Rental Market Discrimination against Same-Sex Couples: Evidence from an Email Correspondence Audit

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Abstract

I present the results of a randomized matched-pair email correspondence test of 6,490 unique property owners in 94 U.S. cities to provide a nationally-representative estimate of the level of discrimination that same-sex couples experience when inquiring about rental housing. I find that same-sex male couples, especially non-White same-sex male couples, are less likely to receive a response to inquiries about rental units. I also find that same-sex Black male couples are subject to more subtle forms of discrimination than heterosexual Black couples. I then examine if state and local anti-discrimination laws covary with rates of housing discrimination against same-sex couples. While my results are not causal, I find that anti-discrimination laws have an ambiguous relationship with rates of discrimination faced by same-sex couples. State-level housing protections, for example, covary positively with response rates for same-sex Black male couples, while local-level laws covary negatively with response rates for these couples.

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Introduction:

As of 2018, it was legal for property owners to discriminate against lesbian, gay, bisexual, transgender, and queer (LGBTQ) individuals in 28 U.S. states.[1] Sexual orientation and gender identity are not protected classes under the U.S. Fair Housing Act of 1968, and no subsequent federal legislation has provided protections for the LGBTQ community.[2] While housing discrimination against the LGBTQ community has received limited attention from federal lawmakers or, until somewhat recently, scholars, it is a key concern within the LGBTQ community. In a 2015 survey of self-identified LGBTQ individuals, 73 percent of respondents were "strongly concerned" about housing discrimination by real estate agents, home sellers, property owners and/or neighbors (Better Homes and Gardens Real Estate and National Association of Gay and Lesbian Real Estate Professionals 2015). Most of the estimates of the level of housing discrimination experienced by LGBTQ-identified individuals comes from survey studies (Kaiser 2000; Colin 2004; Herek 2009a, 2009b; Grant, Mottet, and Tanis 2011). These studies consistently find evidence that LGBTQ-identified individuals are discriminated against when searching for housing. However, these studies are potentially non-representative, may suffer from non-response bias, and likely

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[1] Defining what constitutes discrimination is not without controversy. See Yinger (1998) for a summary of the legal and scholarly definitions. This paper will take a broad definition of discrimination: any disparate treatment because of their membership to a particular group (e.g. race and/or sexual orientation) that I measured via differential response rates to inquiries for housing between same-sex couples and heterosexual couples.

[2] The Fair Housing Act, or Title VIII of the Civil Rights Act of 1968, prohibits discrimination in the sale, rental, and financing of housing or in other housing-related transactions because of race, color, religion, national origin, sex, familial status, and disability. In 2012, the Department of Housing and Urban Development (HUD) published its final "Equal Access to Housing in HUD Programs Regardless of Sexual Orientation and Gender Identity," which prohibited making a determination of eligibility for HUD-assisted or HUD-insured housing on the basis of sexual orientation or gender identity (Department of Housing and Urban Development, 24 CFR Parts 5, 200, 203, 236, 400, 570, 574, 882, 891, and 982; volume 77, No. 23 – Friday, February 3, 2012). However, this is an agency rule and can be amended or revoked with a change in unilaterally within the executive branch. As of June 2018, this rule remains in place under the Trump Administration and can be accessed at:
https://www.hud.gov/sites/documents/ 12LGBTFINALRULE.PDF

only capture blatant forms of discrimination (not more subtle forms of discrimination, such as non-response to housing inquiries or the quality of the property owner's response).

Scholars have recently begun to quantify the level of discrimination faced by the LGBTQ community in the United States using more internally-valid methods, notably housing audits and correspondence tests. Friedman et al. (2013), Levy et al. (2017), and Murchie (2017) find that same-sex male couples do experience less favorable treatment relative to same-sex female couples and heterosexual couples. With the exception of Friedman et al. (2013) and Murchie (2017), the existing research does not provide nationally-representative estimates of housing discrimination against same-sex couples. These nationally-representative studies, however, have two limitations. These scholars test property owners in the largest 20 to 50 municipalities, the majority of which have state or local (i.e. city-specific) housing protections for same-sex couples. Therefore, it is possible that these studies underestimate the level of housing discrimination faced by same-sex couples in localities without such protections. These scholars also only examine property-owner response rates to housing inquiries sent by same-sex couples, they do not test if property owners practice subtle discrimination. That is, do same-sex couples experience poorer treatment, such as more negative responses and longer wait times for a response, than their heterosexual peers? Moreover, no study has empirically tested if state or local anti-discrimination laws for same-sex couples covary with higher or lower rates of discrimination compared to localities without these protections.

In this paper, I explore these questions using data gathered from a matched-paired email correspondence field experiment. Between December 2016 and March 2017, I tested 6,490 randomly-

selected unique property owners[3] in 94 cities who posted rental units on Craigslist.org[4]. I sent each property owner two emails—one containing a signal that the inquiring couple is a same-sex couple and the other containing a signal that this is a heterosexual couple—to estimate the rate of discrimination against same-sex couples at the property-owner level. I find that same-sex male couples are 4.6 percentage points less likely to receive an active response to their housing inquiry than is a heterosexual couple. These results vary significantly by race. Black same-sex male couples are the group least likely to receive a response. Compared to Black heterosexual couples, Black same-sex male couples are 5.6 percentage points less likely to receive a response. This rate is, compared to their own-race heterosexual peers, 5.2 percentage points for Hispanic same-sex couples and 4 percentage points for White same-sex couples. I find no evidence the property owners discriminate against same-sex female couples, which is consistent with prior scholarship (see Ahmed, Andersson, and Hammarstedt 2008).

I then extend the existing literature on housing discrimination against same-sex couples in two ways. This is the first study to examine if property owners practice subtle discrimination. I find that property owners are more likely to use negative language (e.g. inquiring about evictions, mentioning fees, etc.) when responding to emails containing non-White names than to emails containing White names. I

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[3] Property owner is a generic term I used in this paper to refer to the property manager, the property owner, the "landlord," or the real estate agent who publically posted the rental unit on Craigslist.org and is responding to the housing inquiries that I sent. Examining if property owners versus property managers are more or less likely to discriminate against same-sex couples is beyond the scope of this paper, but is a worthwhile topic for future studies to examine. To ensure that each property owner is a unique property owner, I collected email address, GPS coordinates for each property, information on the property management company if provided, phone number (if provided), post title, post identification number, and other identifiable information. I de-duplicated all scrapped ads based on these parameters prior to contacting the property owner. Note: property location, the name of the property management company, and property-owner identifiable information were not retained after duplicate ads were removed.

[4] Hereafter: "Craigslist". Craigslist.org is a major free local classified and forum website that is popular for jobs and housing searches. There are 80 million unique classified ad posts (across all service types) each month and more than 60 million monthly users of Craigslist each month (50 billion page views / month). It is an extremely popular site for email correspondence tests, see: Hanson and Hawley (2011) and Murchie (2017).

find no evidence that property owners are taking more time responding to or sending shorter emails to same-sex couples compared to heterosexual couples. This is also the first study to investigate if state and local anti-discrimination laws covary with higher or lower response rates for same-sex couples, which I also examine by race. I find that Black same-sex couples are more likely to receive a response in localities within states with state-level protections, but they are less likely to receive a response in localities with local-level protections.

I begin this paper by describing the current state of housing protections for same-sex couples in the United States. I then provide a brief review of the theory on housing discrimination, summarize the small body of literature that currently existing examining housing discrimination against same-sex couples and the LGBTQ community, and the details my correspondence study. I then provide the results of my study, and I conclude this paper by discussing avenues for future research and the policy implications of my findings.

