

How Mentions of Criminal Histories in Seattle Rental Listings Have Evolved with Tenant Screening Regulations

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Introduction

Facing severe affordable housing shortages, many cities in the U.S. and around the world are looking to regulatory remedies to expand access to affordable housing (c.f., Dovey, 2018; *Harvard Law Review*, 2018; O’Sullivan, 2016a; 2016b). During our case study period in Seattle, the City Council has passed several ordinances regulating the ways that property owners and managers (POMs) lease rental homes, including two that restrict the tenant selection process and which POMs largely oppose (Carll, Crowder, Herting, & Hess, 2018): 1) the First-in-Time ordinance (FIT), which required¹ POMs to rent an available home to the first qualified tenant who applied, and 2) a criminal records ordinance (CRO) that limits POMs’ ability to reject tenant applicants based on a criminal record. In this paper, we analyze recent Seattle rental advertisements (“ads”) and how POMs contend with criminal records vis-a-vis tenant eligibility. Specifically, we investigate whether and how the use and meaning of language around this topic changes over time along with the implementation of FIT (July 1, 2017) and CRO (February 19, 2018). Further, we ask whether trends in language usage regarding a rental applicant’s potential criminal history vary according to broader unit and neighborhood context. To do this, we use Seattle *Craigslist* rental ads from March 2017 to May 2018, tract-level American Community Survey data from 2012-2016, and new methods of text analysis (e.g., Structural Topic Models, GloVe word embeddings) that reveal how topic prevalence and word meaning change over time.

This research provides important insight about a topic social scientists do not yet understand very well: what happens when municipalities tighten regulations governing the application process for rental homes. We employ data collection and analysis methods that are both innovative and flexible, allowing us to quantify trends in language usage over time and dig into these trends qualitatively, as well as examine how broader unit and neighborhood dynamics may moderate patterns we observe. In doing so, we contribute to numerous literatures, including those on the residential mobility process and residential attainment, the role of POMs as gatekeepers to housing, policy interventions aimed at addressing residential stratification, and the collateral consequences of incarceration.

¹ This ordinance was in effect from July 1, 2017 to March 28, 2018, when it was deemed unconstitutional by the King County Superior Court. As of April 2018, the City of Seattle appealed to the Washington State Supreme Court to review the case (Groover, 2018).

Background

Substantial research suggests that where and how we live is vital to wellbeing, since it helps shape our physical and mental health, educational opportunities, income, wealth building, and more (c.f., Burdick-Will et al., 2011; Chetty, Hendren, & Katz, 2016; Chetty & Hendren, 2018a; Chetty & Hendren, 2018b; Eitle, 2009; Evans, 2006; Galster et al., 2007; Jencks & Mayer, 1990; Leventhal & Brooks-Gunn, 2000; Leventhal & Newman, 2010; Pattillo, 2013; Peterson & Krivo, 2009; Quillian, 2014; Sampson, 2012; White & Borell, 2011; Xie, 2010). And securing a place to live is a necessary step in the process of residential attainment. Yet, in environments with insufficient affordable housing stock--like in Seattle, as well as many other cities in the U.S. and throughout the globe--individuals with limited resources can face substantial difficulties competing for housing in the rental market (Madden & Marcus, 2016). First, cost is a barrier. While adequate housing has historically been insufficiently accessible for poor people in the U.S. (2016), struggling to pay for housing has become commonplace as rental housing costs have grown at a rate 20% faster than inflation since 1990 (Joint Center for Housing Studies of Harvard University, 2018). Nearly half of all renters are housing cost-burdened or pay more than 30% of their income for housing (2018). Of these 20.8 million households, over half (11 million) are severely cost-burdened, putting more than 50% of their incomes toward housing costs (2018). This can mean financial insecurity, even for households with high enough incomes that they might have avoided such precariousness in decades past. Further, the current state of rental housing may translate to particularly difficult conditions for the 15.5 million very low- and extremely low-income² households, for whom there is a significant deficit of affordable homes (2018). That may lead those households to live in housing and/or neighborhoods that they would not otherwise choose, and face a relatively high risk of displacement after a sudden sickness, injury, rent increase, or other unexpected expense. Perhaps reflective of these dynamics, homelessness rose in 2017, after 2016, when 1.4 million people spent at least one night in a U.S. shelter (2018). And while we might find particularly acute affordable housing shortages in “hot” markets like Seattle and San Francisco, accessibility is limited in mixed markets like Philadelphia and New Orleans and weaker markets like Baltimore and Detroit as well (Sherman, 2016). As a result, studying these dynamics in Seattle can be instructive for understanding broader residential dynamics in many other cities across the U.S. (and perhaps in other countries, too).

