

Discrimination

Definition

“We define labor market discrimination as a situation in which persons who provide labor market services and who are equally productive in a physical or material sense are treated unequally in a way that is related to an observable characteristic such as race, ethnicity, or gender” (Altonji and Black)

- What about consumers who like handsome actors?
- Investment in productivity may depend on minority status

Becker's Taste Based Model

- Employers willing to pay to avoid contact with some people
- $u_e = u_e(\pi, L_b)$, e employer, b black, π profit
- Black and white are equally productive and perfect substitution

$$\pi = f(L_w + L_b) - w_w L_w - w_b L_b$$

- FOC implies that if firm hires both, then $w_w - w_b = -\frac{\partial u_e}{\partial L_b} / \frac{\partial u_e}{\partial \pi}$
- The wage gaps determine who the firm hires

Implication of Becker's Model

- Discriminating employers bear additional costs
- In the LR driven out of the market by competition
- Arrow: this “predicts the absence of the phenomenon it was designed to explain”

Statistical Discrimination

- Employers have prior beliefs on group member's productivity
- Assume a test score y to decide who to hire
- True skill level q
- $y = q + u$, u is measurement error
- Employer decides by $\hat{q} = E[q|y]$
- One could derive $\hat{q} = (1 - \gamma)\mu_y + \gamma y$, where $\gamma = \frac{\text{Var}(q)}{\text{Var}(q) + \text{Var}(u)}$
- If the test is useless, then more weight on μ_y

Implications of the Model

- Equal pay when there are equal **expectation on** performance
- Different mean on groups/Equal Variance
 - Tests are equally informative, still favor higher mean group
- Equal mean/Different Variance
 - Tests are differentially informative, depends

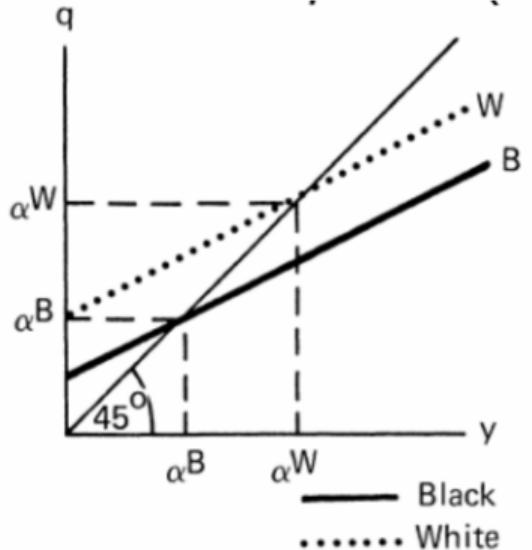


Figure 5. Prediction of Productivity (q), by Race and Test Score (y), Assuming the Slopes Are Equal.

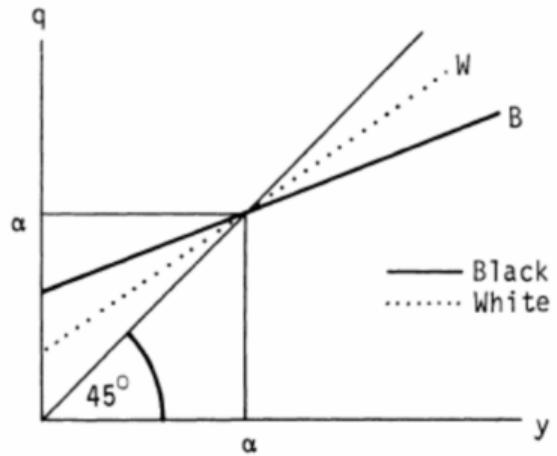


Figure 1B. Predictions of Productivity (q) by Race and Test Score (y), Assuming a Steeper Slope for Whites.

How to Test Discrimination: Regression-Based Method

- How to run the regression?
- Direct regression
 - $y = bx + az$, x : observables, z : group indicator
 - Test $a = 0$
- Reverse regression
 - let $bx = q$, qualification, some measure of performance
 - $q = cy + dz$
 - Test $d = 0$
- Results diverge using these methods.....

Remarks

- When people talk about discrimination, what x are included?
- Maybe a ton of unobservables
- Reasons that you see differences in payment?

