

Field experiments, such as audit and correspondence studies, are a compelling way to test for gender discrimination in the labor market

*Can differences in men and women's pay and employment opportunities be explained by discrimination or by differences in their preferences or productivity? **Ghazala Azmat** and **Barbara Petrongolo** explore what has been learned from economic experiments about the continued prevalence of gender gaps in the labor market.*



Women have made major inroads in labor markets throughout the past century. As a result, there has been a clear convergence in their levels of human capital investment and their employment prospects and outcomes relative to men. But while the gender gap in education has closed – and even reversed – in most rich countries, there remain considerable gender differences in pay and employment levels, as well as in the types of activities that men and women perform in the labor market.



Labor economists have long tried to understand these differences and three key channels have been identified as potential explanations: labor market discrimination; gender differences in preferences; and productivity. But analysing these hypotheses with traditional tools and data in economics is not straightforward. The study of discrimination, for example, is often complicated by the presence of unmeasured confounding factors, while extracting clean information on people's psychological traits from naturally occurring data is often difficult, if not impossible.

By providing data explicitly suited to addressing the questions of interest and allowing tight control over the environment, the experimental approach provides a valuable source of evidence on these and other gender issues. Early economic work on discrimination extensively used the traditional approach of regression analysis on observational data. But increased awareness of the limitations of this approach has gradually shifted the emphasis of empirical work on this topic towards field experiments such as audit and correspondence studies, which aim to compare outcomes in the same job for two individuals who are identical in all respects other than gender.

These experiments are widely viewed as the most compelling way of testing for discrimination. Audit studies compare interview call-back rates and/or job offer rates on a given job opening for pairs of applicants – one male and one female – with identical resumes. Correspondence studies compare call-back rates for fictitious applications instead of real-life auditors.

While it is not trivial to extrapolate a clear consensus view from experimental research on gender discrimination, the conclusions of this body of work can be broadly summarised as follows: there is evidence of significant discrimination against women in high-status or male dominated jobs as well as discrimination against men in female-dominated jobs. But compared with the regression approach, the experimental approach tends to find far more limited evidence of discrimination against women in the marketplace. Different results from the two approaches may be driven by systematic gaps in unobservables in favor of men, which would explain the unexplained gap in wages.



Despite recent advances, several aspects of discrimination have yet to be understood. In particular, disentangling the nature of discrimination has proved to be challenging, namely whether employers have a ‘taste for discrimination’, or whether they use gender to extrapolate a signal of unobserved components of productivity. Moreover, to date, experiments have offered little insight into on-the-job discrimination, and on how anticipated discrimination might feed back into individuals’ choices.

The traditional economic approach to understanding gender differences in labor market outcomes has been to focus on demand-side explanations, such as employer discrimination, as well as on supply-side constraints that are based on educational differences or family responsibility.

More recently, economists have considered alternative supply-side explanations for gender differences in outcomes. For example, potential gender differences in psychological attributes –including preferences for risk and competition, as well as concerns about other people – might offer insights into gender gaps. Experiments offer a useful methodology for studying behaviour and strategic interaction in a controlled environment – and they can be adapted to elicit gender differences in preferences in spheres potentially associated with labor market success.

Occupational and industry segregation of men and women is one of the leading components of gender gaps in earnings – and these have been widely documented. As jobs in different sectors offer different arrays of job security, earnings stability and working conditions, systematic gender differences in preferences for risk and competition have the potential to shape gaps in earnings through job sorting behaviour. Lab experiments find significant gender differences in attitudes towards risk and competition: for example, men are more tolerant of risk than women, they thrive in competitive environments and they have a greater tendency than women to self-select into these environments.

Another hypothesis for why earnings of men and women differ, even on identical jobs, is that men and women may conduct salary negotiations differently. More generally, women may take account of a broader set of preferences than those that simply maximise their own monetary payoffs.

