Racial Discrimination in the Sharing Economy: Evidence from a Field Experiment

Ben Edelman, Michael Luca, and Dan Svirsky
The internet in 1993

"On the Internet, nobody knows you’re a dog."
The internet in 2015

"On Facebook, 273 people know I'm a dog. The rest can only see my limited profile."
Booking at Marriott

Courtyard New Haven at Yale

At Yale University in historic York Square, the Courtyard by Marriott at Yale is located at 30 Whalley Avenue, in the heart of downtown New Haven, Connecticut. Close to the Yale Bookstore, Payne Whitney Gym, Yale Bowl, Toad's Place, and Chapel Street.

View Hotel Website

Key Amenities

- High-speed Internet
- Free high-speed Internet
- Fitness center
- Business center
- Restaurant on-site
- New Lobby
- Parking
- Meeting/event space

About Courtyard Hotels

Courtyard provides all of the essential services and amenities you need to be successful on your trip. And we are evolving our product every day to meet the changing needs of today’s travelers. From new lobby spaces, to enhanced food and beverage options, Courtyard wants you to make the most of your stay. (Amenities may vary by location.)

From $139 (USD) per night

View Rates

Return to search results

30 Whalley Ave
New Haven, CT 06511, USA
1 203-777-6221
Booking at Airbnb

$145

Check in: [mm/dd/yyyy]  
Check out: [mm/dd/yyyy]  
Guests: 1

Contact Me

Save to Wish List

Saved 24 times

Matthew

More about the host
Searching on Airbnb
But the plural of anecdote isn’t data...
Research Question

• Is there racial discrimination on Airbnb?
• Important given Airbnb’s...
  • Size
  • Regulatory status
  • Displacement of traditional hotels and real estate markets
Testing for discrimination on Airbnb

- Field experiment:
  - Send out roughly 6,400 requests for availability.
  - Vary name of guest. Hold all else constant.
- Cities:
  - LA
  - Washington, DC
  - St Louis
  - Dallas
  - Baltimore
- Draw 6,400 properties with availability one month out.
- Randomly assign each host to get a message from either an African-American guest or a White guest
- Send message inquiring about availability. Vary only guest’s name.
Quick Aside on Ethics

• Are hosts hurt?
• Did we violate the Terms of Use?
• Did we commit a crime?
• Computer Fraud and Abuse Act, 18 U.S.C. 1030
  • “Whoever... intentionally accesses a computer without authorization or exceeds authorized access, and thereby obtains... information from any protected computer”
• (Our experiment was pre-approved by IRB)
<table>
<thead>
<tr>
<th>White Names</th>
<th>African-American Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allison Sullivan</td>
<td>Lakisha Jones</td>
</tr>
<tr>
<td>Brad Walsh</td>
<td>Darnell Jackson</td>
</tr>
<tr>
<td>Anne Murphy</td>
<td>Latonya Robinson</td>
</tr>
<tr>
<td>Brent Baker</td>
<td>Jamal Jones</td>
</tr>
<tr>
<td>Kristen Sullivan</td>
<td>Latoya Williams</td>
</tr>
<tr>
<td>Brett Walsh</td>
<td>Jermaine Jones</td>
</tr>
<tr>
<td>Laurie Ryan</td>
<td>Tamika Williams</td>
</tr>
<tr>
<td>Greg O’Brien</td>
<td>Rasheed Jackson</td>
</tr>
<tr>
<td>Meredith O’Brien</td>
<td>Tanisha Jackson</td>
</tr>
<tr>
<td>Todd McCarthy</td>
<td>Tyrone Robinson</td>
</tr>
</tbody>
</table>
What a host sees...

Laurie has sent you an inquiry about Cozy, clean house near Boston. Reply, pre-approve or decline by 8:44 AM EDT on Jul 26. Based on your rate of $100 per night along with associated fees, your potential payout for this reservation is $149.

Hi, how are you? I am interested in renting your place for a weekend: from 9/20 (Friday at night) through 9/22 (Sunday afternoon). Is there availability? Thank you!

