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INSIDE THIS ISSUE

Microfinance Spurs Sustained Growth — but Not for Everyone

Microcredit programs make small loans to low-income individuals who lack access to traditional financial services. In **Can Microfinance Unlock a Poverty Trap for Some Entrepreneurs?** (NBER Working Paper 26346), Abhijit Banerjee, Emily Breza, Esther Duflo, and Cynthia Kinnan analyze the long-term effects of a microcredit program on households in Hyderabad, India. They find that access to the program had strong positive effects for households that were already engaged in what they call "gung-ho" entrepreneurship, and almost no effect for others. They conclude that recognizing heterogeneity in entrepreneurial ability is important for assessing the impact of microcredit programs.

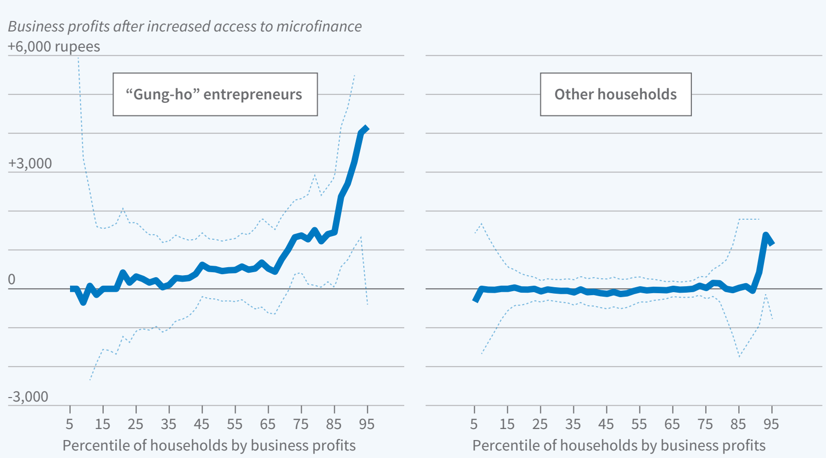
The researchers rely on a new wave of data collected from households in Hyderabad, where the microfinance lender Spandana began working in 52 neighborhoods in 2006. Those neighborhoods, the treatment neighborhoods, were paired with control neighborhoods, which became eligible for microcredit in 2008. Households were surveyed between mid-2007 and early 2008, again in mid-2010, and finally in mid-2012. In late 2010, the government of the Indian state of Andhra Pradesh passed an emergency law regulating microfinance activities. This essentially brought lending to a halt. The results of the 2012 follow-up survey, which encompassed 5,744 households, measured the effects of the span of past exposure to microfinance in a setting in which microfinance is no longer available.

> For low-income micro-entrepreneurs who had businesses before they received microcredit, credit access raised investment, labor input, and revenues.

The researchers observe that how a household responded to the availability of small loans depended on its prior experience with entrepreneurship and on its wealth. Some of those who received loans seized the opportunity to hire an employee or make an important investment in equipment. Others used the loan to pay back outstanding loans from informal lenders, or to become "reluctant entrepreneurs" at a less ambitious scale. "[W]ithin the same sector," the researchers find, "poor (micro)entrepreneurs use technologies that are inefficient but cheap, while wealthier entrepreneurs use technologies that are more efficient but have high up-front costs."

Borrowers who had existing businesses experienced noticeable impacts after accessing microcredit in 2006, as measured by asset stocks, self-employment hours, revenues, and profits. Business expenses increased by 80 percent for gung-ho entrepreneurs who received microcredit,

Effect of Microfinance Access on Business Profits



Dashed lines reflect 95% confidence intervals. Extreme values of the intervals have been truncated for presentation purposes.
Source: Researchers' calculations using data from proprietary surveys in India

self-employment hours rose by 20 percent, and revenues more than doubled relative to existing entrepreneurs in control areas who did not have access to microcredit. The impacts of the temporary influx of cheaper credit persisted even after the entire state lost access to further microcredit due to the 2010 law.