Anti-Discrimination Housing Laws in the United States for Same-Sex Couples

No federal law explicitly prohibits discrimination based on sexual orientation or gender identity. In 1974, Representatives Bella Abzug and Ed Koch introduced the Equality Act. Congress did not pass the Act, which would have prohibited housing discrimination based on sexual orientation nationwide. Under the Obama Administration, the Department of Housing and Urban Development posted a public statement that discrimination against an LGBTQ individual "may be covered by the Fair Housing Act if it is based on non-conformity with gender stereotypes."[5] Additionally, HUD has an internal departmental policy that prohibits housing providers who received HUD or Federal Housing Authority funds from

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[5]https://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/LGBT_Housing_Discrimination. Accessed: 1/9/2017. 77 Federal Registration. 5662, 5674 (Feb. 3, 2012)

discriminating against a tenant based on sexual orientation (HUD 2017). This policy was codified under

the Obama Administration and remains in place under the Trump Administration. [6]

With federal inaction, many states, counties, and local municipalities have begun to enact their

own local anti-discrimination laws. At the time I conducted this study, 22 states and hundreds of local

municipalities had comprehensive state and local-level anti-discrimination laws in place to protect same-

sex couples in the housing market. As of 2018, 28 still do not have anti-discrimination laws, and the 22

states that prohibit discrimination based on sexual orientation also prohibit discrimination based on

gender identity except for Wisconsin (Human Rights Campaign Foundation 2018). To explore

municipal-level protections, this study relies on the 2016 Human Rights Campaign (HRCF) Municipal

Equality Index (MEI), which "examines the laws, policies, and services of municipalities and rates them

on the basis of their inclusivity of LGBTQ people who live and work there" (HRCF 2016). This paper uses

a subcategory of the MEI's non-discrimination law section, which examines housing protections.[7] The

MEI identifies laws or ordinances at the state, county, and city-level that prohibit discrimination against

same-sex couples. This paper uses GPS coordinates on the tested properties to verify that these

properties are located in a locality with LGBTQ protections or a locality without a protection. For

example, Tampa, Florida has a local LGBTQ non-discrimination ordinance, but the state of Florida and

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[6] The Seventh Circuit Court of Appeals ruled, in April 2017, that the Fair Housing Act's ban on sex discrimination did apply to the case of two married plaintiffs, one of whom was transgender (see: *Smith & Smith v. Avanti*, 2017). This is not a national ruling and does not apply to same-sex couples. The Trump Administration submitted an amicus brief in this case that argued the ban on sex discrimination in the Civil Rights Act of 1964 does not prohibit discrimination based on sexual orientation

[7] The MEI assigns a numerical value to a municipality's housing protections: 0 points for no protections, 5 points for prohibiting housing discrimination based on sexual orientation, and 10 points for prohibiting discrimination based on both gender identity and sexual orientation–129 of the 186 municipalities analyzed by the HRFC have housing protections. Fourteen municipalities (11 percent) prohibit discrimination only based on sexual orientation and the remaining 115 prohibit discrimination based on both sexual orientation and gender identity.

Hillsborough County, where Tampa is located, does not. In the Tampa rental market, any properties with GPS coordinates within the city of Tampa are included in the local protections category.

Housing Discrimination against Same-Sex Couples: Theory and Evidence

There is a robust theoretical and empirical literature on housing and labor market discrimination. (Allport 1954; Becker 1973; Phelps 1972; Arrow 1973). With respect to same-sex couples, one theoretical framework posits that property owners hold a "taste for discrimination," and there is thus a disamenity value to housing and renting to same-sex couples (Becker 1973). In this taste-based model, the prejudicial agent pays an economic penalty (in the form of lower rents or more risky tenants) for their prejudice against the minority community. However, in rental markets where there is high rental demand and a pool of highly-qualified rental-unit applications, it is unlikely that a prejudicial agent will suffer any economic penalty (assuming there is no social or legal penalty to their discrimination). In this instance, property owners will engage in cherry-picking—seeking high-quality tenants that conform to their socio-economic and demographic preferences. In a correspondence study, the prejudiced property owner is most likely to exercise their prejudice by not responding to a housing inquiry from a qualified same-sex couple.

Property owners may also have limited information about prospective tenants, and thus use race, ethnicity, and/or sexual orientation as a signal for unobservable characteristics that are correlated with market interactions (Phelps 1972; Arrow 1973; Yinger 1995; Ross and Turner 2005). If there is a perception among property owners that same-sex couples are a greater housing risk than heterosexual couples, then property owners may respond less frequently to them. Researchers have found that gay male workers earn between 10 to 30 percent less than their equally-qualified heterosexual peers and employers are more likely to discriminate against openly gay candidates in the hiring process (Tilcsik

2011; Lee Badgett, Lau, Ho and Sears 2007; Lee Badgett 1995).[8] If property owners believe that same-sex couples are less likely to be able to afford rent or more likely to lose their job due to discrimination, then they may be less likely to respond to a housing inquiry from a same-sex couple.

The location of the property and the number of same-sex couples in a particular locality may also influence the level of discrimination faced by same-sex couples. Increased contact between property owners and the LGBTQ community may reduce negative stereotypes and improve inter-group interactions (Allport 1954). A visible LGBTQ community that regularly interacts with the local customer base may also reduce opposition among local residents (the customer base for the property owner) to being housing in the same apartment complex and/or live near same-sex couples (Yinger 1995). These interactions may also reduce the propensity for a non-prejudicial property owner who is cognizant of the preferences of their customer base to discriminate.[9]

However, in order for there to be interactions between property owners, the local customer base/local community, and the LGBTQ community, there must be a visible LGBTQ community and a willingness for same-sex couples to be open about their sexual orientation. There may be greater social costs (e.g. social ostracism, threats of physical violence) or economic penalties (loss or denial of housing, or loss of employment) for presenting as LGBTQ or as a same-sex couple (as opposed to same-sex roommates) in localities and states without legal protections for same-sex couples and LGBTQ individuals. It is thus more likely that a property owner will be less discriminatory in localities with state or local housing protections because this agent is more likely to know (and/or rent to) a same-sex couple (or LGBTQ individuals) compared to a property owner in an unprotected locality where the penalties for

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[8] For other studies examining compensation and sexual orientation, see: Klawitter (2011), Antecol, Jong, and Steinberger (2008); Berg and Lien (2002); Allegretto and Arthur (2001), Klawitter and Flatt (1998)
[9] For work on this contact hypothesis, see Lee et al. (2015), Ellison and Powers (1994), and Sigelman and Welch (1993).

presenting as a same-sex couple are higher. If there are lower levels of discrimination against same-sex couples in protected localities, it could also be because property owners are rationally responding to the threat of legal action (or social disapproval) for their illegal discrimination (or they are not prejudicial).

In this paper, it is theoretically ambiguous if and to what extent property owners will discriminate against same-sex couples of different racial backgrounds. Unlike most of the existing literature on housing discrimination and the theoretical frameworks of discrimination, this paper explicitly considers, for same-sex Hispanic and Black couples, the consequences of belonging in more than one stigmatized group in the U.S. rental market. Social scientists have long understood that all people have multiple interlocking and intersectional identities (Parent, DeBlaere, Moradi 2013). The identities may be additive, and thus being both a sexual and racial minority may increase the level of discrimination experienced by someone belonging to these two minority groups. This "double (or multiple) jeopardy" phenomenon could imply that, for instance, a gay Black man faces the collective discrimination of a gay White man and a heterosexual Black man (Beale 1970; Best, Edelman, Krieger, and Eliason 2011).

However, these identities may interact and intersect in a way that actually reduces the level of discrimination faced by an individual belonging to more than one stigmatized group (Beale 1970; Mazziotta, Zerr, Rohmann 2015; Bowleg 2008). For example, in a survey-experiment in the United States, Pedulla (2014) found that negative stereotypes of gay men being weak and effeminate counteracted the negative stereotypes of Black men as threatening and aggressive. It is unclear how property owners will respond to inquiries from individuals who can identify with (or be identified as belonging in) one or more stigmatized groups. Recent research from Germany found little benefit from the intersection of ethnicity (being Turkish) and sexual orientation (Mazziotta, Zerr, Rohmann 2015).

This paper contributes to a small, but growing, literature on the intersection of racial/ethnic identity and sexual orientation (Mazziotta, Zerr, and Rohmann 2015; Pendulla 2014; Remedios,

Chasteen, Rule, and Plaks 2011). This paper is, however, situated within an extensive literature of audit studies and correspondence tests that estimate discrimination in the housing and labor markets (Bertrand and Mullainathan 2004; Hanson and Hawley 2011; Ahmed, Andersson, and Hammarstedt 2008; Bosch, Carnero, and Farré 2010; Neumark, Burn, and Button 2015; Edelman, Luca, and Svirsky 2017; Turner and James 2015; Yinger 1986, 1995; Ondrich, Stricker, and Yinger 1998, 1999; Zhao 2005; Gaddis 2015).[10] The vast majority of this literature has focused on discrimination against racial minorities, or members of other protected classes.

