk of restrictionism-related consequences is less clear.

Existing research on restrictionism and housing provides valuable insights by examining place-level data. An early study leveraged school district-level data and concluded that Hispanic households with school-age children tend to relocate away from places with high unemployment rates and 287(g) programs (O'Neil, 2011). A county-level study (Rugh & Hall, 2016) found a link between the passage and intensity of 287(g) programs and foreclosure rates, and the effect was most reliable among Hispanic homeowners and, to a lesser extent, in neighborhoods where Hispanic and white homeowners were likely to be neighbors. Follow-up research used individual-level data to further examine who is at risk of enforcement-related outcomes.

Studies have examined individual-level housing outcomes related to state-level restrictive policymaking. One study found noncitizens are generally at risk of reporting worse outcomes in restrictive states: households headed by noncitizens experienced difficulty meeting household expenses; eviction or not being able to pay rent or the mortgage; and inability to pay for utilities or having utilities or phone shut



off (Gelatt et al., 2017). Another study focused on homeownership rates in 2007 and found diminished immigrant homeownership in states with restrictive immigration policies but only among Hispanic immigrants and not among Asian immigrants (Allen & Ishizawa, 2015). A related study found state-level restrictionism accentuated gaps in poverty rates between both Latino and Asian Pacific Islander citizens versus their noncitizen counterparts (Young et al., 2018). In sum, we know restrictionism predicts negative housing outcomes, even though state-level studies come to different conclusions regarding whether or not restrictionism affects all immigrant households.

Qualitative research has also examined variation in local-level restrictionism and housing outcomes. Such work provides valuable insights into what happens when enforcement disrupts households and separates families. For instance, we know that the deportation of an immigrant parent leaves behind the rest of the family in the US (Capps et al., 2015; Dreby, 2010; Zayas, 2015). Families typically lose income following deportation and must contend with making ends meet. Eventually, absent sustained financial assistance, families with a deported parent tend to relocate (Boyce & Launius, 2020; Chaudry et al., 2010; Koball et al., 2015). In addition to family separation where women and mothers are typically left behind after the deportation of men and fathers (Dreby, 2010; Golash-Boza, 2015), other families decide to leave the US entirely, such as immigrant parents returning to Mexico with their US-born children (Masferrer et al., 2019).

## **Hypothesized Relationships**

In this paper, I examine whether an individual metro area resident reports having moved due to housing instability. I anticipate individuals living with noncitizens are more likely to report housing instability in high deportation contexts (hypothesis 1a: housing instability as noncitizen exclusion). Alternatively, since the vast majority of deportees are from Latin America (Kohli et al., 2011) and deportees are most routinely racialized as Hispanic and Latin American (Golash-Boza & Darity Jr, 2008), it is possible only those living with both Hispanics and noncitizens would be at an elevated risk of instability in high deportation contexts (hypothesis 1b: housing instability as Hispanic noncitizen racialization).

Because those left behind by deportation tend to double up with other families to make ends meet (Boyce & Launius, 2020; Chaudry et al., 2010; Koball et al., 2015), I anticipate the instability burden should be most pronounced among those in shared households (defined below) because doubling up is a known strategy for making ends meet (hypothesis 2: *doubling up while experiencing housing instability*).

It is also possible deportations might predict fewer instances of housing instability (hypothesis 3: an inverse relationship between deportations and instability). Immigrant decisions to stay under the radar represent a well-known mechanism of avoiding detection from law enforcement (Menjívar & Abrego, 2012). Rather than venturing to a new place with unknown risks of exposure to law enforcement, immigrants might maintain a low profile by staying where they live (i.e., a lower likelihood of moving where enforcement is high). Alternatively, there is a survey



CPS Year	Geographical mobility measure	Deportation rate measure	Deportation rate (mean)
2013	April 2012 to March 2013	March 2011 to January 2012	1.37
2014	April 2013 to March 2014	February 2012 to January 2013	1.32
2015	April 2014 to March 2015	February 2013 to January 2014	1.25
2016	April 2015 to March 2016	February 2014 to January 2015	1.12

Table 1 Matching CPS survey and DHS administrative data

Caption: Author's tabulations of March CPS and Secure Communities data. Metro residents included are civilians ages one year and over, who lived in the U.S. during the preceding year, were not living in group quarters, and living in a county or state with an activated Secure Communities program

retention-related reason why we might also expect a negative association between instability and enforcement. Since I rely on a household sample of U.S. residents, responses exclude families who left the US; which could result in a negative association between deportations and instability.

Housing instability is not expected to be related to deportations among residents who live exclusively with U.S. citizens. Recent work suggests restrictionism may have negative health consequences for immigrants and the U.S.-born alike (Strully et al., 2019), but housing research has found no comparable effects.

#### Data

This paper relies on unique data compiled to determine whether, and how much, deportation contexts predict housing outcomes among metro residents. Respondents in the March CPS, which oversamples for Hispanics (Passel & Cohn, 2009; Taylor et al., 2011), report whether they moved and, if so, why they moved. Crucially, I measure deportation rates that preceded residents' decisions to either stay in the same house or move elsewhere. Following prior work on the effects of enforcement on living arrangements (Amuedo-Dorantes & Arenas-Arroyo, 2019), the unit of analysis is each resident (using individual-level weights) living in a metro area according to the CPS.

I merged individual-level CPS data and contextual-level deportation data from the Secure Communities program. I first used a crosswalk from the Missouri Census Data Center (MCDC) to link CPS county- and metro-level geographic identifiers (Flood et al., 2017) to repeated cross-sections of county-level Secure Communities data previously available via the DHS website's the Freedom of Information Act (FOIA) library (Department of Homeland Security (DHS), 2015). Secure Communities data are also available via Syracuse University's Transactional Records Access Clearinghouse (TRAC). I matched CPS respondents to corresponding deportation rates, as defined below, to measure enforcement intensity across local areas during the time period preceding moving decisions recorded in the March CPS (see Table 1 for details).



### **Housing Instability**

I use March CPS data to measure housing instability among metro residents. CPS respondents are surveyed annually in March and asked whether any residents in the household have moved in the past year. The CPS tracks individuals who moved and why they moved. I categorize these three reasons as instances of instability:

- (1) moving to look for work or lost job;
- (2) moving for cheaper housing; or
- (3) moving due to foreclosure or eviction.

Metro residents who reported any of the above are coded as 1 for housing instability, and all other residents (e.g., non-movers as well as those who moved for other reasons) are coded as 0 for instability. Each of the reasons listed above represents a proxy for residents who moved because they can no longer afford to stay where they live; either because they lost income, could not afford to stay in their previous residence, or lost their home or apartment. Such moves contrast to decisions to move in search of new or better housing, which I analyze – and compare to the predictors of instability – in a set of robustness checks. Metro residents in this study include individuals who (a) lived in the same house when surveyed by the CPS as they did a year ago or (b) moved somewhere in the same county, state, or United States. Since the analyses focus on whether CPS respondents moved during the previous year, I exclude newborns and those who moved from abroad in the past year from analyses.

#### **Measures of Shared Households**

Using CPS responses, IPUMS derives the number of unrelated families living in the same household. This measure of 'doubling up' or shared households (i.e., an individual living in a household with multiple, unrelated families under one roof) is expected to moderate the relationship between housing instability and deportation rates. To reiterate, instability should prove more common in high deportation areas if an individual also reports living in a shared household because doubling up is a means of weathering tough economic times.