Spandana entered Hyderabad over a period of 13 months. This allowed the researchers to identify businesses that opened at the same time in treatment and control neighborhoods and to compare whether the treatment effect was larger for businesses that had opened before loans from Spandana were available, or for businesses that were launched after Spandana was already operating. This comparison suggested that gung-ho entrepreneurs — those who had launched their businesses before Spandana was operating in their market — showed large treatment effects from accessing microcredit. This appeared to be because these business owners were more motivated or were better at running a business, not because they were more experienced or older. The gung-ho entrepreneurs were more likely to borrow money from other lenders, in addition to Spandana, to support their businesses, and they were about 6 percentage points more likely to have multiple employees.

The findings suggest that the majority of business growth associated with microcredit comes from a small share of firms. Their growth generates employment opportunities for others who might otherwise become "reluctant" entrepreneurs.

— Anna Louie Sussman

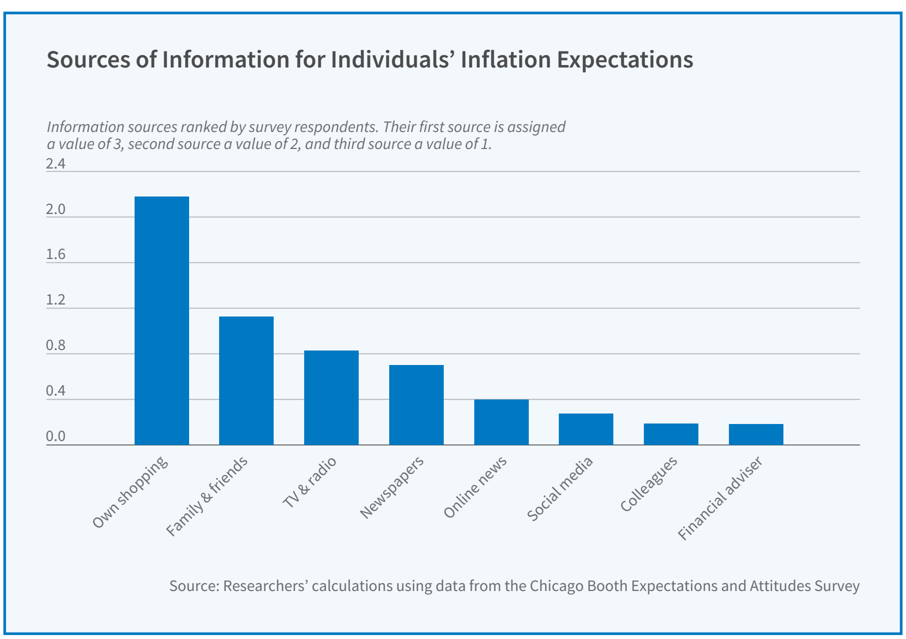
How Grocery Prices Influence Consumers' Inflation Expectations

Standard inflation measures such as the core Consumer Price Index (CPI), which do not focus on price changes in the food and energy sectors, may be omitting some of the price information that is most important for households as they form inflation expectations, according to **Exposure to Daily Price Changes and Inflation Expectations** (NBER Working Paper 26237). The researchers' of this study, Francesco D'Acunto, Ulrike Malmendier, Juan Ospina, and Michael Weber, find that consumers base their outlook about future prices on trends they see while grocery shopping.

The study merges data collected by Nielsen for more than 90,000 households with customized surveys designed by the researchers for the same households. The merged data include details about individual shopping trips, such as prices and quantities purchased, and demographic information, such as age, income, marital status, household size, and education level. In 2015–16, survey participants on average predicted year-ahead inflation of 4.7 percent and reported that they thought inflation over the previous year had been 4.4 percent. Both values are about twice the rate measured over the same time period by the core CPI, and this disparity is common of virtually all household-level inflation expectations. The researchers aim to help explain this disparity. They find that consumer beliefs about inflation are far more likely to be shaped by the prices on the shelf than by government reports.

