Journal of Urban Economics 70 (2011) 99–114

Contents lists available at ScienceDirect

Journal of Urban Economics

www.elsevier.com/locate/jue

Do landlords discriminate in the rental housing market? Evidence from an internet field experiment in US cities

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ARTICLE INFO

Article history:
Received 25 May 2010
Revised 6 February 2011
Available online 11 March 2011

JEL classifications:
J15
C93

Keywords:
Racial discrimination
Rental housing
Field experiment

ABSTRACT

This paper tests for racial discrimination in the rental housing market using matched-pair audits conducted via e-mail for rental units advertised on-line. We reveal home-seekers' race to landlords by sending e-mails from names with a high likelihood of association with either whites or African Americans. Generally, discrimination occurs against African American names; however, when the content of the e-mail messages insinuates home-seekers with high social class, discrimination is non-existent. Racial discrimination is more severe in neighborhoods that are near "tipping points" in racial composition, and for units that are part of a larger building.

1. Introduction

Inequality in housing market outcomes between African Americans and whites is staggering. African Americans have worse outcomes than whites in terms of housing unit quality and quality of neighborhood.[1] Data from the 2007 American Housing Survey shows that African Americans are two times more likely than whites to have recently seen a rat in their unit; 30% more likely to report that the water in their unit is unsafe for drinking and cooking; 60% more likely to report a serious crime occurring in their neighborhood in the previous year; and two times as likely to report being dissatisfied with the neighborhood elementary school.

Unequal outcomes between African Americans and whites could be the result of correlation between race and income, sorting based on the level of local public goods, or difference in preferences across racial groups. A more sinister (and illegal) source of racial inequality in the housing market is discrimination against African Americans, the focus of this paper. This paper identifies discrimination in the rental housing market using matched-pair audits, by contacting landlords via e-mail about rental units advertised through a popular on-line venue. We highlight the race of home-seekers to landlords through the name attached to each e-mail inquiry, using names with a high likelihood of association with either whites or African Americans. We also test how the interaction between race and social class effects landlord response to e-mail inquiries by altering the type, in terms of the writing style, spelling, grammar, salutation, and valediction, of e-mail sent to landlords.

This paper makes three contributions to the existing literature on racial discrimination in the housing market. First, we use an on-line venue to conduct an audit-style experiment via e-mail correspondence with landlords in the United States. E-mail correspondence is advantageous in an audit-style study because it does not rely on actors, who may have different appearances, styles, or bring personal bias to the study. Second, by manipulating the language in e-mail inquiries, we examine the interaction between race and social class. We create two classes of e-mails, "high" and "low" based on the content of the message and augment our experiment between races to include between class within race and between class across race groups. Third, we test for discrimination across neighborhood and housing unit characteristics, including racial composition.

Overall, our results reveal a net level of discrimination of 4.5% points against African American sounding names, statistically significant at the 1% level and consistent with previous studies of racial discrimination in the housing market. When e-mail inquiries imply the African American is of higher social class, racial discrimination is small and not statistically different than zero – a unique finding in the literature. When e-mail inquiries imply that both

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[1] Unit and neighborhood quality are direct outcomes in the housing market. Indirectly, the consequences of racial segregation in the housing market are also important. See Cutler and Glaeser (1997) for an examination of the effects of racial segregation in the housing market on employment and education outcomes. See Cutler et al. (1999) for an examination of the causes of racial segregation and how it has changed throughout American history.

0094-1190/$ - see front matter
doi:10.1016/j.jue.2011.02.003

races are of lower social class we find a larger (6% points) level of net discrimination against African Americans. The presence and severity of discrimination also varies across cities in our sample and by neighborhood and unit characteristics. Discrimination is more severe in neighborhoods that are close to ''tipping points'' in racial composition as described in Card et al. (2008), and for units advertised as part of a larger apartment building.

The next section of the paper is a discussion of the previous research on discrimination in the housing market and places our work in context. Section 3 describes our experiment. Section 4 presents some descriptive statistics of the housing units in our sample and their surrounding neighborhoods. Section 5 presents the results of our experiment. Section 6 discusses the robustness and external validity of our results. The final section of the paper concludes.

2. Previous research on racial discrimination in the housing market

The primary method used to test for discrimination in the housing market is an audit, or matched-pair study.[2] In an audit study, two subjects (one from the majority racial group and one from the minority) are matched based on observable characteristics (excluding race) and trained how to act toward a real estate agent or landlord. The subjects are sent (in random order) to a landlord or real estate agent's office to inquire about an advertised housing unit.[3] Typically, subjects will report if they are shown the advertised unit, if they are shown similar units, how many additional units they are shown, and potentially several other objective measures of treatment.[4]

Studies of discrimination using in-person audits include; Yinger (1986), Page (1995), Ondrich et al. (1998), Ondrich et al. (2000), and Ondrich et al. (2003), Zhao (2005), and Zhao et al. (2006). Yinger (1986) examines the Boston housing market using unique data, the other studies use data from the Housing Discrimination Study (HDS) conducted by the Department of Housing and Urban Development. These studies all find significant discrimination against African Americans, and show discrimination occurs in terms of being told a unit is available, the number of housing units shown, realtor follow-up communication, and effort on the part of the real estate agent.