In recent years, scholars in the United States, Canada, and Europe have begun to use audits and correspondence tests to estimate the extent to which sexual minorities are discriminated against in the housing market. In general, scholars have found that, in the United States, Canada, and Sweden, gay men are discriminated against when searching for housing whereas gay women experience little to no discrimination. Small-scale audits in Michigan found evidence of adverse treatment of same-sex couples when searching or applying for housing (Michigan Fair Housing Centers 2007). National correspondence studies in the United States have found evidence of discrimination against same-sex male couples in the U.S. rental markets. Friedman et al. (2013) also found evidence of discrimination against same-sex male couples in the U.S. rental market using a research design similar to this paper. Levy et al. (2017) conducted an audit study in three metropolitan areas—Washington, D.C., Dallas, Ft. Worth, TX, and Los Angeles, CA—to test if property owners discriminate against members of the LGBTQ community. They

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[10] Ross and Yinger (2002) offer a comprehensive overview of discrimination in the mortgage markets and Oh and Yinger (2015) for a recent summary of paired testing in the housing market more broadly. An excellent resource on the current state of housing discrimination audit and correspondence studies is the 2015 edition of *Cityscape* (volume 17(3)).

found evidence that property owners discriminate against same-sex male couples and transgender individuals.[11]

Outside of the United States, Ahmed, Andersson, and Hammarstedt (2008) found little evidence that lesbian couples are discriminated against in Swedish rental markets while Ahmed and Hammarstedt (2009) found evidence of rental market discrimination against same-sex male couples in Sweden. Lauster and Easterbrook (2011) found that property owners discriminate against same-sex male couples and single parents in Vancouver, Canada. Recent work by Mazziotta, Zerr, and Rohmann (2015) found no evidence that gay men are discriminated against in large German cities, but do find that property owners discriminate against ethnic minorities.

Research Questions

To contribute to this growing literature, I examine three research questions in this paper:

(1) Do property owners who post ads for rental units on Craigslist discriminate against same-sex couples in the United States? I include a larger number of cities, as well as more cities without any housing protections than prior research.

(2) Do property owners who post ads for rental units on Craigslist subtlety discriminate against same-sex couples? Do property owners demand more information from same-sex couples? Do they send more terse or rude emails? Do they take longer to respond or send shorter emails?

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[11] While in-person audits provide richer insights into property-owner behavior, these studies are expensive to conduct. These studies also require trained confederates who must visit numerous sites in order to generate a sufficient sample size. The internal validity of an in-person audit study requires that pairs of confederates behave and present themselves more-or-less identically across property owners, as even subtle differences in behavior could potentially bias a study's results (Heckman 1998).

(3)   Do state and/or local anti-discrimination laws covary with response rates? State and local

adoption of anti-discrimination laws is clearly endogenous, but I do examine the conditional correlation

between the presence of these laws and discrimination rates for same-sex couples.

Experimental Design

Following the email-correspondence methodology of Ahmed and Hammarstedt (2008) and

Hanson and Hawley (2011), I examine if a property owner who posts rental units on Craigslist

discriminate against self-identified gay (two male) or lesbian (two female) couples. When identifying

property owners to test, I do not include property owners seeking roommates, property owners seeking

in-house tenants to live in the same house as them, or providers of short-term rental units (e.g. hostels,

Airbnb, etc.). While Fair Housing Laws prohibit racially discriminatory advertisements for housing,

owner-occupied housing in a building with fewer than four units are exempt from the federal Fair Housing

Act and many state and local-level laws.[12] I use a pairwise-matched design for several reasons. In my

primary model, I control for property-owner unobservables with property-owner fixed effects. This

design also provides improved precision for a given sample size. While the risk of detection is higher with

a matched-paired correspondence study than a single-email correspondence design, I included 94 cities

in this study and thus I did not send a preponderance of inquiries within any one single rental market (see

Table 2 for a breakdown by city). I test property owners in cities that fall within three major legal regimes:

cities with state-level sexual orientation housing protections, cities with municipal or county-level sexual

orientation housing protections, and cities with no housing protections for same-sex couples.

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[12] U.S. Department of Housing and Urban Development, "Fair Housing Information for Housing Providers,"
https://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/HousingProviders
(Accessed: 11/4/2016)

Using a web-scraper program, I collected each property owner's phone number (if provided), their contact emails, as well as all the self-provided structural characteristics of the unit (e.g. size, how many bedrooms, etc.), the rent, and the address (street address and longitudinal and latitudinal coordinates) for randomly-collected ads from selected cities' Craigslist websites.[13] I did not use an online post if it did not have an email address or longitudinal-latitudinal coordinates, which prevented me from either contacting the property owner or confirming its location.

Once I collected each property owner's information, I randomly assigned property owners to a sexual orientation category for their first email. If the sexual orientation was gay male or lesbian, the second sexual orientation category was mechanically heterosexual. The order I sent emails to property owners was randomized. If the unit's rent was at or below 150 percent of HUD's County-level Fair Market Rent (FMR) for 2016, I classified the post as low-income/low-class. To limit the risk of detection, I sent out four different emails types. Two versions of a high-class email, which were sent to property owners with units 150 percent above the FMR price, and two versions of low-class emails. A high-class email contained formal greetings and complete sentences. See version A of the high-class email below:

Example of High-Class Email:

Dear sir/madam,
[My Husband] NAME and I are interested in the rental unit you posted on Craigslist, is it still available? We both have good rental histories and references. We are happy to send a copy of a recent credit report.
Regards,
[First name]

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[13] To ensure that I do not email the same property-owner twice, I removed ads with the same phone number, ads posted by a rental agent/property management company multiple times (this information, per my Institutional Review Board authorization, was not retained after the removal of duplicates), same longitude and latitudes (this information was also not retained after the removal of duplicates and correctly placing the property within a locality, per my IRB authorization), or the same posting id.

The low-class email contained broken and informal syntax. This email structure signals that the emailer has less education, less income, would be interested in a lower cost rental unit, and, possibly, is younger.

Example of Low-Class Email:

> Hi! *[My Wife]* NAME, saw your post CL and were interested in the apartment. Were both employed and can afford the apartment. We do you need to know about us. Let us know! Thanks!
> [First Name #1] & [First Name #2]

I randomly assigned the first email to be either version A or B, the second version followed mechanically from this random assignment. I also randomly selected emails to contain an income value rounded to the nearest $1000.[14] To limit the risk of detection, socioeconomic status is not randomly assigned to the property owner. I randomly assigned each property owner a race for each email. Following Murchie (2017), this study uses stereotypical Black and Hispanic names that are generally unique to each racial group. These names are from New York City birth records from the early 2000s, and reflect popular baby names within specific racial communities at this time. The names used in this study are listed in Table 1. I randomly assigned names in combinations (two-male, two-female, and male-female) to emails. If the email was randomly selected to be a Black same-sex male couple, I randomly selected either Leroy, Jamal, or Darnell, and then, from the remaining two, I randomly selected the second name. I also randomly select the member of the couple who is explicitly contacting the property owner and referencing their partner. For each heterosexual couple, for instance, I random select if the email is being sent by the man or the woman.

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[14] This income measurer adds additional variation to the email sent to reduce detection further. This income was randomly generated to make the fictitious applicant's annual salary (rounded to the nearest $1000) between 25 percent and 45 percent of the posted annual rent (the stated monthly rent multiplied by twelve). I test if property owners discriminate less against same-sex couples that provided income information. While providing additional information does improve response rates for all racial-sexual orientation groups, these differences were not statistically significant. It is possible (and even likely) that property owners do not put much credence in self-reported income values.