Aside from the conspicuous hurdle of drawing a sufficient income to afford housing, tenant applicants typically must also convince property owners and managers (POMs)--important gatekeepers in the rental housing search process--that they are the best candidate for a home (Rosen, 2014). This can be particularly difficult to achieve when a POM has many applicants to choose from, especially if a tenant applicant does not fulfill a POM's vision of what an acceptable tenant looks like. One ‘negative credential’ that can make standing out as a ‘desirable’ rental applicant especially unlikely is a criminal record. A growing body of literature suggests that time spent in prison negatively corresponds to the housing and neighborhood opportunities not only for the person who experienced incarceration, but for their families as well. Historically, many jurisdictions have systematically barred individuals with some criminal records from living in public housing, and those who have spent time in jail or prison face more housing instability, live in neighborhoods with fewer resources, and field a lower rate of

² “Very low-income” signifies income between 30 and 50% of the area median income (AMI) in a metropolitan area, sub-area, or county, while “extremely low-income” suggests a household earns less than 30% of AMI.

responses to inquiries about available rental homes (Carey, 2004; Geller & Curtis, 2011; Massoglia, Firebaugh, & Warner, 2012; Reosti, 2018). Moreover, the partners and co-parents of incarcerated men become more susceptible to eviction and other forms of unstable housing (Desmond, 2016; Geller & Franklin, 2014). Such negative repercussions have an important racial component and have significant implications for racial and ethnic residential stratification, since Black individuals and communities--and to a lesser extent, Latinx people--are disproportionately touched by the U.S. criminal system. For example, research that considers Black, Latinx, and White men in the U.S. finds that the respective proportions of those who spend time in jail or prison during their lifetimes is one-third, one-sixth, and one-seventeenth (Bonczar, 2003). In short, if a criminal record is a barrier to getting housing, that barrier disproportionately faces Black and Brown households.

In the context of far-reaching housing affordability issues, many cities in the U.S. and around the world have turned to regulatory remedies to improve access to safe and affordable homes (c.f., Dovey, 2018; *Harvard Law Review*, 2018; O'Sullivan, 2016a; 2016b). For its part, Seattle has passed several ordinances in recent years, including to regulate the cost and collection of move-in fees and expand source-of-income (SOI) protections for those who receive subsidies as part of their income. As part of this broader bill improving SOI protections³, Ord 125114, First in Time (FiT) was not passed to explicitly support tenant applicants with criminal records. However, it had in mind tenants who traditionally face difficulty accessing the private rental market, which includes individuals with criminal histories. At the same time, FiT required POMs to rent to the first *qualified* applicant, and since there were no existing laws banning discrimination against applicants with criminal histories, POMs faced no sanctions for explicitly disqualifying such applicants from living in their rental homes. Because FiT mandated that POMs list rental criteria on the ad (or include a link to an external site including this information), rental ads may have become more likely to mention disqualifying applicants with criminal records around the time the FiT ordinance went into effect on July 1, 2017. As a result, this could have increased barriers for people with criminal records at this early stage of the housing search process.

In addition to broader housing accessibility issues, the negative housing repercussions of criminal records in the U.S., while likely long recognized by affected communities, have also recently been gaining more attention among policymakers at the national and local level. In 2016, for example, the U.S. Department of Housing and Urban Development (HUD) issued guidelines suggesting that basing rental application rejections on criminal histories may be discriminatory. Then, in 2017 Seattle became one of a number of jurisdictions that has passed legislation to expand access to housing for people with criminal records (*Harvard Law Review*, 2018). In Seattle, the criminal records ordinance (CRO), Ord 125393, specifically bars POMs from running criminal background checks, though it is permissible to check sex offender registries and reject adult applicants if their sex-related crimes were committed in adulthood and the POM has a business reason for rejecting the applicant. Additionally, POMs are required to include a statement on tenant *applications* about checking sex offender registries (*Seattle Office for Civil Rights*, 2018). Following CRO going into effect in February 2018, POMs working to comply with regulatory requirements may add this language to their rental ads as well. On the other hand, Carll, Crowder, Herting, and Hess (2018) suggest that many POMs may not have