As an alternative to the above measure of shared households, I test whether results hold when using a different measure: whether each resident identifies as an unrelated member of their household. Specifically, I use a categorical variable (based on a measure of "family type") to capture variation in instability among individual members of each household's primary family (i.e., a nuclear family; the reference group) to residents identified as: (1) a related subfamily; (2) an unrelated, nonfamily householder; (3) an unrelated subfamily; or (4) any other unrelated resident. I expect instability to be more common among individuals who are members of unrelated families. For both of these measures of shared households, I am limited to CPS questions, none of which allow me to differentiate whether shared households were formed at the same time as a move.



#### **Deportation Rates**

This paper measures deportation rates to capture variation in Secure Communities immigration enforcement. Analyses rely on a combination of individual-level CPS data and contextual deportations data from DHS. For instance, I merge CPS data with county-level deportation data (for residents with a county identifier) or weighted deportation data (for residents with a metro identifier but no county identifier), as further detailed below. Secure Communities was active in large parts of the country within a few short years after its launch in October of 2008 and was operational nationwide by January 2013. Secure Communities linked arrestees' biometric data to federal databases that helped identify their immigration status, and county jail administrators exercised discretion in deciding whether to facilitate the deportation of removable noncitizens. Obama-era deportations in the US hit an all-time high during the full implementation of the Secure Communities program. In order to calculate deportation rates, I combine Census estimates of local noncitizen populations with administrative DHS data for the Secure Communities program. Deportation rates equal the number of deportations reported each year per thousand noncitizens. To account for variation in the size of the noncitizen population and reduce the potential influence of outliers, deportation rates (D) equal:

$$D = \log\left(\left\{\frac{r}{n/1,000}x\frac{d}{365}\right\} + 1\right)$$

r equals the total number of deportations (i.e., removals and returns, which are combined and reported as a sum total in DHS data) facilitated by Secure Communities; n is the estimated size of the noncitizen population (i.e., noncitizens per thousand); and d is the total number of days Secure Communities was active in each identified county and metro area (based on the date of activation reported in Secure Communities data) during the period preceding responses to the CPS. Although the program does not cover all DHS enforcement activity in local communities, such as fugitive operations or courthouse arrests, Secure Communities eclipsed enforcement actions by most other interior enforcement programs as early as 2010 (Rosenblum & Kandel, 2012). Secure Communities data exclude Customs and Border Patrol records on border apprehensions. Arrests recorded in metro areas along U.S. borders – and under the purview of Secure Communities – are included.

Analyses reflect responses from movers compared to non-movers. The main results focus on metro residents, nearly all of whom had been living in the same county for at least one year when surveyed by the CPS. As such, matching CPS respondents to deportation rates proves straightforward for most metro residents because few people move across county lines (or at all) from one year to the next. Each of these residents living in an identified metro area (N=446,143) is assigned a deportation rate using their geographic location. First, CPS metro residents

<sup>&</sup>lt;sup>1</sup> Figures in this section refer to unweighted CPS respondents included in analyses: residents who are civilians ages one year and over, who lived in the U.S. during the preceding year, were not living in group quarters, living in a county or state with an activated Secure Communities program, and in one of the comparison groups in Tables 2 through 5.



 Table 2
 Mean sample characteristics of metro residents (2013–2016)

Variable	Household members present	oers present			
	Both Hispanic & noncitizen residents	Non-Hispanic, noncitizen residents	Hispanic, U.S. citizen residents	Non-Hispanic, U.S. citizen residents	Metro residents
Individual factors					
Housing insta- bility	0.020	0.014	0.017	0.011	0.013
Age	29	34	33	40	38
Female	0.48	0.50	0.51	0.52	0.51
Household factors	S				
Number of families	1.18	1.13	1.11	1.07	1.09
Single Parent Household	0.38	0.29	0.46	0.40	0.40
Total children under 5 years	0.33	0.27	0.25	0.15	0.19
Below poverty line	0.28	0.15	0.17	0.11	0.14
Any unemployed 0.04 workers	0.04	0.03	0.04	0.03	0.03
Property owned (not rental)	0.40	0.50	0.55	0.71	0.65
Contextual factors	S				
Deportation rate	1.42	1.19	1.39	1.25	1.28
Unemployment rate (White)	0.09	0.08	0.09	0.08	0.08
Unemployment rate (Black)	0.15	0.15	0.15	0.15	0.15



Table 2 (continued)

(500,000) = 5100	(22				
Variable	Household members present	bers present			
	Both Hispanic & noncitizen residents	Non-Hispanic, noncitizen residents	Hispanic, U.S. citizen residents	Non-Hispanic, Hispanic, U.S. citizen residents Non-Hispanic, U.S. citizen residents dents	Metro residents
Unemployment 0.11 rate (Hispanic)	0.11	0.11	0.12	0.11	0.11
Housing costs (per 1,000 dollars)	1.23	1.32	1.21	1.10	1.13
Observations (unweighted)	49,053	27,089	68,105	316,881	461,128

Source Author's tabulations of March CPS, Secure Communities, and ACS (2008-2012) data. Sample means reflect person-weighted observations. Metro residents included are civilians ages one year and over, who lived in the U.S. during the preceding year, were not living in group quarters, and living in a county or state with an activated Secure Communities program



living in an identifiable county are assigned deportation rates corresponding to their county of residence as long as they stayed in the same county when surveyed by the CPS. This group includes metro residents with a CPS county identifier as well as those whose metro location corresponds to a single county. Second, CPS metro residents with no county identifier and whose broader metro area straddles multiple counties are assigned a weighted deportation rate. For example, if one metro area stretches across two counties, and one county's noncitizen population is four times as large as the other, then the deportation rate is adjusted accordingly (e.g.,  $D1 \times 0.8 + D2 \times 0.2$ ). Among these residents with a county or metro identifier, they either stayed in the same residence from one year to the next (89% of metro residents) or moved within the same county (7% of metro residents).

The main results also include a relatively small number of metro residents who moved across either county or state lines. For those who left their previous county or state, I assign a state-level deportation rate to match other metro residents in their respective state. Approximately 2% of metro residents are intra-state movers (N=8,324): they moved to a different county but did not cross state lines. In their case, since we do not know which county they left, I assign these residents the mean deportation rate that other metro residents living in the same state experienced. As described below, we observe lagged, state-level deportation rates that precede these residents' intra-state moves. An additional 1% of metro residents did cross state lines (N=6,661). For them, I assign the mean deportation rate reported among metro residents in the state they left – not the state where they resettled. Since enforcement activity is lagged, these deportation rates also precede the time period when these interstate movers relocated. In robustness checks, I predict instability with and without these metro residents.

Deportation rates are lagged to predate CPS respondents' responses to a geographical mobility survey item. The CPS also asks survey participants whether they moved during the previous year. Table 1 displays when each March CPS survey was administered alongside (a) the corresponding time span for the CPS survey question regarding geographical mobility and (b) the corresponding lagged deportation rate. To illustrate my approach to calculating the lagged explanatory variable, a respondent in March 2016 was asked whether (and why) they moved since March 2015. In this example, the respondent's local deportation rate is measured between February 2014 and January 2015, which predates their move.