> Consumers who experience extreme changes in grocery prices are more likely to base inflation expectations on those changes than those who see little or moderate grocery-price movement.

The researchers used the Nielsen panel's detailed consumer spending data to construct a household-level CPI using information about the prices and quantities of non-durable goods in each household's consumption basket. They found that expectations of future inflation varied substantially with the household's exposure to different grocery-price changes. The price changes that correlated most with inflation expectations were those goods households purchased frequently, such as milk and bread, rather than the goods on which households spent a larger part of their budget, which is the implicit underlying assumption in most aggregate measures of inflation such as the core CPI.



The researchers stratified the survey participants into three equal-sized subsamples, based on the price changes they observed. The bottom third saw price drops ranging from -11.7 percent to -0.9 percent. The middle third saw only moderate changes, from a 0.9 percent decline to an increase of 2.8 percent. The top third reported price increases ranging from 2.8 percent to 23.1 percent. The consumers who experienced the most extreme price changes — either negative or positive — were far more likely to extrapolate from their trips to the grocery store when forming inflation expectations than those who saw little to moderate change.

The correlation between the individual's observed inflation rate based on non-durable consumption purchases and inflation expectations tended to be higher among consumers who shopped less often, who observed larger price changes, on average, from one shopping trip to the next. For example, the correlation was 40 percent higher for respondents who were not their household's main grocery shopper.

Based on additional surveys, the researchers found that those with higher inflation expectations were significantly more likely to anticipate upswings in wages and house prices. Consequently, they might be more likely to bargain for higher pay and to invest in real estate and durable goods rather than in assets liable to erode in value due to inflation.

— Steve Maas

Spare the Suspensions, Spoil the Child? Maybe the Reverse Is True

Early educational experiences can affect adult criminality, but little is known about the channels through which these effects occur. In **The School to Prison Pipeline: Long-Run Impacts of School Suspensions on Adult Crime** (NBER Working Paper 26257), Andrew Bacher-Hicks, Stephen B. Billings, and David J. Deming explore one potential channel: school disciplinary policies.

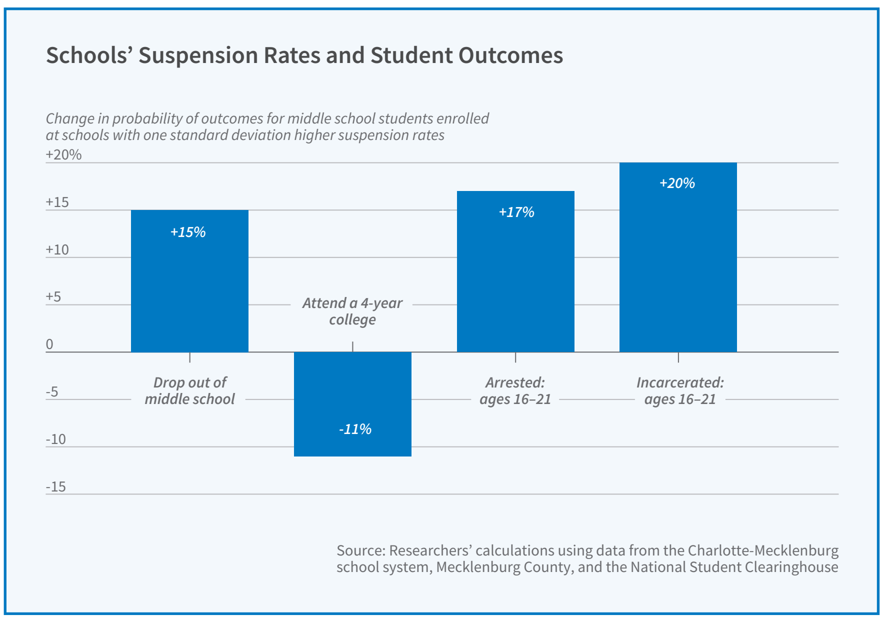
The researchers exploit an exogenous source of variation in school attendance — the 2002 court-ordered redrawing of school attendance boundaries in Charlotte-Mecklenburg Schools (CMS), a district in North Carolina — to study how disciplinary policies affect later-life outcomes. The court action prohibited use of race in student assignments, requiring that assignments be based only on school capacity and the geographical concentration of students around a school. As a result, approximately half of CMS students changed schools.