Study Execution/Data Gathering

I conducted an initial pilot of 300 property owners in New York City, Houston, Miami, Chicago, and Los Angeles in November 2016 to evaluate if property owners were responding at substantively and statistically different rates to the two different within-class email versions. For example, did email A for the high-class email convey something different than email B, which prompts property owners to respond more to email version B? The average response rate for the high-class email types was 60 percent for version A and 62 percent for version B. For low-class emails, the average response rates for version A and B was 53 percent and 54 percent, respectively. These differences were not statistically significantly different from one another.

I conducted the full email correspondence study between December 2016 and March 2017. During these months, I anonymously emailed 6,490 unique property owners from 94 cities in 46 states.[15] Of the 94 localities, 66 cities (70.2 percent) have state or local anti-discrimination laws prohibiting housing discrimination against same-sex couples, while 28 cities (29.8 percent) did not have such protections. The localities tested are geographically dispersed – 15.8 percent of the localities are located in the Northeast, 35 percent are located in the South, 25.4 percent are located in the Midwest, and 23.8 percent are located in the West. Table 2 presents a list of the cities tested and the number of property owners I contacted in each locality. Almost all of the localities without housing protections are located in the South and all localities tested in the Northeast have local or state-level protections.

Discrimination by Sexual Orientation

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[15] As an additional precaution, I used nine different email accounts to contact property owners. I did not contact any property owner with the same two email accounts. However, Craigslist uses anonymized email links that generally prevent end-users from seeing one another's email name.

My main measure of discrimination is whether a property owner expressed an active interest in a couple's inquiry. I thus treat any responses received within one minute of an inquiry being sent by both the same-sex and heterosexual couples, and/or emails that contained the exact same wording (a bot email) as a non-response. In the regression output, the dependent variable is binary and adopts one if the property owner, not an automatic-email program or bot, responded to an inquiry, zero otherwise. To provide an overview of the results, Table 3 reports the mean callback rate by sexual orientation and race where mean callback rate is the number of active positive responses received for each sexual-orientation (or sexual-orientation-race group) divided by the number of inquiries sent for each group.

The top panel of Table 3 reports response rates by sexual orientation regardless of race. The first column presents the pooled responses for all inquiries, column 2 provides the mean callback rate for inquiries sent to property owners in localities with state-level protections, column 3 provides the results for inquiries sent to property owners in localities with only local-level protections, and column 4 provides the results for inquiries sent to property owners in localities without any protections. Consistent with Friedman et al. (2013), I find that same-sex couples regardless of race receive fewer responses compared to opposite-sex couples. Same-sex male couples across all legal regimes receive fewer responses (4 to 6 percentage points fewer) than lesbian couples (approximately 2 percentage points fewer). Table 3 also provides initial evidence suggests that race exacerbates discrimination—Black and Hispanic same-sex couples receive on average fewer responses than White same-sex couples.

Table 3 presents the gross measure of discrimination. It is possible that some differences in response rates by race and sexual orientation could be driven by random differences in the manner in which property owners respond to emails, e.g., responding to the most recent emails, failing to read one or more of the emails sent, etc. (Pitingolo and Ross 2014). In Table 4, I calculate the net rate of discrimination, which is the difference in responses to email inquiries between heterosexual and same-

sex couples expressed as a percentage of those observations where at least one of the couples received a response. The top panel presents the rate of discrimination for all gay male and lesbian couples regardless of race, the bottom panel separates these results out by race.

The net rates of discrimination are not substantively different from the gross rates presented in Table 3. In column 7 of Table 4, I present the results of a restricted McNemar paired difference-in-propositions test of the hypothesis that column 4 and column 5 are equally likely. Gay Black and Hispanic couples receive significantly fewer responses than heterosexual Black and Hispanic couples. While the results are not statistically significant at convention measures of statistical significance, same-sex White male couples do receive fewer responses than opposite-sex White couples. White same-sex couples do receive responses at higher rates than non-White same-sex couples. Consistent with the finding of Ahmed, Andersson, Hammarstedt (2008), there is little evidence that property owners discriminate against same-sex female couples.

To control for property-owner observables, I use a linear probability model (LPM) with property-owner fixed effects to estimate the level of discrimination faced by individuals stratified on race and sexual orientation. I use an LPM model for ease of interpretation (the coefficients can be directly interpreted as probabilities), to benefit from the increased precision of an LPM estimator as opposed to a nonlinear estimator, and because the data are generated from a completely randomized experiment with a binary outcome. The data generating process largely ensures that there will be no predicted probabilities outside of the required $[0, 1]$ range. I do check my LPM results using a probit model—none of the results are substantively different and are available upon request.

$$y_{il} = \beta_0 + \beta_1 SameSex_i + \beta_2 Inc_i + \lambda_l + \varepsilon_{il} \qquad \text{(Eq. 1)}$$

In equation [1], y_{il} is a dummy variable that adopts the value 1 if couple *i* receives a reply to their inquiry about the posted rental unit from property owner *l*. In this case, property owner is synonymous with the rental units. $SameSex_i$ adopts the value 1 if the email contained signals that the inquiring couple is a same-sex couple. Inc_i is a control variable that equals one if the emailer contained a randomly generated income measure, zero otherwise. Equation [1] includes property-owner fixed effects, synonymous with property-unit fixed effects, denoted by λ_l. The identifying variation for equation [1] is thus within-unit responses to paired-emails, in which the only difference between responses is the sexual orientation of emailers. I cluster the standard errors at the property-unit level. If there is no discrimination, β_1 will be equal to zero. Any non-zero value can be understood as the within-landlord differential response rates (measured in percentage points) based on sexual orientation. A negative coefficient implies that same-sex couples are less likely to receive a response compared to heterosexual couples, whereas a positive coefficient indicates that the same-sex couple is receiving preferential treatment. Table 5 presents the result of equation [1] stratified on sexual orientation and race.

Column 1 of Table 5 pools all same-sex male couples together regardless of race. The comparison group is heterosexual couples. Same-sex male couples were 4.6 percentage points less likely to receive a response than were heterosexual couples. Stratifying on race, the remaining terms reflect the pattern seen above in Tables 3 and 4. White male couples were approximately 4 percentage points less likely to receive a response compared to White heterosexual couples. This disparity was higher (and more statistically significant) for non-White same-sex couples. Same-sex Black and Hispanic couples were 5.6 and 5.2 percentage points, respectively, less likely to receive a response from a property owner compared to their same-race heterosexual counterparts. For all same-sex male couples, these results are

statistically significantly different from zero. Consistent with Friedman et al. (2013) and Levy et al. (2017), these results provide further evidence that same-sex male couples face discrimination in the U.S. rental markets. Columns 5 through 8 in Table 5 report the results of equation [1] stratified on sexual orientation for same-sex female couples. Consistent with the results in Tables 3 and 4, there is little evidence that property owners discriminate against same-sex female couples. The coefficients on these estimates are small in magnitude and statistically indistinguishable from zero.

Subtle Discrimination against Same-Sex Couples

Prejudicial property owners who do not want to rent to a same-sex couple may respond to a same-sex couple so as not to appear to be discriminatory. However, such a property owner may subtlety discriminate against a same-sex couple in an attempt to dissuade them from viewing the property or further contacting the property owner by taking longer to respond to their email, sending a less polite email, or an email containing less information.

Following the methodology employed by Hanson, Hawley, and Taylor (2011), I examine if property owners respond with less positive language or more negative language to same-sex couples compared to heterosexual couples. Hanson, Hawley, and Taylor (2011) find that property owners are more likely to use positive language and write longer emails to housing inquiries containing White names than those containing Black names. Using a modified version of Hanson, Hawley, and Taylor's list of search terms, I perform keyword searches for both positive and negative language of the email texts for all property owners who responded to a housing inquiry. This analysis is restricted to the active responses used in the analysis above. Table 6 contains a breakdown of the positive and negative search terms used to analyze property owner responses. Positive language includes positive descriptors of the unit, words that indicate a willingness to show additional units, providing contact information, or emails containing

polite language. Negative language is coded as any references to fees, employment history, background or rental history, or eviction history.