³ While FiT was part of a broader bill, FiT went into effect nearly ten months after the implementation of the rest of the ordinance, so it is possible to disentangle FiT from other features of this bill.

accurate knowledge about the ordinances, so they may therefore remove all language about criminal histories from their ads in an effort to avoid sanction.

All of this raises questions about how effective tenant selection regulations may be for expanding access to safe and affordable housing. Early related studies do not present optimistic findings. For example, work suggests that POMs have strategies to circumvent limits on their ability to select their preferred tenants, like failing to respond to potential applicants they deem undesirable (Reosti, 2018), and similar initiatives that ban employers from asking about criminal histories on job applications correspond to a rise in racial discrimination (Agan & Starr, 2016). Further, a recent survey of Seattle POMs suggests that these actors are strongly opposed to FiT and CRO. For example, less than one-eighth of POMs surveyed agreed that FiT would be effective, and just over one-quarter expected CRO to work. Moreover, about two-thirds of landlords reported that they would make their rental criteria stronger in response to a set of ordinances that included FiT, the broader regulations enhancing SOI protections, CRO, and an ordinance that regulated the setting and collection of move-in fees (Carll et al., 2018). Of those who responded to a follow-up question asking which ordinances would motivate stricter rental criteria, the most common answers were FiT and CRO (2018).

Though we have learned important lessons from existing related research, there remains much to discover about the ways that POMs respond to rental regulations and the implications this has for housing access, including whether and how POMs signal to applicants in their rental advertisements their openness, or lack thereof, to tenants with criminal records. Such language can contribute to residential stratification at an early stage of the residential search and mobility process by signaling who is and who isn't welcome to apply for a particular rental home. To begin to fill these gaps in knowledge, we examine the extent to which Seattle-based POMs change whether and how they address tenant applicants' criminal histories in rental advertisements in a temporal manner that is consistent with changes in related rental regulations. Further, we ask whether any such variation we find correlates to the cost of renting the home, features of the neighborhood housing market (average housing cost, the vacancy rate, and proportion of new buildings), and the racial composition of the neighborhood.

We anticipate variation in trends according to unit and neighborhood characteristics may exist because access to housing differs along these dimensions, and so POMs may take varying approaches to welcoming or excluding certain renters according to these variables as well. For example, a home with a low monthly rent may be relatively accessible for people with criminal records, who are likely to have less formal education and worse post-incarceration employment options than their never-incarcerated counterparts (Pager, 2003; Pager, Bonikowski, & Western, 2009; Pettit & Western, 2004). As a result, POMs advertising relatively affordable homes may consider the possibility of receiving an application from a person with a criminal record more salient and, if they do not want to rent to people with criminal histories, they therefore may be more proactive in avoiding renting to an individual with that negative credential. Neighborhoods with weaker housing markets may be similarly motivated to action like the POM of an affordable unit. And since White people are especially likely to hold punitive beliefs toward those who make contact with the U.S. criminal system, POMs who rent units in neighborhoods with relatively high concentrations of White people may seek to cater to a Whiter clientele--which, perhaps partly due to racial bias on the part of home appraisers, often corresponds to higher property values--and therefore such POMs may be more likely to avoid renting to individuals with criminal histories (c.f., Baker et al., 2005; Cochran & Chamlin, 2006; DeLisi, 2001; Howell &

Korver-Glenn, 2018). Because Black and Brown households are particularly likely to include a member with a criminal record, POMs who seemingly discourage potential tenant applicants with a criminal history could perpetuate or exacerbate existing ethno-racial residential segregation, which has declined marginally in recent decades for some pairs of racial groups (Black people and White people), but remains moderate-to-high for the largest groups in the U.S. (Bonczar, 2003; Logan, 2013).

