Discussion of Peri et al.

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Overview

- The paper is divided into 4 chapters, not including the introduction.
- I will focus on the chapter employing search methods to explore discrimination (by Flabbi and Tejada), and will add a few comments on that touch upon some of the results from other chapters.
- Overall, I found that the chapters included may interesting empirical results and interpretations.
- That said, I am not sure that we are much closer to "understanding" discrimination than we were before. Not for lack of effort, just because it is hard to "explain" using a neoclassical framework.
- It may be that the theory of statistical discrimination has the most to offer.

Search model of discrimination

- The simple unemployed search model that is used in Chapter 2 is a potentially useful one for looking at discriminatory behavior.
- There generally exist profits (i.e., surplus) to both sides in the employment contract due to search frictions, so that Becker's impossibility results are not immediately applicable.
- In this view of the world, the wage is given by

$$w(x, d, g) = \alpha(x - d \times g) + (1 - \alpha)\rho U_g,$$

  where $d > 0$ indicates that the employer is discriminatory and g is an indicator for female.
- The proportion of discriminatory employers is $p \in [0, 1]$.
- The value of unemployed search for females, U_f, is less than U_m if $d > 0$ and $p > 0$, all else equal.

Theory (without discrimination - only gender differences)

- The contact rate with potential employers is λ (search intensity or type of job differences by g?)
- The exit rate is η (do women "quit" more often?)
- The productivity distribution is $G(x)$ (productivity differences by g?)
- Discount and flow benefits in unemployment are ρ and b (women may be less myopic and with more productive use of time in unemployment?)
- All of these parameters determine U_g and the reservation match value $\theta_g^* = \rho_g U_g$
- All of these parameters can differ by g and are capable of reproducing gender-specific wage and unemployment duration distributions.

Theory - 2

- Nice thing about model is that discrimination is indicated by employment proportions, not (necessarily) by wage differences.
- Women will have higher reservation match values at discriminatory employers, so that part of the loss in terms of $\alpha \times d$ is compensated by the higher x required for job acceptance.
- The lack of On-the-Job (OTJ) search in this model potentially important.
  - Employment spells consist of sequences of job spells.
  - The fact that women are more likely to exit an employment spell (η) has implications for wage growth.
- The theory is that separations are all exogenous and independent of x.
- But for women (especially) shocks to the value of home time, b, may lead to separations from low match value jobs. This may make employers avoid hiring low skill women (in particular).

Competitive features in a search framework

- In a model with OTJ search in which employers make counteroffers in an attempt to keep an employee, this gives nondiscriminators an advantage and a bigger share of the jobs are shifted to *ND*.
  - At a *D* firm with match x, the firm would never offer a wage higher than $x - d$, while a *ND* would offer no more than a wage of x.
  - If d is large *D* firms will lose most of these Bertrand competitions.
- The model ignores the vacancy creation process - which partially determines p in equilibrium.
  - In competitive equilibrium (in terms of vacancy creation), the expected value of a vacancy is driven to 0.
  - If employing a woman actually decreases the welfare of a discriminator, wouldn't they not enter the market (with a vacancy) in the first place? Conversely, if they enjoyed discrimination, would they crowd all nondiscriminators out?
- If company is publicly-owned by profit-lovers, discriminatory CEOs or managers should be driven out. Is discrimination more frequent in privately-held companies or regulated industries?

Competitive features in a search framework - 2

- The random search assumption is important here. If discriminators could search only in markets without women, no impacts on the welfare of anyone.
- Equivalently, in a model with directed search, if discriminators could advertise their type, only males would apply to them.
- Equal employment opportunity laws could potentially be welfare-reducing!
- An important component of the model is that discriminatory firms can credibly signal to a female applicant that they are discriminators. But all firms bargaining with a female applicant have an incentive to claim that they are type D. How does this play out in a system with antidiscrimination laws?

Statistical discrimination

- Is a "pure" discrimination model the right one to think about gender differences?
- A way to blend (cultural) expectations with under-performance by women in the labor market is with a model of statistical discrimination.
- Classic applied paper on the subject is Moro (2003), applied to racial discrimination.
- Define expectations regarding male and female productivity, attachment to the labor market, etc., denoted E.
- There are imperfect signals of individual types. Types may be expected to be different even with the same signal (i.e., schooling).
- Given expectations, do women make (imperfectly observed) investments, participation decisions, etc., consistent with them?
- If their actions, A, are consistent with E, this is an equilibrium, loosely speaking $E^* = A(E^*)$

Statistical discrimination - 2

- There typically are multiple equilibria, $E_1^*, .., E_M^*$.
- There are underlying primitives that describe the labor market, like technology, the organization of work, etc.
- Changes in labor market outcomes may reflect solely a change in the equilibrium selected, e.g., moving from E_2^* to E_4^*.
- Or may reflect changes in the underlying market structure. An open question is how expectations change in such a setting, or whether the lag in changing expectations leads to the imbalance in labor market outcomes by gender of the type well-documented in this report.

Empirical results

- Key parameters are d and p. Functional form assumptions are required to identify them. The key is the size of d and p. If either are 0, then no discrimination per se.
- Identification issues apparent in instability of some parameters across time periods and educational categories. For graduate degrees, no discrimination, while for other educational categories fluctuations in the estimates are disturbing.
- Other parameter estimates make sense.
- At a minimum, it would be useful to try some other functional form assumptions for the matching distribution.
- I liked the comparative statics and policy experiments that were conducted. They illustrate the advantages of a model-based approach to empirical research.