-Laurie Ryan

Airbnb Tip: Read our guide for keeping your Airbnb account secure.
Main results

- Guests with distinctively white names got a Yes response **50% of the time**.
- Guests with distinctively African-American got a Yes response **42% of the time**.
- Sample size is large enough that we have a reasonably precise sense of the true numbers...
- Difference is persistent across:
  - Cities
  - Race of host
  - Price of property
  - Whether host lives at the property
Types of Responses

Figure 2. Host Responses by Race

- **Yes**: 1,200
- **Conditional Yes**: 900
- **No Response**: 600
- **Conditional No**: 300
- **No**: 200

**Legend**:
- Blue: Guest is African-American
- Red: Guest is White
Are shared properties different?

<table>
<thead>
<tr>
<th></th>
<th>Unshared Property</th>
<th>Shared Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guest is African-American</td>
<td>0.45</td>
<td>0.35</td>
</tr>
<tr>
<td>Guest is White</td>
<td>0.50</td>
<td>0.45</td>
</tr>
</tbody>
</table>

The bar chart compares the proportion of yes responses between unshared and shared properties for guests who are African-American and White.
Are professional hosts different?

- Guest is African-American
- Guest is White

Non-Professional Host

Professional Host
Are active hosts different?

Proportion of Yes Responses

<5 Reviews 5+ Reviews
Guest is African-American Guest is White
Are young hosts different?
Are African-American hosts different?
A note on race and gender...

<table>
<thead>
<tr>
<th>% of Yes Responses for...</th>
<th>White Male Guests</th>
<th>African-American Male Guests</th>
<th>White Female Guests</th>
<th>African-American Female Guests</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Male Host</td>
<td>0.42</td>
<td>0.35</td>
<td>0.49</td>
<td>0.32</td>
</tr>
<tr>
<td>African-American Male Host</td>
<td>0.64</td>
<td>0.40</td>
<td>0.59</td>
<td>0.43</td>
</tr>
<tr>
<td>White Female Host</td>
<td>0.46</td>
<td>0.35</td>
<td>0.49</td>
<td>0.44</td>
</tr>
<tr>
<td>African-American Female Host</td>
<td>0.43</td>
<td>0.38</td>
<td>0.53</td>
<td>0.59</td>
</tr>
</tbody>
</table>
Role of property price

![Graph showing the proportion of yes responses for White and Black names across different property prices. The graph indicates that White names tend to receive higher proportion of yes responses compared to Black names, especially around the price of $95.

- **White Names**: The line shows a steady increase from the lowest price of $10 to around the $95 mark, after which it starts to decline.
- **Black Names**: The line is lower and more stable, generally below the white line throughout the price range.

The graph suggests that property price has a role in the response rate, with a notable increase in yes responses at a specific price range.
Role of neighborhood demographics

![Graph showing the proportion of yes responses for White and Black names across different shares of African-American population in Census Tract.](graph.png)

- **White Names**: Proportion of yes responses remains relatively consistent across different shares of African-American population.
- **Black Names**: Proportion of yes responses shows variability, with some peaks and troughs.

**X-axis**: Share of African-American Population in Census Tract

**Y-axis**: Proportion of Yes Responses
Does a history of African-American guests make a difference?

![Graph showing the proportion of yes responses for no African-American guests and 1+ African-American guests, categorized by guest race. The graph indicates a difference in response rates between African-American and White guests.](graph.png)
Hosts pay a price to discriminate...

- Hosts in our data listed their properties at a median price of $163 (and a mean price of $295)
- Eight weeks after our inquiries, only 37.9% of listings were filled or unavailable
  - \([\text{Probability of not finding a replacement}] \times \text{Listing Price} = 98.19\)
What our experiment doesn’t address

• Why is this happening?
  • Race vs SES
  • Pure animus? Statistical guesses about the guests?

• Do more complete profiles matter?
• Does the choice of city matter?
Airbnb’s response

• Increase Instant Book Listings to 1 Million
• Experiment with Reducing Prominence of Guest Photos
• More detailed nondiscrimination policy
  • “By joining this community, you commit to treat all fellow members of this community, regardless of race, religion, national origin, disability, sex, gender identity, sexual orientation or age, with respect, and without judgment or bias”
• Prevent a host from telling one guest that a property is unavailable, then later accepting another guest's request for the same nights
Academic and Legal Developments Since Our Paper...

• Academic research
  • The new policies may not have worked
  • Not just a problem for guests
  • Not just a race problem

• Lawsuits
  • DC (arbitration clause upheld)
  • Oregon

• More enforcement
  • California Department of Fair Employment and Housing
  • Registration requirements in SF and Denver
  • NYC ($1.2 million lawsuit pending)
  • Toronto
Thank you!