Data & Methods

For our preliminary analysis,⁴ we used the *Helena* web-crawler to collect a set of 20,404 de-duplicated rental advertisements from the Seattle *Craigslist* apartments page posted between March 2017 and May 2018 (Chasins & Bodik, 2017). In doing so, we join a growing group of researchers using *Craigslist* ads to study rental market dynamics, including discrimination on the part of POMs in the tenant selection process, and others who praise the geographic and temporal precision of data of this kind (Carll et al., 2018; Glaeser, Kim, & Luca, 2018; Moore, 2017; Reosti, 2017). *Craigslist* data is also advantageous for this research because POMs use it widely in the Seattle context: based on a 2018 survey, a large majority of POM-respondents advertise their available rental units on *Craigslist* (about 69%) and very few POMs who advertise rental housing online exclusively employ platforms *other* than *Craigslist* (about 6%) (Carll et al., 2018). The data we scraped include the date of the listing, asking rent, the number of bedrooms in the home, number of bathrooms, the areal size of the home, the address, and the text describing the unit, rental criteria, etc. To assess the possible moderating influence of neighborhood factors, we geocoded the advertisements using address data⁵ and then linked them to tract-level American Community Survey 5-Year Estimates for 2012-2016. We employ listings for units in King County, WA, which includes Seattle and many surrounding areas like Redmond and Bellevue, but excludes the large nearby city of Tacoma. Data collection is ongoing and we expect to be able to include listings posted through February 2019, as well as data from Tacoma in our final analysis. While the former will allow us to assess a longer period of time so that we may control for seasonality, the latter--along with data from broader King County outside of Seattle--will allow us to conduct difference-in-difference sensitivity tests to examine whether our results are similar in jurisdictions that have not seen the same regulatory changes as Seattle and are both geographically near and somewhat farther from the city of focus.

We begin our analysis with basic keyword prevalence analysis. We mark the average prevalence of stems and phrases that our familiarity with relevant language as well as with the dataset suggests might indicate discourse about criminal records in rental listings. We consider a list of stems: 'crim' (which includes words like 'criminal' and 'crime'), 'record', 'felon', 'violen', 'drug', 'vandal', 'sex', 'assault', 'convict', 'prior', 'evict', 'safe', and 'secur'.

Moving forward, we will follow a three-step analysis process, which Nelson's (2017) computational grounded theory inspired. In the first step, we will use unsupervised models on a training data set to look for changes in discourse. A Structural Topic Model (STM) will broadly test whether word co-occurrence changes systematically in our study window, paying special

⁴ All the code for the analysis in this paper is freely available online:
<https://github.com/ikennedy240/sirglove>

⁵ We are typically able to get full address data and, therefore, in these cases, we geocode to the center of the building. When precise address data is not available, we base geocodes on cross-streets.

attention to moments of policy implementation. Also during this unsupervised setting we will use GloVe word-embeddings to examine the change in use, rather than in prevalence, in our study period (c.f., Li et al., 2017, Garg et al., 2018). By comparing word embeddings for words like 'crime' before and after policy implementation, we aim to investigate how the relative meaning of those words changed before and after the policies went into effect. Second, we will conduct a close reading of sample texts that our analyses identify as representative for particular topics. Third, we will repeat steps one and two with our test data set to assess the validity of our findings.

Finally, we will conduct count models to determine the extent to which these results differ by unit and neighborhood characteristics. The dependent variables in this case will be counts of mentions within ads that correspond to an identified topic of interest; we will account for the number of advertisements observed across the areal units. We will run separate models for each of the topics we identify as common through the word embedding process. We are able to examine our findings over time (by week or month and pre-post ordinance) and can interact time with unit and neighborhood characteristics. Further, we can depict non-linear or spline models in our approach to time as appropriate.