Uber Example

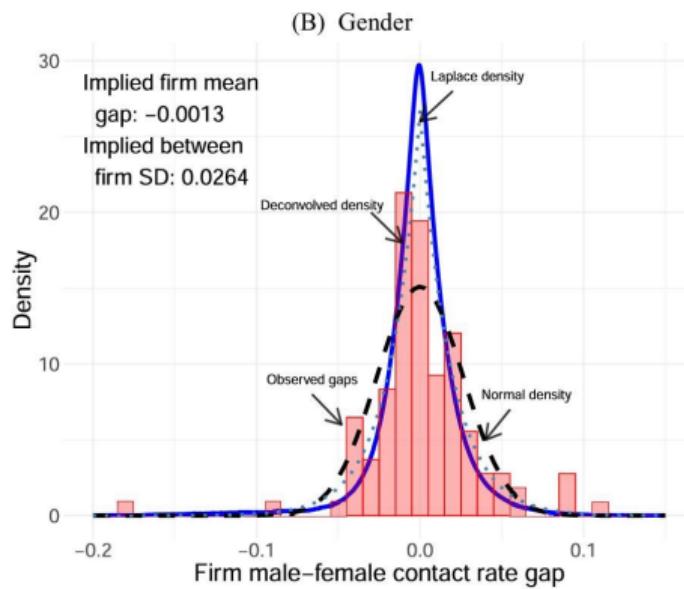
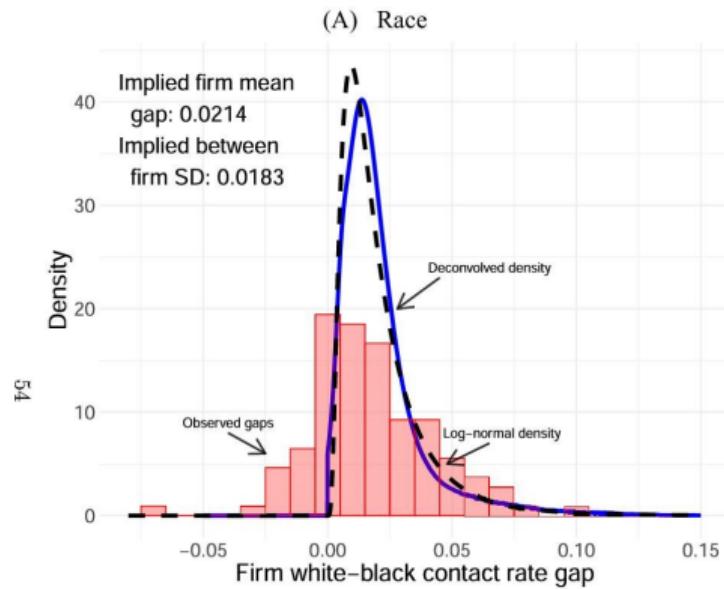
- 7% gender earning gap
- But earnings are decided by algorithms, why?
- Experience and speed

Audit Study

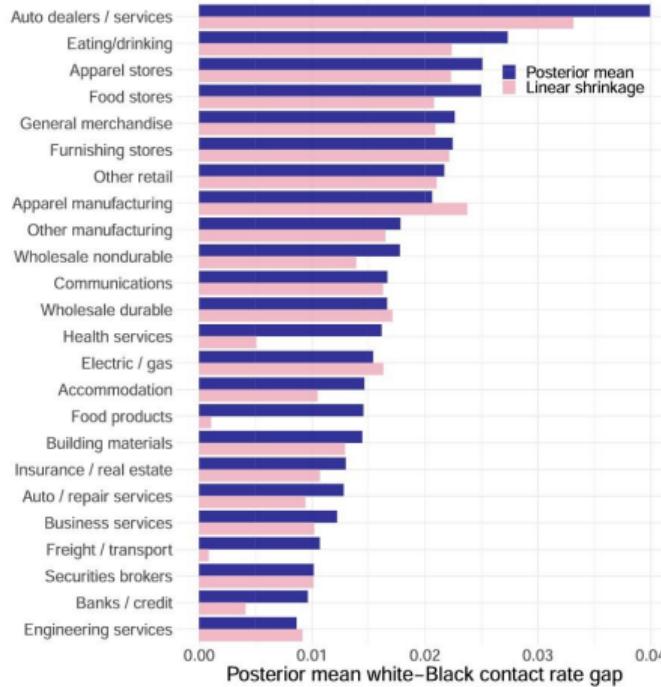
- Bertrand and Mullainathan (2004)
- 5000 same resumes to employers, only differ by names
- Evidence on discrimination
- Not align to either theory
- Many papers like these
- Some try to test the theories, mixed findings as usual

