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Examining differential treatment of single mothers and people with disabilities in the apartment rental market

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HIGHLIGHTS

- A correspondence methodology tests for discrimination in apartment rentals.
- Randomly assigned signals of single-motherhood or disability create two treatments.
- Relative to the control, single-mothers receive 14.3% fewer responses.
- Relative to the control, people signaling disability receive 12.5% fewer responses.

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ABSTRACT

This paper attempts to improve our understanding of rental market experiences of single mothers and people with disabilities. Inquiry emails randomly assigned a signal of disability receive 12.5% fewer responses than control emails, and those signaling single-motherhood receive 14.3% fewer.

1. Introduction

The Fair Housing Act (FHA) — Title VIII of the Civil Rights Act of 1968 — prohibits "discrimination in the sale, rental and financing of dwellings based on race, color, religion, sex or national origin". In 1988, legislators "expanded the coverage of the Fair Housing Act to prohibit discrimination based on disability or on familial status (presence of child under age 18, and pregnant women)".[1] This study aims to provide preliminary estimates of apartment rental discrimination against these minority groups.[2]

Signals of disability ($n = 516$) or familial status ($n = 522$) were randomly inserted into otherwise identical rental inquiry emails in order to create two treatment groups, while inquiries with no such signals comprise the control ($n = 518$). Relative to control inquiries, emails containing a signal of disability are 16.8% less likely to receive a positive-response from a landlord, and 12.5% less likely to receive any response. Emails signaling the presence of a child in the household are 16.6% less likely to receive a positive-response, and 14.3% less likely to receive any response, relative to the control.

2. Method

1,556 email inquiries were sent to landlords who posted rental listings for one-bedroom apartments to craigslist.org.[3] Landlords were only surveyed once each in order to comply with Institutional

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[1] http://portal.hud.gov/hudportal/HUD?src=/program_offices/fair_housing_equal_opp/progdesc/title8.

[2] This research benefited greatly from the existing body of literature on discrimination and field-studies, largely uncited here for the sake of brevity. Instead, I refer you to Lang and Lehmann (2012) (review of theoretical treatments and empirical findings of labor market discrimination), and Guryan and Charles (2013) (review of the evolution of correspondence/field studies and their applications in discrimination research).

[3] The term "landlord" is used to describe the decision making agent who posted the rental listing and/or responded to the inquiry.

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Table 1
Cities surveyed, and mean rent by treatment by city.

City (N)	Mean rent by treatment			p-value (two-tailed)	p-value (two-tailed)
	Control	*Disabled*	*Mother*	*(Control — Disabled)*	*(Control — Mother)*
Atlanta (135)	723.96	732.94	677.32	0.820	0.270
Baltimore (181)	810.83	836.51	787.78	0.424	0.480
Boston (209)	962.34	954.07	929.70	0.801	0.292
D.C. (201)	1,155.77	1,150.02	1,072.60	0.892	0.060*
Los Angeles (160)	996.28	1,066.30	1,026.79	0.048**	0.390
Madison (163)	637.18	671.52	694.50	0.200	0.029**
Minneapolis (174)	725.64	703.67	731.91	0.318	0.771
San Diego (161)	1,001.60	1,018.96	1,020.78	0.658	0.624
Tucson (172)	534.88	523.39	523.53	0.607	0.588
All (1,556)	848.21	861.75	836.57	0.411	0.467

* $p < 0.10$.
** $p < 0.05$.

Table 2
Number of inquiries sent, by treatment and Text ID.

Inquiry Text ID	Single mother	Disabled	Control	Total
Text 1	175	169	172	516
Text 2	173	175	171	519
Text 3	174	172	175	521
Total	522	516	518	1,556

Table 3
Positive response definitions.

Positive Response	Made it clear the unit was available (Available)
Positive Response 2	(1) Available AND (2) Was "nice" in their response
Positive Response 3	(1) Available AND (2) Did not negatively reference any characteristics of the applicant For example: if the applicant inquired about handicapped accessibility, the response did not state that the unit was not handicapped accessible. If the applicant mentioned their child, the response did not state that the unit was single occupancy only.

Review Board stipulations. As such, small landlords were over-sampled relative to their market share in a given city.

Randomly selected listings were sent inquiries within 48 h of when they were posted. Three non-identical but similar inquiry texts were used, all of which followed the sample template below[4]:

> Hi,
> My name is **[Name]** and I am writing in response to your ad for a one-bedroom apartment. I really think this unit would be perfect for me {and my child}; is there a time I could come by to check it out? [Also, is the apartment handicapped accessible?]
> Thank you very much for your time,
> **[Name]**

Where **[Name]** is a "white-sounding", female, full name[5] assigned to the fictitious applicant, the {curly bracketed} phrase signals familial status, and the [hard bracketed] phrase signals disability. Both treatments were never added to the same inquiry, yielding two treatments and a control that received neither.

Landlord responses were "categorized" to capture the content of each landlord's response, and to determine whether a response was "positive", where positive responses are those in which the landlord states or implies that the unit is available.[6]

3. Results

Because inquiry texts were identical aside from the statements assigning treatment, and because treatments were randomly assigned across landlords, differences in average outcomes between the treatment groups and the control group capture the treatment effects.

Treatment effects are estimated using models (1) and (2), where $f(\,)$ is either linear ("LPM") or logistic ("Logit").[7] Tables 4 and 5 provide the coefficient estimates.

$$\Pr(Response_i|Signal_i) = f(\beta_0 + \beta_1 * Signaled\_Disability_i + \beta_2 * Signaled\_Child_i) \quad (1)$$

$$\Pr(Pos.Response_i|Signal_i) = f(\gamma_0 + \gamma_1 * Signaled\_Disability_i + \gamma_2 * Signaled\_Child_i)\,. \quad (2)$$

Inquiries that signaled a disability are 12.5% ($p < 0.001$) less likely to receive a response and 16.8% ($p < 0.001$) less likely to receive a positive response. Inquiries that signaled a child are 14.3% ($p < 0.001$) less likely to receive a response and 16.6% ($p < 0.001$) less likely to receive a positive response. These results are robust to varying definitions of "positive response", as shown in Table 6.

There were three cities in which the mean rent sampled by the control group was statistically different from the mean rent sampled by one of the treatments (Table 1). Table 7 presents output

[4] Inquiry texts were randomly assigned (Table 2).
[5] Emily Bauer, Emily Erickson, Kristen Bauer, Kristen Erickson.
[6] See Table 3 for various definitions of "positive" considered.
[7] $Response_i$, $Signaled\_Disability_i$, and $Signaled\_Child_i$ are indicator variables = 1 if inquiry i: received a response, was assigned to the disability treatment, or was assigned to the single-mother treatment (respectively).