### **Other Correlates of Negative Housing Outcomes**

Prior research has established the role of socioeconomic status and household composition in explaining housing instability (Blank, 1998; Desmond & Perkins, 2016; Desmond & Shollenberger, 2015; Mykyta & Macartney, 2011; Wiemers, 2014). As such, regression models include indicators for individual (e.g., sex; age) and household (e.g., paying a mortgage, not a rental; household poverty status; householder's single-parent status; presence of children under age five) factors related to housing instability and the negative consequences of immigration restrictionism (Amuedo-Dorantes & Lopez, 2015; Young et al., 2018). Analyses also account for



units in each building structure (e.g., mobile home, single unit, or multiple units). Finally, past immigration research finds a relationship between enforcement, economic conditions, and location choice (O'Neil, 2011; Parrado, 2012). In order to account for such contextual variables, I rely on American Community Survey (ACS, 2008–2012) data across metro areas to measure unemployment rates (non-Hispanic White, non-Hispanic Black, and Hispanic) and median monthly housing costs (per \$1,000).

## **Analytic Approach**

After merging individual-level data from the CPS with contextual enforcement data, I present bivariate trends in housing instability across metro areas with a focus on instability rates across divergent deportation contexts. The trends are followed by regression analyses of the relationship between instability (from 2013 to 2016) and deportation rates among residents during the time when Secure Communities blanketed the nation (Table 1). Since CPS data record each person's citizenship status and whether each identifies as Hispanic, I can identify whether a given individual is living with: (1) both Hispanics and noncitizens; (2) non-Hispanic noncitizens; (3) Hispanic U.S. citizens; or (4) neither Hispanics nor noncitizens (i.e., non-Hispanic U.S. citizens).

I employ regression models that account for the large number of metro areas in the CPS sample (N=317). Instead of treating the relationship between instability and independent variables similarly across all metro areas, each metro resident's likelihood of instability is compared to residents in the same metro area and then compared to the distribution of housing-related factors in the national sample of metro areas. Following Pedroza & Chung (2020), the regression models account for variation across individuals (i) in each metro area (m) in a given year of CPS data (t):

$$Y_{imt} = \alpha + \beta_1 (deportation_{mt-1}) + X_{imt},$$

where *deportation* equals the rate of deportation in year t-1 (preceding the year leading up to each administration of the CPS survey) and X is a set of individual and household variables. To account for unobserved, pre-existing trends across time and place, the models include metro-level fixed effects with linear time trends plus year-fixed effects. Additional analyses noted below cluster standard errors at the state level.

#### Results

Between 2013 and 2016, deportation rates varied widely (mean D: 1.3; standard deviation: 0.6). The intensity of deportation was eight times higher in the most restrictive context ( $\exp^{1.9}$  -1=6 annual deportations per thousand noncitizens) versus the least restrictive ones ( $\exp^{0.6}$  -1=0.8). Metro residents living in areas



reporting the top quartile of deportation rates are defined as residing in high deportation contexts, and residents of areas with the lowest quartile are considered residents of low deportation contexts. At the start of the study period, metro residents surveyed in 2013 – and asked whether they had moved between April 2012 and March 2013 – were exposed to a mean deportation rate of 1.4, or three annual deportations per thousand noncitizens which occurred between March 2011 to January 2012. The program underwent changes in subsequent years designed to target enforcement on serious criminal offenders. The change is reflected in observed deportation rates, which fell to 1.1 (or two annual deportations per thousand noncitizens) by the end of the study period.

Variables employed in regression analyses are summarized in Table 2. Housing instability among metro residents was relatively rare (1.3%). Compared with other residents, respondents living with Hispanics and noncitizens reported higher instability rates (2.0%) as well as a higher number of families per household. They also lived in places with higher deportation rates than other households (Table 2).

Housing instability rates across metros were generally in decline by the time Secure Communities was a nationwide program, but instability rates diverged by deportation context. The share of metro residents experiencing instability spiked at 1.7% of individuals between 2009 and 2011. By 2015, metro instability rates then fell to pre-recession levels (1.2%). As displayed in the pooled sample (2013–2016) in Table 3, instability rates among residents in the lowest quartile (0.8%) was lower than among other residents (1.3–1.5%). Among residents in shared households, housing instability was similar (3.3–3.5%) across residents living in different types of households. Notably, housing instability diverged by deportation context among residents in households with Hispanics and noncitizens. In these households, 96% of residents are Hispanic, and most (86%) live in mixed-status households. Among these metro residents, instability in areas with the two lowest quartiles of deportation rates (2.3-2.8%) was lower than the two highest quartiles (3.6-4.2%). The pattern, as evident in Table 3, does not hold among residents in households with non-Hispanic noncitizens, and the pattern is weaker among those living with U.S. citizens.

#### **Regression Results**

Table 4 displays six models, starting with metro residents before and after introducing an interaction between number of families and deportations (models 1 and 2). Then I present analyses for residents living with both Hispanics and noncitizens (model 3), non-Hispanic noncitizens (model 4), Hispanic U.S. citizens (model 5), and non-Hispanic U.S. citizens (model 6).

The main coefficient for deportation rates reflects the association between instability and deportations among residents not in shared households. None of the results suggest a positive relationship between instability and deportations (Table 4). A negative association in models 1 and 2 is driven by residents living with both Hispanics and noncitizens (model 3) or with Hispanic U.S. citizens (model 5). These residents may have stayed put to weather rising enforcement or left the country



**Table 3** Metro residents' housing instability rates by deportation context & number of families (2013–2016)

			(	(		
	All metro resi-	All shared	Metro residents in shared households that include:	that include:		
	dents	nousenoids	Both Hispanic & noncitizen residents	Non-Hispanic, noncitizen residents	Hispanic, U.S. Non-l citizen residents dents	Hispanic, U.S. Non-Hispanic, U.S. citizen resicitizen residents dents
Mean housing instability	1.3%	3.4%	3.4%	3.5%	3.6%	3.3%
By deportation context						
Q1	%6.0	3.1%	2.3%	5.7%	1.5%	3.1%
Q2	1.4%	3.0%	2.8%	4.0%	3.7%	2.8%
Q3	1.6%	3.8%	3.6%	2.2%	4.8%	3.8%
Q4	1.4%	3.4%	4.2%	2.0%	3.4%	3.4%
Observations	461,128	25,777	4,476	2,180	4,904	14,217

Source Author's tabulations of March CPS and Secure Communities data. Metro residents included are civilians ages one year and over, who lived in the U.S. during the preceding year, were not living in group quarters, and living in a county or state with an activated Secure Communities program



 Table 4
 Likelihood of metro resident reporting housing instability (2013–2016)

Variable	All metro residents	dents	Metro resident co-resides with:	ides with:		
			Both Hispanic & noncitizen residents	Non-Hispanic, non- citizen residents	Hispanic, U.S. citizen residents	Non-Hispanic, U.S. citizen residents
	_	2	3	4	5	9
Deportation rate	- 0.003*	- 0.003*	- 0.029***	0.002	- 0.010*	- 0.001
	(0.001)	(0.001)	(0.008)	(0.004)	(0.004)	(0.001)
Number of families in household	0.007***	0.001	- 0.012*	0.013**	0.005	0.004
	(0.001)	(0.002)	(0.006)	(0.005)	(0.005)	(0.003)
Deportation rate x number of families		0.004*	0.014**	- 0.002	0.001	0.002
		(0.002)	(0.005)	(0.003)	(0.003)	(0.002)
Age	- 0.000**	- 0.000***	- 0.000	- 0.000	- 0.000*	- 0.000**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sex	- 0.000	- 0.000	0.001	- 0.001	0.000	- 0.001
	(0.000)	(0.000)	(0.002)	(0.002)	(0.001)	(0.001)
Single parent household	0.001	0.001	- 0.003	0.002	0.002	0.001
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)
Num. of children under 5	- 0.000	- 0.000	0.001	0.001	0.001	-0.001*
	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.000)
Below poverty line	0.006***	***900.0	0.015***	0.005	0.005	0.004**
	(0.001)	(0.001)	(0.002)	(0.004)	(0.003)	(0.001)
1 + unemployed workers	0.013***	0.013***	0.010	0.012	600.0	0.015***
	(0.002)	(0.002)	(0.006)	(0.006)	(0.005)	(0.003)
Home owner	-0.024***	-0.024***	- 0.019***	- 0.017***	- 0.026***	- 0.024**
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)
Metro housing costs	0.012***	0.012***	0.010	0.015	0.018*	0.011***