The experimental results on gender differences in negotiation and social preferences are somewhat mixed and depend strongly on context. For example, women’s performance is more strongly affected by the gender of whom they work with or whom they compete against than men’s performance. While evidence from various experimental settings suggests that women and men may differ in traits that are potentially related to labor market success, the causes – nature or nurture – and the economic consequences of such differences are not entirely understood.

The next stage is to understand how findings from the lab on psychological attributes and preferences would map onto the labor market and whether there is scope for policy. From a policy perspective, the prescriptions will differ depending on how traits are formed and how important they are in influencing outcomes.

A natural progression from the study of individual preferences has been to understand their role in group settings.

If different psychological traits lead men and women to make different choices in similar contexts, the gender composition of teams becomes a relevant factor in collective decision-making. Higher female participation in the labor market has implied changing workplace demographics and more gender-diverse teams. In high profile professions, such as politics or the corporate sector, these changes have been eased by the introduction of explicit gender quotas in a number of countries.

Despite a large body of lab evidence on individual preferences, experimental studies of gender and preferences at the team level is relatively scarce. One of the main problems with studying gender and groups is that groups are typically formed endogenously. Recent reforms that mandate certain levels of female representation on boards of directors offer a valuable, quasi-experimental setting to study the gender composition of teams and performance.

The first country to implement gender quota laws was Norway in 2003, followed by Spain, Finland, Iceland and France. One study of the impact of female presence on boards on firm performance exploits the Norwegian reform, which requires listed companies to achieve 40% female board representation within two years. The research finds important effects of female board representation, notably that the constraints imposed by the quota led to a decline in stock prices and operating profits. While quota reforms and other field and lab experiments offer valuable insights into the consequences of gender diversity, research on this issue is still very limited, not least because it is restricted to a small and select group of women.

Quota policies, as well as business games among MBA students, focus attention on women who may not be fully representative of the female workforce. The representation of women in decision making at lower levels of responsibility can thus help to form a broader picture of the impact of gender diversity and attenuate the stark selection of women at the top.

Experiments offer a novel and useful methodology that is being used widely in almost all areas of economics. In gender economics, the experimental approach offers a way to answer questions previously believed to be unanswerable because of data limitations, as well as new techniques to identify mechanisms and results in older topics traditionally studied by labor economists.

Yet despite recent advances, several important aspects of gender differences in labor market success have to date been only partially explored experimentally. There is clear scope for further research in several directions concerning the nature of gender discrimination, the labor market consequences of gender differences in preferences established in the lab, and the sources of such differences.

This article originally appeared in the Spring 2014 issue of [CentrePiece](#), the magazine of the Centre for Economic Performance (CEP) at LSE, and summarises ‘Gender and the Labor Market: What Have We Learned from Field and Lab Experiments?’ by Ghazala Azmat and Barbara Petrongolo, [CEP Occasional Paper No. 40](#).

[Please read our comments policy before commenting.](#)

Note: This article gives the views of the authors, and not the position of USApp– American Politics and Policy, nor of the London School of Economics.

Shortened URL for this post: <http://bit.ly/1ptXiyi>

About the authors

Ghazala Azmat – Queen Mary University, London

Ghazala Azmat is a Reader (Associate Professor) of Economics at Queen Mary University of London. She is also a Research Associate at the Centre for Economic Performance (CEP) at the London School of Economics and a Research Fellow at CESIFO (University of Munich). Her main research interests are in applied and empirical microeconomics. Her research focuses on issues relating to competition, incentives and organizational structure, as well as on topics in labor, education and public economics.



Barbara Petrongolo – *Queen Mary University, London*

Barbara Petrongolo is a professor of economics at Queen Mary University (London), a research associate at the Centre for Economic Performance (LSE), and a research fellow of CEPR. Her main area of interest is applied labor economics, focusing on issues of job search, gender inequalities, and public policy.



- CC BY-NC-ND 3.0 2014 LSE USAPP