Dig Deeper

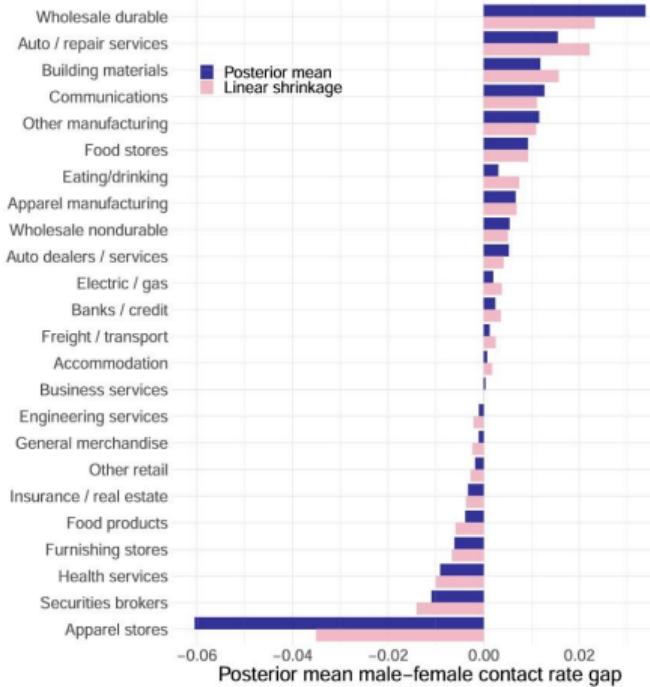
- Are discriminatory jobs concentrated in particular companies?
 - Only some company discriminates a lot?
 - Every firm discriminates a little?
- A larger scale experiment by Kline et al. (2022)
- Inference on individual firms requires special techniques
 - Empirical Bayes



(A) Race



(B) Gender



A Side: Field Experiments

- Much more convincing than lab experiments
- Cheap and easy designs carry you a long way
- Some issues
 - IRB application
 - AEA pre-experiment registration
 - Pilot analysis



國立臺灣大學研究發展處
OFFICE OF RESEARCH AND DEVELOPMENT

關於本處 計畫申請 人員管理 補助獎項 研究資源 研究倫理 專利技轉 新創育成 



字體大小 A↓  A↑ 列印 

首頁 / 研究倫理 / 人類與人體研究倫理 / 研究倫理審查

請輸入關鍵字



最新消息

全部

公告

教育訓練

審查申請資訊

公告日期 標題

2022-12-27 重要公告-免審查倫理審查相關

公告日期 標題

近期教育訓練課程資訊

審查申請表單下載

國立臺灣大學行為與社會科學研究倫理委員會審查服務收費標準



AEA RCT Registry currently lists 7201 studies with locations in 166 countries.

[REGISTER A TRIAL >](#)

MOST RECENTLY REGISTERED TRIALS

Remote Work Communication and Team Performance: The Effects of Flexible Work Schedules

LAST REGISTERED ON MAY 20, 2023 

Effective communication and technological coordination are critical for successful teamwork. Recent innovations in communication technology have changed the landscape of communication methods among team members in the workplace, making virtual communication increasingly easier. One potential advantage of remote work is it supports more work hour flexibility than on-site jobs do, which many workers prefer. Higher levels of job satisfaction are not only associated with greater worker wellbeing, but also with benefits for organizations through higher labor productivity. Moreover, organizations that offer flexible work schedules may be able to attract workers they otherwise could not afford. However, flexible work hours may also hinder effective coordination and communication. Less frequent...

Managing Algorithm Development among Third Party Contractors

LAST REGISTERED ON MAY 20, 2023 

The use of autonomous ML based pricing algorithms has grown in many markets in recent years. Recent research shows that such pricing algorithms can increase prices by softening competition and potentially engaging in collusive behavior. Additional research shows that the design of algorithms affects the extent to which they produce supra-competitive prices. These findings create substantial uncertainty for policymakers and for firm managers. It is unclear to what extent software designers actively consider competition or other "downstream" effects of widespread adoption of their algorithms in markets when designing them. It is also unclear to what extent firms using algorithms can influence software developer decisions and designs. While outsourcing algorithm development can help firms...

What Do We Do?

- As usual, demand-side measures are cheaper and more effective
 - But changing people's preferences take time
- Affirmative action?
 - Quotas on hiring and entrance
 - Everywhere, also on the election, etc.
 - Side effect: what do people think infer on these people?
 - Backlash: Harvard lawsuit