Table 4 (continued)

Variable	All metro residents	dents	Metro resident co-resides with:	ides with:		
			Both Hispanic & noncitizen residents	Non-Hispanic, non- citizen residents	Hispanic, U.S. citizen residents	Non-Hispanic, U.S. citizen residents
	1	2	3	4	5	9
	(0.002)	(0.002)	(0.014)	(0.012)	(0.007)	(0.003)
Metro unemployment rate (White, non-Hispanic)	0.186**	0.185***	0.529*	0.308*	0.004	0.162**
	(0.046)	(0.046)	(0.206)	(0.150)	(0.099)	(0.056)
Metro unemployment rate (Black, non-Hispanic)	-0.022	-0.023	0.261*	0.317*	- 0.109	- 0.040
	(0.021)	(0.021)	(0.110)	(0.124)	(0.067)	(0.022)
Metro unemployment rate (Hispanic)	0.002	0.002	- 0.165	-0.199**	0.119*	0.012
	(0.015)	(0.015)	(0.104)	(0.068)	(0.056)	(0.017)
Units in structure (reference: one unit)						
Mobile home	0.004*	0.004*	- 0.008*	- 0.009**	0.005	***800.0
	(0.002)	(0.002)	(0.004)	(0.003)	(0.004)	(0.002)
2 family building	0.009***	***600.0	0.026***	- 0.003	- 0.001	***800.0
	(0.002)	(0.002)	(0.005)	(0.004)	(0.003)	(0.002)
3–4 family building	0.003*	0.004*	0.005	- 0.007	0.009	**900.0
	(0.002)	(0.002)	(0.004)	(0.004)	(0.006)	(0.002)
5–9 family building	0.004**	0.004**	0.019***	- 0.000	- 0.008**	**900.0
	(0.002)	(0.002)	(0.005)	(0.004)	(0.003)	(0.002)
10+units in structure	0.007	0.007***	0.012***	0.004	**600.0	***800.0
	(0.001)	(0.001)	(0.003)	(0.003)	(0.003)	(0.001)
Constant	-0.431*	-0.429*	- 0.781*	- 0.074	0.196	- 0.604



Table 4 (continued)

Variable	All metro residents	sidents	Metro resident co-resides with:	ides with:		
			Both Hispanic & noncitizen residents	Non-Hispanic, non-Hispanic, U.S. citizen residents	Hispanic, U.S. citizen residents	Non-Hispanic, U.S. citizen residents
		2	3	4	5	9
	(0.172)	(0.172)	(0.391)	(0.076)	(0.113)	(0.318)
MSA fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	461,128	461,128	49,053	27,089	68,105	316,881
R-squared	0.030	0.030	0.106	0.085	0.113	0.032

Standard errors in parentheses. \*\*\*p<0.001, \*\*p<0.01, \*p<0.05

Source: Author's analyses of March CPS and Secure Communities data. Metro residents included are civilians ages one year and over, who lived in the U.S. during the preceding year, were not living in group quarters, and living in a county or state with an activated Secure Communities program. Analyses also account for units in each structure. Figures reflect person-weighted observations



(hypothesis 3). The inverse association evident among residents living with both Hispanics and noncitizens ( $\beta = -0.029$ ; p<0.001) translates into a 17.4% lower likelihood of reporting instability.<sup>2</sup> Residents living with Hispanic, U.S. citizens (model 5) also report fewer instances of instability in high deportation contexts (a 6% drop in likelihood of instability).

Based on the interaction coefficients, regression results confirm that housing instability was more common among residents in shared households living with both Hispanics and noncitizens (Table 4). The positive relationship between instability and deportations among all metro residents (model 2) is driven by a select set of residents (model 3). The results are consistent with hypothesis 1b: housing instability as Hispanic noncitizen racialization. Since the positive interaction coefficient is limited to individuals living in shared households, we can interpret the interaction as evidence of hypothesis 2, or doubling up while experiencing instability. Among these residents living in shared households, 3.4% experienced housing instability during the study period – compared to 2.0% of all residents living with both Hispanics and noncitizens. Among residents that double up and live with Hispanics and noncitizens, living in high deportation areas is related to an 8.5% rise in the likelihood of experiencing instability (p < 0.01).

Among other metro residents in shared households, as displayed in the interaction results in Table 4 (models 4–6), deportation rates are weak predictors of instability. Among these groups, the magnitude of the interaction term (deportation rates x shared household) is not statistically significant when predicting instability. To illustrate what the results mean substantively among residents in households without Hispanics or noncitizens, the expected change in housing instability rises only minimally from a baseline instability rate of 1.11%. In addition to deportation rates, household poverty status, homeowner versus renter status, and metro-level unemployment also reliably predict housing instability.

To test whether the results hold for a different measure of shared households, I leverage a CPS measure of family types. In Table 5, after interacting deportations and family type (reference: primary family), the results are comparable to models in Table 4 predicting instability. First, the negative relationship between the main coefficient for deportations applies to individuals living with both Hispanics and

<sup>&</sup>lt;sup>4</sup> In model 6 (Table 4), the product of an annual change in deportations for residents in households with no Hispanic or noncitizen members (0.08) and the coefficient for the interaction term (0.001) is then divided by this group's instability rate (0.01); or (0.08\*0.002)/0.011=0.015 (or 1.5%).



Among metro residents living with both Hispanics and noncitizens, the estimate equals the main coefficient for deportations ( $\beta=-0.029$ ) from model 3 (Table 4) multiplied by the average change in deportation rates during the study period (mean: 0.12) and then divided by the housing instability rate for the group (mean: 0.02): (0.12\*-0.029)/0.02= (change in enforcement \* $\beta$ ) / mean instability = -0.174 or -17.4%. Results across all models exclude residents in unidentifiable metros, non-metro residents, residents with an unknown metro area status, and a small share of residents surveyed in 2013 where Secure Communities had yet to be activated.

<sup>&</sup>lt;sup>3</sup> Among metro residents living with both Hispanics and noncitizens, the estimate equals the interaction coefficient ( $\beta = 0.014$ ) from model 3 (Table 4) multiplied by the average change in deportation rates during the study period (mean: 0.12) and then divided by the housing instability rate for the group (mean: 0.02): (0.12\*0.0142)/0.02 = 8.5%.