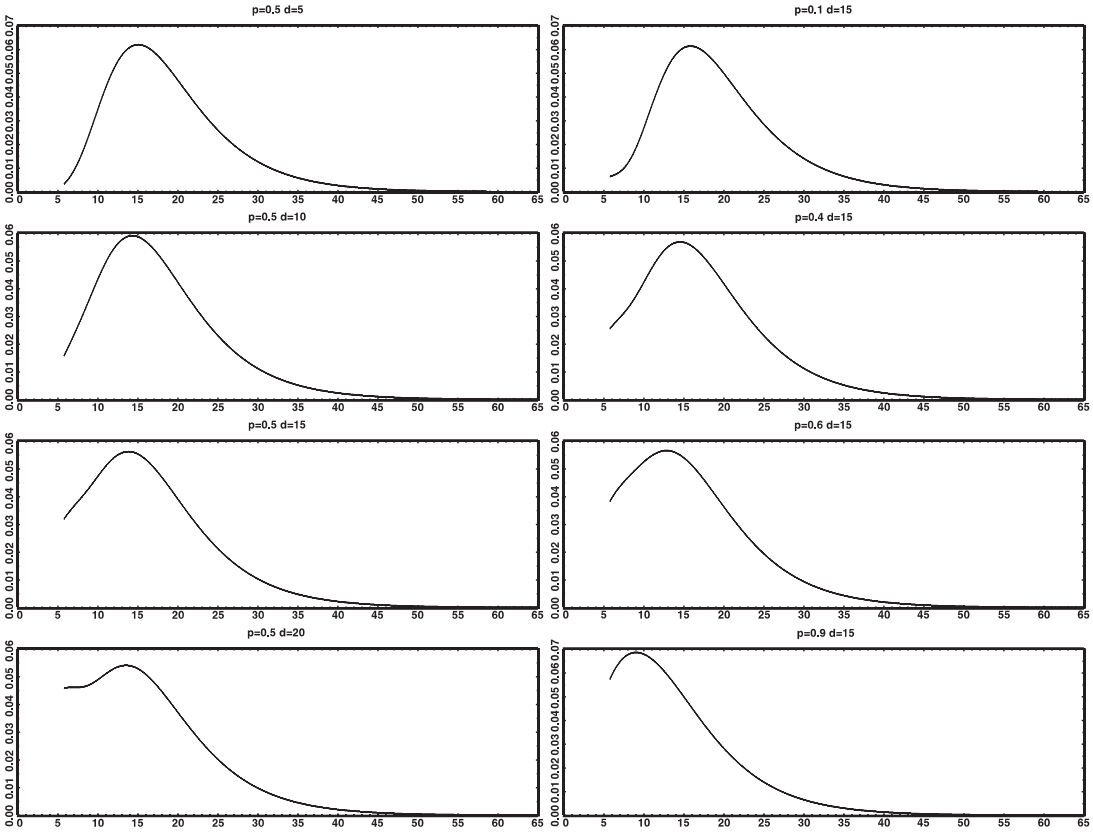

FIGURE 4

IMPACT OF CHANGE IN DISUTILITY (LEFT PANEL) AND CHANGE IN PROPORTION OF PREJUDICED EMPLOYERS (RIGHT PANEL) ON THE ACCEPTED EARNINGS DISTRIBUTION

results from assuming that a common discount rate is shared by workers and employers, leading to symmetric Nash-bargaining (Binmore et al., 1986; Binmore, 1987).

Third, the structural parameters ρ and b_J enter the log-likelihood (13) only through the reservation match-value ρU_J: They can therefore be only jointly identified and the model can be reparametrized in terms of ρU_J since ρ and b_J can be recovered by the reservation wage Equation (9).

Fourth, even if the primitive parameter is the exogenous arrival rate λ_J, we can reparametrize the model considering the hazard rate h_J as the parameter to be identified because the hazard rate conditioning on the model is an invertible function of λ_J as shown in Equation (10).

Fifth, a necessary condition for identification is to assume a recoverable parametric distribution for the productivity-match distribution $g_J(x)$.[19] As will be explained later, to separately identify prejudice and productivity differences, it is also necessary to assume that such distribution belongs to a location-scale family. The definition of a location-scale density is

$$g_J(x;\mu_J,\sigma_J) = \frac{1}{\sigma_J} f\left(\frac{x-\mu_J}{\sigma_J}\right), \tag{14}$$

where f is a known function, μ_J the location parameter, and σ_J the scale parameter.

[19] A distribution is *recoverable* from a truncated distribution if knowledge of the point of truncation and of the distribution above the point of truncation are enough to uniquely determine it. Flinn and Heckman (1982) show that in a search model with match-specific productivity, it is impossible to determine the shape of the productivity distribution below the truncation point (the reservation value) without a parametric assumption. This knowledge is essential to incorporate equilibrium effects in evaluating policy experiments.

Household welfare

- There was very little discussion of the household or marital sorting. These issues are important.
- As was the case with the gender-based taxation proposal or Alesina and Ichino, in a household context the first-order effects of gender discrimination in earnings may be unimportant if employers like employing men $(+d)$ and dislike employing women $(-d)$ if most individuals are married and working.
- Second order effects - in the sense of intrahousehold welfare distributions - could be present and important.

Household considerations

- Gemici and Laufer (2012) show that cohabitating women look much more similar to their partners, in terms of labor supply and wages, than do married couples.
- They find that marriage encourages specialization.
- Even small differences in earnings potential combined with different reproductive roles may lead to large differences in household and labor market activities
- If the woman is considered the primary care-giver for children, this may lead to a choice of careers where intermittent labor market participation is not heavily penalized (Polachek, 1981).
- This story, while appealing, may not be so relevant in an age when the majority of women spend their adult lives continuously in the labor market.