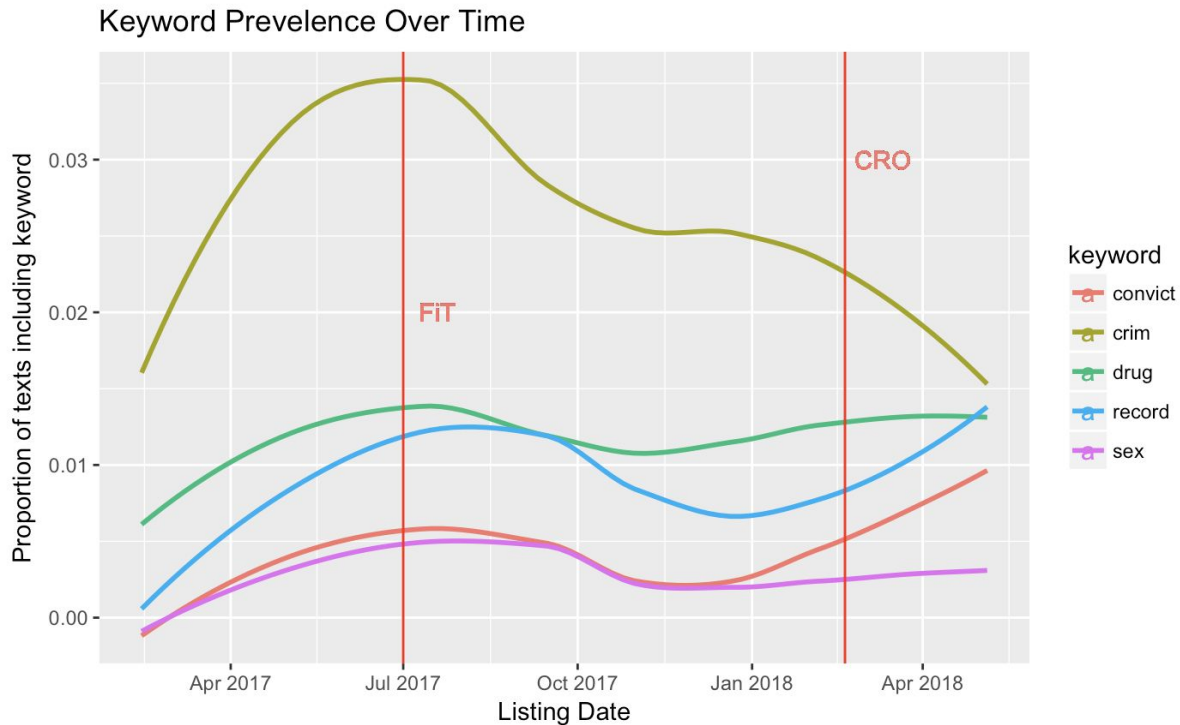
Preliminary Results

We present results of the basic keyword prevalence analysis in Figure 1 (page 7), which features several stems whose representation in *Craigslist* rental ads has changed over time in a manner that may be consistent with the passage of FiT and CRO: 'crim', 'convict', 'record', 'sex', and 'drug'. First, 'crim' is the most common keyword throughout the time period. At its peak, 'crim' is present in about 4% of ads, which represents a tripling in prevalence by the time FiT goes into effect. However, its representation in rental ads returns to its original 1.5% of ads by the end of the timeframe. The prevalence of this stem is at least twice that of each other stem until the run-up to CRO going into effect, around January 2018, at which time the prevalence of each word is between about 0.6% and 1.5%. While the representation of all of these stems increases as the passage of FiT approaches, those other than 'crim' see an overall increase across the time period we depict. Additionally, 'convict' and 'record' increase after CRO goes into effect. For readability, we present Figure 1 without confidence intervals (CIs), though it is noteworthy that there is significant overlap in the CIs for 'convict', 'drug', 'record', and 'sex.'

Preliminary Conclusions & Next Steps

Preliminary results suggest that the language in *Craigslist* rental ads is responsive to regulatory shifts in Seattle, with the prevalence of keywords shifting around the times that FiT and CRO went into effect. While these findings are suggestive, we have important analysis plans to broaden and deepen our understanding of whether and how language patterns in rental ads have indeed changed in response to regulatory changes. As discussed above, we will incorporate STM, word-embeddings, discourse analysis, and sensitivity analyses (training and test sets, comparing findings in Seattle to those in broader King County and Tacoma, WA). Further, we will incorporate additional analyses to test whether our findings vary based on unit rent and tract-level characteristics. Finally, we will assess the possible spuriousness of our results by considering whether non-regulatory dynamics in Seattle may have been influential. We will identify such dynamics through close examination of Seattle news, as well as by presenting our findings to members of local POM organizations and leveraging their expertise for ideas.

Figure 1



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