**Table 5** Likelihood of metro resident reporting housing instability (2013–16)

Variable	All metro residents	lents	Metro resident co-resides with	des with		
			Both Hispanic & noncitizen residents	Non-Hispanic, non- citizen residents	Hispanic, U.S. citizen residents	Non-Hispanic, U.S. citizen residents
		2	3	4	5	9
Deportation rate	- 0.003*	- 0.003*	- 0.027***	0.004	- 0.009*	- 0.001
	(0.001)	(0.001)	(0.008)	(0.005)	(0.004)	(0.001)
Family type (reference: member of primary family)						
Related subfamily	0.004**	***600.0	0.037**	- 0.002	0.014*	0.003
	(0.001)	(0.003)	(0.012)	(0.004)	(0.006)	(0.003)
Non-family householder	0.002	- 0.000	- 0.020	0.039**	- 0.001	- 0.002
	(0.001)	(0.002)	(0.012)	(0.013)	(0.007)	(0.002)
Unrelated subfamily	0.013*	0.016	0.054	0.071	9000	- 0.001
	(0.005)	(0.009)	(0.032)	(0.039)	(0.016)	(0.010)
Other unrelated resident	0.012***	900.0	- 0.015	0.031	0.013	0.007
	(0.002)	(0.004)	(0.024)	(0.017)	(0.009)	(0.005)
Deportation rate x family type						
Deportation rate x related subfamily		- 0.004*	- 0.019*	0.001	- 0.007*	0.000
		(0.002)	(0.008)	(0.004)	(0.003)	(0.002)
Deportation rate x non-family householder		0.002	0.022*	- 0.026**	0.002	0.002
		(0.001)	(0.010)	(0.008)	(0.005)	(0.002)
Deportation rate x unrelated subfamily		-0.003	- 0.018	- 0.039	- 0.013	0.009
		(0.007)	(0.019)	(0.021)	(0.010)	(0.008)
Deportation rate x other unrelated resident		0.004	0.020	-0.011	- 0.001	0.002
		(0.003)	(0.016)	(0.012)	(0.006)	(0.004)
Age	- 0.000***	- 0.000***	- 0.000	- 0.000	- 0.000**	- 0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)



Table 5 (continued)

lable J (continued)						
Variable	All metro residents	lents	Metro resident co-resides with	des with		
			Both Hispanic & noncitizen residents	Non-Hispanic, non- citizen residents	Hispanic, U.S. citizen residents	Non-Hispanic, U.S. citizen residents
		2	3	4	5	9
Sex	- 0.001	- 0.001	0.001	- 0.001	0.000	- 0.001
	(0.000)	(0.000)	(0.002)	(0.002)	(0.001)	(0.001)
Single parent household	- 0.000	- 0.000	- 0.006*	- 0.000	0.001	0.000
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)
Num. of children under 5	- 0.000	- 0.000	0.000	0.001	0.001	- 0.001**
	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.000)
Below poverty line	***900.0	***900.0	0.015***	0.005	0.005*	0.004***
	(0.001)	(0.001)	(0.002)	(0.004)	(0.003)	(0.001)
1 + unemployed workers	0.013***	0.013***	0.010	0.012*	0.009	0.015***
	(0.002)	(0.002)	(0.006)	(0.006)	(0.005)	(0.003)
Home owner	- 0.024***	- 0.024***	- 0.020***	- 0.017***	- 0.026***	- 0.024**
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)
Metro housing costs	0.012***	0.012***	900.0	0.016	0.018*	0.010***
	(0.002)	(0.002)	(0.014)	(0.012)	(0.007)	(0.003)
Metro unemployment rate (White, non-Hispanic)	0.182***	0.180***	0.474*	0.298*	0.006	0.159**
	(0.047)	(0.047)	(0.206)	(0.151)	(0.099)	(0.056)
Metro unemployment rate (Black, non-Hispanic)	-0.022	-0.021	0.257*	0.317*	-0.110	- 0.040
	(0.021)	(0.021)	(0.109)	(0.124)	(0.067)	(0.022)
Metro unemployment rate (Hispanic)	0.001	0.000	- 0.184	- 0.200**	0.118*	0.012



Table 5 (continued)

idule 3 (continued)						
Variable	All metro residents	dents	Metro resident co-resides with	les with		
			Both Hispanic & noncitizen residents	Non-Hispanic, non- citizen residents	Hispanic, U.S. citizen residents	Non-Hispanic, U.S. citizen residents
	_	2	8	4	5	9
	(0.015)	(0.015)	(0.104)	(0.068)	(0.056)	(0.017)
Units in structure (reference: one unit)						
Mobile home	0.004*	0.004*	- 0.009*	- 0.010***	0.005	0.008***
	(0.002)	(0.002)	(0.004)	(0.003)	(0.004)	(0.002)
2 family building	0.009***	***600.0	0.026***	- 0.003	- 0.001	0.008***
	(0.002)	(0.002)	(0.005)	(0.004)	(0.003)	(0.002)
3-4 family building	0.003*	0.003*	0.005	- 0.007	0.008	**900.0
	(0.002)	(0.002)	(0.004)	(0.004)	(0.006)	(0.002)
5–9 family building	0.004**	0.004**	0.018***	- 0.001	- 0.009**	**900.0
	(0.002)	(0.002)	(0.005)	(0.004)	(0.003)	(0.002)
10+ units in structure	0.007***	0.007***	0.011***	0.002	**800.0	***800.0
	(0.001)	(0.001)	(0.003)	(0.003)	(0.003)	(0.001)
Constant	- 0.430*	-0.427*	- 0.756	860.0 –	0.194	- 0.607
	(0.172)	(0.172)	(0.390)	(0.081)	(0.112)	(0.319)
MSA fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	461,128	461,128	49,053	27,089	68,105	316,881
R-squared	0.030	0.030	0.106	0.085	0.113	0.032

Standard errors in parentheses. \*\*\*p < 0.001, \*\*p < 0.01, \*p < 0.05

Source: Author's analyses of March CPS and Secure Communities data. Metro residents included are civilians ages one year and over, who lived in the U.S. during the preceding year, were not living in group quarters, and living in a county or state with an activated Secure Communities program. Analyses also account for units in each structure. Figures reflect person-weighted observations



noncitizens (model 3) or with Hispanic U.S. citizens (model 5). Second, the lone positive interaction coefficient applies to residents living with both Hispanics and noncitizens (model 3), echoing earlier results. Specifically, non-family householders living with both Hispanics and noncitizens in high deportation contexts report more instability. The magnitude of the relationship (a 13.2% rise)<sup>5</sup> is similar to the interaction of deportations and number of families (an 8.5% rise noted above).

The above results are conclusive in one regard: there is no reliable and positive relationship between deportations and instability except among residents living with both Hispanics and noncitizens (hypothesis 1b) in shared households (hypothesis 2). However, the results are mixed. Since I also find a reliable and negative association between instability and the main coefficient for deportations (hypothesis 3), we can conclude the relationship between enforcement and instability depends on whether residents are doubling up. The negative association could mean residents living with both Hispanics and noncitizens may be (a) staying put to avoid detection from enforcement authorities and/or (b) the most likely to be missing from the CPS perhaps because they left the US. The discussion explores these possible explanations.

#### **Robustness Checks**

I conducted robustness checks to examine whether the main results above are sensitive to decisions regarding the dependent variable, different types of moves or movers, clustered standard errors, pre-existing trends that might account for variation in deportations, or the association between deportation rates and whether residents double up. Specifically, I analyze whether variation in enforcement (a) predicts not only housing instability but also other, positive kinds of moves; (b) predicts instability among movers who stay in the same county versus other movers; (c) is related to housing instability due to different types of reasons given for moving; (d) is associated with housing instability even when lagging deportation rates to an earlier (pre-Secure Communities) time period; (e) may be shaped by state-level factors; (f) stems from pre-existing trends in moving rates; or (g) predicts doubling up. I address each of these concerns next and detailed results are available upon request.

