

CAN JOB TRAINING DECREASE WOMEN'S SELF-DEFEATING BIASES? EXPERIMENTAL EVIDENCE FROM NIGERIA

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KEY MESSAGES

- **Gender-based occupational segregation – where women are concentrated in low-paid or low-profit sectors – is a non-trivial source of the gender wage gap worldwide, accounting for as much as 50% of the gap in some countries (World Bank 2011).** There is evidence that women's biases about their own potential can affect their performance and aspirations.
- **Through an experiment in Nigeria, we found that an information and communications technology (ICT) training resulted in university graduates being 26 percent more likely to work in the ICT sector.** This suggests the potential for trainings to support the development of and employment in emerging sectors despite initial lack of sector-relevant skills. However, we observed no average impact of the training on the overall likelihood of being employed in any sector or on earnings.
- **We found that job training can increase aspirations among women who lack the confidence to see themselves as successful.** The program's impact was strongest for women who initially held implicit biases against associating women with professional attributes. These women were more likely to switch into the ICT sector after the program than initially unbiased women.
- **Job training programs offer a potential opportunity to reduce occupational segregation by shifting norms about the appropriate sectors for men and women to work in.** The results of this study suggest that even without explicitly encouraging participants to defy social norms, training programs can help individuals overcome self-defeating biases.

GENDER INNOVATION LAB

The Gender Innovation Lab (GIL) conducts impact evaluations of development interventions in Sub-Saharan Africa, seeking to generate evidence on how to close the gender gap in earnings, productivity, assets and agency. The GIL team is currently working on over 50 impact evaluations in 21 countries with the aim of building an evidence base with lessons for the region.

The impact objective of GIL is increasing take-up of effective policies by governments, development organizations and the private sector in order to address the underlying causes of gender inequality in Africa, particularly in terms of women's economic and social empowerment. The lab aims to do this by producing and delivering a new body of evidence and developing a compelling narrative, geared towards policymakers, on what works and what does not work in promoting gender equality.

Globally, women face twin disadvantages in the labor market that contribute to lower earnings. First, women are overrepresented in informal sector employment and unpaid work. The lack of mobility across professions based on gender norms is a significant barrier to the efficient functioning of labor markets. The second, and closely related disadvantage comes from occupational segregation. Some of these disadvantages may stem from biases that women themselves hold about their own potential. Individuals' biases can affect their aspirations and employment choices, particularly when these biases represent internalized social norms.

As new sectors of employment emerge, a key question is whether this pattern is replicated. In 2010, ICT was an emerging industry in Nigeria, with around 400 small and medium-sized ICT firms that catered mostly to the domestic market. However even as an emerging industry, it was already male dominated, with government figures indicating that 67% of those employed in the information services sector were men.

THE PROGRAM

In 2010, the Government of Nigeria and the World Bank launched the Assessment of Core Competency for Employability in the Service Sector (ACCESS) program in Nigeria with the long-term goal to break into the international market for information technology enabled services. The objective of the program was to equip recent university graduates with sufficient skills to work in Nigeria's ICT sector, and to certify these skills. They expected the training to improve skills in three competency areas: communication (oral and written), computers, and cognitive skills, which are considered "foundational competencies" for employment in the business processing outsourcing (BPO) sector.

The ACCESS Nigeria IT job skills training program was implemented across five cities in Nigeria in 2012. Slots in the program were randomly assigned to applicants. Those offered slots in the program had access to 85 hours of classroom-based training spread across 10



After the training, women were **26 percent more likely** to work in the information and communications technology sector.

weeks, while all applicants could post their resumes on a web-based employment network and attend a job-fair where prospective employers could meet with job candidates interested in working in the sector. At the end of training, program participants could take an assessment exam which had been recognized by the domestic ICT industry as a form of certification to work in business processing activities. In addition to the core competencies, these training providers were also required to cover "soft" skills, such as cultural sensitivity, teamwork, stress management, and time management.