Using audits to study discrimination in the housing market has several advantages over methods that do not have a rigorous control-treatment design. First, because the level of observation is the landlord or real estate agent, any personal characteristics that may affect discriminatory outcomes are held constant. Second, audits allow for a direct test of discrimination in the housing market that is not confounded by discrimination in other markets. For instance, discrimination in the lending market confounds using sales price differences to measure discrimination in the housing market. Finally, if done correctly, the race of each auditor is the only characteristic that varies between members of an audit pair.

Despite the benefits of audits, there are problems with using them to study discrimination in the housing market (see Heckman (1998) for a detailed description of the problems with in-person audit studies). Heckman and Siegelman (1993) note that in-person audits rely on how comparable the actors in an audit are. In order for the audit to be truly unbiased, actors must be identical along all dimensions except race. Any matched-pair audit using human subjects certainly violates this assumption, but proper choice and training of actors diminishes the severity of the problem.

In addition, actors in an audit may bias the study with their own personal beliefs about discrimination. For example, if actors from one race have prior beliefs about discrimination, they may be more likely to report discriminatory behavior, or they may act to prompt discriminatory behavior in subjects. In-person audits are also complicated by the time elapse between visits to the landlord or real estate agent and actors that are not exposed to the same agent despite visiting the same office and making the same inquiry. These problems are almost entirely a function of using actors to perform audits in an in-person setting, rather than the audit design itself.

Ahmed and Hammarstedt (2008) apply the audit technique to housing market interactions that take place via on-line advertisements and e-mail correspondence. Specifically, Ahmed and Hammarstedt examine a Swedish housing advertisement website, Blocket.se, to study racial discrimination between native Swedes and the Muslim minority, and find significant discrimination toward Muslims. More recently, Ahmed et al. (2010) and Bosch et al. (2010) study how the interaction between positive information and race affects landlord discrimination. Ahmed et al. (2010) find that while information (including marital status, employment information, age, and education level) does increase the response to minority applicants, it does not decrease the difference in response between native Swedes and the Muslim minority. Bosch et al. (2010) find discrimination against the Moroccan minority in Spain, and that positive information increases the chance of being contacted, but does not eliminate discrimination.

There are two other studies we are aware of that use on-line housing market interactions in the United States to study discrimination – Carpusor and Loges (2006), and Ewens et al. (2009) – although neither uses an audit-style design so they cannot completely control for landlord characteristics or determine how often landlords treat auditors equally. Carpusor and Loges (2006) find discrimination against both African American and Muslim sounding names in the Los Angeles rental market. Ewens et al. (2009) study a broader range of cities than Carpusor and Loges and vary the information supplied to landlords (information about occupation and smoking preference, for instance). They find that African American home-seekers receive nine responses for every 10 a white home-seeker receives, and that including positive information does not affect the response rate difference between races.

Our paper adds to the existing literature on racial discrimination in the housing market in several ways. First, we apply the audit-style design to an on-line market in the United States. While previous research has applied the audit-style design to on-line markets in other countries, or used an on-line venue to study discrimination in the United States, we are the first to combine these two features. The audit technique is an improvement over other on-line studies of US markets as it removes any landlord specific effects and allows us to directly observe landlords practicing equal treatment or discrimination.

Second, we introduce the notion of social class into our experiments by changing the language in our e-mail correspondence with landlords. This allows us to test if the interaction between race and social class is important and if discrimination varies with social class. Although, we cannot prevent landlords from inferring traits besides race about the names in our study, we attempt to influence them into inferring something about the social class of the auditors and test how this matters for response. We also perform several robustness checks, excluding names by religious affiliation, uniqueness, or differential responses by geography, to test

[2] There are also several studies that attempt to identify housing market discrimination using price differentials (either from transactions or reported values) between racial groups controlling for observable differences in unit and owner characteristics. Unobservable variables at the owner, unit, or neighborhood level have the potential to confound this method of identification. See Knowles-Myers (2004) for a recent example of this method and for a review of previous studies that identify discrimination using price (or reported value) differentials.

[3] Typically, researchers randomly draw housing units from local newspaper advertisements. Geographic coverage of audits has varied substantially, from using a single metropolitan area up to 25 different areas in the same study.

[4] See Ross and Turner (2005) for a listing of all measures used in the 2000 Housing Discrimination study conducted by HUD.