First, do deportations predict not only instability but also positive moves, and if so, among which residents? Thus far, I have argued deportation rates predict higher rates of instability among shared household residents with residing Hispanics and noncitizens. If enforcement is related to instability, then we might expect deportations to foretell differential moves due to positive life events – but in the opposite direction of the main results. Consider residents who moved because they "wanted new or better housing." When examining whether residents reported these positive moves (1: yes; 0 no) and employing the same approach as earlier, deportation rates predict *fewer* positive moves among shared household residents living with both Hispanics and noncitizens, although the relationship is not statistically significant.

<sup>&</sup>lt;sup>5</sup> In model 3 (Table 5), we recover this estimate as the product of a rise in deportations (0.12) and the interaction term (0.022) – deportation rate x non-family householder – which is then divided by this group's instability rate (0.02); or (0.12\*0.022)/0.02=0.132 (or 13.2%).



Conversely, places with high deportation rates predicted *more* positive moves among residents that did not report more instances of instability; namely, residents in shared households with only non-Hispanic U.S. citizens (p < 0.001), with non-Hispanic noncitizens (p < 0.001), and with Hispanic U.S. citizens (p < 0.001). These results are the inverse of the main results between instability and deportations. It seems deportations predict more instability for shared household residents living with those at most risk of exposure to enforcement, while counterparts less likely to be affected by deportations ended up improving their housing situation in areas with high deportations.

Second, the results suggest instability is more common among shared household residents living with both Hispanics and noncitizens. Do the results hold when analyzing instability among these residents who report moving within their county separately from those who move across the state or to another state? If we analyze instability among those who stayed in the same county, their likelihood of instability is similar to the results reported above: about an 8.6% rise in instability per annual change in enforcement (p<0.05). Similarly, comparing non-movers to those who relocated elsewhere in the same state due to instability, the results also hold and the likelihood of instability rises 11.9% (p<0.001). By contrast, predicting instability among interstate movers alone yields positive but unreliable estimates of the relationship between enforcement and instability (p>0.20), which may reflect a limited sample size of movers in this category. In sum, the main results are driven by intracounty and intra-state movers.

Third, can we differentiate across different reasons that metro residents gave when reporting instability? I examined whether the main results held across each of the three indicators of instability. Among residents living with Hispanics and noncitizens who were affected by housing instability, four out of five residents (79%) report having moved to "look for cheaper housing." When predicting whether residents move to find cheaper housing, the main results reported above hold: an 9.0% change in the likelihood of moving to find cheaper housing per annual change in deportation rates (p < 0.05). The remaining 22% of residents who live in shared households with Hispanics and noncitizens are split evenly between residents who report "foreclosure / eviction" and those moving "to look for work or lost job." When predicting instability due to looking for work or losing a job, changes in enforcement predict an 8.0% rise in the likelihood of this type of instability among these shared households although the relationship does not hold after accounting for metro-level fixed effects. Enforcement is a positive but not a statistically significant predictor of instability due to foreclosures or evictions reported in the CPS. In sum, the above analyses are driven mainly by instability related to the need to seek cheaper housing.

Fourth, might deportation rates reflect pre-existing, metro-level trends rather than enforcement intensity? Although the analyses account for metro- and year-fixed effects, variation in Secure Communities deportation rates may only be partially related to enforcement intensity. Fixed effects are included because unobserved trends may affect instability, but these cannot fully account for the non-random rise of deportations and the possibility that unobserved factors may account for the main results. Deportation rates might, for example, function as a proxy for underlying differences across metro areas that predisposed certain places to both deport more



noncitizens and create housing instability. In order to test for this possibility, I examine housing instability during a previous time period. I predict instability reported in the CPS between March 2005 and March 2008, which predates the Secure Communities program. In this scenario, deportation rates are lagged 10 years instead of two years in the above results, and deportations should not predict instability because those prior years precede the peak years of Obama-era enforcement. Lagging deportations rates to this prior time period, the variation of enforcement intensity (mean: 1.3; standard deviation: 0.6) parallels the variation in enforcement intensity in the analysis sample of 2013-2016 above. When using the same approach detailed earlier, an interaction between deportations and the number of families in a household predicts either fewer instances of instability or no difference in instability across each of the different types of metro residents. Although the relationship between deportations and instability holds during the time period where we observe the rise of mass deportations, the 2013-2016 time period followed the Great Recession and the earlier time period (2005–2008) coincided with expanding homeownership and housing expansion. It remains possible that other factors caused both deportations and instability to rise.

Fifth, do state-level differences in enforcement provide a possible explanation for the results above? Past research has examined the important role of states in shaping the implementation of Secure Communities and interior enforcement operations. Certain states adopted the program earlier than others, and DHS had pre-existing relationships with federal officials in charge of specific regions and states (Cox & Miles, 2013; Moinester, 2018; Pedroza, 2019). After adjusting standard errors to account for common variation among metros in the same state, the interaction term is not statistically significant across any of the models in the main results. As such, it is possible states influence variation in deportation and instability or that the number of respondents in the CPS across metro areas is insufficient to account for the role of metro contexts and states as drivers of variation in housing instability and deportation activity.

Sixth, does variation in residents' geographic mobility explain divergent enforcement outcomes, rather than the other way around? The results above suggest residents in high deportation areas also tend to report high rates of instability. In order to determine whether moving rates actually preceded a rise in deportations, I predict deportation rates across the nation's counties as a function of aggregate-level moving rates between 2005 and 2008. I find Secure Communities deportations are not more common in counties with elevated rates of geographical mobility, either with or without accounting for correlates of deportation activity (Cox & Miles, 2013; Pedroza, 2019). It does not appear Secure Communities deportations rose in response to pre-Secure Communities moving rates among either noncitizens or Hispanics.

Finally, if we treat doubling up as an outcome variable, is doubling up more common in high deportation areas? Based on the main results, we might expect deportations to predict a higher likelihood of doubling up. I find doubling up is more common in high deportation contexts, but the association is driven by residents living with U.S. citizens (either Hispanics or non-Hispanics). These residents may be more likely to double up if they lived in metros experiencing both a rise in enforcement



and a slow economic recovery. By contrast, I find residents living with both Hispanics and noncitizens are less likely to double up in high deportation metros; perhaps because doubling up is a longstanding strategy to make ends meet in established immigrant destinations with low rates of deportation. These results seem to run counter to the main findings presented earlier and may be due to a lack of information regarding when shared households formed. Although the CPS captures moves in the past year, we cannot distinguish between individuals who recently joined a shared household and those previously doubling up. We do not ultimately know which residents recently moved into a shared household, which makes it difficult to know whether these results (i.e., predicting doubling up as an outcome) are measuring effects comparable to the main results, but they should be taken into consideration.

#### Limitations

The merged CPS and deportation data afford insights into instability rates among respondents that include an over-sample of Hispanic residents. Nevertheless, the main limitation of using the CPS is the data exclude groups affected by instability, such as homeless populations including immigrants (Koball et al., 2015), deported immigrant families (Masferrer et al., 2019), and potential CPS respondents who moved, were not surveyed, and dropped out of the sample. Despite the over-sampling of Hispanic residents and the consistent results discussed above, both instability and doubling up among unrelated families comprise relatively small shares of the CPS. It is also possible the CPS undercounts Hispanic, mixed-status households, which is a limitation in similar data sources such as the Census where U.S.-born children with immigrant mothers remain undercounted (Johnson, 2022). Furthermore, although the CPS measures whether residents moved in the prior year, measures of doubling up and family type do not specify when residents have been living with multiple families or as an unrelated household member.