HERE'S WHAT WE DID

Interviews conducted with directors of training centers and with the target population prior to the intervention showed that women's own confidence in seeking work in the formal sector is seen as a key factor affecting women's prospect in ICT. To explore this, we used a tool developed by psychologists to measure implicit biases, the Implicit Association Test (IAT), a computer-based sorting task that tries to measure automatic associations between a group (such as men or women) and concepts (such as employment, sectors, or professionalism). In this case, the IAT consisted of tests measuring the ease of associations between gender and a number of attributes relevant for women's labor market participation in Nigeria. For

instance, one test measured associations between gender and the concepts of home and office. A second test was designed for the urban Nigerian context and measured associations between gender and the concepts of office and petty trade. A final test measured associations between gender and the concepts of professionalism and unprofessionalism. The computer-based pre-assessment provided a platform to collect baseline data on the 3,018 applicants of the program. A self-administered questionnaire on applicants' socio-economic and demographic backgrounds, education history, and labor market experiences and expectations followed the assessment. Three years later, a final survey was undertaken with applicants over the phone, with a response rate of 91 percent.

HERE'S WHAT WE FOUND

The program induced switching into the emerging ICT sector in Nigeria. Given the government's focus on developing this sector and its identification of a skills gap as a major constraint to sectoral growth, this policy lever has proved somewhat effective in increasing the employment of people with relevant skills in ICT. This is encouraging regarding the potential for trainings to support the development of and employment in economically promising sectors despite initial lack of sector-relevant skills.



For women who initially were implicitly biased against associating women with professional attributes, the likelihood that the program induced switching into the ICT sector was **more than three times as large** than that of unbiased women.

This gain in ICT employment was only a shift in sectors, as overall employment did not significantly increase in response to the program. The program may have provided skills that did not increase the target population's general employability but rather just their potential in the ICT sector. It is also possible that firms outside the sector did not recognize the value of the certification exam that trainees took at the end of the course. This may show a need for trainings to include more widely-sought after skills that could be attractive across industries, in addition to sector specific skills.

The switching was more pronounced for women who held deep-seated biases against women's professionalism and it induced their movement into a currently male-dominated sector, indicating the potential for this program to substitute for confidence in one's place in the professional world.

After the training, these women were three times more likely to find an ICT-enabled service job than unbiased women. The program could have changed how women viewed their own abilities relative to men's: women scored significantly higher on the oral skills that would have been observable to peers (voice clarity, fluency and vocabulary, message clarity), as opposed to those that would have been tested via computer (such as keyboard skills, internet and browsing skills). This may indicate that reinforcing women's confidence against implicit self-biases may be best achieved through a focus on developing skills easily visible by peers, such as communications.

This program contained no special gender focus. Simply by expanding women's possibility set, it increased their likelihood of taking advantage of jobs in this sector.

Because the level of employment in the sector is so low for women, even unbiased women increased their prospects of employment in the sector (by 119%) after they were offered training. Women who entered with a pro-female bias, however, did not benefit from training. These women may benefit more from other types of programs, such as opportunities to expand their business networks.



NEXT STEPS

Taking this or a similar program to a larger scale could potentially contribute to the growth of the ICT sector and the economy as a whole. While the program did not impact overall employment levels or earnings, it induced increased mobility across professions and a reduction in occupational segregation, which should ultimately decrease gender wage gaps in the labor market.

However, some key areas remain to be explored.

Firstly, the results suggest that all the gains in ICT employment were concentrated in Abuja. In the other locations, the training was not effective in increasing employment in this sector. While this could be due to political issues in Nigeria that intervened between survey rounds, further studies should be conducted on increasing ICT employment among women in rural areas or in smaller cities. They may face slightly different, and potentially stronger, challenges to reaching that goal than women in larger cities, notably the absence of local role models or regionally-based networks in the sector.

Second, while women are less likely to work in the ICT sector in general, the training program was equally effective for male and female students. Future work should focus on trainings more specifically aimed at encouraging women to enter sectors that are traditionally gender imbalanced, concentrating on the specific constraints faced by female students. In Kenya, the Gender Innovation Lab is currently evaluating an innovative strategy aimed at attracting women to coding boot camps, through a Face-to-Face Campaign that will highlight female role models, increase women's knowledge on coding boot camps and give participants the opportunity to try out a basic coding class.



For more information on this study, see the Policy Research Working Paper: <https://openknowledge.worldbank.org/handle/10986/27644>

FOR MORE INFORMATION,
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