In the full sample of CMS students, the researchers calculate that 23 percent of students were suspended at least once per year; 19 percent were arrested at least once between the ages of 16 and 21. Principals in the CMS district have significant discretion with respect to disciplinary policy, and school suspension rates reflect this discretion: Some CMS schools had substantially higher suspension rates than others.

To assess how stricter disciplinary policies affect student outcomes, the researchers compare middle school-aged students who lived near each other, previously attended the same schools, and were sent to different schools after the 2002 redrawing of school boundaries. They find that students who were transferred to stricter schools — schools that had higher suspension rates — were much more likely to be suspended after their transfer than their peers who attended less-strict schools. Students at the stricter schools were 7 percent more likely to be suspended and were suspended for 16 percent more days.

> North Carolina students who were rezoned to schools with stricter discipline were 17 percent more likely to be arrested as adults and 20 percent more likely to be incarcerated.

The stricter disciplinary policies were associated with later-life outcomes. Students assigned to stricter schools after the boundary redrawing were 15 percent more likely to drop out of school and 11 percent less likely to attend a four-year college. School disciplinary policies also were associated with future involvement in the adult criminal justice system. Students who were rezoned to stricter schools were 17 percent more likely to be arrested as adults and 20 percent more likely to be incarcerated.



The results for the full sample mask considerable heterogeneity — strict disciplinary policies were especially detrimental for male students who were minorities. Assignment to a stricter school increased the number of per-year days of suspension by 0.43 days for minority students, an effect twice as large as that for white students. The effects on arrest and incarceration rates were also higher for minority students, especially males.

The effects of stricter disciplinary policies on state test scores are more nuanced. For the full sample of students, the researchers find that stricter disciplinary policies had no effect on state math and reading test scores. They find small, temporary, positive effects on the academic performance of white males; the effects did not lead to higher education attainment or reduced criminality. The researchers conclude that "it seems unlikely that the gains from removing disruptive peers would outweigh the substantial long-term costs to students who are suspended because of stricter disciplinary policy."

— Dwyer Gunn

Publicly Provided Legal Services Affected Family Structure

Family structure in the United States underwent dramatic changes beginning in the 1960s. Divorce rates rose, marriage rates fell, and non-marital births increased.

In **Changes in Family Structure and Welfare Participation Since the 1960s: The Role of Legal Services**, (NBER Working Paper 26238) Andrew Goodman-Bacon and Jamein P. Cunningham investigate the contribution of low-income communities' access to legal services — enabled by the rollout of the War on Poverty's Legal Services Program (LSP) — as a driver of these changes. Their findings suggest that the program played a central role in changes in family structure and welfare participation of the 1960s, '70s, and '80s.

The LSP sharply increased the availability of free legal consultation for low-income households. LSP attorneys could assist with divorce filings — about one-fifth of LSP attorneys' 282,000 cases in 1968 involved divorce — or access to welfare benefits, which were typically only available for single parents under the Aid to Families with Dependent Children (AFDC) program. By supporting households' efforts to claim benefits for which they were eligible, the efforts of the LSP reinforced program expansions that were part of the Great Society initiative.