Another limitation of the paper is the lack of precise location information for certain residents. The CPS does not report the county where a mover lived a year before answering the survey, and the CPS provides a county identifier for a small share (5%) of non-metro residents. To attempt to address these issues, I assigned a state-level deportation rate to metro residents without an identifiable metro area, non-metro residents, and residents with missing values for metro status. Doing so yields similar results: high deportations predicted more instability but only for residents in shared, Hispanic households with noncitizens (a 7.6% rise in instability; p<0.01). Nevertheless, assigning state-level deportation rates may underestimate the relationship between enforcement and instability if, for instance, actual deportation rates experienced by residents who report instability in unidentified local areas are higher than their corresponding rate at the state level. As such, the lack of precise location



data among these respondents recommends caution when interpreting the results for these groups.<sup>6</sup>

In addition, other enforcement actions carried out solely by federal officials – and outside the involvement of county jails – are not reflected in the Secure Communities measure. These issues may underestimate the reach of deportation operations in metro areas by excluding a segment of the population affected by deportations. Prior research accounts for a possible source of this kind of downward bias on estimates of the relationship between enforcement and household composition. Recent work finds that enforcement is more strongly related to changes in living arrangements after measuring the shift-share of the immigrant population – by country of origin – to instrument for possible out-migration of immigrants as enforcement rises (Amuedo-Dorantes & Arenas-Arroyo, 2019). As noted in the data section, the CPS does not provide a precise location for residents living in non-metro areas. As a result, this paper cannot observe movers who relocated from metro areas to non-metro areas elsewhere in the same state. These issues suggest the association between instability and deportations may represent a lower-bound estimate.

Importantly, the analyses examine pooled cross-sections rather than a panel of residents. As a result, I cannot follow residents as they move and either form new households or join established ones. In addition, although residents report whether they live in a shared household, we do not know when such households were formed. These limitations recommend caution when interpreting the associations between instability and deportation rates, especially since moving to a different residence and living in a shared household can happen simultaneously. Longitudinal data analyses could help address these limitations and test whether families at highest risk of enforcement move in with other families.

Finally, prior research has noted the possibility of selective reporting of citizenship status and Hispanic ethnicity in restrictive climates (Leerkes et al., 2012; Light & Iceland, 2016). As such, the results may be sensitive to whether residents identify as Hispanic or a noncitizen depending on local levels of restrictionism.

Despite these limitations, the analyses leverage variation in enforcement and instability. The analyses leverage a nationally representative sample of metro residents to a nationwide measure of noncitizens' widely divergent contexts of reception. My results also offer unique insights into the conditions under which metro residents report instability across enforcement contexts. The results and robustness checks reported above suggest select residents in shared households (i.e., metro

<sup>&</sup>lt;sup>6</sup> State-level deportation rates among residents without a metro or county identifier (1.4) are similar and slightly higher than residents with a local identifier (1.3). The largest source of state-level variation among these residents stems from non-metro residents, which suggests caution when interpreting the results beyond metro residents. Excluding residents without a local deportation rate, who are mostly non-metro residents, the results are substantively the same: the likelihood of instability increases in high deportation contexts by 7.5% (p<0.01). Excluding residents without a local geographic identifier in states with the most sizeable intra-state variation in deportation rates (West Virginia, New Mexico, Mississippi, Indiana, California, Vermont, Utah, and Illinois) yields similar results: the likelihood of instability increases by 7.2% (p<0.01).



residents living with Hispanics and noncitizens) in high deportation areas are much more likely to report housing instability than other residents.

#### Discussion

Following a call (Sáenz & Manges Douglas, 2015) to examine how structural factors such as enforcement are related to individual outcomes, I examine the relationship between housing instability and deportation rates. Housing instability is a relatively rare phenomenon in U.S. metros (1.3% of metro residents), but select residents experienced rising instability during a time when deportations became increasingly commonplace. Shared household residents living with Hispanics and noncitizens – 96% of whom identify as Hispanic themselves and 86% of whom live in mixed-status households – and living in metros with high deportation rates tend to report especially high rates of instability. An average of 2.5 million metro residents lived in these shared households each year of the study period (2013–2016). 3.4% of these residents experienced housing instability, and the results suggest this rate of instability was higher than expected among residents in high deportation contexts. Specifically, the total number of metro residents reporting housing instability could have been 310,000 instead of 336,000 (or an 8.5% difference) during the four-year span of this study. To place the above results in context, heightened enforcement predicts a 20% rise in the propensity that a Hispanic, US-born child lives in a household headed by a single, female, and likely undocumented mother (Amuedo-Dorantes & Arenas-Arroyo, 2019) and a 4% rise in the likelihood of living in poverty among U.S.-born children with likely unauthorized parents (Amuedo-Dorantes et al., 2018). Notably, whereas enforcement predicts *more* instability among select members of the Hispanic immigrant community, moving into new or better housing in high enforcement metros was less common for residents living with both Hispanics and noncitizens and more common for other residents.

Why was the rise in instability limited to residents of shared households and living under the same roof as Hispanics and noncitizens? To begin, let us consider why instability may be more common among shared households. Past work ties enforcement operations to sudden and unexpected disruptions in the lives of families affected by deportation; which can lead to doubling up in order to cut down expenses and mitigate the unforeseen financial burdens in the aftermath of a family member's deportation (Baker & Marchevsky, 2019; Boyce & Launius, 2020; Chaudry et al., 2010; Koball et al., 2015). It is possible such a chain of events may help explain the results presented in the CPS analyses. Given the absence of a positive association between instability and deportations among other residents, the analyses rule out deportations as a predictor of instability beyond those at highest risk of exposure to enforcement: individuals co-residing with Hispanics and noncitizens. Since the vast majority of these residents live in mixed-status households, the consequences of instability can extend to U.S.-citizen children living with noncitizen family and household members. Of course, there may be other explanations for this coincident rise in deportations and instability. Absent detailed information on when residents doubled up and whether moves happened



after a family or household member was detained or deported, we cannot know for certain whether the observed rise instability stems directly from variation in the implementation of the Secure Communities program.

Alternatively, if select metros were predisposed to propelling a climate hostile to Hispanic noncitizens and these same locations also experienced disruptions to their housing markets, then attributing housing instability to deportation rates obscures other explanations. In response to rising enforcement, perhaps employers laid off workers at risk of deportation – as others have found when examining employment and wage effects of employer verification mandates (Bohn et al., 2015; Orrenius & Zavodny, 2015) and enforcement programs (Bohn & Santillano, 2017; East et al., 2018; Kostandini et al., 2014). In such a scenario, resulting lost wages could explain why this segment of the immigrant community reported a rise in instability.

If doubling up and layoffs help account for the rise in instability among shared households at highest risk of exposure to deportations, then why do we observe an inverse relationship between instability and deportations among those who are not in shared households? Two possible reasons might explain why these residents living with Hispanics (but not others) experiences less instability. First, qualitative research has shown immigrant families adjust to rising enforcement by hiding in "plain sight" (García, 2013, 2019; Menjívar & Abrego, 2012). Such strategies might explain the negative association between deportations and instability among individuals who stay under the radar in places with known risks rather than move and double up in new locations. Although the CPS does not include neighborhood-level information, qualitative research has found Hispanics have multiple options for evading exposure: either settling in Hispanic-majority and or Black-majority neighborhoods (Asad & Rosen, 2019).