Table 7 presents the within-race results of these keyword searches. Differential response rates between same-sex couples and heterosexual couple responses are tested using the McNemar test. Property owners do not respond differentially to same-sex White or Hispanic couples. However, when responding to same-sex Black couples, property owners were 2.4 percentage points less likely to describe the unit or the unit's neighborhood positively or to respond using polite language and/or salutations compared to heterosexual Black couples. Property owners were also measurably less likely to offer to show any additional units or to schedule an appointment to view the unit with a same-sex Black male couple.

While White and Hispanic same-sex couples were also less likely to receive a response compared to heterosexual White and Hispanic couples, these differences are not statistically significantly different from zero. When these results are pooled and compared across race regardless of sexual orientation, there are clear patterns of racial discrimination against non-White couples. I present the results of this analysis in Table 8. Black couples are less likely to receive emails containing positive descriptions of the unit, less likely to be offered to view the unit or schedule an appointment, and were less likely to receive emails containing polite language or contact information. Black couples were also more likely to receive emails with information about fees and, compared to White couples, Black couples were almost 30 percentage points more likely to be asked about their eviction histories. While Black couples were also less likely to be offered to view other units or asked about their employment histories than White couples, the differences are not statistically significantly different from zero. Hispanic couples are also less likely to receive emails containing positive descriptors of the unit, contact information, or offers to schedule an interview. Hispanic couples are 8 percentage points more likely than White couples to be

asked about fees (13 percentage points for Black couples) and approximately 12 percentage points more likely than White couples to be asked about their eviction histories. These results are consistent with those of Hanson, Hawley, and Taylor (2011).

Do property owners take longer to respond to same-sex couples or do they send emails with fewer words? While property owners do take longer to respond and send shorter emails to same-sex male and female couples, these differences are statistically significantly different from zero. These results are presented in Table 9. The magnitudes of these results are also not substantively different between same-sex couples and heterosexual couples. It took property owners between 10 and 20 additional minutes to respond to same-same female couples, and 20 and 30 minutes to respond to same-sex male couples. It does not appear that property owners are attempting to discourage potential same-sex applicants by taking longer to respond to their emails.

While no property owner responded using any pejorative, derogatory, racist, or homophobic language, eight property owners in five Southern states (seven different cities) did explicitly mention that they will not house anyone with HIV/AIDS. HUD classifies HIV/AIDS as a disability, and individuals with HIV/AIDS are thus protected under the Federal Fair Housing Act. Each of the inquiries that were received this response contained names to signal they inquiring couple was a Black same-sex male couple. This is anecdotal evidence that some property owners associated either being gay or being a Black gay male with HIV/AID, a form of statistical discrimination.

Do State and Local Laws Covary with Higher Response Rates

Lastly, I examine the correlation between state and local laws, respectively, and response rates. Table 3 provides some evidence that property owners operating under different legal regimes respond at differential rates, I formally examine if anti-discrimination laws correlated with lower rates of discrimination using the following model:

$$y_{ilcks} = \beta_0 + \beta_1 SameSex_i + \beta_2 Law_{cs} + \beta_3(SameSex_i * Law_{cs}) +$$
$$\gamma \mathbf{X_i} + \phi + \varphi_i + \varepsilon_{ilcks} \qquad \text{(Eq. 2)}$$

The terms y_{ilcs} and $SameSex_i$ are defined in equation [1]. The indicatory variable Law_{cs} adopts unity

if the locality c in census region k in state s where the rental unit is located has a local or state anti-

discrimination law (Law_{cs}), and zero if the rental unit is located in a locality where there are no anti-

discrimination protections. I coded localities in states that also have state-level housing protections who

also have local-level housing protections as only having state-level housing protections. The coefficient

of interest is the interaction between the same-sex indicator variable and the legal regime variable

(captured by β_3). I include location-specific fixed effects (ϕ), which are state-specific fixed effect for

specifications with municipal-level protections and census-region fixed effects for specifications with

state-level protections.[16] I also include email-class fixed effects (φ_i) and a vector of unit-level

characteristics and an income value if it was contained in the email ($\mathbf{X_i}$). I run this model separately by

legal regime and race.

Equation [2] is also a linear probability model, the results do not substantively change if a probit

model is used. The coefficient β_3 captures property owners' differential response rates to same-sex

inquiries in localities with state-level housing protections, compared to same-sex inquires in localities

without housing protections. Localities choose to adopt anti-discrimination laws and thus this coefficient

only captures the conditional correlation between differential response rates to same-sex inquires and

each jurisdiction's legal regime. Table 10 provides the results from equation [2] run only for localities with

state housing protections in the top panel and local housing protections in the bottom panel. In both

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[16] I cannot use smaller census-division fixed effects because all states in the New England region (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont) have adopted state-level protections and thus it would be perfectly collinear with my treatment indicator.

panels, equation [2] is run separately for same-sex male (column 1) and female couples (column 5) regardless of race, and then stratified by race in columns 2, 3, 4 (for White, Black, and Hispanic gay couples, respectively) and columns 6, 7, and 8 (for White, Black, and Hispanic lesbian couples, respectively).

State-level housing protections do not covary at statistically significant rates for same-sex White or Hispanic same-sex couples. However, same-sex Black male couples are 2.7 percentage points more likely to receive a response than same-sex Black male couples in localities without any protections. This coefficient is statistically significantly different from zero at the 10 percent level. This suggests that same-sex Black male couples may benefit from state-level protection, although this coefficient may simply being identifying the differences in the endogenous propensity for property owners to discriminate in these different localities. State laws also do not covary measurably with response rates for same-sex female couples.

The bottom panel of Table 10 presents the result of equation [2] where Law_{cs} equals one if the locality has enacted a local anti-discrimination law. There appears to be no overall correlation between the response rate in localities with local-housing protections and those with no protections for same-sex male couples. However, once stratified by race, same-sex Black male couples in localities with local housing protections are 2.6 percentage points *less* likely to receive a response than same-sex Black male couples in localities without such protections. The results same-sex White and Hispanic couples and same-sex female couples of all races are small in magnitude and are not statistically significantly different from zero.

While these results are only conditional correlations between response rates and the legal protections for same-sex couples, it suggests that localities may choose to adopt local protections in

response to high levels of discrimination against same-sex couples and other sexual minorities. However, this evidence also suggests that these local protections do not reduce the propensity for property owners to discriminate in these localities relative to unprotected localities. This may be especially true if there is little public or political support for same-sex couples or members of the LGBTQ community at the state-level (or outside more urbanized localities). State-level protections are correlated with higher response rates for same-sex Black male couples (the most discriminated against subgroup), which suggests that broader formal protection, political support for LGBTQ rights, and/or less ambiguous legal protections may help reduce the level of discrimination faced by same-sex couples.

Testing for Property-Owner Detection:

The primary risk of a matched-paired email correspondence test is that property owners may detect that a test is being conducted. If they do, property owners are likely to alter their behavior as a result. A property owner could respond to the first email and then, having found similarities with the first email in the second email, they may not respond to the second email. Alternatively, if a property owner becomes aware of the test, they may respond to both emails when, in the absence of being aware of the test, they would have only responded to one of the emails. The effect is ambiguous—if the landlord reviews their emails from the most recent emails to the oldest emails, they will read the second email first (it will appear first in their email) and then read the first email. However, there is no evidence that property owners responded differently to the first and second emails—there were no statistically different rates of response between the first and last email.

Discussion, Limitations, and Future Work

Using a unique dataset compiled through a rigorous field experiment, I find that same-sex couples, especially same-sex male couples and minority same-sex couples, face higher barriers to access rental housing access in the United States. Compared to heterosexual couples, same-sex male couples

are less likely to receive a response to their rental inquiry. There is no measurable evidence that same-sex female couples are actively discriminated against by property owners. I also find that property owners subtlety discriminate against same-sex Black male couples compared to Black heterosexual couples. I also find evidence that property owners subtlety discriminate against Black and Hispanic couples, compared to White couples, regardless of sexual orientation.