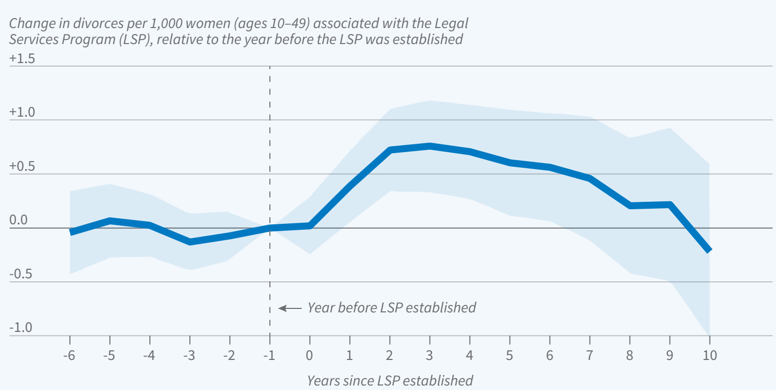
To estimate LSP's impact, the researchers digitized county-by-year data on family structure outcomes and welfare participation between the 1960s and 1980s from a range of sources, which yielded a main sample comprising 2,683 counties covering 94 percent of women in the US. They then study marriage, divorce, and AFDC participation outcomes in the 251 counties where the LSP was rolled out between 1965 and 1975 ("treated counties") and in non-LSP counties.

Where the War on Poverty's Legal Services Program opened offices, divorce rates, non-marital births, and enrollment in welfare programs increased.

Divorce rates rose after the LSP arrived in a county, with an average 5.5 to 7.7 percent increase over the baseline of 9 divorces per 1,000 women ages 10–49 five years after LSP establishment. Over time, the difference faded, disappearing after around eight years.

Welfare participation increased steadily after the establishment of an LSP in a given county, as LSP attorneys encouraged people to apply for benefits and sued local authorities over eligibility restrictions. The researchers estimated that there were between 6.6 and 10.3 additional AFDC cases per 1,000 women, which stabilized after nine years. The researchers estimate that the establishment of LSPs explains 18 to 31 percent of the rise in welfare cases in treated counties.

The War on Poverty's Legal Services Program and Divorces



Shaded blue region represents the 95% confidence interval

Source: Researchers' calculations using data from the 1959–88 volumes of the Vital Statistics of the United States

The rollout of the LSP is also associated with a steep increase in non-marital births, which, like the welfare enrollment increase, levels off after eight or nine years following an initial rise of between 6.5 and 12 percent over the baseline mean of 5.2 non-marital births annually per 1,000 women. This suggests that the LSP explains 36 to 41 percent of the growth in non-marital birth rates in the 50 treated countries that were observed through 1988. This was not because unmarried women were having more children, they note, but rather because marriage rates were falling.

The divorce effects of LSPs were larger in states that implemented no-fault divorce, which made it easier to initiate divorces. In states where married women were allowed to get welfare, non-marital birth effects were smaller, since women did not have to forego marriage or get divorced in order to retain benefits. The researchers note that although the 1960s were a time of social and cultural upheaval, racial uprisings, sex ratios, falling male earnings, and the simultaneous launch of other War on Poverty programs cannot explain the changes in family structure and welfare participation they document. "Our findings support the claim that cash welfare restricted to single parents, when recipients can access it, affects family structure," they conclude.

— Anna Louie Sussman

Bankruptcy Reform of 2005 Sharply Reduced Filings

Responding to a five-fold increase in consumer bankruptcy filings — from 0.3 percent of households annually in the early 1980s to 1.5 percent in the early 2000s — Congress in 2005 adopted measures to make filing for bankruptcy more difficult, more expensive and less financially advantageous for households.