Second, residents who did not double up may have moved away and dropped out of the survey. Research on immigrant location choice (for a conceptual overview, see Leerkes et al., 2012) has found changes in restrictionist policies can result in outmigration of immigrants (Bohn et al., 2013), the redistribution of immigrants away from the US-Mexico border (Bohn & Pugatch, 2015; Caballero et al., 2018), declining in-migration of immigrants to restrictive states (Ellis et al., 2016), and a decline in the unauthorized share of a state's population (Amuedo-Dorantes & Lozano, 2015; Good, 2013; Orrenius & Zavodny, 2016). Leveraging a larger sample of movers and non-movers in the ACS, recent work on interstate migration finds U.S. citizen Hispanics are more likely to leave states with exclusionary policy contexts (Orrenius & Zavodny, 2022). Since the results presented here suggest interstate movers do not reliably contribute to instances of instability, it is possible (a) interstate moving was tied to a rise in enforcement during an earlier time period when Secure Communities was first rolled out or (b) the current study represents another instance where immigrants – especially those with meager resources – remain connected to hostile policy climates rather than avoiding or leaving them (García, 2013; Koralek et. al., 2010; Pedroza, 2012; Schwarz, 2019; Wampler et al., 2009; Watson, 2013). It is also possible individuals left the US altogether rather than stay or double up. We know the number of immigrant households returning to Mexico rose dramatically as Secure Communities and the Great Recession took hold (Denier & Masferrer, 2020; Masferrer et al., 2019). The rising trend of return migration could help account for



the results if families consisting of deportees and their children leave the US – rather than double up or attempt to remain "hidden in plain sight" (García, 2014) as noted above – which means they are systematically omitted from the CPS. As a result, families who stay put in high deportation contexts would have an outsized influence on the results by making it appear as if these families are less likely to move in enforcement-heavy metros. Although the CPS reaches respondents who moved and stayed in the US – and asks these respondents whether they (or others living in their household) moved in the past year – it is possible selective attrition from the CPS rotating sample design affects the results.

Housing instability negatively harms household members experiencing change. Recent research suggests housing instability is often accompanied by changes in the cast of characters living under the same roof (Desmond & Perkins, 2016; Perkins, 2017), and that such household compositional changes are more common than previously understood (Raley et al., 2019). The setbacks associated with these changes (i.e., moving to a new home; losing or adding a household member) are associated with an index of negative outcomes (Rosenfeld, 2015). Among residents most likely to be affected by deportations, the loss of a parent (Amuedo-Dorantes et al., 2018) can introduce economic setbacks previously documented in studies of the effects of parental incarceration among U.S.-born populations (Geller et al., 2011).

I find housing instability in high enforcement metros seems to be a particularly discriminating source of housing inequality, as instability appears to touch the lives of select residents. It is possible that the patterns highlighted here may contribute to existing gaps in housing stability between Hispanic noncitizens, mixed-status households, and their networks, on the one hand, and the rest of the country for whom such instances are likely to remain invisible, on the other. In addition to reshaping the lives of those affected by family separation, deportations dislodge residents from the stability that an intact lease or mortgage represents. In general, the networkmediated benefits of social capital (Portes, 2010) can fray as deportations rise. Sociologists have referred to this phenomenon as "deporting social capital" (Hagan et al., 2015) and "deporting the American dream" (Rugh & Hall, 2016). The high cost of implementing restrictive immigration policies via the current system of deportation may erode immigrants' social capital, including investments in local housing markets. In addition to reporting more instances of instability, and unlike other metro residents, individuals sharing a household with Hispanics and noncitizens also experienced fewer positive moves. As a result, uneven enforcement exposes relative winners and losers among noncitizens living in welcoming versus hostile locations.

Frays in housing stability can also undermine housing stability for everyone, not just those affected. If the current rift in housing stability grows ever-wider, such inequality threatens to undermine housing markets more generally. For example, the threat of enforcement-related instability may embolden unscrupulous landlords and mortgage lenders to discriminate against people they perceive to be at risk of exposure to immigration enforcement. As Yinger (1995) wrote when discussing the costs of housing discrimination:

We all lose when the exclusion of minorities from some neighborhoods leads to disruptive change in others and thereby limits the neighborhood choices of



all households. We all lose when discrimination and its legacy undermine the productivity of some citizens and promote mistrust and intergroup conflict (p. 245).

Similarly, disrupting housing stability via mass deportations can undermine neighborhood choices. Recent evidence suggests enforcement has slowed a decline in White-Hispanic segregation trends (Rugh & Hall, 2018). Further constricting the location choices of a segment of the population can weaken everyone's housing options.

#### Conclusion

When specific locations invest in deepening and cementing paths to exclusion, the cost of ignoring eroding social capital and trust in public institutions will escalate. In the long term, rising housing instability has the potential to disrupt not only Hispanic noncitizens and their families – most of whom are mixed-status households with U.S. citizens and noncitizens – but also our shared economic and social future. Placing new barriers to opportunity and maintaining an increasingly uneven playing field is not sustainable for societies which place a high value on upward mobility, a growing economy of workers, and homeownership if the investments immigrant-origin households have made in this country become uprooted.

The tandem rise of immigration enforcement and housing instability may leave an imprint on local communities for a long time to come given the continued deportation of noncitizens. The Secure Communities program ended near the end of the Obama Administration, only to make a return in January of 2017. The Trump Administration rolled back earlier reforms of the program, such as the curtailment of the use of discretion to prioritize noncitizens arrested for high-level offenses. Housing instability could become more common among residents living in places with a renewed commitment to facilitating mass deportations. To complicate matters further, ICE no longer proactively release the deportation data used in this paper to measure changes in enforcement. Empirical evidence of the phenomena will need to rely on other sources of information on mass deportations. Under the Biden Administration, absent a moratorium on deportations or changes to federal immigration laws, ICE still has ample immigration enforcement capacity to deport large numbers of immigrants. Policy changes proposed by Congress, such as amplified access to legal representation and expanded relief from deportation, could lower the intensity of deportations.

The relationship between housing instability and deportations under Secure Communities raises the possibility of deepening housing inequalities between residents affected by enforcement and the rest of the country. Related and important questions regarding housing and immigration policy remain unanswered. Future research should examine the housing consequences of changes in immigration enforcement and how these create barriers for other aspects of immigrant families' lives. For example, even a seemingly small issue such as a change of address can result in losing access to local resources, networks, and services (Perreira et al., 2012).



Similarly, proposed changes regarding eligibility for safety net programs, including housing assistance, among immigrants can further erode housing stability. Examining the ramifications of losing one's housing means analyzing outcomes explored in this paper as well as related indicators of hardship and negative life events. For example, in addition to studying whether Hispanic immigrant residents move and lose their home, future work should also examine how the recent and unfolding enforcement landscape is related to housing discrimination (Turner et al., 2013) by landlords and housing entities, especially unlawful targeting of residents and prospective residents based on race, color, familial origin, and national origin. In addition, research on the housing effects of immigration enforcement should be informed by research on precarious and distressed housing (Pendall et al., 2016), and the role of policy and the built environment in reinforcing stratification (Massey et al., 2009; Rugh et al., 2015). Finally, efforts to expand tenant's rights and provide community-based housing assistance represent opportunities to study initiatives that can mitigate negative outcomes.

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