The results of this paper suggest that, for males, membership to multiple stigmatized groups exacerbates rather than reduces the level of discrimination faced by individuals belonging to these groups. In the rental market, same-sex couples who are also racial minorities receive fewer responses compared to members of their own-race and same-sex White male couples. This is the second study, following Mazziotta, Zerr, and Rohmann (2015), and the first in the United States to find that being a sexual minority does not reduce, and may exacerbate, the level of discrimination experienced by individuals who are also racial minorities. I do not find evidence that women, who property owners appear to prefer as tenants compared to men, suffer any adverse treatment regardless of their membership in a racial/ethnicity and/or sexual minority group (Andersson, Jakobsson, and Kotsadam 2012). This is initial evidence that, for childless women, gender may supersede any racial and sexual preferences property owners have when considering prospective tenants.

However, this study is limited in the degree to which it applies broadly to members of the LGBTQ community and may, in fact, understate the level of discrimination experienced by the members of this community. The results of this study are limited explicitly to married same-sex couples. One potential avenue for future research is to examine if same-sex couples (that disclose they are married or partnered) are less likely to receive a response to their housing inquiry compared to two heterosexual male (or female) roommates or same-sex couples who are not married (signaled using "boyfriend/girlfriend" rather than "husband/wife."). Presumably, property owners prefer married couples because these two

individuals are less likely to separate than two individuals who are dating. As a result, it is possible that unmarried same-sex male and female couples will face higher levels of discrimination than married same-sex male and female couples.

Scholars and activists should also consider, in the spirit of Levy et al. (2017), conducting more audit studies to examine property owners in-person responses to same-sex couples, as well as single gay men and women. Such studies will also allow researchers to examine how property owners respond to transgender and non-gender binary individuals, which is extremely difficult to test in correspondence studies without raising the suspicions of property owners.

This paper only examines discrimination at the very beginning of the housing selection process (Yinger 1995) and only examines property owners who post ads on Craigslist. Even if a property owner responds to a housing inquiry, it does not mean that they will sign a lease with a same-sex couple. A property owner may also treat a same-sex couple less favorable than a heterosexual couple when setting terms and conditions. To my knowledge, no study has examined if there is discrimination in the later stages of the housing process. Future work should examine if same-sex couples are able to access credit in the mortgage market, or the degree to which they are discriminated against in the residential home market.

Given the sampling frame for this correspondence test is Craigslist, the external validity of this study is limited to the extent that the distribution of property owners and rental stock on Craigslist is comparable to the distribution of rental stock and property owners in each locality more broadly. While Craigslist is a popular site for rental housing (for both property owners and renters), it is possible that there may be systematic differences in the property owners who post to Craigslist or the rental stock

posted on Craigslist and average property owner/rental unit in each specific locality.[17] This study is not

generalizable to property owners of rental properties in rural areas. Mazziotta, Zerr, and Rohmann

(2015)[18] suggest that levels of discrimination may be much higher in rural areas than in urban areas. The

results of this study are also not generalizable to property owners that do not post their rental properties

online but serve specific neighborhoods in cities and expect in-person phone calls from prospective

tenants. These property owners house low-wealth individuals who may not regularly use the internet (or

have access to the internet) to explore other housing options.[19] Future work examining housing

discrimination more broadly and discrimination against the LGBTQ community, in particular, should

actively test (or audit) rental and residential properties in these less wired, less easy-to-access

communities where low-income LGBTQ individuals are likely to live.

Future work should examine how variation in support for local LGBTQ protections in housing (or

employment, public accommodations, etc.) covary with rates of discrimination. Large cities may be able

to pressure the state government to enact state-wide protections, but this may not reflect the opinions

of most of the state's residents. Moving away from binary policies towards, in the spirit of work by Taylor,

Lewis, Jacobsmeier, and DiSarro (2012), more multidimensional measures of these policies (that include

components of support, breath, and implementation) are likely to provide practical insights into the

efficacy of these policies and help improve policy design.

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[17] Craigslist is popular for email correspondence test studies given the website flexibility and the ability to automatically scraping property owner information; however, future research needs to explore other platforms and economies (e.g., the sharing economy) to confirm or reject the finding that discrimination against same-sex couples (notably, same-sex male couples) is systematic throughout the U.S. rental market.

[18] I am extremely grateful to an anonymous reviewer for directing me to this paper.

[19] See Matt Desmond's *Evicted: Poverty and Profit in the American City* (2017) for an ethnographic perspective on low-wealth rental-property seekers.

Policy Implications

The results of this study raise questions as to whether codified local anti-discrimination ordinances are effective at lessening or eliminating discrimination. While anti-discrimination laws, especially at the state-level, do not appear to be correlated with less discrimination for all same-sex couples, these laws are correlated with less discrimination against same-sex Black male couples, which are the most discriminated subgroup. This suggests that these laws may reduce the intensity by which property owners discriminate even if it does not reduce all levels of discrimination. States should adopt state-wide anti-discrimination laws. Such adoption also helps eliminate any legal ambiguity as to which groups can and cannot be discriminated against in one locality in a state versus a different locality in the same state. Local laws appear to be relatively ineffective at reducing discrimination for all groups. This may be because property owners are unconcerned with the consequences for discriminating against same-sex couples in a state that does not prohibit this behavior even if the locality in which their property is located does outlaw such discrimination.

Congress should codify sexual orientation and gender identity as protect classes for purposes of anti-discrimination legislation and remove any existing legal inequities. However, at the moment, this appears highly unlikely. If the federal government and state governments are unwilling to act, local governments should improve enforcement of local anti-discrimination laws (for all protected class, including the LGBTQ community). This may involve increasing access to arbitration or civil remedies for individuals that have been discriminated against, or imposing economically-meaningful fines on discriminatory property owners.

It might further help if the local governments or police department appoint an LGBTQ liaison to serve a point of communication with the local government and a locality's LGBTQ residents. Such a

liaison may not only improve the relationship between the local government and the LGBTQ community, but, for a member of the LGBTQ community who has been the victim of housing discrimination (or some other form of discrimination or hate crime), this may increase the likelihood that they report the crime. Increased visibility of the LGBTQ community and improved relations between the Community and the local government may also reduce the level of discrimination by signaling to property owners that their discriminatory behavior is both socially inappropriate and has a higher risk of being detected.

The ability to access a wide area of housing matters—barring individuals, couples, and families from housing and neighborhoods can have adverse ripple effects throughout their lives Limiting someone's housing options can affect the types of communities where they can live, the schools and public services they can access, and numerous other dimensions of their lives (Browne-Yung, Ziersch, and Baum 2013; Cutler and Glaeser 1997) As the number, visibility, and mobility of same-sex couples increase, it is imperative that scholars and activists examine and attempt to eliminate barriers to housing access for same-sex couples and other members of the LGBTQ community.

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Table 1: Names Used in the Correspondence Test

Names By Race	Men	Women
White	Brian Robert Eric	Jennifer Sarah Denise
Black	Leroy Jamal Darnell	Michelle Akeelah Jada
Hispanic	Santiago Alejandro Mateo	Sofia Isabella Gabriella