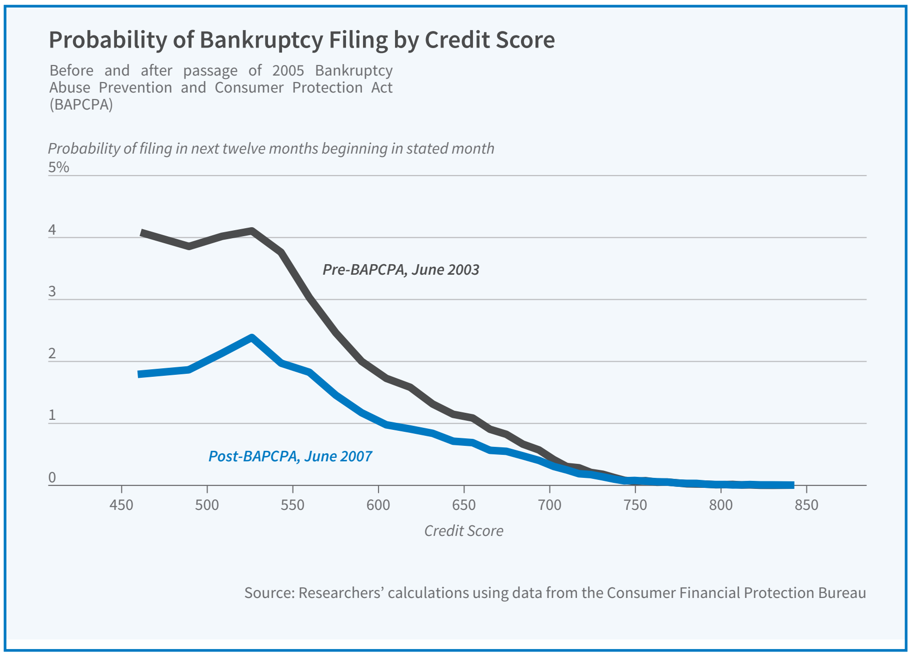
The Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) halved the rate of household bankruptcy filings according to **The Economic Consequences of Bankruptcy Reform** (NBER Working Paper 26254), by Tal Gross, Raymond Kluender, Feng Liu, Matthew J. Notowidigdo, and Jialan Wang. The study compares bankruptcy activity in the two years before and after implementation of the reform.

The new law imposed a means test that limited the set of households that could qualify for Chapter 7 protection under the bankruptcy code. Chapter 7 is the most generous for filers, allowing them to erase their debts. To be eligible for Chapter 7 filing after the reform, a household's income adjusted for family size could not exceed the state median for the six months prior to filing. This provision was intended to prevent more-affluent filers from abusing the system. Those who were no longer eligible for Chapter 7 could still file under Chapter 13. However, while prior to BAPCPA filers could propose their own repayment plans under Chapter 13, the new law required that they forfeit all of their disposable income for five years to pay down their debts. Other provisions of the reform resulted in higher filing and attorney fees and additional paperwork for filers. Filers were also required to enroll in financial education courses.

To study the impact of the law, the researchers analyze data on more than 3 million bankruptcies, accounting for 86 percent of all filings in the period 2004 through 2007. They conclude their analysis before the onset of the Great Recession in 2008, and they adjust for the last-minute rush to file before the new law took effect. They estimate that in the two years following BAPCPA's passage, bankruptcy filings declined by more than a million. The decline was more precipitous among Chapter 7 filings, as a result of the new means test.

> Means testing, income limits, higher fees, and more paperwork for bankruptcy filings all contributed to the decline, especially among lower-income households.

The researchers point out that, for some households, the ability to declare bankruptcy operates as a form of insurance against large and unforeseen expenses. They illustrate this point by examining bankruptcies associated with medical expenditures. Using data on uninsured Californians who were hospitalized between 2003 and 2007, the researchers show that the likelihood of a bankruptcy filing following an uninsured hospital stay was 70 percent lower after reforms took effect. "[T]o the degree that uninsured health shocks can be generalized to other types of uninsured shocks, these results suggest that the reform meaningfully reduced the insurance value of bankruptcy," the researchers write.



To assess the impact of bankruptcy reform on interest rates, the study focused on credit card debt, since credit cards are the form of borrowing most likely to be discharged through bankruptcy. For each percentage point decline in the bankruptcy rate within a credit-score segment, the average interest rate declined by 67 basis points. This implies that credit card companies passed through to consumers between 60 and 75 percent of their savings from the reduction in bankruptcy write-offs that came about due to the reform.

In the wake of BAPCPA, bankruptcies of subprime borrowers fell especially quickly. In part as a result, subprime borrowers enjoyed a larger drop in interest rates than higher-rated borrowers did. This closed the gap between the interest rates charged to subprime customers and those charged to prime customers by about 10 percent.

— Steve Maas

Women Persistently Sell Themselves Short of Same-Skill Men

As workers advance in their careers, they often are called upon to engage in self-promotional activities, such as job interviews and annual reviews, during which they must self-assess their performance and abilities. In situations like those, women systematically provide less favorable self-assessments than equally-performing men, according to Christine L. Exley and Judd B. Kessler in **The Gender Gap in Self-Promotion** (NBER Working Paper 26345). The study shows a large, persistent gap between female and male respondents in self-promotion, which is defined as communicating one's abilities and potential for success.

Nine hundred online survey participants took part in one of three different experiments. In all three, participants answered 20 questions from the Armed Services Vocational Aptitude Battery (ASVAB) test, and then reported how many ASVAB questions they believed they answered correctly. They then gave additional responses subjectively assessing their performance, which indicated their level of self-promotion.

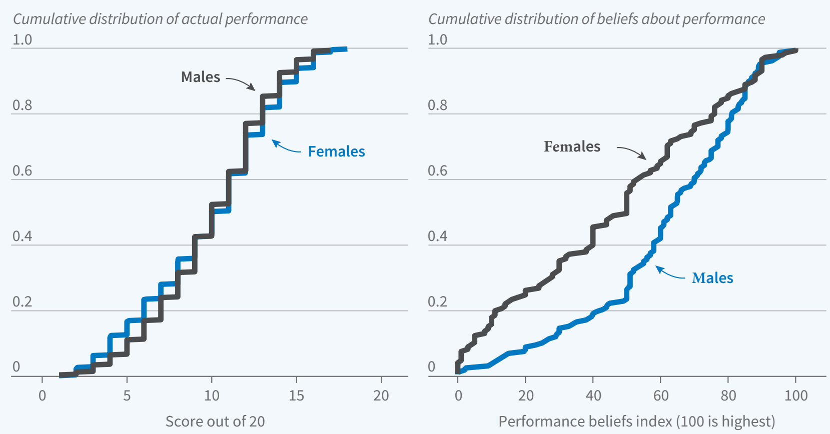
In one experiment, the participants were told that one of their answers to the self-promotional questions would be the sole criterion used by prospective employers to determine who would be hired and what they would be paid. In this case, which the researchers call the *public* case, women were much more likely to report lower performance than men, despite their having similar scores. For example, when asked how much they agreed with the statement "I performed well on the test" on a scale of 1 to 100, the average woman ranked her performance at 46 while the average man reported a 61, a 33 percent difference. In reality, among both the female and male participants the average respondent answered 10 of the 20 test questions correctly. This gender gap in self-promotion persisted across the various performance assessment questions. The researchers rejected the idea that self-promotional differences are caused by a gap in confidence between women and men, because it persisted even when the participants were given full access to their scores and their performance relative to others.

When asked to describe their performance on a test, women reported that they performed worse than men, when on average the scores were equal.

In a second experiment, there was no employer role and therefore no incentive to boost one's performance evaluation; this was termed the *private* version by the researchers. In a third, the respondents were told that potential employers *might* get their actual performance as well as their performance evaluation; this they called the *ambiguous version*. In both scenarios, women still under-promoted compared to equally performing men. While overall self-promotion for both men and women was lower, the gender gap in self-promotion remained steady across all three versions of the study.

—Jennifer Roche

Perceived and Actual Test-Taking Performance, by Gender



Source: Researchers' calculations using data from a proprietary study of 900 workers involving answering questions from the Armed Services Vocational Aptitude Battery on Amazon's Mechanical Turk