Table 2: Cities in the Sampling Frame and Number of Property Owners Emailed

City	Property Owners	City	Property Owners	City	Property Owners
Auburn, Alabama	49	Lawrence, Kansas	51	Buffalo, New York	87
Birmingham, Alabama	16	Topeka, Kansas	25	New York City, New York	69
Huntsville, Alabama	16	Wichita, Kansas	76	Syracuse, New York	45
Mobile, Alabama	60	Bowling Green, Kentucky	32	Raleigh, North Carolina	64
Montgomery, Alabama	44	Louisville, Kentucky	44	Bismarck, North Dakota	59
Anchorage, Alaska	83	Baton Rouge, Louisiana	79	Cleveland, Ohio	92
Phoenix, Arizona	101	New Orleans, Louisiana	53	Columbus, Ohio	102
Tucson, Arizona	54	Bangor, Maine	15	Dayton, Ohio	70
Little Rock, Arkansas	105	Portland, Maine	38	Toledo, Ohio	55
Bakersfield, California	24	South Portland, Maine	5	Oklahoma City, Oklahoma	33
Los Angeles, California	144	Annapolis, Maryland	75	Eugene, Oregon	75
Orange County, California	36	Baltimore, Maryland	120	Erie, Pennsylvania	102
Riverside, California	64	Boston, Massachusetts	132	Philadelphia, Pennsylvania	132
San Diego, California	143	Detroit, Michigan	142	Providence, Rhode Island	35
San Francisco, California	44	Lansing, Michigan	38	Chattanooga, Tennessee	119
Boulder, Colorado	121	Minneapolis, Minnesota	65	Clarksville, Tennessee	13
Colorado Springs, Colorado	30	Jackson, Mississippi	69	Nashville, Tennessee	109
Denver, Colorado	119	Columbia, Missouri	40	Dallas, Texas	127
Hartford, Connecticut	83	Jefferson City, Missouri	19	Houston, Texas	146
New Haven, Connecticut	83	St. Louis, Missouri	187	Lubbock, Texas	82
Dover, Delaware	6	Helena, Montana	52	Waco, Texas	40
Newark, Delaware	16	Lincoln, Nebraska	106	Provo, Utah	40
Wilmington, Delaware	37	Omaha, Nebraska	94	Burlington, Vermont	67
Daytona, Florida	112	Las Vegas, Nevada	95	Richmond, Virginia	89
Miami, Florida	171	Concord, New Hampshire	12	Pullman, Washington	42
Tampa, Florida	68	Dover, New Hampshire	5	Seattle, Washington	76
Atlanta, Georgia	189	Durham, New Hampshire	6	Parkersburg, West Virginia	24
Savannah, Georgia	32	Manchester, New Hampshire	20	Green Bay, Wisconsin	72
Boise, Idaho	96	Nashua, New Hampshire	18	Madison, Wisconsin	144
Chicago, Illinois	71	Albuquerque, New Mexico	33	Cheyenne, Wyoming	65
Bloomington, Indiana	37	Santa Fe, New Mexico	68		
Indianapolis, Indiana	79	Albany, New York	68		

Table 3: Baseline Response Rate by Sexual Orientation and Race

	(1)	(2)	(3)	(4)
	Overall (O)	State (S)	Local (L)	No Protections
All Races	Rate	Rate	Rate	Rate
Heterosexual	40%	40%	40%	41%
Gay	35%	36%	33%	35%
Lesbian	38%	38%	38%	39%
White	42%	45%	40%	42%
Heterosexual	44%	44%	42%	44%
Gay	40%	42%	38%	39%
Lesbian	42%	42%	42%	42%
Black	35%	35%	34%	37%
Heterosexual	37%	36%	37%	39%
Gay	31%	32%	29%	32%
Lesbian	35%	35%	35%	37%
Hispanic	38%	41%	38%	38%
Heterosexual	40%	41%	40%	41%
Gay	34%	35%	34%	34%
Lesbian	38%	39%	36%	38%

Notes: Baseline rates are calculated by dividing the number of active responses received by each race-sexual orientation group by the number of inquiries sent by each group.

Table 4: Net Response Rate by Sexual Orientation and Race

	(1) No Response	(2) At Least One Response	(3) Both Couples	(4) Only Hetero-sexual	(5) Only Same-Sex	(6) Net Discrimination	(7) Critical Value (χ²)
Gay Male Couples (All Races)	65.1% [2130]	34.9% [1140]	69.9% [797]	21.5% [245]	15.6% [178]	5.9% [67]	10.61 *pvalue = 0.001*
Lesbian Couples (All Races)	61.7% [1988]	38.3% [1232]	52.6% [648]	27.9% [318]	25.6% [292]	2.1% [26]	1.11 *pvalue = 0.292*
White Male Couples	58.5% [606]	41.5% [426]	72.1% [310]	6.1% [69]	4.5% [51]	4.2% [18]	2.70 *pvalue = 0.103*
White Lesbian Couples	57.4% [630]	42.6% [468]	60.3% [282]	8.6% [98]	7.7% [88]	2.1% [10]	0.54 *pvalue = 0.462*
Black Male Couples	66.2% [716]	33.8% [366]	72.4% [265]	5.4% [62]	3.4% [39]	6.3% [23]	5.24 *pvalue = 0.022*
Black Lesbian Couples	63.8% [658]	36.2% [374]	52.7% [197]	8.1% [92]	7.5% [85]	1.9% [7]	0.28 *pvalue = 0.596*
Hispanic Male Couples	63.3% [732]	36.7% [424]	52.4% [222]	10.0% [114]	7.7% [88]	6.1% [26]	3.35 *pvalue = 0.067*
Hispanic Lesbian Couples	61.8% [674]	38.2% [416]	40.6% [169]	11.2% [128]	10.4% [119]	2.2% [9]	0.33 *pvalue = 0.560*

Notes: The Analysis is restricted to emails with substantive responses. The number of property owners is in []. P-values are from the McNemar paired difference in proportions tests. The test statistics follows a chi-squared distribution with 1 degree of freedom.

Table 5: Response Rate with Property-Owner Fixed-Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Gay Couples (All Races)	Gay White Couples	Gay Black Couples	Gay Hispanic Couples	Lesbian Couples (All Races)	White Lesbian Couples	Black Lesbian Couples	Hispanic Lesbian Couples
Sexual Orientation	-0.046** (0.020)	-0.039** (0.017)	-0.056*** (0.013)	-0.052*** (0.014)	-0.012 (0.021)	-0.011 (0.016)	-0.015 (0.016)	-0.014 (0.016)
Obs	6,540	2,072	2,164	2,312	6,440	2,196	2,064	2,180

Robust standard errors in parentheses. All models include property-owner fixed effects and standard errors are clustered at the property-owner level. *** p<0.01, ** p<0.05, * p<0.1

Table 6: Keyword groupings used for email text searches

Positive Language					
Positive Descriptors:	New, new	Clean, clean	Quite, quite	Nice, nice	Good, good
Offer to Show Other Units:	Another, another	Second, second	Several, several		
Offer to Schedule Viewing	View, view	Tour, tour	Show, show	Stop/come by, stop/come by	Appointment, appointment
Contact Information	@	Numerical Values [0-9]*	Email, email	Contact, contact	Application, application, Apply, apply
Greetings / Polite Language	Thanks, thanks	Thank you, Thank You	Please call	Sincerely	
Negative Language					
Fees	Application fee**, Application Fee**	Deposit, deposit	$		
Employment	Employed, employed	Employment, employment	Employer, employer	Pay stub**, pay stub**, paystub	
Background / Rental History	Crime, crime, Criminal, criminal	Verification, verify	SSN, ssn	References, references	
Eviction History	Eviction, eviction	Evicted, evicted	Court, court		

*This was confirmed visually by the author to be a phone number and coded appropriately

**This was confirmed visually by the author to be a two-word phrase and coded appropriately

Table 7: Property Owner Response Differences in Email Content

		White Couples			African American Couples			Hispanic Couples		
	Present in None	Heterosexual-Only	Same Sex-Only	$H_0 = R_w^{SS} - R_w^{H} = 0$	Heterosexual-Only	Same Sex-Only	$H_0 = R_{AA}^{SS} - R_{AA}^{H} = 0$	Heterosexual-Only	Same Sex-Only	$H_0 = R_{H}^{SS} - R_{H}^{H} = 0$
Positive Language										
Positive Descriptive	85.8% [4280]	11.9% [84]	10.7% [76]	1.1% p-value = 0.527	9.3% [66]	6.9% [49]	2.4% p-value = 0.012**	9.2% [65]	7.2% [51]	2.0% p-value = 0.194
Other Units	95.0% [4738]	10.4% [26]	8.4% [21]	2.0% p-value = 0.532	9.6% [24]	8.8% [22]	0.8% p-value = 0.075*	8.8% [22]	8.0% [20]	0.8% p-value = 0.758
View Unit / Schedule Appointment	71.7% [3574]	12.2% [173]	11.0% [156]	1.2% p-value = 0.349	9.6% [136]	8.6% [121]	1.1% p-value = 0.008***	9.1% [128]	8.7% [123]	0.4% p-value = 0.752
Contact Information	66.9% [3340]	12.2% [201]	11.8% [195]	0.4% p-value = 0.763	9.8% [162]	9.6% [158]	0.2% p-value = 0.136	10.1% [167]	9.0% [148]	1.2% p-value = 0.284
Greetings / Polite Language	43.0% [2144]	10.8% [308]	9.9% [281]	0.9% p-value = 0.266	9.7% [277]	9.0% [256]	0.7% p-value = 0.001***	10.1% [286]	9.0% [255]	1.1% p-value = 0.182
Negative Language										
Fees	92.0% [4590]	6.3% [25]	5.8% [23]	0.5% p-value = 0.773	11.8% [47]	13.3% [53]	1.5% p-value = 0.549	8.8% [35]	9.3% [37]	0.5% p-value = 0.815
Employment	91.6% [4570]	1.9% [8]	2.9% [12]	1.0% p-value = 0.371	5.0% [21]	4.3% [18]	0.7% p-value = 0.631	3.6% [15]	4.1% [17]	0.5% p-value = 0.724
Background / History	95.0% [4738]	4.8% [12]	5.6% [14]	0.8% p-value = 0.695	8.4% [21]	10.4% [26]	2.0% p-value = 0.406	5.6% [14]	5.2% [13]	0.4% p-value = 0.847
Eviction	96.1% [4794]	4.6% [9]	5.1% [10]	0.5% p-value = 0.513	10.8% [21]	14.9% [29]	4.1% p-value = 0.258	7.7% [15]	7.2% [14]	0.5% p-value = 0.852

Notes: The Analysis is restricted to emails with substantive responses. The number of property owners is in []. P-values are from the McNemar paired difference in proportions tests. The test statistics follows a chi-squared distribution. *** p<0.01, ** p<0.05, * p<0.1

Table 8: Content Analysis with Restricted Categories

	Same-Sex Compared to Heterosexual Couples			Within-Race Responses				
	Heterosexual Total	Same-Sex Total	$H_0 = R^{SS}_{Total} - R^{H}_{Total} = 0$	White	Black	Hispanic	$H_0 = R^{Total}_{White} - R^{Total}_{Black} = 0$	$H_0 = R^{Total}_{White} - R^{Total}_{Hispanic} = 0$
Positive Language								
Positive Descriptive	30.4% [215]	24.9% [176]	5.5% p-value = 0.049**	39.3% [278]	30.1% [213]	30.6% [217]	9.2% p-value = 0.003***	8.6% p-value = 0.006***
Other Units	28.8% [72]	25.2% [63]	3.6% p-value = 0.439	35.2% [88]	33.6% [84]	31.6% [79]	1.6% p-value = 0.763	3.6% p-value = 0.486
View Unit / Schedule Appointment	30.9% [437]	28.3% [400]	2.6% p-value = 0.201	39.3% [556]	31.1% [440]	29.6% [418]	8.2% p-value = 0.001***	9.8% p-value = 0.001***
Contact Information	32.2% [530]	30.4% [501]	1.8% p-value = 0.366	38% [633]	31% [510]	31% [506]	7.5% p-value = 0.001***	7.7% p-value = 0.001***
Polite Language	30.6% [871]	27.8% [792]	2.8% p-value = 0.053*	34.9% [993]	32.3% [920]	32.8% [932]	2.6% p-value = 0.095*	2.1% p-value = 0.164
Negative Language								
Fees	26.9% [107]	28.4% [113]	1.5% p-value = 0.686	26.4% [105]	39.4% [157]	34.4% [137]	13.1% p-value = 0.002***	8.0% p-value = 0.040**
Employment	10.5% [44]	11.2% [47]	0.7% p-value = 0.753	31.3% [131]	35.2% [147]	33.7% [141]	3.8% p-value = 0.337	2.4% p-value = 0.544
Background / History	18.8% [47]	21.2% [53]	2.4% p-value = 0.549	26.8% [67]	46.0% [115]	27.2% [68]	19.2% p-value = 0.001***	0.4% p-value = 0.931
Eviction	23.1% [45]	27.2% [53]	4.1% p-value = 0.419	19% [37]	50% [98]	31% [60]	31.3% p-value = 0.001***	11.8% p-value = 0.020**

Notes: The Analysis is restricted to emails with substantive responses. The number of property owners is in []. P-values are from the McNemar paired difference in proportions tests. *** p<0.01, ** p<0.05, * p<0.1

Table 9: Time to Response at the Email-Level

Time to Response at the Email-Level

Times Elapse	Heterosexual	Same-Sex Male Couples	Difference in Means Heterosexual v. Same-Sex Males	Same-Sex Female Couples	Difference in Means Heterosexual v. Same-Sex Female
White	6:46	7:14	0:28	7:05	0:19
	(22:12)	(22:16)	p-value = 0.565	(21:49)	p-value = 0.760
African American	6:55	7:23	0:28	7:16	0:21
	(23:10)	(24:23)	p-value = 0.591	(23:01)	p-value = 0.770
Hispanic	7:02	7:41	0:39	7:26	0:24
	(22:51)	(22:43)	p-value = 0.434	(22:57)	p-value = 0.0.720

Email Level: Word Count

	Heterosexual	Same-Sex Male Couples	Difference in Means Heterosexual v. Same-Sex Males	Same-Sex Female Couples	Difference in Means Heterosexual v. Same-Sex Female
White	27.06	24.03	3.03	25.61	1.45
	(61.23)	(54.11)	p-value = 0.374	(58.67)	p-value = 0.608
African American	24.19	23.51	0.68	24.61	0.42
	(55.64)	(55.51)	p-value = 0.833	(56.61)	p-value = 0.885
Hispanic	25.52	24.16	1.36	24.06	1.46
	(57.22)	(58.45)	p-value = 0.753	(58.12)	p-value = 0.603

Notes: In the first panel, the rows 1, 3, and 5 express average time elapsed between when an inquiry is sent and when a property owner reply is received reported in (H:MM) format. This analysis only include emails in which a substantive reply is made. Standard Deviations are reported in (). P-Values in column 3 and 5 in panel 1 report the results of a difference in means test. In panel 2, rows 1, 3, and 5 report average word count for emails sent from White, African American, and Hispanic names, respectively. Columns 3 and 5 report the p-values of a standard difference in means test.

Table 10: Relationship between State and Local Housing Protections and Response Rates

	(1) Gay Couples (All Races)	(2) Gay White Couples	(3) Gay Black Couples	(4) Gay Hispanic Couples	(5) Lesbian Couples (All Races)	(6) Lesbian White Couples	(7) Lesbian Black Couples	(8) Lesbian Hispanic Couples
State Law Analysis								
Sexual Orientation	-0.038***	-0.032*	-0.044**	-0.042**	-0.011	-0.006	-0.013	-0.011
	(0.014)	(0.017)	(0.018)	(0.017)	(0.015)	(0.016)	(0.017)	(0.016)
State Protection	0.022	0.032*	0.019	0.016	0.008	0.012	0.006	0.005
	(0.017)	(0.018)	(0.018)	(0.018)	(0.014)	(0.018)	(0.019)	(0.018)
Sexual Orientation * State Protections	0.014	0.021	0.031*	0.022	-0.006	0.002	-0.016	-0.002
	(0.016)	(0.018)	(0.018)	(0.017)	(0.015)	(0.018)	(0.017)	(0.017)
Observations	4,360	1,404	1,438	1,518	4,290	1,440	1,418	1,432
Local Law Analysis								
Sexual Orientation	-0.050***	-0.041**	-0.058***	-0.052***	-0.009	-0.006	-0.008	-0.011
	(0.017)	(0.016)	(0.016)	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)
Local Protection	-0.010	0.011	-0.025	0.011	-0.012	0.008	-0.012	-0.014
	(0.016)	(0.016)	(0.017)	(0.018)	(0.017)	(0.017)	(0.017)	(0.017)
Sexual Orientation * Local Protections	-0.010	0.010	-0.026*	0.012	-0.002	0.005	-0.020	0.012
	(0.014)	(0.015)	(0.015)	(0.015)	(0.019)	(0.018)	(0.018)	(0.018)
Observations	3,994	1,238	1,298	1,458	3,928	1,368	1,206	1,354

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. All models include unit-level controls, annualized monthly rent, and income values is provided in the inquiry. The state level results presented in the top panel include census-tract fixed effects and email-class fixed effects. The local-level results presented in the bottom panel include state-fixed effects and email-class fixed-effects. Standard errors are clustered at the property-owner level.